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Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

2011 CONFERENCE HANDBOOK





Australasian HIV/AIDS Conference

26–28 September 2011

National Convention Centre, Canberra ACT Australia

Supported by:	**Collaborating Research Centres**
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Publication details

Published in 2011 by:
Australasian Society for HIV Medicine

Ph: +61 2 8204 0700
Email: ashm@ashm.org.au
Website: www.ashm.org.au

ABN: 48 264 545 457
CFN: 17788

ISBN: 978-1-920773-01-4

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Website: www.hivaidsconference.com.au

Design and typesetting by:
Australasian Society for HIV Medicine

Printed by: Paragon Printers

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Supporting the HIV, Viral Hepatitis and Sexual Health Workforce

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HIV/AIDS Conference Handbook 2011

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WELCOME LETTER

Dear ASHM Members, friends and colleagues,

It is our great pleasure to welcome delegates to Canberra, Australian Capital Territory, for the Australasian HIV/AIDS Conference 2011 (23rd Annual Conference of the Australasian Society for HIV Medicine).

The key objectives of the annual Australasian HIV/AIDS Conferences are to promote the strategic objectives of ASHM in Australia and the Asia and Pacific regions with priority given to fostering:

1. Excellence in research and clinical care for HIV and related conditions
2. Professional development through the participation of new and early career physicians, scientists and allied health
3. Development and assessment of initiatives and protocols for the management of HIV and related conditions
4. Dialogue between disciplines (clinical, social sciences, epidemiology and community) and across different locations
5. Dialogue and collaboration between regional and Australasian researchers, community organisations, professional organisations and other institutions.

We hope that you take the time to explore Canberra, the heart of Australian politics which boasts an array of stylish restaurants and bars, national museums, historic townships, natural wonders, the famous Snowy Mountains and the many treasures of the surrounding region. In particular, we hope that you take advantage of the opportunity to enjoy Floriade, the lakeside spring flower festival.

Levinia Crooks
Chief Executive Officer
Australasian Society for HIV Medicine

CONFERENCE ENVIRONMENT POLICY

ASHM Conference, Sponsorship & Events Division implements a waste-reduction policy that addresses: Reduce, Reuse, Recycle. This is done before, during and after each conference.

ASHM Conference, Sponsorship & Events Division reduces the number of printed materials by using electronic communication means wherever possible, including the website, email, online registration and abstract submission.

ASHM Conference, Sponsorship & Events Division monitors final delegate numbers for an accurate forecast of catering requirements in order to avoid waste.

ASHM Conference, Sponsorship & Events Division aims to research and prioritise purchasing items and equipment that support the use of recycled materials or can be recycled after use.

ASHM Conference, Sponsorship & Events Division will aim to ensure that recycling bins are available onsite at all events.

ASHM Conference, Sponsorship & Events Division will endeavour to minimise travel through the use of teleconferences instead of face-to-face meetings and holding meetings only when necessary.

ASHM Conference, Sponsorship & Events Division encourages all conference stakeholders to consider the environment by suggesting the following: reduction in printing requirements; recycling conference materials; and reusing conference merchandise.

The Australasian HIV/AIDS Conference satchel bags were donated by the World AIDS Day 2010 organisers.

THE NATIONAL PROGRAM COMMITTEES

THEME A

Convenor: Damian Purcell – University of Melbourne

Chris Birch – Victorian Infectious Diseases Reference Laboratory
Suzanne Crowe – Burnet Institute
Tony Kelleher – The Kirby Institute
Patricia Price – University of Western Australia
Stuart Turville – Westmead Millennium Institute
John Zaunders – St Vincent's Hospital, Sydney

THEME B

Convenor: Michelle Giles – The Alfred

Tuck Meng Soo (Local Convenor) – Interchange General Practice
Philip Habel – Interchange General Practice
David McGuigan – Australasian Society for HIV Medicine
Christy Newman – National Centre in HIV Social Research
Olga Vujovic – The Alfred Pamela Palasanthiran – South Eastern Sydney and Illawarra Area Health Service
Ashley Watson – Canberra Sexual Health Centre
Jo Watson – NAPWA

THEME C

Convenor: Gary Boddy – Queensland Health

Brent Allan – Department of Health, Victoria
Tony Blattman – The ACT Health Directorate
Graham Brown – Curtin University
Andrew Burry – AIDS Action Council of ACT
Andrew Grulich – The Kirby Institute
Geoff Honnor – ACON
Stephen McNally – Australian Research Centre in Sex, Health and Society
Catherine O'Connor – RPA Sexual Health Clinic
James Ward – The Kirby Institute

THEME D

Convenor: Edward Reis – Australasian Society for HIV Medicine

Kate Dolan – University of New South Wales
Rob Monoghan – North Coast Area Health Service
Victor Tawil – NSW Health
Heather Worth – University of New South Wales

CONFERENCE ADVISORY GROUP

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Rob Lake – Australian Federation of AIDS Organisations
Patricia Price – University of Western Australia
Damian Purcell – University of Melbourne
Tuck Meng Soo – Interchange General Practice
Heather Worth – University of New South Wales

ABORIGINAL AND TORRES STRAIT ISLANDER PROGRAM COMMITTEE

Sharon Clews – Department of Health WA
Arnawaz Merchant – ATSI Program, Australasian Society for HIV Medicine
Robert Monaghan – North Coast Area Health Service
Victor Tawil – NSW Health
James Ward – The Kirby Institute
Bobby Whybrow – VACCHO
Shannon Woodward – Canberra Sexual Health Centre

LIST OF REVIEWERS

First Name	Last Name	Organisation
Janaki	Amin	The Kirby Institute
Clive	Aspin	Bullana, Poche Centre for Indigenous Health
Colin	Batrouney	VAC/GMHC
Mark	Bebbington	HIV Consortium
Tim	Blackmore	Wellington Hospital
Mark	Bloch	Holdsworth House Medical Practice
Karen	Blyth	Victorian HIV Consultancy
Gary	Boddy	Queensland Health
Marcus	Bogie	AIDS Action Council of the ACT
Scott	Bowden	Victorian Infectious Diseases Reference Laboratory
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Alan	Brotherton	ACON
Joanne	Bryant	National Centre in HIV Social Research
Holly	Buchanan	PNG National Research Institute
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Andrew	Carr	St Vincent's Hospital
Rob	Center	University of Melbourne
Marcus	Chen	Melbourne Sexual Health Centre
Abha	Chopra	Murdoch University
Panos	Couros	NT AIDS and Hepatitis Council (NTAHC)
Elizabeth	Dax	ConsultingLIZ
Robert	De Rose	University of Melbourne
Joseph	Debattista	Sexual Health & HIV Service
Matt	Dixon	VIC Department of Health
Kate	Dolan	University of New South Wales
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Heidi	Drummer	Macfarlane Burnet Institute
John	Dyer	Fremantle Hospital
Barry	Edwards	NSW Department of Health
Sean	Emery	The Kirby Institute
Beng	Eu	Prahran Market Clinic
Richard	Eves	Australian National University
Sonia	Fernandez	University of Western Australia
Martyn	French	University of Western Australia
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Michelle	Giles	The Alfred Hospital
Paul	Goldwater	SA Pathology at the Women's and Children's Hospital
Carla	Gorton	Cairns Sexual Health Service
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Jennifer	Hoy	The Alfred Hospital
Fengyi	Jin	The Kirby Institute
Niamh	Keane	Murdoch University
Phillip	Keen	Australian Federation of AIDS Organisations
Anthony	Kelleher	The Kirby Institute
Angela	Kelly	PNG Institute for Medical Research
Mark	Kelly	AIDS Medical Unit
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Michaela	Lucas	Royal Perth Hospital Department of Immunology
Vicki	Luker	Australian National University
Chris	Lyttleton	Macquarie University
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Jeffrey	Post	Prince of Wales Hospital
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Garrett	Prestage	The Kirby Institute
Patricia	Price	University of Western Australia
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Charani	Ranasinghe	The John Curtin School of Medical Research, The Australian National University
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Vanessa	Read	Department of Corrective Services
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Edward	Reis	Australasian Society for HIV Medicine
Anne	Robertson	MidCentral Health
Darren	Russell	Cairns Sexual Health Service
Peter	Saxton	New Zealand AIDS Foundation
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Nabila	Seddiki	University of Paris
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Miranda Jane	Shaw	Sydney Local Health Network
Sean	Slavin	NAPWA
Tuck Meng	Soo	Interchange General Practice
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Alan	Street	Royal Melbourne Hospital
Gilda	Tachedjian	Burnet Institute
Mark	Thomas	Auckland City Hospital
Carla	Treloar	National Centre in HIV Social Research
Stuart	Turville	The Kirby Institute
Alexandra	Tyson	Canberra Sexual Health Centre
Andrew	Vallely	The Kirby Institute
Jo	Watson	NAPWA
Ian	Woolley	Monash Medical Centre
Heather	Worth	University of New South Wales
Lynne	Wray	Sydney Sexual Health Centre
Rudyard	Yap	Palmerston North Hospital
Iryna	Zablotska	The Kirby Institute
John	Zaunders	St Vincent's Hospital
John	Ziegler	Sydney Children's Hospital

The ACT Health Directorate– Working in Partnership

The Health Directorate of the ACT Government has a long and proud history of implementing new and innovative programs in the sexual health and blood-borne virus arena.

Partnership approaches are key to the our goal of improving the well-being of our community.

We work closely with non-government and government stakeholders to promote consumer participation, research and evaluation to support effective programs across the sector.

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Program at a Glance





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SUNDAY 25 SEPTEMBER

4.00pm–6.00pm	**Registration Open: National Convention Centre Foyer, Canberra**

MONDAY 26 SEPTEMBER

7.00am	**Registration**								
8.00am–10.00am	**HIV/AIDS Conference Opening Ceremony**								
	Royal Theatre								
10.00am–10.30am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall								
10.30am–12.00pm	**ARV Guidelines Symposium**	10.30am–12.00pm	**Theme D Symposium: Role of Culture**	10.30am–12.00pm	**Theme C Proffered Paper Session: Let Prevention Flowers Bloom**	10.30am–12.00pm	**Theme A Proffered Paper Session: Immunology**	10.30am–12.00pm	**Satellite Session : United Nation's declaration on AIDS 2011 – Involvement of Australia and Implications for the national HIV response**
	Royal Theatre		Bradman Theatre		Menzies Theatre		Nicholls Theatre		Sutherland Theatre
12.00pm–1.00pm	**Lunch in Exhibition and Poster Area** Exhibition Hall								
12.45pm–1.45pm	**Masterclasses, Satellite Sessions, Oral Posters, Poster Viewing and Auxiliary Meetings Time**								
	Workshop: Basic HIV Science for basically anyone Menzies Theatre								
	Workshop: Averting a crisis in Aboriginal health: HIV where we are at, where have we got to get to? Nicholls Theatre								
2.00pm–3.30pm	**Theme B Proffered Paper Session: Co-morbidities and HIV**	2.00pm–3.30pm	**Theme C Proffered Paper Session: Sex and Risk**	2.00pm–3.30pm	**Theme D Proffered Paper Session: HIV Services and Societies in the Pacific**	2.00pm–3.30pm	**Theme A Symposium: Immunology and HIV prevention at the mucosal surface**	2.00pm–3.30pm	**Symposium: Ensuring an Adequate Response to Australia's First Peoples**
	Royal Theatre		Bradman Theatre		Menzies Theatre		Nicholls Theatre		Sutherland Theatre
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall								
4.00pm–5.30pm	**Theme B Symposium: HIV/ Hepatitis co-infection**	4.00pm–5.30pm	**Theme C Proffered Paper Session: Pills and Prevention**	4.00pm–5.30pm	**Theme D Proffered Paper Session: Race and Risk: HIV in Asia and Australia**	4.00pm–5.30pm	**Theme A Proffered Paper Session: Vaccines**	4.00pm–5.30pm	**Satellite Session: Approaches and Challenges in Different HIV Epidemics**
	Royal Theatre		Bradman Theatre		Menzies Theatre		Nicholls Theatre		Sutherland Theatre
5.30pm–6.30pm	**Poster Viewing Session in the Exhibition Hall**								
	Drinks and Canapés to be served								
6.30pm- 7.15pm	**Early Career Networking Function**								
	Exhibition Hall								

TUESDAY 27 SEPTEMBER

7.00am	**Registration**								
7.00am–8.25am	**Case Presentation Breakfast** Fitzroy/Derwent Room								
8.30am–10.00am	**HIV/AIDS Conference Plenary** Royal Theatre								
10.00am–11.00am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall								
10.00am–11.00am	**Launch of surveillance reports on HIV, viral hepatitis and STIs in Australia and trends in behaviours** Fitzroy/Derwent Room								
11.00am–12.30pm	**Theme B Symposium: Test and Treat – issues of outreach** Royal Theatre	11.00am–12.30pm	**Theme D Proffered Paper Session: Drugs, Alcohol and HIV Risk** Bradman Theatre	11.00am–12.30pm	**Theme B Proffered Paper Session: New Concepts in Primary Care** Menzies Theatre	11.00am–12.30pm	**Theme A Proffered Paper Session: Bench to Bedside – Translation of basic science into the clinic** Nicholls Theatre	11.00am–12.30pm	**Satellite Session: Addressing the barriers of stigma, discrimination and criminalised environments in Asia and the Pacific** *Sponsored by AusAID. Presented by the HIV Consortium* Sutherland Theatre
12.30pm–1.30pm	**Lunch in Exhibition and Poster Area** Exhibition Hall								
12.45pm–1.45pm	**Masterclasses, Satellite Sessions, Oral Posters, Poster Viewing and Auxiliary Meetings Time** **Paediatric/Maternal Workshop** Sutherland Theatre								
2.00pm–3.30pm	**Theme D Symposium Debate: Syringes should be given to prisoners** Royal Theatre	2.00pm–3.30pm	**Theme B Proffered Paper Session: Long Term Survival - The Good, the Bad and the Ugly** Bradman Theatre	2.00pm–3.30pm	**Theme C Proffered Paper Session: Diversity, Diaspora and HIV** Menzies Theatre	2.00pm–3.30pm	**Theme A Symposium: Confronting HIV Reservoirs and Latency** Nicholls Theatre	2.00pm–3.30pm	**Satellite Session: Connecting With Gay Men - Current Challenges in Gay Men's Prevention** *Sponsored by NSW Health/ACON/VAC* Sutherland Theatre
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall								
4.00pm–5.30pm	**Theme C Symposium: HIV and Law** Royal Theatre	4.00pm–5.30pm	**Theme D Proffered Paper Session: Understandings of Risk: Gay Men and HIV in Australia** Bradman Theatre	4.00pm–5.30pm	**Theme B Proffered Paper Session: Eligibilty and Access to HIV Care** Menzies Theatre	4.00pm–5.30pm	**Theme A Proffered Paper Session: Biomarkers** Nicholls Theatre		
6.00pm–8.00pm	**Conference Event – Research Exposé** Australian National Press Club								

WEDNESDAY 28 SEPTEMBER

7.00am	**Registration**				
7.00am– 8.15am	**AChSHM Education Committee Meeting**	7.00am-8.30am	**Thirty years on. Addressing future challenges and acting upon current opportunities** Satellite Symposium sponsored by Gilead		
	Torrens Room		The Ballroom		
7.30am–8.30am	**Affiliate Event: Australasian Sexual Health and HIV Nurses Association (ASHHNA) Breakfast Annual General Meeting**				
	Swan Room				
8.30am–10.00am	**Sexual Health Conference Opening and Joint Conference Plenary**				
	Royal Theatre				
9.00am–10.00am	**Gollow Lecture: Dreaming a pathway to equality in health outcomes for Australia's First Peoples: STI and BBVs**				
	Royal Theatre				
10.00am–10.30am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall				
10.30am–12.00pm	**Joint Conference Symposium: HIV and HPV**	10.30am–12.00pm	**Joint Conference Symposium: STRIVE: Making a difference in primary care to address STI rates in remote Aboriginal communities**	10.30am–12.00pm	**Joint Conference Symposium: Syphilis and HIV**
	Royal Theatre		Bradman Theatre		Menzies Theatre
12.00pm–1.00pm	**Lunch in Exhibition and Poster Area** Exhibition Hall				
12.00pm–2.00pm	**AChSHM Chapter Committee Meeting** Torrens Room				
12.30pm-1.45pm	**STI Lab Lunch**				
	Bradman Theatre				
12.30pm–1.30pm	**ASHM AGM** Fitzroy/Derwent Room				
2.00pm–3.30pm	**Joint Conference/Theme C Symposium: Testing and Prevention**	2.00pm–3.30pm	**Joint Conference Symposium: Prisoners and juvenile detainees: Are these our forgotten population?**	2.00pm–3.30pm	**Joint Conference Symposium: HIV and Women**
	Royal Theatre		Bradman Theatre		Menzies Theatre
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall				
4.00pm–5.30pm	**Joint Conference Session and HIV/AIDS Conference Closing**				
	Royal Theatre				
5.30pm–7.00pm	**Sexual Health Conference Welcome Reception in Exhibition and Poster Area** Exhibition Hall				
7.00pm	**AChSHM Trainee Dinner**				

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Keynote Speakers

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INTERNATIONAL INVITED SPEAKERS

Mr Edwin J Bernard
Writer, Editor and Policy Consultant (GNP+, NAM, NAT, UNAIDS), UK

Edwin J Bernard has been living with HIV for more than 25 years. A former editor at NAM he now works as a writer and policy consultant on HIV-related issues at the intersection of public health and human rights. He has greatly contributed to global knowledge of the criminalisation of HIV nondisclosure, exposure and transmission through his blog, criminalhivtransmission.blogspot.com which has become an important resource for advocates, researchers, lawyers and other stakeholders working to end the overly broad use of the criminal law to regulate the behaviour of people living with HIV. In addition to his blog, Edwin has written extensively on the issue, including two books for NAM – *'Criminal HIV Transmission'* (2007) and *'HIV and the Criminal Law'* (2010). His recent work includes serving as lead author of *HIV Forensics II: Estimating the likelihood of recent HIV infection – implications for criminal prosecution* (NAT, London, 2011) and as consultant editor of *Positive Health, Dignity and Prevention: A Policy Framework* (GNP+/UNAIDS, Amsterdam, 2011). He is currently working as a consultant to UNAIDS on a project to obtain international consensus on the scientific, medical, legal and human rights aspects of the criminalisation of HIV nondisclosure, exposure and transmission. For further information please visit: www.edwinjbernard.com.

Dr Leslie Butt
Associate Professor, Department of Pacific & Asian Studies, University of Victoria, Canada

Leslie Butt received her PhD from McGill University in the field of medical anthropology. Her major areas of research are reproduction, sexuality and HIV/AIDS in the province of Papua, eastern Indonesia. In the past decade, Dr Butt has run several major studies in Papua, exploring the intersection of culture, politics and health. She worked with a team of indigenous qualitative researchers on issues of HIV/AIDS awareness across the province. She has also explored issues of unplanned pregnancy among Highland sex workers, and most recently completed a qualitative study of experiences of stigma of HIV-positive persons. Along with Richard Eves, she is co-editor of the volume *Making Sense of AIDS: Culture, Sexuality and Power in Melanesia* (2008). She has published numerous articles on HIV/AIDS and Papua, including 'Lipstick Girls' and "Fallen Women": AIDS and Conspiratorial Thinking in Papua, Indonesia' in *Cultural Anthropology* (2005), and 'Can You Keep a Secret?: Pretences of Confidentiality in HIV/AIDS Counselling and Treatment in Papua Indonesia' in *Medical Anthropology* (2011).

Mr Dana Van Gorder
Executive Director, Project Inform, California, United States of America

Dana is currently the Executive Director of Project Inform, a national non-profit agency assisting in the development of treatments for HIV infection, providing treatment information to HIV-positive individuals, engaging in advocacy to meet the health care needs of low-income HIV-positive people, and advocating for bio-medical prevention strategies. From 2000 to 2008, he served as the Director of State & Local Policy for the San Francisco AIDS Foundation. In that role, he developed and monitored legislation and advocated for funding to assure the highest possible response to the epidemic in California and Sacramento. Dana served as the Coordinator of Lesbian & Gay Health Services for the San Francisco Department of Public Health from 1995 to 2000. He is a former legislative aide to two members of the San Francisco Board of Supervisors – Harry Britt and Carole Migden. He has served as a consultant to a number of political campaigns, including California's statewide AIDS initiative campaigns, and has served as a Community Relations Director for two International AIDS Conferences. Dana is also a founder of the San Francisco Lesbian Gay Bisexual Transgender Community Center Project.

Mr Randy Jackson
Scholar in Residence, Canadian Aboriginal AIDS Network (CAAN), Ontario, Canada

Randy Jackson is currently completing his PhD at McMaster University in the School of Social Work. Randy is also a Scholar in Residence with the Canadian Aboriginal AIDS Network (CAAN), a recent Ontario HIV Treatment Network (OHTN) Community Scholar, and holds a community-based research Doctoral Award with the Canadian Institutes of Health Research (CIHR). Originally from the Chippewas of Kettle and Stoney Point First Nation (south-western Ontario, Canada), Randy has been involved in a number of research projects that engage the community and incorporate Aboriginal values and perspectives. Reflecting his beliefs about the significance of Aboriginal self-determination in research, Randy helped develop CAAN's position statement Principles of Research Collaboration. His research interests include cultural competence in service provision, homophobia from the perspective of two-spirit women, cultural resiliency, Aboriginal participation in HIV/AIDS clinical trials, and mental health and depression.

Professor Daniel Kuritzkes
Professor of Medicine at Harvard Medical School and Director, AIDS Research at the Brigham and Women's Hospital in Boston, Massachusetts, United States of America

Professor Daniel Kuritzkes is the invited member of the USA DHHS Panel on Antiretroviral Guidelines for Adults and Adolescents for 2011. Professor Kuritzkes is a Professor of Medicine at Harvard Medical School and Director of AIDS Research at the Brigham and Women's Hospital in Boston, Massachusetts. He is the Chair of the NIH-funded AIDS Clinical Trials Group. He has extensive clinical and research expertise in the field of HIV and has published more than 200 journal articles. Professor Kuritzkes will speak in the Antiretroviral Guidelines Session at the conference.

Professor John P. Moore
Professor of Microbiology and Immunology, Weill Cornell Medical College, New York, United States of America

He is a tenured Professor of Microbiology and Immunology at Weill Cornell Medical College in New York. He received his BA, MA, M.Phil. and PhD. degrees from Cambridge University, UK. From 1982 to 1992, he worked there, at the University of Glasgow, and the Chester Beatty Laboratories, London. He moved to the USA in 1992, joining the Medical College in 2000.

He was an Elizabeth Glaser Scientist of the Pediatric AIDS Foundation and has held an Unrestricted Grant for Infectious Disease Research from the Bristol-Myers Squibb Foundation. He holds a Merit Award from NIAID. He is an Editorial Board member for several journals, and has served on study sections and committees for NIH and charities.

He directs projects on HIV-1 entry into cells and how to inhibit it with specific drug candidates and antibodies, including developing a topical microbicide based on entry inhibitors; designing envelope glycoprotein antigens for neutralizing antibody induction; and understanding HIV-1 resistance under selection by CCR5 inhibitors.

LOCAL INVITED SPEAKERS

Professor Sharon Lewin
Director, Infectious Diseases Unit, Alfred Hospital; Professor, Department of Medicine, Monash University; Co-head, Centre for Virology, Burnet Institute, Victoria, Australia

Sharon Lewin is an infectious diseases physician and basic scientist. She is Director of the Infectious Diseases Unit at The Alfred Hospital; Professor of Medicine, Department of Medicine, Monash University; co-head of the Centre for Virology, Burnet Institute, Melbourne, Australia and an NHMRC practitioner fellow. She is a past president of the Australasian Society for HIV Medicine; a member of the Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmitted Infections, the peak advisory body to the Australian government on blood borne viruses; and a member of the International AIDS Society (IAS) international working group currently developing a global scientific strategy for HIV cure research. Her laboratory focuses on understanding how HIV persists in patients on antiviral therapy, strategies to cure HIV infection and biological determinants of immune recovery following antiviral therapy.

Dr Gail Matthews
Consultant Physician and Senior Lecturer, Viral Hepatitis Clinical Research Program, The Kirby Institute and St Vincent's Hospital, Sydney, Australia

Gail is a senior lecturer in the viral hepatitis clinical research program at the Kirby Institute. She is also a consultant physician in HIV and Infectious Diseases at St Vincent's Hospital. Her role is split between clinical research in the fields of hepatitis B, hepatitis C and HIV, and clinical academic practice in the viral hepatitis service at St Vincent's Hospital. She oversees a number of national and international research studies and collaborates with other international investigators on various projects. She originally completed medical training in the UK before returning to Australia in 2002 to take up a position at the National Centre for HIV Epidemiology Clinical Research (NCHECR), now the Kirby Institute, and obtained her PhD on Therapeutic Strategies in HIV-HBV coinfection in 2009.

Gail works in developing clinical research projects in the general fields of viral hepatitis and HIV. However, she has a specific interest in a number of areas, including therapy for acute hepatitis C, antiviral resistance to hepatitis C compounds and strategies for HIV/viral hepatitis coinfection.

Dr Peter Saxton
Postdoctoral Fellow, Department of Preventive and Social Medicine, University of Otago, New Zealand

Peter has worked variously in HIV behavioural research, epidemiology, HIV prevention and health promotion, public policy and advocacy since 1997. Many of these 14 years were focussed on helping establish strategic, practical, effective and implementable community responses to HIV risk among men who have sex with men (MSM) through the New Zealand AIDS Foundation, the country's peak HIV NGO. Peter led the development and expansion of New Zealand's first behavioural surveillance programme among MSM from 2002, complementing this with an examination of HIV epidemiological trends from1985 to 2005 and a multidisciplinary conceptual review of drivers of HIV spread at the population level. Peter's training spans degrees in political economy, sociology and a non-medical PhD in public health and epidemiology. He has recently joined the AIDS Epidemiology Group in the Department of Preventive and Social Medicine, University of Otago. A recent paper 'Increase in HIV diagnoses among men who have sex with men in New Zealand from a stable low period' by Peter Saxton is available at http://www.publish.csiro.au/nid/164/paper/SH10087.htm

Associate Professor Heather Worth
Head, International HIV Research, University of New South Wales, Australia

Associate Professor Heather Worth has nearly 20 years of research experience in HIV. For the last six years her research has been primarily in the area of HIV social research in Asia and the Pacific. Professor Worth heads the International HIV Research group based at the University of New South Wales which delivers a program of international research and research training partnerships in Papua New Guinea, China, the Pacific and Indonesia. She has written six books; the latest is *HIV in China: Understanding the social aspects of the epidemic* (2010) published by UNSW Press, and has started work on a new one with Karen McMillan and Angela Kelly titled *Globalisation and HIV risk: Development, Dependency and Vulnerability in the Pacific*

Today's MSD is a global healthcare leader working to help the world be well. MSD is a tradename of Merck & Co., Inc., with headquarters in Whitehouse Station, N.J., U.S.A.

Through our prescription medicines, vaccines, biologic therapies, and consumer care and animal health products, we work with customers and operate in more than 140 countries to deliver innovative health solutions.

We also demonstrate our commitment to increasing access to healthcare through far-reaching policies, programs and partnerships.

For more information, visit:
www.msd-australia.com.au.

GEN-10-AUS-6920-J First issued October 2010

MSD

Merck Sharp & Dohme (Australia) Pty Limited 54-68 Ferndell Street South Granville NSW 2142.

ashm

Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

General Information

www.hivaidsconference.com.au

GENERAL INFORMATION

DISCLAIMER

The information in this handbook is correct at the time of printing. The secretariat reserves the right to change any aspect of the program without notice.

VENUE

National Convention Centre
31 Constitution Avenue
Canberra City ACT 2601

T +61 2 6276 5200
F +61 2 6276 5276

The venue will host the conference sessions, poster presentations, the breakfast sessions, conference day catering and the trade exhibition.

REGISTRATION DESK

The registration desk will be located on the Ground Floor, Main Entrance, National Convention Centre, Canberra.
All enquiries should be directed to the registration desk which will be open at the following times:

Sunday	25 September 2011: 4.00pm to 6.00pm
Monday	26 September 2011: 7.00am to 6.00pm
Tuesday	27 September 2011: 7.00am to 6.00pm
Wednesday	28 September 2011: 7.00am to 6.00pm
Thursday	29 September 2011: 7.00am to 6.00pm
Friday	30 September 2011: 7.00am to 4.30pm

SPEAKER PREPARATION ROOM

A speaker preparation room will be located next to the registration desk on the Ground Floor, Main Entrance, National Convention Centre. This room will be open at the following times:

Monday	26 September 2011: 7.00am to 6.00pm
Tuesday	27 September 2011: 7.00am to 6.00pm
Wednesday	28 September 2011: 7.00am to 6.00pm
Thursday	29 September 2011: 7.00am to 6.00pm
Friday	30 September 2011: 7.00am to 3.00pm

All speakers must take their presentation to the speaker preparation room a minimum of four hours prior to their presentation or the day before if presenting at a breakfast or morning session.

CATERING

Morning teas, afternoon teas and lunches will be held in the exhibition hall each day. Lunches will be served as an informal stand-up buffet. Dietary requirements noted on your registration form have been passed on to the catering staff. Vegetarian options will be available on the buffets. If you have other specific dietary requirements, for example, vegan, halal, gluten intolerance, nut allergies there will be a separate buffet station for these special dietary requirements. Please ask the convention centre staff at this station for assistance.

EXHIBITION

An exhibition will be held in the Exhibition Hall on the Ground Floor of the National Convention Centre which also contains the posters and all the catering.

The exhibition will open for the Australasian HIV/AIDS Conference on Monday 26 September 2011 at 10.00am and conclude on Wednesday 28 September 2011 at 7.00pm.

The exhibition will be open during the following hours:

Monday	26 September 2011: 10.00am to 6.30pm
Tuesday	27 September 2011: 10.00am to 4.00pm
Wednesday	28 September 2011: 10.00am to 7.00pm

The exhibition for the Sexual Health Conference will also be available for viewing on Wednesday 28 September 2011 from 10.00am to 7.00pm.

POSTER DISPLAYS

Posters will be displayed, grouped in their disciplines, for the duration of the conference in the Exhibition Hall on the ground floor of the National Convention Centre, Canberra.

INTERNET HUB

An Internet hub, proudly sponsored by the conference, will be available in the Exhibition Hall on the Ground Floor.

Computers will be available for:

- Completing an online conference evaluation survey (with your own personal link)
- Printing a certificate of attendance
- Viewing the abstract search database
- Viewing delegate lists

WIRELESS

Wireless will be available in the Convention Centre. In order to receive the access instructions please visit the Conference Secretariat at the registration desk.

SCHOLARSHIP SPONSORS

Thank you to the following supporters of the 2011 Conference Scholarships:

- Australian Government Department of Health and Ageing
- Department of Health, Western Australia
- Department of Health, Victoria
- Queensland Government Department of Health
- ViiV Healthcare

HIV PRESCRIBER CPD POINTS

HIV s100 prescribers who are accredited in NSW/ACT/VIC/SA will receive three (3) Prescriber CPD Points for each day of the conference that they attend.

RACP/ACHSHM POINTS

Registrants may claim 1 credit point/hour of the conference attended to a maximum of 50 credits annually in the Category 2: Group learning activities section. The onus is on the Fellow themselves to determine the total number of credit points they may claim and to claim them. Further information and access to the MyCPD program is available at www.racp.edu.au .

RACGP

The Conference has been awarded 30 Category 2 RACGP QI&CPD Points. If you wish to claim these points please sign the attendance sheet at the Registration Desk each day you attend.

EMERGENCY AND EVACUATION PROCEDURES

In the event of an emergency, such as a fire, the National Convention Centre staff will direct delegates accordingly. A fire evacuation plan is available from the National Convention Centre concierge/reception desk.

EVALUATION

Your feedback on the Australasian HIV/AIDS Conference is important as it will help us plan future events. The HIV/AIDS Conference will be evaluated by Ultrafeedback. To submit your comments complete the online evaluation using the username and password provided by Ultrafeedback.

An email reminder will be sent to delegates in the weeks following the conference. Thank you in anticipation of your feedback.

LIABILITY/INSURANCE

In the event of industrial disruptions or natural disasters the Conference Secretariat cannot accept responsibility for any financial or other losses incurred by delegates. Nor can the Conference Secretariat take responsibility for injury or damage to property or persons occurring during the Conference or associated activities. Insurance is the responsibility of the individual delegate.

LUGGAGE STORAGE

During the conference, luggage can be stored by National Convention Centre staff. If you would like your luggage stored please see the National Convention Centre concierge at the reception desk on ground level.

MESSAGES

The National Convention Centre main concierge reception desk will receive messages by telephone or fax for delegates through their switchboard. A message board is situated near the conference registration desk and should be checked regularly. The conference organisers do not accept responsibility for personal mail. Please have all mail sent to your accommodation address.

MOBILE PHONES/BEEPERS

As a courtesy to all delegates and speakers, please switch off, or set to silent, your mobile phones and beepers during all sessions.

NAME BADGES

For security purposes, all attendees must wear their name badge at all times while in the conference venue. Entrance to the exhibition will be limited to badge-holders only. If you misplace your name badge, please advise staff at the registration desk.

PARKING

Parking for more than 260 cars is available beneath the National Convention Centre, currently at a cost of $12.00 per vehicle per day, or $7.00 per four hours.

PARTICIPANT LIST

A participant list will be viewable to delegates at the Internet hub. Anyone who indicated on their registration form that they did not want their name and organisation to appear on the participant list has been excluded.

PRIVACY

Information necessary for your attendance at the conference will be gathered, stored and disseminated in accordance with the nation's privacy legislation. A delegate list with name, organisation and state/country will be supplied to all delegates and exhibitors at the conference.

PROGRAM INFORMATION

A full conference program can be found on page 41.

SMOKING

This conference has a no smoking policy.

QUIET/PRAYER ROOM

Boardroom 2, on level 1 is available for use as a quiet room/prayer room for the duration of the conference.

SPECIAL REQUIREMENTS

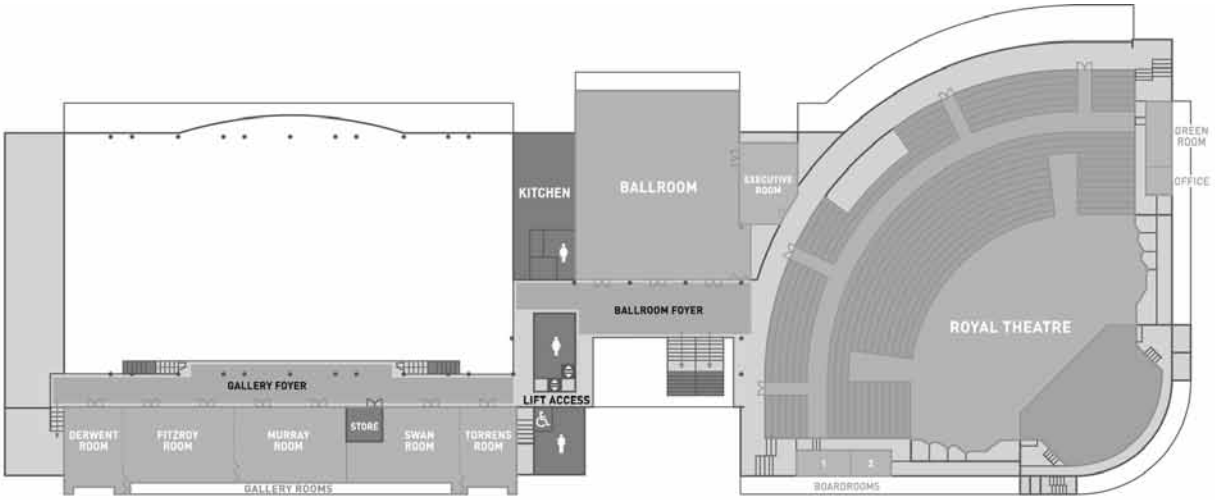
Every effort has been made to ensure people with special needs are catered for. If you have not previously advised the secretariat of any special dietary or disability requirements, please see the staff at the registration desk as soon as possible.

TAXIS

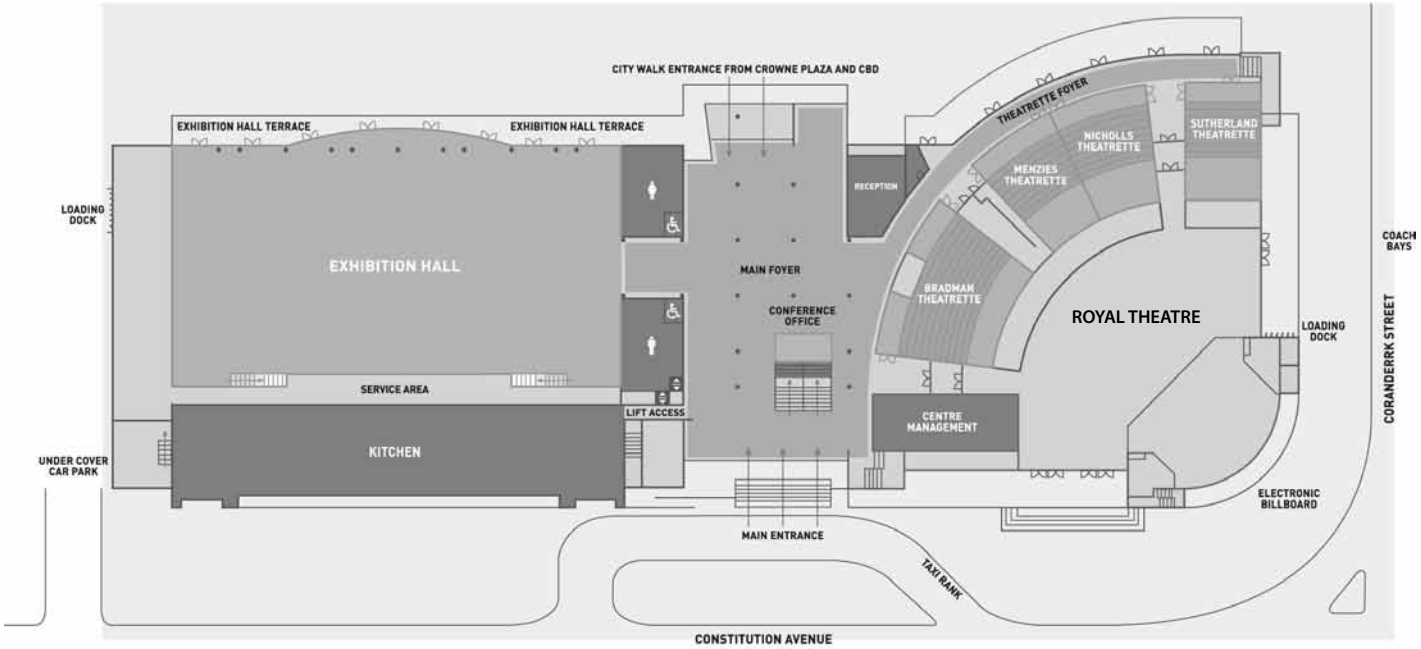
Taxis can be hailed or booked in advance. They are reasonably priced and readily available at the airport, railway stations, coach terminals and central points within the City. The National Convention Centre also has a 'taxi direct' telephone.

Canberra Elite Taxis: Phone: 13 22 27

VENUE FLOOR PLAN



FIRST FLOOR



GROUND FLOOR

ASSOCIATED EVENTS

ANTIRETROVIRAL GUIDELINES CONSENSUS DISCUSSION

10.30am to 12.00pm, Monday 26 September 2011
Royal Theatre, National Convention Centre

International invited speaker and member of the USA DHHS Antiretroviral Guidelines Panel, Dr Daniel Kuritzkes, will present on the indications for switching antiretroviral therapy in 2011. Dr Julian Elliott will discuss the timing of antiretroviral therapy initiation in the setting of opportunistic infections. The session will conclude with cases and a panel discussion addressing issues of renal disease and antiretroviral therapy. The panel will include Dr Kuritzkes, Dr Gail Matthews and members of the Australian Antiretroviral Guidelines Panel.

POSTER VIEWING EVENING

5.30pm to 6.30pm, Monday 26 September 2011
Exhibition Hall, National Convention Centre

All delegates are invited to enjoy a relaxing end to the first day of the Conference. This is also the dedicated time where you will have the opportunity to meet the poster presenters. It is an opportunity to catch up with old and make new friends, while enjoying drinks and canapés.

Ticket cost:

All registrants: Complimentary, excluding day registrants and guests

EARLY CAREER NETWORKING FUNCTION

6.30pm to 7.15pm, Monday 26 September 2011
Exhibition Hall, National Convention Centre

This get together offers those starting out their career in the HIV sector an opportunity to meet and network. A special area of the Exhibition Hall will be used once the Poster Viewing Evening is over for all other delegates

CASE PRESENTATION BREAKFAST

7.00am to 8.30am, Tuesday 27 September 2011
Fitzroy/Derwent Room, National Convention Centre, Canberra

Case presentations supported by brief literature reviews and open to audience questions are presented, during which breakfast will be served. The best Case Presentation will be awarded a cash prize.

The Case Presentation Breakfast has reached maximum capacity

NGARRA EXHIBITION 2011

Tuesday 27 – Thursday 29 September 2011
Ground Floor Foyer, National Convention Centre, Canberra

For three days during the Australasian HIV/AIDS Conference and the Sexual Health Conference, Ngarra 2011 will showcase a range of sexual health initiatives for Aboriginal and Torres Strait Islander population groups. This display features projects, resources and activities from organisations and individuals around Australia and provides an opportunity to network and share ideas.

RESEARCH EXPOSÉ

6.00pm to 8.00pm, Tuesday 27 September 2011
National Press Club, Canberra

This evening will combine a stimulating research exposé with excellent food and wine and will be facilitated by Tony Jones.

Limited capacity for this entertaining evening; only 280 tickets will be released. The A$22 fee will go towards the ASHM Gift Fund. If you can no longer attend, please return your ticket to the registration desk (no refunds will be given) to ensure any others interested can attend. A bus will be available at 5.30pm at the National Convention Centre to transfer the guests to the event.

Ticket cost: Australasian HIV/AIDS & Sexual Health Conference joint registrants: A$22
Australasian HIV/AIDS Conference only registrants: A$22
Partners/Guests: A$22

SATELLITE SESSION AND WORKSHOPS

WORKSHOP: BASIC HIV SCIENCE FOR BASICALLY ANYONE

12.45pm to 1.45pm, Monday 26 September

Menzies Theatre

This new session is designed for delegates who are baffled and mystified by Stream A (Basic Science). The two 30 minute presentations will start with a simple text book explanation of the underlying science and highlight some specific issues and challenges in HIV medicine.

A/Prof Damian Purcell (Molecular Biologist, University of Melbourne) will briefly explain how HIV replicates in human cells and how current antiviral drugs inhibit viral molecular machinery. The presentation will outline the opportunities presented from recent insights into viral factors that determine successful replication in the host, and the obstacles for addressing the next frontiers of vaccines that will prevent HIV transmission and a cure for HIV-infected individuals.

Prof Patricia Price (Immunologist, University of Western Australia) will explain how HIV both activates and destroys CD4 T-cells. This has implications for immune recovery on ART, purging reservoirs of the virus and long term problems like accelerated cardiovascular disease. The strategies and limitations of the different host responses to HIV will be introduced, together with the approaches currently open to improve the health of people with HIV.

GILEAD EDUCATIONAL SATELLITE SYMPOSIUM

7.00am to 9.00am, Wednesday 28 September 2011

The Ballroom

A panel of national and international expertise will provide insight into the major advances in the treatment of HIV over the last 30 years, the current opportunities of adherence and cost to patients as well as opportunities in relation to HIV cure for the future.

AVERTING A CRISIS IN ABORIGINAL HEALTH: HIV WHERE WE ARE AT WHERE HAVE WE GOT TO GET TO?

12.45pm to 1.45pm, Monday 26 September

Nicholls Theatre

- Is it luck or is it the result of concerted efforts?
- Why have Aboriginal and Torres Strait Islander Australians avoided a generalised epidemic of HIV?
- What efforts will be required in the immediate future to avoid this?

The Australian response to HIV prevention and treatment is recognized internationally as first class. Key attributes of this response have been the engagement of affected communities, a strong and early comprehensive policy response, high quality social epidemiological and clinical research and effective implementation of clinical care programs.

For Aboriginal and Torres Strait Islander peoples a considerable amount of vulnerability exists that may potentiate a generalised HIV epidemic for this community. This vulnerability relates to (1) sustained and unacceptably high rates of bacterial STIs in many Aboriginal communities (2) cross border movements between Torres Strait Islands and Papua New Guinea (3) an increase in the number of people who inject drugs with risks associated with BBV transmission and finally a disproportionate rate of HIV acquired through heterosexual contact.

Representatives from the Kirby Institute, AIVL, National Aboriginal Community Controlled Health Organisation and Anwernekenhe National Alliance and the field will discuss the steps forward from here in averting another crisis in Aboriginal Health.

MATERNAL/PAEDIATRIC WORKSHOP

12.45pm to 1.45pm, Tuesday 27 September

Sutherland Theatre

The maternal/paediatric workshop will provide a forum for evidence-based discussion around important clinical issues related to the management of HIV in pregnancy and perinatal HIV exposure. The proposed content of the workshop is aimed at healthcare providers who are involved in the care of HIV-positive women and their families. The case-based discussion will be facilitated by the use of keypads to encourage audience participation. It is anticipated that by the end of the session the following learning objectives will be achieved:

1. Participants will develop an approach to the clinical management of HIV-positive women who are pregnant, specifically focusing on the interventions to reduce perinatal HIV transmission including use of antiretroviral therapy and mode of delivery.
2. Participants will gain an understanding of the management and follow up of infants perinatally exposed to HIV.
3. Participants will develop an understanding of the different recommendations for breastfeeding according to location of service delivery and the emerging data on interventions to reduce HIV transmission in the setting of breastfeeding.

NGARRA 2011

A SHOWCASE OF ABORIGINAL AND TORRES STRAIT ISLANDER SEXUAL HEALTH INITIATIVES

The Foyer, National Exhibition Centre, Canberra

27–29 September 2011

Supported by the Department of Health and Ageing

ashm

NACCHO

You are invited to attend a **Gilead** sponsored **Satellite Symposium**, which is part of the **Australasian HIV/AIDS Conference 2011**

SPEAKERS

Chair: Prof Sharon Lewin
The Alfred Hospital, Melbourne, Australia
Thirty years of HIV research

Old Problems New Insights; Current opportunities of adherence and cost to patients.
Prof Andrew Carr
St Vincent's Hospital, Sydney, Australia

Back to the Future - The future challenge of curing HIV
Dr Romas Geleziunas
Director Biology, Gilead Sciences, Foster City, USA

WHERE AND WHEN

Date:
Wednesday, 28th September, 2011

Location:
The Ballroom. Level 1
Canberra Convention Centre

Time:
7.00 am - 8.30 am (Breakfast included)

addressing **future** challenges and acting upon current **opportunities**

Sponsor: GILEAD

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Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

Exhibition Directory

www.hivaidsconference.com.au

EXHIBITION BOOTH LISTING

A1	Gilead Sciences
A2	Janssen
A3	Burnet Institute
A4	The National Association of People Living with HIV/AIDS (NAPWA)
A5	Abbott Australasia
A6	MSD - Isentress
A7	The National Centre in HIV Social Research (NCHSR)
A8	ASHM International Gift Fund
A9	Australian Research Centre in Sex, Health & Society Faculty of Health Sciences (ARCSHS)
B1	REYATAZ; Bristol-Myers Squibb
B2	Novartis Pharmaceuticals
B3	ViiV Healthcare
B4	Australasian Society for HIV Medicine (ASHM)
B5	Alere
B6	Four Seasons Condoms
B7	OraSure Technologies
B8	Boehringer Ingelheim
B9	The Kirby Institute
B10	The ACT Health Directorate
B11	ASHM Online
C1	Advantage Health Care
C2	Victoria Cytology Service
C3	Dr Marie
C4	Chapter of Sexual Health Medicine
C5	CSL Biotherapies

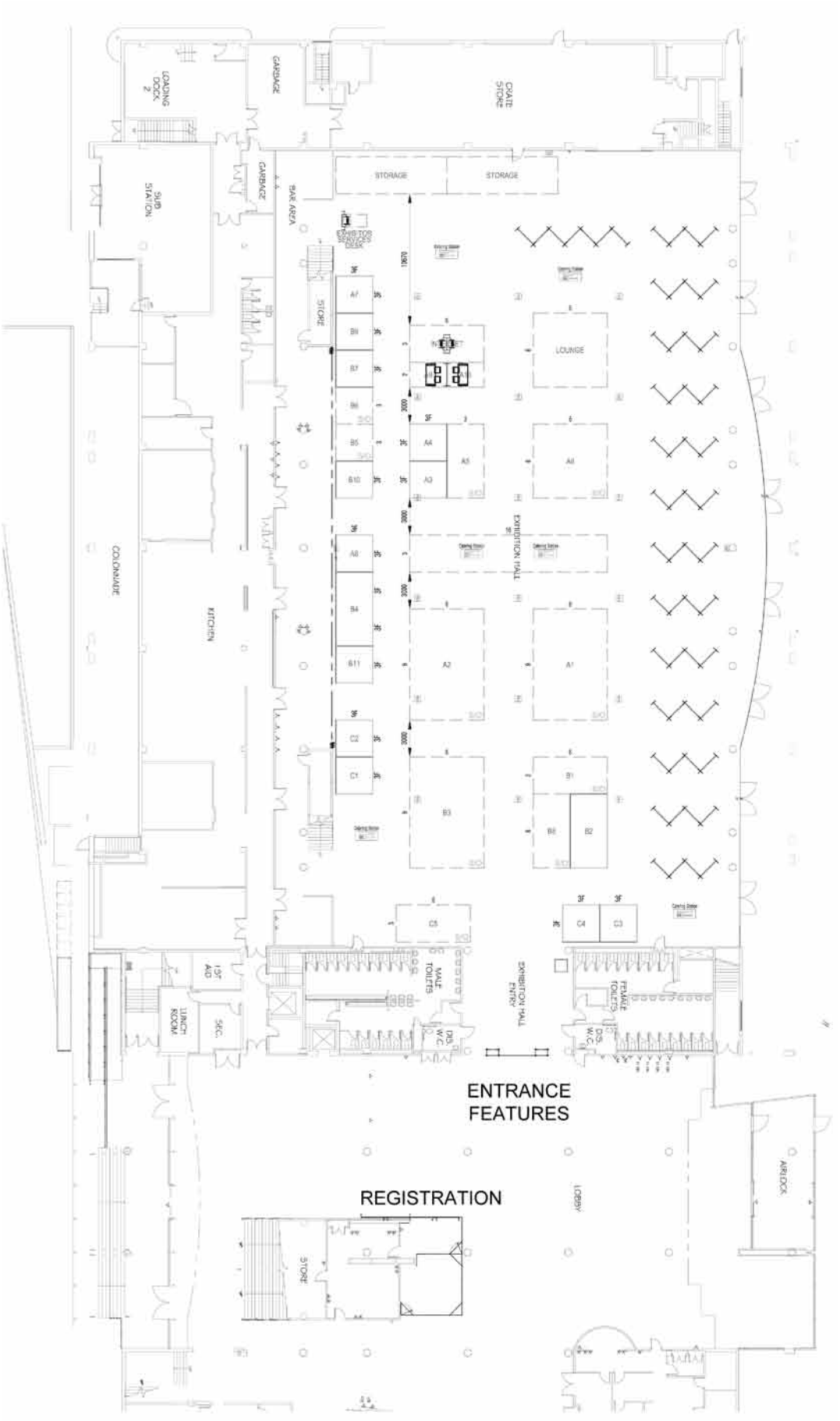
*Please note:

A= HIV/AIDS Conference-only Booths

B= Joint Conference Booths

C = Sexual Health Conference-only Booths (only available on Wednesday 28 September)

EXHIBITION FLOOR PLAN



EXHIBITOR DIRECTORY

A1. GILEAD SCIENCES

Gilead's mission is to advance patient care by developing therapeutics to treat life-threatening diseases. We apply biopharmaceutical science to create medicines to treat conditions including HIV/AIDS (ATRIPLA® [tenofovir disoproxil fumarate & emtricitabine & efavirenz], Truvada® [emtricitabine & tenofovir disoproxil fumarate], Emtriva® [emtricitabine], Viread® [tenofovir disoproxil fumarate]), chronic hepatitis B (Viread® [tenofovir disoproxil fumarate], Hepsera® [adefovir dipivoxil]), and systemic fungal infections (AmBisome® [liposomal amphotericin B])

Gilead Sciences Pty Ltd
Address: Level 1, 128 Jolimont Road, East Melbourne, Victoria 3002, Australia
Phone: +61 3 9272 4400
Fax: +61 3 9272 4411

A2. JANSSEN

Janssen Pharmaceutical Companies of Johnson & Johnson are dedicated to addressing and solving the most important unmet medical needs of our time, including oncology (eg. multiple myeloma), immunology (eg. psoriasis), neuroscience (eg. schizophrenia, dementia and pain), infectious disease (eg. HIV/AIDS, Hepatitis C and tuberculosis), and cardiovascular and metabolic diseases (eg. diabetes).

We have a proud heritage in our founder Dr Paul Janssen who established the company with a strong grounding in science and innovative solutions, always putting patients first. Driven by our commitment to patients, we develop sustainable, integrated healthcare solutions by working side-by-side with healthcare stakeholders, based on partnerships of trust and transparency.

We also provide a broad base of strong support for a range of causes, communities and charities, including The Collaboration for Health in Papua New Guinea (CHPNG) to help make a positive difference within the community. We also recognise our responsibility to collaborate in the international response to HIV/AIDS.

A3. BURNET INSTITUTE

Burnet Institute is a not-for-profit organisation whose mission is to achieve better health for poor and vulnerable communities in Australia and internationally through research, education and public health. Our unique approach links biomedical research with public health action, understanding that many global health problems require comprehensive and innovative responses. We aim to make a difference by applying our research outcomes to everyday health problems that impact on millions of people around the world. Our key themes include: infectious diseases; alcohol, drugs and harm reduction; immunity, vaccines and immunisation; maternal and child health; sexual and reproductive health; and young people's health

Burnet Institute
85 Commercial Road Melbourne, Victoria Australia 3004
Tel: + 61 3 9282 2111
Fax: +61 3 9282 2100
Email: info@burnet.edu.au
Web: www.burnet.edu.au

A4. NATIONAL ASSOCIATION OF PEOPLE LIVING WITH HIV/AIDS (NAPWA)

The National Association of People Living with HIV/AIDS (NAPWA) is Australia's peak non-government organisation representing community-based groups of people living with HIV.

NAPWA provides advocacy, effective representation, policy, health promotion and outreach on a national level. Our work includes a range of health and education initiatives that promote the highest quality of standard of care for HIV-positive people. NAPWA contributes to clinical and social research into incidence, impact and management of HIV. With participation of positive people at all levels of the organisation's activity, we strive to minimise the adverse personal and social effects of HIV.

admin@napwa.org.au

A5. ABBOTT AUSTRALASIA

For more than 100 years, Abbott people have been driven by a constant goal: to advance medical science to help people live healthier lives. It's part of our heritage, and it continues to drive our work.

Abbott employees are committed to the discovery, development, manufacture and marketing of health care products and services. Our products span the continuum of care, from nutritional products and laboratory diagnostics through medical devices and pharmaceutical therapies including Kaletra, Humira & Reductil. Today, 72,000 employees around the world share the passion for 'Turning Science Into Caring'. It's a commitment to focusing on what matters most: life and the potential it holds when we are feeling our best.

With research and development centres, sales and marketing offices, and manufacturing and distribution facilities in 130 countries, Abbott is recognised not only for our global reach and ability to serve customers around the world, but also as a good employer and global citizen.

A6. MSD - ISENTRESS

MSD/Merck & Co. has been involved in HIV research since the early 1990s.

Over the ensuing 20 years the company has been instrumental in the early discovery and development of PIs (CRIXIVAN® - indinavir) & NNRTIs (STOCRIN® - efavirenz).

Over the past 10 years MSD/Merck & Co. has pioneered the discovery and development of the first integrase inhibi¬tor to reach commercial development. ISENTRESS® (raltegravir) is the first in class of the InSTIs.

Schering Plough, now part of MSD, conducted much of the pioneering development work on the chemokine receptor antagonists (CCR5 inhibitors) for the treatment of HIV and has developed PEGATRON® (peg-interferon alfa- 2b + ribavirin) for the treatment of HCV.

A7. THE NATIONAL CENTRE IN HIV SOCIAL RESEARCH (NCHSR)

The National Centre in HIV Social Research (NCHSR) is based in the Faculty of Arts and Social Sciences at the University of New South Wales (UNSW). Since its establishment in 1990, the NCHSR has undertaken an expanding program of social research related to human immunodeficiency virus (HIV), sexually transmissible infections (STIs) and viral hepatitis (HCV and HBV). The NCHSR aims to improve the health and well-being of affected individuals and communities by undertaking exemplary, multidisciplinary research regarding the social and behavioural aspects of HIV, sexually transmissible infections and viral hepatitis.

This year NCHSR will also be conducting a short survey of the HIV workforce on attitudes towards existing and emerging HIV prevention strategies. This short multiple-choice survey called Priorities in Prevention (PiP) will be available on the touch-screen kiosks near the NCHSR booth in the exhibition area.

A8. ASHM INTERNATIONAL GIFT FUND

ASHM's International Division manages a series of programs aimed at improving the clinical care, treatment and management of HIV, viral hepatitis and sexual health in the Asia and Pacific regions. This includes:

- International Short Course in HIV Medicine
- Clinical and Laboratory Mentoring Programs
- Regional Professional Societies Network
- Publication of resources such as the Is It HIV? handbook.

Individuals and groups can contribute to these regional programs by making a tax-deductible donation to ASHM's International Gift Fund. Please visit our booth to learn more about this valuable work.

Contact: www.ashm.org.au or email international@ashm.org.au.

B1. REYATAZ; BRISTOL-MYERS SQUIBB

Bristol-Myers Squibb is a global biopharmaceutical company firmly focused on its mission to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. Around the world, our medicines help millions of people in their fights against cancer, cardiovascular disease, diabetes, hepatitis B, HIV/AIDS, rheumatoid arthritis and psychiatric disorders.

B2. NOVARTIS PHARMACEUTICALS

Novartis is a world leader in the research, development and supply of medicines to prevent and cure diseases, ease suffering and enhance quality of life.

Headquartered in Basel, Switzerland, we employ approximately 98,000 people worldwide and operate in over 140 countries.

Novartis offers a wide range of healthcare products through our Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health Divisions. Our medicines treat some of the most serious conditions confronting healthcare professionals and their patients in the areas of Primary Care, Oncology, Immunology, Infectious Disease and Ophthalmics.

In Australia Novartis employs more than 600 people, and invests over A$30 million annually in local research.

Novartis Pharmaceuticals Pty Limited
54 Waterloo Road North Ryde NSW 2113
T: +61 2 9805 3555

B3. ViiV HEALTHCARE

We are ViiV Healthcare – a global specialist HIV company established by GlaxoSmithKline and Pfizer to deliver advances in treatment and care for people living with HIV. Our company is 100% dedicated to the area of HIV and we aim to take a deeper and broader interest in HIV/AIDS than any company has done before. Our focus is to deliver effective and new HIV medicines and to provide support for the communities affected by the epidemic.

In Australia, ViiV Healthcare has been involved in supporting research through investigator initiated and pivotal clinical studies. Globally, ViiV Healthcare has been actively involved in expanding access to treatment in resource-poor settings through compassionate supply programs and royalty-free licensing agreements to 69 countries for our current and future products.

For more information visit www.viivhealthcare.com
ViiV Healthcare
Level 4, 436 Johnston Street
Abbotsford Victoria 3067
Ph: 03 9721 6161
Fax: 03 8761 2456
ViiV Medical Information: 1800 499 226

B4. AUSTRALASIAN SOCIETY FOR HIV MEDICINE (ASHM)

ASHM is a peak organisation of health professionals in Australia and New Zealand who work in HIV, viral hepatitis and sexually transmissible infections (STIs). ASHM draws on its experience and expertise to support the health workforce and to contribute to the sector.

ASHM's Professional Education Division provides education, training, guidelines and resources addressing HIV, viral hepatitis and sexual health for medical practitioners , health care providers and allied health workers. Please visit the ASHM booth to pick up free copies of our resources and talk to staff about tailored training opportunities. They can also help you sign up as ASHM members.

B5. ALERE

Alere empowers people to take control of their health by actively integrating diagnostics and health management solutions to provide timely, actionable information in a range of environments from hospital to home. A global leader in rapid point-of-care diagnostics, our products focus on infectious diseases including HIV and STIs, cardiology, oncology and women's health.

Through developing simple diagnostic equipment we support healthcare workers and patients to help ensure better quality inpatient and outpatient care. One such example is the Alere Pima Analyser which enables point-of-care CD4 T-helper cell analysis of HIV/AIDS patients from a fingerprick or venous blood sample in only 20 minutes. Fully portable, the analyser can be transported directly to the patient, allowing healthcare professionals to conduct CD4 testing in rural communities and resource-limited settings as well as at the physician's office.

Alere Australia
+61 7 3363 7100 Phone
+61 7 3363 7199 Fax
1800 622 642 Freecall (in Aus)
au.enquiries@alere.com

B6. FOUR SEASONS CONDOMS

With over 20 years experience in condoms and sexual health products, we are excited to launch our range of Naked condoms – they feel like not wearing a condom at all! Designed to be ultra thin but also extra strong, the Naked range is available in three completely different sizes of tighter 49mm, classic 54mm and larger 60mm. Ask for a sample of our Naked flavour condom range and water-based lubricants, and grab one of our promotional tin packs. Four Seasons is a Quality Endorsed company and 100% Australian owned and operated.

B7. ORASURE TECHNOLOGIES

Based in Pennsylvania, USA, OraSure Technologies develops, manufactures and markets point-of-care, oral fluid specimen collection devices that leverage proprietary oral fluid technologies, diagnostic products, including immunoassays and other in vitro diagnostic tests, and other medical devices. These products include tests for the detection of antibodies for the HIV virus (the OraQuick ADVANCE® Rapid HIV-1/2 Antibody Test and the OraSure® HIV-1 Oral Specimen Collection Device), a test for antibodies for the HCV virus (the OraQuick® HCV Rapid Antibody Test) and oral fluid testing solutions for drugs of abuse testing (Intercept® Oral Fluid Drug Testing System and Q.E.D.® Saliva Alcohol Test). These products are sold to clinical laboratories, hospitals, clinics, community-based organizations, public health organizations, distributors, government agencies, physicians' offices, commercial and industrial entities.

Headquarters:
220 East First Street
Bethlehem, PA 18015 USA
Contact Person:
Mr. Quoc Pham, Director of Asia Pacific Sales
Email: qpham@orasure.com
Mobile: +1 503 334 7754

B8. BOEHRINGER INGELHEIM

Boehringer Ingelheim is committed to active involvement and practical answers for people living with HIV. The fight against HIV/AIDS extends to resource-poor settings, where Viramune® (nevirapine) has been donated to treat more than 1,747,000 mother-child pairs 170 programmes in 60 countries through the Viramune Donation Programme. Boehringer Ingelheim is also proud to be a member of the Collaboration for Health in PNG (CHPNG). The CHPNG is the initiative of a group of Australian pharmaceutical companies who are dedicated to making a philanthropic contribution towards improving the health and wellbeing, and political and social stability of Australia's nearest neighbour and is currently working with its partners to provide education and support to health care workers in PNG.

PO Box 1969
Macquarie Centre
North Ryde NSW 2113 Australia
Phone: 61 2 8875 8833
Fax: 61 2 8875 8712

B9. THE KIRBY INSTITUTE

The Kirby Institute for Infection and Immunity in Society is the new identity for the organisation formerly known as the National Centre in HIV Epidemiology and Clinical Research (NCHECR) and was launched on the 25th anniversary of the founding of the three National Centres of HICV Research by the Australian Government in 1986. The new identity reflects the Kirby Institute's greater breadth of research focus across infectious diseases, and is named for the former Justice of the High Court of Australia, Mr Michael Kirby. The ten programs and groupsrange from clinical work in HIV, HCV, co-infection and STIs, and public health work in prevention and behavioural and cultural research. We continue to undertake a range of surveillance work, as well as databases, modelling and linkage. In the laboratory the focus is on immunopathogenesis and assay development. We also work in Indigenous heath, justice health and a range of related programs and evaluations. At present our programs are spread across three locations; by 2013/14, the staff of the Kirby Institute will be together at one location at the University of New South Wales main campus.

The Kirby Institute
The CFI building
Corner West and Boundary Streets
Darlinghurst NSW 2010 Australia
Tel: 61 2 9385 0900
Email: recpt@kirby.unsw.edu.au
Web: www.kirby.unsw.edu.au

B10. THE ACT HEALTH DIRECTORATE – WORKING IN PARTNERSHIP.

The Health Directorate of the ACT Government has a long and proud history of implementing new and innovative programs in the sexual health and blood-borne virus arena. Partnership approaches are key to the ACT Government's goal to improving the overall well-being of our community by reducing the incidence and impact of these conditions. We work closely with non-government and government stakeholders to promote consumer participation, research and evaluation to support effective programs across the sector.

Tony Battman
Senior Policy Officer, Policy Support Office, Population Health | Health Directorate | ACT Government
tony.blattman@act.gov.au
GPO BOX 825 CANBERRA CITY ACT 2601 | www.health.act.gov.au

B11. ASHM ONLINE

ASHM has just developed a new website specially designed to provide health professionals with a gateway for all policies, resources, publications, curriculums, training and education related to HIV, Hepatitis C and Hepatitis B testing. Visit the booth to try out the new website for yourself.
Website: http://testingportal.ashm.org.au

Another online initiative from the HIV/AIDS and Sexual Health Conferences is the launch of Twitter. If you've never really understood this online phenomenon or want to know more about its professional applications in a health setting then please visit the booth where you can watch instructional videos, sign up on the spot, and learn more from staff.

JUNIOR RESEARCHER IN HIV AND VIRAL HEPATITIS AWARDS PROGRAM

ASHM offers a number of annual support awards to junior researchers in the fields of HIV and viral hepatitis. The awards are offered to foster research interests in HIV and viral hepatitis, and applications are invited from a range of relevant disciplines including medicine, nursing, dentistry and allied health. Awards are given for quality research that reflects national priority action areas as outlined in the National HIV/AIDS Strategy, the National Hepatitis C Strategy and the National Hepatitis B Strategy.

Due to the outstanding quality of each application in 2011, our judging panel decided to confer eight support awards.

This year's awardees receive: complimentary registration to either the 2011 Australasian HIV/AIDS Conference or 2012 Viral Hepatitis Conference, scholarships for travel and/or accommodation to assist attendance at the chosen conference; ASHM Membership for 2011; access to the ASHM website to showcase their research project; participation in relevant ASHM committees; and access to the ASHM library, resources and archives.

Congratulations are extended to the following 2011 awardees:

- Maryam Alavi
- Amy Body
- Yvonne Drazic
- Sinthujan Jegaskanda
- Gabriela Khoury
- Kylie-Ann Mallitt
- Mamta Porwel
- Jeffrey Michael Smith

ASHM JUNIOR RESEARCHER SUPPORT AWARDS ARE RUNNING AGAIN IN 2012

THE AWARDS WILL COMPRISE:

- Annual Student ASHM Membership for 2012-2013 financial year
- Links between the junior researcher and ASHM Members in the designated area of research interest
- Publication of your research project on the ASHM website
- Participation in relevant ASHM Committees
- Access to ASHM library, resources and archives
- Registration to the Australasian HIV/AIDS Conference 2012, or Viral Hepatitis Australasian Conference 2012
- Presentation of a poster following abstract submission to the chosen conference in a special poster session (required)
- Scholarship for recipients requiring travel and/or accommodation to assist with attendance at the conference to a value of A$400
- Publication of a short report on the research initiative in an edition of ASHM News

THE APPLICATION PROCESS:

Applications are invited from all relevant disciplines, with priority given to medicine, nursing, dentistry and allied health; and must relate to a current degree, diploma, physician training program or post-doctorate award program. Applications from researchers who have already completed their post-doctorate study will not be accepted. The Junior Researcher Support Award is available for residents of Australia and New Zealand only and can be for new research or work in progress. The award is funded by ASHM and the ASHM Tax Deductible Domestic Gift Fund with administrative support from the Australian Government Department of Health and Ageing.

Abstracts of no more than 350 words should be submitted in writing, along with the application form which is to be requested. Please note that applications which reflect the national priority action areas for research, as outlined in the National HIV/AIDS Strategy the National Hepatitis C Strategy and the National Hepatitis B Strategy, will be given precedence. These research areas can be found on the Commonwealth website at www.health.gov.au or via the ASHM website at www.ashm.org.au.

The ASHM Junior Researcher Support Award application form is available on the ASHM website. A sub-committee of the ASHM Board will review the applications, and applicants will be notified of the outcome of their application by 27 April 2012.

ashm

Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

Full Conference Program





www.hivaidsconference.com.au

SUNDAY 25 SEPTEMBER

4.00pm–6.00pm	**Registration Open: National Convention Centre Foyer, Canberra**

MONDAY 26 SEPTEMBER

7.00am	**Registration**								
8.00am–10.00am	**HIV/AIDS Conference Opening Ceremony** Royal Theatre Chairs: Greg Dore and Tuck Meng Soo								
8.10am–8.15am	**Welcome to Country** Matilda House								
8.15am–8.20am	**Welcome by ASHM President** Professor Greg Dore, The Kirby Institute, Sydney, NSW, Australia								
8.20am–8.25am	**Welcome by Government Representative** Speaker TBC								
8.25am–8.30am	**Welcome by AFAO** Dr Graham Brown, AFAO President, VIC, Australia								
8.30am–8.35am	**Welcome by NAPWA** Robert Mitchell, NAPWA President, Sydney, NSW, Australia								
8.35am–8.40am	**Welcome by Conference Convenor** Dr Tuck Meng Soo, Practice Principal, Interchange General Practice, Canberra								
8.40am–9.10am	**Silence speaks volumes: HIV/AIDS and politics in highlands Papua, Indonesia** Dr Leslie Butt, Associate Professor, Department of Pacific & Asian Studies, University of Victoria, Canada								
9.10am–9.35am	**HIV prevention for people living with HIV: Why dignity and health must come first** Edwin J Bernard, Writer, Editor, Policy Consultant (GNP+, NAM, NAT, UNAIDS), UK								
9.35am–10.00am	**"Mino-Bimaadiziwin" and the Way of the Good Life in Research: Reflecting on Using Indigenous Approaches to HIV Research** Randy Jackson, Scholar in Residence, Canadian Aboriginal AIDS Network (CAAN), Ontario, Canada								
10.00am–10.30am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall								
10.30am–12.00pm	**ARV Guidelines Symposium** Royal Theatre Chairs: Jeffrey Post and Mark Kelly	10.30am–12.00pm	**Theme D Symposium: Role of Culture** Bradman Theatre Chairs: Heather Worth	10.30am–12.00pm	**Theme C Proffered Paper Session: Let Prevention Flowers Bloom** Menzies Theatre Chairs: Gary Boddy and Mark Stoove	10.30am–12.00pm	**Theme A Proffered Paper Session: Immunology** Nicholls Theatre Chairs: Stuart Turville and Charani Ranasinghe	10.30am–12.00pm	**Satellite Session: United Nation's declaration on AIDS 2011 – Involvement of Australia and Implications for the national HIV response** Sutherland Theatre Chairs: Mr Robert Mitchell
10.30am-11.00am	**Indications for switching ART in 2011** Dr Dan Kuritzkes, Director of AIDS Research, Brigham and Women's Hospital, Professor of Medicine, Harvard Medical School, USA	10.30am-10.50am	**Can You Keep a Secret? Culture, Confidentiality, and HIV/AIDS in Papua, Indonesia** Dr Leslie Butt, Associate Professor, Department of Pacific and Asian Studies, University of Victoria, Canada	10.30am-10.45am	**Monitoring HIV transmission using the BED assay** Ms Ann McDonald	10.30am-10.45am	**The PI3K signaling pathway is critical for HIV integration in latently infected resting CD4+T-cells** Dr Suha Saleh	10.30am-10.50am	**Significance of the UN Declaration to the global and domestic HIV response** Mr Bill Whittaker, Pacific Friends of the Global Fund & NAPWA Special representative, NSW, Australia
				10.45am-11.00am	**Underlying perspectives of risk and HIV and engagement with HIV social marketing among gay men in the PASH study** Dr Graham Brown	10.45am-11.00am	**SIV infects follicular helper T cells in lymph nodes during pathogenic infection of pigtail macaques** Dr John Zaunders		
11.00am–11.30am	**Timing of antiretroviral therapy initiation in the setting of opportunistic infections** Dr Julian Elliott, The Alfred Hospital, Melbourne, VIC, Australia	10.50am–11.05am	**Revisiting the notion of safe sex culture' 25 years on** Professor Gary Dowsett, Professor & Deputy Director, Australian Research Centre in Sex, Health & Society, Melbourne, VIC, Australia	11.00am–11.15am	**Increasing proportions of newly acquired HIV infections in Victoria** Ms Anita Feigin	11.00am–11.15am	**Eradication of HIV: Estimating the lifespan of latently infected cells using 'escape clock'** Dr Janka Petravic	10.50am-11.10am	**Important actions for Australia** Professor Michael Kidd, Flinders University, Adelaide, SA, Australia

		11.05am-11.20am	**"In our culture" Talk about the Tongan Way and reflections on our own** Karen McMillan International HIV Research Group, School of Public Health and Community Medicine, University of New South Wales, NSW, Australia	11.15am-11.30am	**Is optimism enough?** Associate Professor Garrett Prestage	11.15am-11.30am	**The effect of IL-7 on HIV infection on naïve CD4+ T-cell subsets** Ms Gabriela Khoury	11.10am-11.30am	**How AusAID will address the targets and outcomes of the UN Declaration** Speaker TBC, AusAID
11.30am-12.00pm	**ART and renal disease** Dr Michelle Giles, The Alfred Hospital, Melbourne, VIC, Australia Panel: Dr Dan Kuritzkes, Professor Jenny Hoy and Dr Gail Matthews	11.20am-11.35am	**Cultural Respect and Communication Guide** Robert Monaghan, NSW Aboriginal Sexual Health Coordinator, NSW, Australia	11.30am-11.45am	**HIV Stigma in Australia: Qualitative results from a study of the effects of stigma on gay men living with HIV** Dr Sean Slavin	11.30am-11.45am	**Post integration events in an in vitro model of chemokine induced HIV latency** Dr Suha Saleh	11.30am-12.00pm	**Discussion**
		11.35am-12.00pm	**Discussion**	11.45am-12.00pm	**Discussion**	11.45am-12.00pm	**Discussion**		
12.00pm–1.00pm	**Lunch in Exhibition and Poster Area** Exhibition Hall								
12.45pm–1.45pm	**Masterclasses, Satellite Sessions, Oral Posters, Poster Viewing and Auxiliary Meetings Time**								
	Workshop: Basic HIV Science for basically anyone Facilitators: Damian Purcell and Patricia Price Menzies Theatre								
	Averting a crisis in Aboriginal health: HIV where we are at, where have we got to get to? Faciltator: James Ward Nicholls Theatre								
2.00pm–3.30pm	**Theme B Proffered Paper Session: Co-morbidities and HIV** Royal Theatre Chairs: Ashley Watson and Julian Elliott	2.00pm–3.30pm	**Theme C Proffered Paper Session: Sex and Risk** Bradman Theatre Chairs: Geoff Honnor and Iryna Zablotska	2.00pm–3.30pm	**Theme D Proffered Paper Session: HIV Services and Societies in the Pacific** Menzies Theatre Chairs: Lesley Butt and Edward Reis	2.00pm–3.30pm	**Theme A Symposium: Immunology and HIV prevention at the mucosal surface** Nicholls Theatre Chair: Anthony Kelleher	2.00pm–3.30pm	**Symposium: Ensuring an Adequate Response to Australia's First Peoples** Sutherland Theatre Chairs: Mark Saunders and Basil Donovan
2.00pm–2.15pm	**Impact of HIV-associated conditions on mortality in people commencing anti-retroviral therapy in low-income countries** Dr Catherine Marshall	2.00pm–2.15pm	**HIV incidence trends by Australian jurisdiction reveal a marked rise in Queensland: An extended back-projection analysis of men who have sex with men** Kylie-Ann Mallitt	2.00pm–2.15pm	**Love patrol: Hemi taf tumas!** Ms Robyn Drysdale	2.00pm–2.30pm	**Lactic acid: A Natural Microbicide in the Female Genital Tract** Associate Professor Gilda Tachedjian, NHMRC Senior Research Fellow, Head Retroviral Biology and Antivirals Laboratory, Centre for Virology, Burnet Institute, VIC, Australia	2.00pm–2.15pm	**HIV diagnoses in Indigenous peoples: Comparison of Australia, Canada and New Zealand** Mr James Ward, Program Head, Senior Lecturer, Aboriginal and Torres Strait Islander Health Program, The Kirby Institute, Sydney, NSW, Australia
2.15pm–2.30pm	**Incidence of HIV-associated conditions following initiation of anti-retroviral therapy in low-income countries** Dr Catherine Marshall	2.15pm–2.30pm	**Rates of condom use and other risk reduction practices among HIV-negative and HIV-positive gay men in Australia: Analysis of the Gay Community Periodic Surveys, 2007-2009** Dr Martin Holt	2.15pm–2.30pm	**'Going to town': Sex work and social life in Port Vila** Ms Karen McMillan			2.15pm–2.30pm	**HIV in Aboriginal Australians: Prevention in prison settings should be a key focus** Mary-Ellen Harrod, The Kirby Institute, Sydney, NSW, Australia
2.30pm–2.45pm	**HIV-infected patients with cryptococcal meningitis who attain CSF sterility pre-ART commencement experience improved outcomes in the first 24 weeks** Dr Christina Chang	2.30pm–2.45pm	**Increased rates of routine screening for Syphilis as part of HIV monitoring in men who have sex with men and its impact on Syphilis prevalence** Carol El-Hayek	2.30pm–2.45pm	**The PNG HIV Model: Explaining the past, describing the present, and forecasting the future** Richard Gray	2.30pm–3.00pm	**Passive antibody transfer studies to guide the design of HIV-1 vaccines** Professor John Moore, Professor of Microbiology and Immunology, Weill Cornell Medical College, New York, USA	2.30pm–2.45pm	**Comparison of patterns of HIV diagnosis in the Aboriginal and the non-Indigenous population in Australia, 1992–2009** Ann McDonald, The Kirby Institute, Sydney, NSW, Australia
2.45pm–3.00pm	**Interferon-gamma release assay screening for latent tuberculosis infection in HIV-infected individuals: Is routine testing worthwhile in Australia?** Dr Joseph Doyle	2.45pm–3.00pm	**Increased rates of Syphilis testing and their impact on rates of Syphilis positivity in HIV negative men who have sex with men** Carol El-Hayek	2.45pm–3.00pm	**Providing HIV Clinical Services in Rural Papua New Guinea through a Public-Private Partnership** Mr Michael Conlon			2.45pm–3.00pm	**A structured and sustained response to surveillance for HIV in remote indigenous communities in South Australia** Dr Rae-Lin Huang, STI Control and HIV Prevention Co-ordinator, Nganampa Health Council, Alice Springs, NT, Australia

3.00pm–3.15pm	**Cancers in the Australian HIV Observational Database (AHOD)** Dr Kathy Petoumenos	3.00pm–3.15pm	**Desire and risk: Sick, bad or 'hot'?** Associate Professor Garrett Prestage	3.00pm–3.15pm	**Determinants for Fertility Desires of HIV Positive Women Living in the Western Highlands Province of Papua New Guinea** Dr Marie Lucy Aska	3.00pm–3.30pm	**The Role of the gut in HIV infection** Professor Miles Davenport, University of New South Wales, Sydney, NSW, Australia	3.00pm–3.15pm	**In it for the long haul - developing and maintaining effective HIV services for rural and remote Aboriginal people** Dr Rosemary McGuckin, Medical Practitioner, Carnarvon, WA, Australia
3.15pm–3.30pm	**Discussion**	3.15pm–3.30pm	**Discussion**	3.15pm–3.30pm	**'Stronger or tougher': Reasons for penile cutting in Papua New Guinea** Ms RachaelTommbe and David MacLaren			3.15pm–3.30pm	**Far North Queensland and the PNG Border–The HIV Response** Associate Professor Darren Russell, Director of Sexual Health, Cairns Sexual Health Service, Cairns and James Cook University and Melbourne University, Australia
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall								
4.00pm–5.30pm	**Theme B Symposium: HIV/ Hepatitis co-infection** Royal Theatre Chairs: Michelle Giles and Sharon Lewin	4.00pm–5.30pm	**Theme C Proffered Paper Session: Pills and Prevention** Bradman Theatre Chairs: Andrew Grulich and Rob Lake	4.00pm–5.30pm	**Theme D Proffered Paper Session: Race and Risk: HIV in Asia and Australia** Menzies Theatre Chairs: Victor Tawil and Timothy Mackay	4.00pm–5.30pm	**Theme A Proffered Paper Session: Vaccines** Nicholls Theatre Chairs: Damian Purcell and Martyn French	4.00pm–5.30pm	**Satellite Session: Approaches and Challenges in Different HIV Epidemics** Sutherland Theatre Chairs: Edward Reis
4.00pm–4.30pm	**HIV/HCV coinfection: Treatment decision making in a new era** Dr Gail Matthews, Consultant Physician and Senior Lecturer, The Kirby Institute, Sydney, NSW, Australia	4.00pm–4.15pm	**HIV treatment as prevention: Is it a serious change in HIV prevention for gay men?** Dr Iryna Zablotska	4.00pm–4.15pm	**Are Asian men who have sex with men (MSM) at higher risk of HIV and STI infection?** Dr Phillip Read	4.00pm–4.15pm	**Increasing diversity of HIV-1 Subtypes circulating in Victoria: A 6 year analysis** Dr Doris Chibo	4.00pm–4.15pm	**Generalised, concentrated and low prevalence – epidemic differences and challenges from the coal face of service provision and policy. (See page 91 for more information)**
		4.15pm–4.30pm	**HIV pre-exposure prophylaxis for Australian gay men is effective but too expensive** Dr Richard Gray	4.15pm–4.30pm	**'I'm scared, just thinking about that'. Thai gay men in Sydney and HIV testing** Henrike Korner	4.15pm–4.30pm	**Assessing novel HIV-1 envelope protein clones as vaccine immunogens** Dr Rob Center		
4.30pm–4.50pm	**Acute Hepatitis C** Dr Joe Sasadeusz, Victorian Infectious Diseases Service, Royal Melbourne Hospital, Melbourne, VIC, Australia	4.30pm–4.45pm	**Antiretroviral treatment interruptions in developed and developing countries: Implications for 'the treatment-as-prevention' strategy** Rebecca Guy	4.30pm–4.45pm	**What is the potential for bisexual men in China to act as a bridge of HIV transmission to the female population? Behavioural evidence from a systematic review and meta-analysis** Dr Lei Zhang	4.30pm–4.45pm	**The quiet achiever: Evidence of Pol specific ADCC escape against HIV-1** Ms Gamze Isitman		
4.50pm–5.10pm	**New therapies for HCV** Professor Greg Dore, Head, Viral Hepatitis Clinical Research Program, The Kirby Institute, Sydney, NSW, Australia	4.45pm–5.00pm	**Designing ethical research in HIV prevention** Ms Bridget Haire	4.45pm–5.00pm	**Just a preference: Exploring 'online sexual racism' and its relationship to sexual-risk-taking among gay and bisexual men in Australia** Mr Denton Callander	4.45pm–5.00pm	**Role of a novel type I interferon epsilon and its use as a molecular adjuvant to enhance HIV-specific mucosal immunity** Ms Yang Xi		
5.10pm–5.30pm	**Discussion**	5.00pm–5.15pm	**Measuring attitudes towards HIV pre-exposure prophylaxis: Findings from the PrEPARE Project** Mr Dean Murphy	5.10pm–5.30pm	**Discussion**	5.00pm–5.15pm	**HIV Vaccines: Quantity or Quality of T cell Immunity?** Dr Charani Ranasinghe		
		5.15pm–5.30pm	**Interest in using HIV pre-exposure prophylaxis and the likelihood of maintaining condom use among Australian gay men: Findings from the PrEPARE Project** Dr Martin Holt			5.15pm–5.30pm	**Discussion**		
5.30pm–6.30pm	**Poster Viewing Session in the Exhibition Hall** Drinks and Canapés to be served								
6.30pm-7.15pm	**Early Career Networking Function** Exhibition Hall								

TUESDAY 27 SEPTEMBER

7.00am	**Registration**								
7.00am–8.25am	**Case Presentation Breakfast** Fitzroy/Derwent Room Chair: Mike Porter								
7.30am–7.45am	**On again off again: Cavitatory Pulmonary Mycobacterium Avium Complex (MAC) disease - Compliance, resistance and immune reconstitution disease (IRD) in an HIV/HCV coinfected man** Dr Michael Hunter								
7.45am–8.00am	**Chemotherapy and HIV Primum Non Nocere: A Difficult Paradigm to Maintain** Dr Sushena Krishnaswamy								
8.00am–8.15am	**Rhabdomyolysis in a patient receiving raltegravir as HIV post-exposure prophylaxis: A case study** Dr Frederick Lee								
8.15am–8.25am	**Discussion**								
8.30am–10.00am	**HIV/AIDS Conference Plenary** Royal Theatre Chair: Levinia Crooks								
8.30am–9.00am	**Globalisation and HIV risk. Development, Dependency and Vulnerability in the Pacific** Associate Professor Heather Worth, Head of International HIV Research Group, University of New South Wales, Sydney, NSW, Australia								
9.00am–9.30am	**Finding a cure for HIV: The need for science, collaboration and advocacy** Professor Sharon Lewin, Monash University & The Alfred Hospital, Melbourne, VIC, Australia								
9.30am–10.00am	**The first U.S. national HIV/AIDS strategy: Progress and peril** Dana Van Gorder, Executive Director, Project Inform, California, USA								
10.00am–11.00am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall								
10.00am–11.00am	**Launch of surveillance reports on HIV, viral hepatitis and STIs in Australia and trends in behaviours** Fitzroy/Derwent Room								
11.00am–12.30pm	**Theme B Symposium: Test and Treat – issues of outreach** Royal Theatre Chairs: Jenny Hoy and Bill Whittaker	11.00am–12.30pm	**Theme D Proffered Paper Session: Drugs, Alcohol and HIV Risk** Bradman Theatre Chairs: Heather Worth	11.00am–12.30pm	**Theme B Proffered Paper Session: New Concepts in Primary Care** Menzies Theatre Chairs: Tuck Meng Soo and Louise Owen	11.00am–12.30pm	**Theme A Proffered Paper Session: Bench to Bedside – Translation of basic science into the clinic** Nicholls Theatre Chairs: Suzanne Crowe and Patricia Price	11.00am–12.30pm	**Satellite Session: Addressing the barriers of stigma, discrimination and criminalised environments in Asia and the Pacific** *Sponsored by AusAID. Presented by the HIV Consortium* Sutherland Theatre Chair: Mark Bebbington
11.00am-11.20am	**Testing & linkage to care plus treatment: Overcoming resistance to participation in health care in the United States** Dana Van Gorder, Executive Director, Project Inform, California, USA	11.00am-11.15am	**So Successful...yet so forgotten the exclusion of people with a history of injecting drug use in the HIV/AIDS Debate and Response** Annie Madden & Joe Kim	11.00am-11.15am	**Videoconferencing to facilitate high quality care of HIV patients across a wide geographical area: 18 months experience of an HIV 'Virtual clinic' in Queensland** Dr Mark Kelly	11.00am-11.15am	**Nullbasic; A potent protein-based HIV-1 inhibitor can prevent HIV-1 replication in human T cells** Associate Professor David Harrich	11.00am-11.15am	**Working towards law Reform for sex workers in PNG** Sally Joseph, Friends Frangipani, Papua New Guinea
		11.15am-11.30am	**Supply, demand and harm reduction strategies in Australian prisons** Dr Kate Dolan	11.15am-11.30am	**Treatment of blood-bourne viruses in general practice: Progress and challenges** Dr David Baker	11.15am-11.30am	**HIV antigens conjugated to TLR2 agonists stimulate a TH17 response in HIV infected long term nonprogressors** Professor Tony Cunningham	11.15am-11.30am	**More punitive 'Prostitution Law' in Fiji: The impact on sex workers and HIV prevention** Karen McMillan and Sesenieli Naitala (Bui), UNSW, Australia
11.20am-11.40am	**Issues in outreach- a local perspective** Dr Olga Vujovic, Infectious Diseases Physician, The Alfred Hospital, Melbourne, VIC, Australia	11.30am-11.45am	**Drug users community activism: Revised Indonesian Narcotics Law, drug users rehabilitation and decriminalisation** Mr Andreas Pundung	11.30am-11.45am	**Pooled Week-48 safety and efficacy results from echo and thrive phase III trials comparing Rilpivirine (RPV) vs Efavirenz (EFV) in treatment of Naive HIV-1-Infected patients receiving Emtricitabine/Tenovir (FTC/TDF)** Dr Mark Bloch	11.30am-11.45am	**Anti-HIV antibodies from bovine colostrum mediate specific killing by human immune cells** Dr Marit Kramski	11.30am-11.45am	**Continuing challenges of stigma surrounding HIV in preventing successful implementation of PMTCT programs in Bali** Luh Putu Lila Wulandrari, Udayana University Bali, Indonesia

11.40am-12.00pm	**Challenges to test and treat: a perspective from the Pacific** Dr Arun Menon, Staff Specialist, Australasian Society for HIV Medicine, Townsville, QLD, Australia	11.45am-12.00pm	**The role of alcohol in the selling and exchanging of sex in Port Moresby** Mr Herick Aeno	11.45am-12.00pm	**How recently diagnosed gay men feel about the prospect of HIV treatments** Ian Down	11.45am-12.00pm	**HaCH Study: Monocyte activation markers associated with cardio-vascular disease in HIV patients** Dr Anna Maisa	11.45am-12.00pm	**"I am Going to Die Anyway": Stigma from within IDU community in Makassar, South Sulawesi** Nurul Ilmi Idrus and Shanti Riskiyani, Hasanuddin University Makassar, Indonesia
12.00pm–12.20pm	**When HIV-positive children grow up: A critical review of the 'transition' literature** Dr Christy Newman, Senior Research Fellow, National Centre in HIV Social Research, The University of New South Wales, NSW, Australia	12.00pm–12.15pm	**Kava and HIV Risk in Fiji** Associate Professor Heather Worth	12.00pm–12.15pm	**HIV transmission and HIV Testing : Policy to practice** Levinia Crooks	12.00pm–12.15pm	**The search for a simple test to predict Immune Restoration Disease associated with Mycobacterium tuberculosis** Professor Patricia Price	12.00pm–12.30pm	**Discussion**
12.20pm–12.30pm	**Discussion**	12.15pm–12.30pm	**Discussion**	12.15pm–12.30pm	**Discussion**	12.15pm–12.30pm	**Discussion**		
12.30pm–1.30pm	**Lunch in Exhibition and Poster Area** Exhibition Hall								
12.45pm–1.45pm	**Masterclasses, Satellite Sessions, Oral Posters, Poster Viewing and Auxiliary Meetings Time** **Paediatric/Maternal Workshop** **Michelle Giles and A/Prof. Pamela Palasanthiran** Sutherland Theatre								
2.00pm–3.30pm	**Theme D Symposium Debate: Syringes should be given to prisoners** Royal Theatre Chair: Justice Richard Refshauge	2.00pm–3.30pm	**Theme B Proffered Paper Session: Long Term Survival - The Good, the Bad and the Ugly** Bradman Theatre Chairs: Edwina Wright and Catherine O'Connor	2.00pm–3.30pm	**Theme C Proffered Paper Session: Diversity, Diaspora and HIV** Menzies Theatre Chairs: Zhihong Gu and Gary Boddy	2.00pm–3.30pm	**Theme A Symposium: Confronting HIV Reservoirs and Latency** Nicholls Theatre Chair: Damian Purcell	2.00pm–3.30pm	**Satellite Session: Connecting With Gay Men - Current Challenges in Gay Men's Prevention** *Sponsored by NSW Health/ACON/VAC* Sutherland Theatre Chairs: Geoff Honnor
	Currently this issue is a hot topic in the ACT. A recent report by the Public Health Association of Australia examined different options for operating a needle and syringe program in the ACT prison. Come and hear two teams debate the topic. **Affirmative** Amanda Bresnan, ACT Greens, Canberra, ACT Helen Tyrrell, Chief Executive Officer, Hepatitis Australia, Canberra, ACT Annie Madden, Executive Officer, AIVL **Negative** Kim Sattler, Secretary, Unions ACT, ACT, Australia Additional speakers TBC	2.00pm–2.15pm	**Examination of long term survival in HIV positive patients with up to 15 years of antiretroviral therapy** Mr Hamish McManus	2.00pm–2.15pm	**HIV epidemiology among people from culturally and linguistically diverse (CALD) backgrounds in Australia** Ms Elizabeth Sonia Mlambo	2.00pm–2.30pm	**Latent HIV infection in T-cells and opportunities for therapeutic intervention** Professor Sharon Lewin, Director, Infectious Diseases Unit, Alfred Hospital; Professor, Department of Medicine, Monash University and co-head, Centre for Virology, Burnet Institute, Melbourne, VIC, Australia	2.00pm–2.15pm	**Rethinking education through entertainment – Using social media for sexual health promotion for gay and bisexual men** Jason Asselin, VAC, South Yarra, VIC, Australia
		2.15pm–2.30pm	**The differential effects of ritonavir-boosted atazanavir, efavirenz or zidovudine/abacavir plus tenofovir/emtricitabine on markers of renal function during treatment of HIV infection; A randomised trial** Mr Carlo Dazo	2.15pm–2.30pm	**Late diagnosis of HIV infection among adults in New Zealand - 2005-2010** Associate Professor Nigel Dickson			2.15pm–2.30pm	**At our fingertips: Tapping into the potential of social networking sites** Mark Stoove, Burnet Institute, Melbourne, VIC, Australia
		2.30pm–2.45pm	**Plasma Markers of Bone Loss and Bone Formation decrease with Intermittent Antiretroviral Therapy predict change in Bone Mineral Density** Professor Andrew Carr	2.30pm–2.45pm	**Increasing HIV notifications in Western Australia - A reflection of overseas-acquired infections among overseas-born heterosexual people** Mr Byron Minas	2.30pm–3.00pm	**Regulation of HIV infection in brain** Associate Professor Melissa Churchill, Burnet Institute, Melbourne, VIC, Australia	2.30pm–2.45pm	**Is social media the holy grail to re-engage gay men with safe sex messaging?** Yves Calmette, ACON, Sydney, NSW, Australia

		2.45pm–3.00pm	**Lower Fat Mass and Lower Bone Formation Predict Greater Bone Loss with Tenofovir in HIV-infected Adults** Ms Hila Haskelberg	2.45pm–3.00pm	**HIV prevalence is rapidly increasing among men who have sex with men in China: A systematic review and meta-analysis** Mr Eric Pui Fung Chow			2.45pm–3.00pm	**Late HIV Diagnoses among gay and other MSM – a good news story, but more work needed** Phillip Keen, Education Team, AFAO/ NAPWA, Sydney, NSW, Australia
		3.00pm–3.15pm	**Brain metabolic profile on older HIV+ individuals: A 1-H MRS study** Dr Lucette Cysique	3.00pm–3.15pm	**Time trends and risk factors for non-b clade infections in South Australia** Ms Karen Hawke	3.00pm–3.30pm	**Viral determinants of HIV latency** Associate Professor Damian Purcell	3.00pm–3.15pm	**Downandirty.org - the sexually adventurous men (SAM) project** Carlos Sepulveda, VAC, South Yarra, VIC, Australia
		3.15pm–3.30pm	**CD4 cell responses to combination antiretroviral therapy in patients starting therapy at high CD4 cell counts** Mr Stephen Wright	3.15pm–3.30pm	**Extent and duration of unplanned antiretroviral treatment interruption in adults with HIV infection: A systematic review** Dr Hsin-Chun Lee			3.15pm–3.30pm	**A personal perspective on future strategic and programmatic response development options** Geoff Honnor, ACON, Sydney, NSW, Australia
								3.30pm-3.45pm	**Discussion**
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall								
4.00pm–5.30pm	**Theme C Symposium: HIV and Law** Royal Theatre Chairs: Helen Watchirs and Andrew Burry	4.00pm–5.30pm	**Theme D Proffered Paper Session: Understandings of Risk: Gay Men and HIV in Australia** Bradman Theatre Chairs: Victor Tawil and Gary Dowsett	4.00pm–5.30pm	**Theme B Proffered Paper Session: Eligibilty and Access to HIV Care** Menzies Theatre Chairs: Bill Whittaker	4.00pm–5.30pm	**Theme A Proffered Paper Session: Biomarkers** Nicholls Theatre Chairs: Doris Chibo and Tony Kelleher		
4.00pm–4.30pm	**HIV and the criminal law: Combating stigma through science** Edwin J Bernard, Writer, Editor, Policy Consultant (GNP+, NAM, NAT, UNAIDS), UK	4.00pm–4.15pm	**Are young gay men at risk for HIV?** Mr Matthew O'Dwyer	4.00pm–4.15pm	**NAPWA / AHOD Access study – A temporary solution for temporary residents living with HIV** Jo Watson, Executive Director, NAPWA	4.00pm–4.15pm	**TB-IRIS after commencing ART is associated with expansion of pre-existent CD4+ and CD8+ effector T cell responses against Mycobacterium tuberculosis antigens** Associate Professor Martyn French		
		4.15pm–4.30pm	**HIV-positive gay men have little understanding of Hepatitis C** Mr Ian Down	4.15pm–4.30pm	**Impact of Medicare Ineligibility on Service Delivery at Royal Perth Hospital** Ms Leah Williams	4.15pm–4.30pm	**Role of IL-17 in HIV- specific immunity: Is IL-17 involved in T cell avidity?** Ms Jayashree Ravichandran		
4.30pm–4.45pm	**Healthy public policy and good public health – Australian approaches to the management of people with HIV who place others at risk** Mr Darryl O'Donnell, Associate Director, AIDS/ Infectious Diseases Branch, NSW Department of Health, Sydney, NSW, Australia	4.30pm–4.45pm	**Do gay men who get infected with HIV have a history of regular HIV testing?** Mr Ian Down	4.30pm–4.45pm	**Spatial analysis of HIV clinical service capacity in Australia reveals current and future areas of workforce shortage** Ms Kylie-Ann Mallitt	4.30pm–4.45pm	**HiACT: NK cells remain highly activated in HIV patients receiving suppressive ART** Mr Gregor Frederik Lichtfuss		
4.45pm–5.00pm	**The collateral damage from HIV criminal cases** Dr Sean Slavin, Assistant Director (Research Programs), NAPWA, Sydney, NSW, Australia	4.45pm–5.00pm	**Serosorting by HIV-negative gay men may be attributable to HIV-related stigma rather than simply HIV risk reduction: Findings from the HIV Stigma Barometer study** Mr Dean Murphy	4.45pm–5.00pm	**Assessment of the clinical care of HIV positive patients: A pilot programme of key performance indicators in HIV care in Queensland** Dr Mark Kelly	4.45pm–5.00pm	**The immunopathogenesis of Immune Restoration Disease associated with hepatitis C virus in Indonesian HIV patients responding to ART: Activation of blood dendritic cells by TLR** Ms Henny Saraswati		
5.00pm–5.15pm	**Rewriting HIV infection as crime: Australian prosecutions for HIV exposure/ transmission and the potential of policy interventions** Sally Cameron	5.00pm–5.15pm	**Monogamy as a HIV and STI prevention strategy among Australian gay men** My Duane Duncan	5.00pm–5.15pm	**Pharmacy dispensing fees as a barrier to treatment in HIV positive patients accessing care from an urban clinic** Mr John McAllister	5.00pm–5.15pm	**Preliminary evaluation of a rapid, visual immunochromato-graphic test for the measurement of CD4+ T-cells at point of care** Associate Professor David Anderson		
5.15pm–5.30pm	**Discussion**	5.15pm–5.30pm	**Discussion**	5.15pm–5.30pm	**Antiretroviral issues in temporary visa holders in Western Australia: A qualitative report about access, attitude and adherence** Ms Susan Herrmann	5.15pm–5.30pm	**The role of interferon-i^3-inducible proteins cxcl9 and CXCl10 in the immunopathogenesis of immune restoration disease associated with mycobacterium tuberculosis** Mr Benjamin Oliver		
6.00pm–8.00pm	**Conference Event – Research Exposé** Australian National Press Club Facilitator: Tony Jones								

WEDNESDAY 28 SEPTEMBER

7.00am	**Registration**				
7.00am–8.15am	**AChSHM Education Committee Meeting** Torrens Room	7.00am-8.30am	**Thirty years on. Addressing future challenges and acting upon current opportunities** Satellite Symposium sponsored by Gilead The Ballroom Chair: Sharon Lewin		
		7.00am- 7.10am	**Arrival and breakfast served**		
		7.10am- 7.30am	**Thirty years of HIV research** Professor Sharon Lewin, The Alfred Hospital, Melbourne, VIC, Australia		
		7.30am- 8.00am	**Old Problems New Insights; Current opportunities of adherence and cost to patients** Professor Andrew Carr, St Vincent's Hospital, Sydney, NSW, Australia		
		8.00am-8.30am	**Back to the Future - The future challenge of curing HIV** Dr Romas Geleziunas Director Biology, Gilead Sciences, Foster City, USA		
7.30am–8.30am	**Affiliate Event: Australasian Sexual Health and HIV Nurses Association (ASHHNA) Breakfast Annual General Meeting** Swan Room Chair: Ms Donna Tilley **Syndromic STI health worker training in PNG** MS Debbie Morgan **Launch of the ASHHNA competencies for sexual and reproductive health and HIV nurses** Ms Donna Tilley				
8.30am–10.00am	**Sexual Health Conference Opening and Joint Conference Plenary** Royal Theatre Chairs: Anne Robertson, Sarah Martin and Frank Bowden				
8.35am–8.40am	**Introduction by Convenor of the 2011 Sexual Health Conference Committee** Dr Sarah Martin, Staff Specialist, Canberra Sexual Health Centre, ACT, Australia				
8.40am–8.45am	**Welcome to Country** Matilda House				
8.45am–8.50am	**Opening Address** Chief Minister Katy Gallagher, ACT, Australia				
8.50am–8.55am	**Welcome by President of the Australasian Chapter of Sexual Health Medicine** Dr Anne Robertson, President of the Australasian Chapter of Sexual Health Medicine				
8.55am–9.00am	**Introduction to the Gollow Lecture** Dr Anne Robertson, President of the Australasian Chapter of Sexual Health Medicine				
9.00am–10.00am	**Gollow Lecture: Dreaming a pathway to equality in health outcomes for Australia's First Peoples: STI and BBVs** Mr James Ward, Program Head, Senior Lecturer, Aboriginal and Torres Strait Islander Health Program, The Kirby Institute, Sydney, NSW, Australia				
10.00am–10.30am	**Morning Tea in Exhibition and Poster Area** Exhibition Hall				
10.30am–12.00pm	**Joint Conference Symposium: HIV and HPV** Royal Theatre Chairs: Katerina Lagios and Richard Hillman	10.30am–12.00pm	**Joint Conference Symposium: STRIVE: Making a difference in primary care to address STI rates in remote Aboriginal communities** Bradman Theatre Chairs: James Ward and John Kaldor	10.30am–12.00pm	**Joint Conference Symposium: Syphilis and HIV** Menzies Theatre Chair: Tuck Meng Soo
10.30am–10.50am	**Digital rectal examination to screen for anal cancer in HIV positive men having sex with men (MSM)** Dr Tim Read, PhD candidate, School of Population Health, University of Melbourne and Sexual health physician at Melbourne Sexual Health Centre, Alfred Health and at the Victorian Infectious Diseases Service, VIC, Australia	10.30am– 10.45am	**Implementation of Australia's largest clustered randomised trial in Aboriginal health: Progress toward a goal** Ms Linda Garton, The Kirby Institute, University of New South Wales, Sydney, NSW, Australia	10.30am–10.50am	**Point of care tests for syphilis: Is there a role for them in our patients today and tomorrow?** Dr Brendan McMullen, Microbiology Registrar, St Vincent's Hospital, Conjoint Associate Lecturer, University of New South Wales, Sydney, NSW, Australia
10.50am–11.10am	**Update on HPV in HIV positive women** Professor Suzanne M. Garland, Director of Microbiological Research and Head of Clinical Microbiology and Infectious Diseases, Royal Women's Hospital, and Senior Consultant Microbiology, Royal Children's Hospital, VIC, Australia			10.50am–11.10am	**Neurosyphilis and HIV: A headache for both patients and doctors** Dr Mark Kelly, AIDS Medical Unit, Queensland Health, Brisbane, QLD, Australia
11.10am–11.30am	**Oropharyngeal carcinoma related to Human papillomavirus** Dr Angela Hong, Radiation Oncologist and Clincial Senior Lecturer, Faculty of Medicine, The University of Sydney, Sydney, NSW, Australia	10.45am–11.00am	**Use of quality improvement strategies to address endemic rates of STI in remote primary health care services** Ms Bronwyn Silver, STI Research Fellow, Menzies School of Health Research, Alice Springs, NT, Australia	11.10am–11.30am	**Syphilis in HIV infection: What's all the fuss about?** Professor Basil Donovan, Head of Sexual Health Program, The Kirby Institute, Sydney, NSW, Australia
		11.00am–11.15am	**The 2010 baseline prevalence study conducted by the STRIVE trial** Dr Rebecca Guy, The Kirby Institute, University of New South Wales, Sydney, NSW, Australia		
		11.15am– 11.30am	**Routine STI testing patterns in remote health services in the Northern Territory and Far North Queensland** Ms Skye McGregor, The Kirby Institute, University of New South Wales, Sydney, NSW, Australia		

11.30am–12.00pm	**Discussion**	11.30am–11.45am	**Health service utilisation patterns in FNQ remote communities: Implications for STI testing** Ms Belinda Hengel, Far North Queensland STRIVE Co-ordinator, Apunipima Cape York Health Council, Cairns, QLD, Australia	11.30am–11.50am	**High levels of azithromycin resistant syphilis in Sydney** Dr Neisha Jeoffreys, Senior Hospital Scientist, Public Health & Reference Laboratory, Centre for Infectious Diseases & Microbiology, ICPMR, Westmead, NSW, Australia
		11.45am–12.00pm	**Discussion**	11.50am-12.00pm	**Discussion**
12.00pm–1.00pm	**Lunch in Exhibition and Poster Area** Exhibition Hall				
12.00pm–2.00pm	**AChSHM Chapter Committee Meeting** Torrens Room				
12.30pm–1.45pm	**STI Lab Lunch** Bradman Theatre Chairs: Charlotte Gaydos and Frank Bowden				
12.30pm-12.43pm	**The influence of organism load on the sensitivity of point-of-care tests for chlamydia** Dr David Whiley				
12.43pm-12.56pm	**Point-of-care tests for the detection of Neisseria gonorrhoeae: A systematic review of operational characteristics and performance** Ms Lucy Watchirs Smith				
12.56pm-1.09pm	**Promiscuous Neisseria Gonorrhoeae - Culture or PCR?** Dr Brian Hughes				
1.09pm-1.22pm	**Neisseria gonorrhoeae resistance to ceftriaxone: Where are we at?** Dr David Whiley				
1.22pm-1.30pm	**The epidemiological associations of BV candidate bacteria in sexually experienced and inexperienced women with BV and normal vaginal flora** Dr Kath Fethers				
1.30pm-1.45pm	**Discussion**				
12.30pm–1.30pm	**ASHM AGM** Fitzroy/Derwent Room				
2.00pm–3.30pm	**Joint Conference/Theme C Symposium: Testing and Prevention** Royal Theatre Chairs: Andrew Grulich	2.00pm–3.30pm	**Joint Conference Symposium: Prisoners and juvenile detainees: Are these our forgotten population?** Bradman Theatre Chairs: Katerina Lagios and Mark Saunders	2.00pm–3.30pm	**Joint Conference Symposium: HIV and Women** Menzies Theatre Chair: Sunita Azariah and Sarah Martin
2.00pm–2.25pm	**HIV testing and prevention: The New Zealand experience** Dr Peter Saxton, Postdoctoral Fellow, Department of Preventive and Social Medicine, University of Otago, New Zealand	2.00pm–2.20pm	**The 2010 National Prison Entrants' Bloodborne Virus and Risk Behaviour Survey – update and Report Launch** Professor Tony Butler, The Kirby Institute, Sydney, NSW, Australia	2.00pm–2.25pm	**Biomedical prevention of HIV in women: a promise in pre-exposure prophylaxis?** Professor Jeanne Marazzo, Professor, Division of Allergy and Infectious Diseases, Medical Director, Seattle STD/HIV Prevention and Training Center, University of Washington, USA
		2.20pm–2.40pm	**Advocacy for a prison needle and syringe program trial with prominent Australians** Mr John Ryan, Chief Executive Officer, Anex, Melbourne, VIC, Australia	2.25pm–2.50pm	**Medical Aspects of HIV Management Specific to Women** Dr Michelle Giles, The Alfred Hospital, Melbourne, VIC, Australia
2.25pm–2.45pm	**Testing times - Peer educators in community-based testing environments** Ms Patricia Langdon, Executive Director, Western Australian AIDS Council, West Perth, WA, Australia	2.40pm–3.00pm	**Sexual behaviour and wellbeing of Australian prisoners** Associate Professor Juliet Richters, Associate Professor in Sexual Health, School of Public Health and Community Medicine, University of NSW, Sydney, NSW, Australia	2.50pm–3.15pm	**Stigma and Women Living with HIV: A Cooperative Inquiry** Ms Jane Bruning, National Coordinator Positive Women Inc, New Zealand, and Asia Pacific UNAIDS PCB NGO Delegate
2.45pm–3.05pm	**Rapid HIV testing in homosexual men: Early lessons from the SMARTest study** Dr Tim Read PhD candidate, School of Population Health, University of Melbourne and sexual health physician at Melbourne Sexual Health Centre, Alfred Health and at the Victorian Infectious Diseases Service, VIC, Australia			3.15pm–3.30pm	**Discussion**
3.05pm-3.25pm	**Community-based HIV testing services for gay men: A systematic review** Ms Alisa Pedrana, PhD Scholar, Burnet Institute, Melbourne, VIC, Australia	3.00pm–3.30pm	**Discussion**		
3.25pm–3.30pm	**Discussion**				
3.30pm–4.00pm	**Afternoon Tea in Exhibition and Poster Area** Exhibition Hall				
4.00pm–5.30pm	**Joint Conference Session and HIV/AIDS Conference Closing** Royal Theatre Chair: Damian Purcell				
4.00pm–4.20pm	**Towards coitally-independent microbicides: Studies with vaginal rings and silicone-based gel delivery systems** Professor John Moore, Professor of Microbiology and Immunology, Weill Cornell Medical College, New York, USA				
4.20pm–5.20pm	**'A Bill to provide for the eradication of new HIV infection in Australia by the year 2020'** Facilitator: Mr Shane Rattenbury MLA, Speaker, ACT Greens, ACT Legislative Assembly, Canberra, ACT, Australia **Affirmative:** Associate Professor Darren Russell, Director of Sexual Health, Cairns Sexual Health Service, Cairns, QLD, Australia Justice Richard Refshauge, Supreme Court Judge, ACT, Australia **Negative:** Dr Edwina Wright, ID Physician, Alfred Hospital, Melbourne, VIC, Australia Mr Rob Lake, Executive Director, AFAO, Newtown, NSW, Australia				
5.20pm–5.25pm	**Prize Presentations and Closing Remarks**				
5.25pm–5.30pm	**Presentation of the 2012 HIV/AIDS Conference by the Conference Convenor** Convenor: Associate Professor Damian Purcell, University of Melbourne, VIC, Australia				
5.30pm–7.00pm	**Sexual Health Conference Welcome Reception in Exhibition and Poster Area** Exhibition Hall				
7.00pm	**AChSHM Trainee Dinner**				

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Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

Oral Presentation Abstracts

MONDAY 26 SEPTEMBER 2011





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HIV/AIDS CONFERENCE OPENING CEREMONY

PAPER NUMBER: 51 — SILENCE SPEAKS VOLUMES: HIV/AIDS AND POLITICS IN HIGHLANDS PAPUA, INDONESIA

Leslie Butt

Department of Pacific and Asian Studies, University of Victoria, Canada

Since the 1990s, the highlands region of Papua, Indonesia has been identified as a region at risk of a generalized HIV epidemic. High rates of mobility among young men and women; the lure of easy money in resource extraction industries; opportunities for sex with multiple partners; and a thriving, multi-tiered sex work industry: all contribute to recent estimates of HIV prevalence at up to seven percent of the general population. Even though Papua has the highest HIV prevalence in Indonesia, adequate prevention materials, testing, and therapies have been slow to arrive in Papua's mountainous interior. In this talk, I use the concept of "rendering technical" to describe how the complex relationship between the Indonesian state, health workers, and indigenous Papuans is silenced and simplified in order to implement nation-wide policies in remote locales. I draw from three major studies conducted in the highlands since 2001 to describe patterns of HIV infection as shaped not only by the logistics of a rugged landscape and high-risk sexual practices, but also by the silences and omissions in political will and practice. I discuss the importance of colonization, ethnic conflict, and an international humanitarian discourse in shaping whether suppressed political talk about HIV/AIDS can come out into the open, and whether and in what ways it can speak to political differences exacerbated by race, money, and power

PAPER NUMBER: 575 — HIV PREVENTION FOR PEOPLE LIVING WITH HIV: WHY DIGNITY AND HEALTH MUST COME FIRST

Edwin J Bernard

Writer, Editor and Policy Consultant (GNP+, NAM, NAT, UNAIDS), UK.

Background: Until recently, the understanding of HIV prevention as it relates to people living with HIV has been inconsistent or ill-defined. In addition, policies and programmes aimed at people living with HIV have been designed, for the most part, without the meaningful involvement of people living with HIV.

Methods: In April 2009, a technical consultation took place in Tunisia, involving international participants representing people living with HIV networks, civil society, government agencies, UNAIDS Cosponsors, international donors and development agencies. As part of the shift away from a narrow approach placing the burden of responsibility for HIV prevention solely on HIV-positive people aware of their status, and a move towards a broader, more holistic approach, the term 'Positive Health, Dignity and Prevention' was introduced.

Results: Positive Health, Dignity and Prevention locates the health and social needs and experiences of people living with HIV within a human rights framework in direct contrast to previous approaches to 'positive prevention' which could be construed as treating people living with HIV as vectors of transmission. Positive Health, Dignity and Prevention provides an overarching framework connecting all major aspects of testing, care, support, treatment and prevention. It focuses on improving and maintaining the dignity, health and wellbeing of people living with HIV, which, in turn, contributes to the health and wellbeing of partners, families and communities.

Conclusion: The Global Network of People Living with HIV (GNP+) has now developed an international framework for Positive Health, Dignity and Prevention through a consultative process with networks of people living with HIV and other key partners, including UNAIDS. UNAIDS is currently advocating for the endorsement, adoption and implementation of Positive Health, Dignity and Prevention by key stakeholders as well integrating the concept into all UNAIDS policies and strategies.

HIV/AIDS CONFERENCE OPENING CEREMONY

PAPER NUMBER: 665	"MINO-BIMAADIZIWIN" AND THE WAY OF THE GOOD LIFE IN RESEARCH: REFLECTING ON USING INDIGENOUS APPROACHES TO HIV RESEARCH
Randy Jackson School of Social Work, McMaster University, 1280 Main Street, Hamilton, Ontario, Canada Canadian Aboriginal AIDS Network, 6280 Salish Drive, Vancouver, British Columbia, Canada	Decolonizing methodologies, embedded in Indigenous worldviews, is often described as a new research approach. It is felt to be culturally respectful, safe, relevant, and is a process thought to bridge two worlds. It privileges intergenerational aspects of oral tradition in localized contexts and is firmly connected to community, place, and spirit. It values multiple understandings, respects diversity and appreciates dynamism in ways that open the development of "new" Indigenous understandings. Despite recent research policy directives in Canada (i.e., *CIHR Guidelines for Health Research Involving Aboriginal Peoples* and revisions to the *Tri-Council Policy Statement for Research Involving Human Subjects*), the use of and application of Indigenous decolonizing methodologies in HIV health research remains problematic. Told by, for, and about Indigenous peoples, stories can spark memories that speak to wounds and resistance to cultural and economic subjugation. Stories can also be used to teach cultural mores, create safe spaces that facilitate learning, and offers a window into thinking about, using, and understanding Indigenous knowledge. Using a reflective Indigenous storytelling approach, this presentation shares a research journey doing HIV and AIDS community-based participatory research among Aboriginal peoples and communities in Canada. Towards inspiring *Mino-Bimaadiziwin* in research, the aim is to offer several practical suggestions (i.e., ways to resist research hegemony, the value of the Trickster spirit, and two-eyed seeing) that encourage the use of available cultural resources to mediate tensions.

NOTES

ARV GUIDELINES SYMPOSIUM

PAPER NUMBER: 661 — INDICATORS FOR SWITCHING ART IN 2011

Dan Kuritzkes

Professor of Medicine at Harvard Medical School and Director, AIDS Research at the Brigham and Women's Hospital in Boston, Massachusetts, United States of America

PAPER NUMBER: 662 — TIMING OF ANTIRETROVIRAL THERAPY INITIATION IN THE SETTING OF OPPORTUNISTIC INFECTIONS

Julian Elliott

Infectious Diseases Unit, Alfred Hospital, Melbourne, Australia

Department of Epidemiology and Preventive Medicine, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia

Centre for Population Health, Burnet Institute, Melbourne, Australia

The optimal timing of combination antiretroviral therapy (cART) initiation in individuals with asymptomatic HIV infection continues to be debated in the absence of sufficient data from randomised studies. Another important question in the timing of cART initiation is how long to wait after starting treatment of an opportunistic infection (OI). Fortunately there are now relevant data available from a number of randomised studies.

Initiation of cART leads to rapid decline in HIV plasma RNA, restoration of immune function and decreasing risk of HIV-associated disease and mortality. cART initiation is, however, also associated with the risk of immune reconstitution inflammatory syndrome (IRIS) in which cART-induced immune restoration leads to an inflammatory immune response to microbial antigens and a paradoxical deterioration in clinical status. After starting treatment for an OI earlier cART initiation is associated with decreased risk of HIV disease progression, but increased risk of IRIS. The optimal timing of cART in the setting of an OI is therefore a balance between these two competing risks, as well as risks of overlapping treatment toxicities and drug interactions.

The evidence base available to guide the best time to start cART in the setting of an OI has recently been strengthened through the completion of several large randomised studies of early versus deferred cART initiation: ACTG A5164 investigated the timing of cART initiation after non-tuberculosis(TB) OIs; Torok et al conducted a randomised study of the timing of cART initiation in people with HIV and TB meningitis; the CAMELIA, SAPiT and STRIDE studies provide evidence in people with HIV and TB; and Makadzange et al investigated the optimal timing of cART initiation in people with HIV and cryptococcal meningitis. These studies will be reviewed with the objective of informing local guidelines regarding the timing of cART initiation in the setting of an opportunistic infection.

ARV GUIDELINES SYMPOSIUM

PAPER NUMBER: 663	ART AND RENAL DISEASE
Michelle Giles Infectious Diseases, Monash Medical Centre, Clayton, Australia	

NOTES

THEME D SYMPOSIUM: ROLE OF CULTURE

PAPER NUMBER: 185 — CAN YOU KEEP A SECRET?: CULTURE, CONFIDENTIALITY, AND HIV/AIDS IN PAPUA, INDONESIA

Leslie Butt

Department of Pacific and Asian Studies, University of Victoria, Canada

A critical feature of contemporary HIV/AIDS interventions is the provision of voluntary counselling and testing. Since 2007, in Papua, Indonesia, local non-profit organizations, international non-governmental organizations, the state, and external development agencies have worked together to train local staff to adhere to globally sanctioned models of counselling. Protecting the confidentiality of the client is a lynchpin of successful counselling. This is part of a general movement towards integrated institutional cooperation in implementing global moral claims about humanitarianism, or what Pandolfi calls "a thickening hegemony of compassion." Results from research conducted in Papua in 2009 and 2010 on stigma suggest that confidentiality is an ideal that is poorly taught and systematically violated in practice. The identification, labelling and regulating of HIV-positive persons appear more important than the humanitarian and moral imperative of protecting client rights through adequate training. In highlands Papua, cultural ideas of secrecy, acute stigmatizing practices, and fear of gossip are exacerbated by health care workers' pretences of respecting confidentiality, and result in a locally-feared pattern of evasion of care, rapid physical decline, and death. This presentation suggests it is crucial to examine the intersections between local cultural values (in particular concepts of secrecy), and health care workers (in particular the practice of confidentiality), in order to build a comprehensive assessment of the role of culture in responses to HIV/AIDS in Papua.

DISCLOSURE OF INTEREST STATEMENT:

Research was funded by the Social Sciences and Humanities Research Council of Canada.
The author declares she has no competing interests.

PAPER NUMBER: 55 — REVISITING THE NOTION OF "SAFE SEX CULTURE" 25 YEARS ON'

Gary Dowsett

La Trobe University

The notion of 'safe sex culture' was central to arguments for understanding HIV prevention among gay men in Australia (and elsewhere) as a 'social' act, not simply a 'behavioural' shift in the late 19802 to mid-90s. This notion was superseded by a recognition of a fracturing of the unity in gay men's responses to the epidemic in the mid-90s, termed as a 'post-AIDS'—a shift paralleling the introduction of HAART. More recent argument concerning the 'endemic' nature of the epidemic in Australian gay communities calls into question the very concept of 'gay community' itself and suggest that arguments are needed for conceptualising HIV prevention as an exercise in working with sexual cultures and sexual ethics. These ideas still lack community-wide discussion. It's time to talk!

THEME D SYMPOSIUM: ROLE OF CULTURE

PAPER NUMBER: 56 — "IN OUR CULTURE": TALK ABOUT THE TONGAN WAY AND REFLECTIONS ON OUR OWN.

Karen McMillan

International HIV Research Group, University of New South Wales.

During interviews about condom use, young Tongans repeatedly raised the issue of culture either directly or by reference to 'the Tongan Way'. Culture as invoked in those interviews – that is, by people who were who talking about their own - was described as being constitutive of identity and community, and as imbuing, shaping and underpinning the conduct, behaviours and decision making of daily life including those concerning sexual behaviour and risk.

For the young Tongans, culture was manifest in an array of rules and practices that expressed more general values and principles, all of which were premised on and reproduced particular notions of selfhood and identity, responsibility and health. The formulations of selfhood, responsibility and health in particular appear incommensurate, if not in conflict, with those embedded in HIV prevention messages.

An adequate account of the role and effects of culture in HIV prevention (and treatment and care) will require not only an attention to the culture of local or target groups, but also a reflection on our own institutions practices and values as expressions of specific culture(s).

PAPER NUMBER: 57 — CULTURAL RESPECT AND COMMUNICATION GUIDE

Heslop J, Monaghan R

North Coast Area Health Service

Background

In response to the recommendations made in the NSW HIV/AIDS, Sexually Transmissible Infections and Hepatitis C Strategies: Implementation Plan For Aboriginal People 2006-2009, funding was provided to the North Coast Area Health Service from the NSW Department of Health to develop and implement an Aboriginal Sexual Health Cultural Respect and Communications package for NSW.

Method

There are many documents in circulation about the disadvantage, discrimination and inequity commonly experienced by Aboriginal people. This literature extends to the disparities faced by Aboriginal people within health services. Despite this, a gap in material appears to exist around the areas of Aboriginal sexual health in NSW, particularly in the form of practical guides about increasing Aboriginal access to sexual health services. In line with this, the key objectives of this resource are to:

- increase Aboriginal cultural awareness, respect and communication skills of the HIV, STI and hepatitis C sectors;
- increase awareness, respect and communication skills of relevant health services (other than AIDS Program-funded services) around HIV, STI and hepatitis C-related issues for Aboriginal people; suggestions for service providers who work with Aboriginal people to gain a greater understanding of the cultural, social, and economic issues which may affect the way that Aboriginal people access services;
- increase the levels of Aboriginal people's access to sexual health services.

Conclusions

This guide aims to provide a resource for health professionals to gain a better understanding and knowledge of Aboriginal communities, how to work together with communities and how to provide culturally appropriate sexual health services for individuals and communities. Sexual health is a pertinent issue for Aboriginal communities

due to the high number of sexually transmitted infections (STIs) present and the complexities of providing sexual health services to these communities. In terms of sexual health, there are many barriers that prevent Aboriginal people accessing services. This guide identifies and highlights some of the barriers while also providing some suggestions for change and improvement.

The guide also examines the importance of cultural respect, community engagement and appropriate communication for service providers in achieving and improving sexual health outcomes for Aboriginal people in NSW.

THEME C PROFFERED PAPER SESSION: LET PREVENTION FLOWERS BLOOM

PAPER NUMBER: 524 — MONITORING HIV TRANSMISSION USING THE BED ASSAY

McDonald AM[1], Cunningham P[2], Kelleher A[1,2], Kaldor JM[1] and Wilson DP.

[1] The Kirby Institute, Sydney, NSW

[2] St Vincent's Hospital, Sydney, NSW

Background: Diagnoses of newly acquired HIV infection, defined by a negative antibody test within 12 months of diagnosis, indicate the lower limit of recent HIV transmission. Specialised assays have been developed to detect incident infection in the diagnostic specimen, potentially providing a more complete indication of recent transmission.

Methods: Cases of HIV infection diagnosed at St Vincent's Hospital, Sydney, were tested with the BED capture enzyme immunoassay (BED-CEIA). Cases with a BED-CEIA result were matched with the National HIV Registry to retrieve the date of first HIV diagnosis in Australia and evidence of newly acquired HIV infection. Sensitivity was estimated among cases with evidence of acquisition within 180 days of BED date. Specificity was estimated among cases without newly acquired infection for which the BED date was at least 180 days later than the date of HIV diagnosis.

Results: Of 1142 cases of HIV infection diagnosed in 2005 – 2009, incident infection was detected using the BED-CEIA in 458 cases, and evidence of newly acquired infection was available in 303 cases. The BED-CEIA detected incident infection in 204 of 243 cases with evidence of HIV acquisition within 180 days of HIV diagnosis (sensitivity 84%). Of 428 cases without evidence of newly acquired infection for which the BED date was at least 180 days later than the date of HIV diagnosis, 329 had BED evidence of established infection (specificity 77%). Of 380 cases without evidence of newly acquired infection for which the BED date was within 30 days of HIV diagnosis, 116 had BED evidence only of incident HIV infection, resulting a 38% increase in incident HIV infection.

Conclusion: Use of the BED-CEIA complements surveillance for newly acquired infection to provide a more complete indication of the extent of recent HIV transmission.

No funding grants have been made to the project "Monitoring HIV transmission using the BED assay".

PAPER NUMBER: 269 — UNDERLYING PERSPECTIVES OF RISK AND HIV AND ENGAGEMENT WITH HIV SOCIAL MARKETING AMONG GAY MEN IN THE PASH STUDY

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Background: Understanding the different risk perspectives and beliefs of gay men, and how these perspectives relate to their engagement with social marketing strategies, is important for future tailoring and targeting of different HIV prevention approaches.

Methods: Pleasure and Sexual Health was an online survey of 2306 Australian gay men recruited during mid-2009, complemented by 40 in-depth interviews, which explored meanings of sex, pleasure and risk as well as engagement with social marketing.

Results: Drawing on both the quantitative and qualitative data, it was possible to map men with different risk perspectives and attitudes against their reported engagement with general HIV prevention social marketing targeting gay men. For example, men who were inclined to believe that undetectable viral load or sero-sorting were reasonable risk reduction strategies and condom use was negotiable were less inclined to engage with HIV prevention social marketing. The patterns of engagement with HIV social marketing was significantly associated with perspectives and attitudes about HIV and risk in their lives.

Conclusion: Social marketing in HIV prevention is an important part of the health promotion tool box. How different gay men respond to HIV social marketing may be more influenced by their own, pre-existing perspectives on pleasure and risk, than their knowledge and experience of HIV alone. Men with different perspectives are likely to 'pre-interpret' social marketing prior to engagement with the message. This supports the need for tailored health promotion engagement strategies that complement, but not limited to, targeted social marketing

THEME C PROFFERED PAPER SESSION: LET PREVENTION FLOWERS BLOOM

PAPER NUMBER: 254

INCREASING PROPORTIONS OF NEWLY ACQUIRED HIV INFECTIONS IN VICTORIA

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Background: Monitoring newly acquired HIV infections is important for understanding the dynamics of the HIV epidemic. An increase in newly acquired cases of HIV could be due to increased transmission or increased testing. We describe trends in newly acquired cases of HIV infections in Victoria in the last decade and examine HIV testing patterns.

Methods: Victorian HIV passive surveillance data between 2000 and 2010 were analysed to report on the trends in newly acquired HIV infections. In addition, data from the Victorian Primary Care Network for Sentinel Surveillance (VPCNSS) on BBVs and STIs captured between 2007 and 2009 were assessed to identify trends in HIV testing behaviours.

Results: Victorian HIV passive surveillance data showed the proportion of newly acquired infections increased from an average of 36% between 2000-2008 to 40% in 2009 and 45% in 2010. The change between 2000 and 2010 represented a statistically significant increasing trend in the proportion of newly acquired infections (p=.015). This increase was restricted to men who have sex with men (MSM).

VPCNSS data showed the number of HIV tests among MSM increased from 4824 in 2007 to 6009 in 2009, and the average annual number of tests per individual increased from 1.3 to 1.4 (p=.031). The proportion of positive tests remained stable.

Conclusion: The proportion of newly acquired HIV infections notified in Victoria has increased among MSM in recent years but the proportion positive relative to testing appears to be stable. This suggests the increase in newly acquired HIV is related to increased testing among MSM. These findings suggest that recent Victorian initiatives to increase testing among MSM have been effective, with positive outcomes for early detection, timely treatment and reduced HIV transmission. It is important to continue to monitor this trend and ensure initiatives remain effective at reaching high risk populations.

DISCLOSURE OF INTEREST STATEMENT:

All authors have no conflicts of interest relevant to this abstract. The Victorian HIV passive surveillance system and the Victorian Primary Care Network for Sentinel Surveillance on BBVs/STIs are funded by the Victorian Department of Health. No pharmaceutical grants were received in the development of this study.

PAPER NUMBER: 144

IS OPTIMISM ENOUGH?

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Background: Measures of HIV treatments optimism were developed in response to increased risk behavior among gay men but have been limited in their capacity to help understand gay men's decisions around risk behaviour. We investigated current beliefs about HIV health and transmission among Australian gay men.

Methods: The Pleasure and Sexual Health study was an online survey of 2306 Australian gay men recruited during mid-2009, including free text components.

Results: We identified three measures of HIV optimism: Health Optimism (HHO; α=0.791); Transmission Optimism (HTO; α=0.795); and Viral Load Optimism (HVLO; α=0.674). In multivariate analysis, unprotected anal intercourse with casual partners was only associated with HTO regardless of HIV serostatus (p<0.001). In the qualitative data analysis we identified four broad themes in the way men think about HIV: 'concerned', 'relaxed', 'fearful' and 'irrelevant'.

Conclusion: HIV optimism remains a useful indicator of gay men's likelihood to take risk in the pursuit of pleasure, but this is mediated by knowledge and their relative valuing of sexual pleasure. Men's beliefs about HIV transmission risk in particular may reflect their own, pre-existing, willingness to pursue pleasure over risk, or, alternatively, their morbid fear of any risk. Measures of optimism may not always measure the same thing in individuals: Technical knowledge, experience, desire, attitudes to risk in general may all be factors in how people respond and often those responses may be in multiple, sometimes contradictory directions. While measures of HIV optimism are useful as indicators of the shift in attitudes around HIV and risk, and how these affect gay men's sexual behaviour, they are simple one-dimensional associations. Measures of optimism cannot capture the qualitatively different ways that gay men respond to these issues and must be complemented by addressing the complexities of individuals' assessments of both risk and pleasure in their lives, and in different sexual contexts.

DISCLOSURE OF INTEREST STATEMENT:

The Kirby Institute and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

THEME C PROFFERED PAPER SESSION: LET PREVENTION FLOWERS BLOOM

PAPER NUMBER: 214

HIV STIGMA IN AUSTRALIA: QUALITATIVE RESULTS FROM A STUDY OF THE EFFECTS OF STIGMA ON GAY MEN LIVING WITH HIV

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Background

PLHIV continue to experience HIV-related stigma and this stigma impacts upon their health and well-being. This study aimed to document experiences associated with HIV stigma, strengthen understanding of its social and psychological effects and assess what characteristics enable some PLHIV to be resilient.

Method(s)

The study comprised an online survey and qualitative interviews of PLHIV. The survey assessed HIV stigma, depression, anxiety, stress, resilience, quality of life and self esteem. Semi structured in-depth interviews were conducted by peers. Questions invited open ended responses that sought narratives of particular instances of stigma and asked participants to discuss their coping strategies and how these may have changed over time.

Result(s)

This presentation reports on data from 40 qualitative interviews. Preliminary results show that most PLHIV have experienced stigma in a variety of forms and contexts. For some PLHIV stigma involved social or emotional ostracism driven by external 'stigmatising' factors such as the behaviour of peers or healthcare professionals. For others stigma was primarily an internal phenomenon that they reported left them feeling tainted and led them to withdraw from some social or intimate relationships. Individuals discussed a range of coping strategies that included seeking information and support from community organisations or healthcare providers. For some, this empowered them to confront those who stigmatised. Most PLHIV found disclosing their status 'risky' and sought to actively manage knowledge of their status in various contexts.

Conclusion(s)

This study suggests strategies for addressing stigma that place the person living with HIV who experiences stigma at the centre of any response. It suggests that resilience can be developed over time and suggests particular strategies for doing so. Such strategies are likely to be more effective and durable than working with stigmatisers because they focus on achievable change within a defined population.

Disclosure of Interest

Funding for this project was provided by: the Commonwealth Department of Health and Ageing; and the Levi Strauss Foundation.

NOTES

THEME A PROFFERED PAPER SESSION: IMMUNOLOGY

PAPER NUMBER: 196

THE PI3K SIGNALING PATHWAY IS CRITICAL FOR HIV INTEGRATION IN LATENTLY INFECTED RESTING CD4+T-CELLS

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Background: We recently showed that latency can be established in resting CD4+ T cells following incubation with chemokines that bind to the chemokine receptors CCR7, CXCR3 and CCR6 that are highly expressed on resting CD4+ T cells. Chemokine receptor ligation allowed for enhanced efficiency of viral nuclear localization and integration in resting CD4+ T-cells. We hypothesised that the activation of specific signaling pathways including the phosphoinositol 3 kinase (PI3K) pathway allowed for efficient nuclear localization and viral integration in resting CD4+ T-cells.

Methods: Resting CD4+ T-cells were incubated with either CCL19, PHA/IL-2 (positive control) or left unactivated for 24 hours and were then infected with X4-using HIV-1, NL4.3 in the presence or absence of pharmacological inhibitors of the PI3K/Akt pathway. Real time quantitative qRT PCR was used to quantify 2-LTR circles (as a marker of nuclear localization) and integrated HIV DNA at day 4 post-infection. To detect activation of the PI3K/Akt pathway, cells were stimulated with CCL19 in the presence and absence of the inhibitors and protein phosphorylation was analysed by Western blot.

Results: Infection of resting CD4+ T-cells in the presence of CCL19, PHA/IL-2 or no activation led to a mean of 11 916, 71 000 and <300 integrated copies/million cells and 25 333, 154 500 and 7 413 2-LTR copies/million cells respectively consistent with enhanced nuclear localization and integration in CCL19-treated CD4+ T-cells compared to unactivated cells. Incubation of cells with CCL19 and the pan PI3K inhibitors Ly294002 and wortmannin, or specific down streams inhibitors PD98059 (ERK1/2), SP600125 (JNK), SC-514 & BAY11-7082 (NF-kB), resulted in complete loss of integrated DNA (<300 copies/million cells) and little change in 2-LTR circles. Treatment with SB203580, a compound blocking p38 or the NFAT inhibitors tacrolilmus or cyclosporine had no effect on viral integration. Activity of Ly294002 (50 µm) and wortmannin (100 nM) were confirmed by western blot.

Conclusions: In our model of chemokine induced latency, efficient integration in resting CD4+ T-cells was mediated by the PI3K pathway. The most downstream critical proteins included both JNK and NF-kB. Strategies that target these pathways may potentially lead to novel interventions to block the establishment of latent infection.

DISCLOSURE OF INTEREST STATEMENT:

This work is funded by the National Health and Medical Research council and amfAR foundation.

PAPER NUMBER: 465

SIV INFECTS FOLLICULAR HELPER T CELLS IN LYMPH NODES DURING PATHOGENIC INFECTION OF PIGTAIL MACAQUES

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Background: T follicular helper cells (Tfh) are a specialized subset of CD4+ T lymphocytes in lymphoid tissue that mediate B cell class-switching and affinity maturation in germinal centres during antibody responses. Tfh express the chemokine receptor CXCR5, that directs migration towards B cell areas, and the transcription factor Bcl-6, but whether HIV-1 infects Tfh is unclear. Lack of CCR5 expression may protect Tfh during primary HIV-1 infection, allowing development of high titre anti-HIV-1 antibodies. In this study, we examined Tfh during acute and chronic SIV infection of pigtail macaques (PTM).

Methods: Splenic (n=9) and lymph node (n=19) cell suspensions were obtained from 11 PTM infected with SIV (6-244 days post-inoculation). Tfh cells were identified by flow cytometry as PD-1highCD127low memory CD4+ T cells, and were purified by cell sorting. Levels of mRNA for CXCR5, and IL-21 in purified Tfh were determined by RT-PCR. Copy number of SIV DNA was determined by quantitative real-time PCR.

Results: Tfh defined as PD-1highCD127low memory CD4+ T cells contained high levels of mRNA encoding CXCR5 and IL-21. Expression of CXCR5 and Bcl-6 was also confirmed at the protein level by flow cytometry. Tfh cells from 9 out of 11 SIV-infected PTM were positive for SIV DNA (median 33224 copies/500ng DNA), at levels comparable to, or higher than, other CD4+ T cell subsets in lymphoid tissue. Tfh from one uninfected PTM and from 2 SIV-infected PTM with low plasma viral load were negative for SIV DNA.

Conclusions: Infection of Tfh may explain why macaques with high viral load and rapidly progressive SIV infection are commonly found to have impaired appearance of anti-SIV antibodies, particularly neutralizing antibody. Further work is required to extend this work to human Tfh, since a better understanding of the effect of HIV-1 infection on Tfh is essential to improved vaccine design.

Disclosure of interest

The authors have no conflicts of interest to declare

THEME A PROFFERED PAPER SESSION: IMMUNOLOGY

PAPER NUMBER: 460

ERADICATION OF HIV: ESTIMATING THE LIFESPAN OF LATENTLY INFECTED CELLS USING 'ESCAPE CLOCK'

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Background: An estimate of the lifespan of latently infected cells would help determine if HIV can be eradicated by drug therapy. Previous studies estimated the lifespan using the analysis of the decay of viral load under prolonged therapy, because it was not possible to differentiate between "old" from "new" virus in untreated infection.

Method: We deduce the lifespan of latently infected cells from the study of escape of the mutant virus in 20 SIV-infected pigtail macaques. We study a cohort of animals in which the wild type (WT) strain (as measured at KP9 gag epitope) was present in the replicating pool only transiently during acute infection, to be completely replaced later by a particular escape mutant (EM) at this epitope. We measure the fraction of WT virus in plasma and in the viral DNA in FACS-sorted resting infected CD4+ T cells, which we associate with the latent pool. In our model, we assume that the fraction of WT viral RNA in plasma reflects the fraction of WT in productively infected cells, while the fraction in resting infected cells represents the "archived virus" accumulated during the whole history of infection.

Results: By comparing WT content in plasma and in the resting infected cells, we find that the lifespan of resting infected cells ranges from very long (at least half a year) to the duration of the lifespan of productively infected cells (approximately one day). The observed persistence of SIV-DNA in resting cells is significantly negatively correlated with total plasma viral load.

Conclusions: In the setting of controlled low level viremia, the lifespan of infected cells is long, in agreement with other models of latency. This represents a substantial barrier to eradication. During active HIV replication however, there is a surprisingly high turnover of DNA within resting CD4 T cells.

DISCLOSURE OF INTEREST STATEMENT:

The research presented in this work was funded by Australian Research Council Discovery Project grant DP0987339.

PAPER NUMBER: 493

THE EFFECT OF IL-7 ON HIV INFECTION ON NAÏVE CD4+ T-CELL SUBSETS

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Background

The main barrier to eradication of HIV is latently infected resting CD4+T-cells. Although naïve CD4+T-cells are relatively resistant to HIV infection in vitro, latently infected naïve T-cells are detected in vivo at low levels following prolonged combination antiretroviral therapy. IL-7 can promote survival of latently infected cells as well as enhance infection of naive CD4+T-cells. The main aim of this study was to determine the effects of IL-7 on HIV infection of naïve CD4+T-cells.

Methods

Resting CD4+ T-cells isolated from HIV-negative donors using magnetic bead depletion and sorted into CD31+ and CD31- naive subsets using flow cytometry. Cells were incubated with IL-7 for 4 or 7 days and expression of markers of T-cell activation(CD69), cell cycle entry(Ki67), STAT5 signalling, survival(Bcl-2) and proliferation(CFSE) by flow cytometry. Naïve CD4+T-cell subsets incubated with IL-7+/-anti-CD3 were infected with lab-adapted and primary HIV isolates. Infection was quantified 7 days post-infection by real-time PCR of total and integrated HIV and reverse transcriptase (RT) activity.

Results

Following incubation of either CD31+ or CD31- naïve (n=7) subsets with IL-7 alone, there was no change in expression of CD69, Ki67 or CFSE intensity. Cells were responding to IL-7 as seen by increase in STAT5 phosphorylation (mean change MFI=56, $p<0.05$, n=3) and expression of Bcl-2 (mean change MFI = 360, $p=0.014$ n=4) compared to media alone. Following HIV infection of both CD31+ and CD31- naïve T-cells incubated with IL-7, we were unable to detect any evidence of infection (mean HIV DNA<200 copies/million cells, n=2) nor HIV integration or RT activity.

Conclusions

IL-7 enhances cell survival of naïve CD4+T-cells but does not lead to activation or proliferation. Following incubation with IL-7, both CD31+ and CD31- naïve T-cells remain resistant to HIV infection. Further work is required to determine the factors required for the establishment of HIV infection in naïve T-cells.

THEME A PROFFERED PAPER SESSION: IMMUNOLOGY

PAPER NUMBER: 332

POST INTEGRATION EVENTS IN AN IN VITRO MODEL OF CHEMOKINE INDUCED HIV LATENCY

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Background: We have previously established a novel in vitro model of HIV latency in primary T-cells following incubation of resting CD4+ T-cells with the CCR7 ligand, CCL19. We asked whether restricted viral expression in our in vitro model of chemokine induced latent HIV infection was secondary to restricted HIV transcription and whether latent virus could be induced using different activators of virus expression.

Methods: Resting CD4+ T-cells were stimulated for 3 days with IL2/PHA, CCL19, or left unactivated, before infection with either wild type (WT) HIV NL4.3, envelope deleted NL4.3 pseudotyped virus (NL4.3- Δenv) which will result in a single round infection; or HIV that contained a deletion in the nef protein replaced by enhanced green fluorescent protein (EGFP; NL4.3- Δnef-EGFP). Lysates from infected CD4+ T-cells were analysed for nuclear, cytoplasmic and total unspliced (US) and multiply-spliced (MS) RNA and nuclear integrated DNA using real-time RT-PCR. Viral expression was determined by either quantification of reverse transcriptase (RT) activity in supernatant, infectivity of supernatant on TZMBL cells (an indicator cell line) or expression of EGFP by flow cytometry. Activation of latent virus was assessed using multiple stimuli 4 days post-infection of CCL19-conditioned infected cells including PMA, PHA, IL-7, prostratin, anti-CD3, anti-CD28, and anti CD2 either alone or in combination.

Results: High levels of integrated HIV DNA but low RT production was found in CCL19 treated cells infected with either wild type NL4.3 and NL4.3- Δenv demonstrating that ongoing rounds of viral replication were not required to establish integration in this model. Following infection of CCL19 treated cells, supernatants were incubated with TZMBL cells and luciferase expression was not detected consistent with no infectious virus produced from the CCL19-treated infected cells. Following infection with WT NL4.3 of PHA/IL-2 treated, CCL19-treated and unactivated cells, the fold change in US RNA was 19.7, 1.4 and 1.00 respectively (n=3) demonstrating a significant block in synthesis of US RNA in CCL19 treated cells and the increase in MS-RNA was 100,000 copies/million cells, 10,000 copies/million cells and <200 respectively (n=4). When nuclear and cytoplasmic fractions were assessed, MS-RNA was exclusively found in the nuclear fraction in CCL19 treated cells, while in PHA/IL2 stimulated cells MS-RNA was found both in the nucleus and the cytoplasm. Virus could be recovered from CCL19-treated latently infected cells following stimulation with PHA, PMA, anti-CD3 and anti CD-28, IL-7 and prostratin.

Conclusions: In our model of CCL19-treated latency, we have demonstrated true latency with integration and no spontaneous production of infectious virus in the absence of specific stimuli. In this model, MS-RNA was produced but this was not exported to the cytoplasm. These findings are consistent with findings from resting infected cells from patients on HAART and therefore provide further support of this in vitro model as an excellent model of HIV latency.

Disclosure of interested: This work has been funded by NHMRC

SATELLITE SESSION: UNITED NATION'S DECLARATION ON AIDS 2011 – INVOLVEMENT OF AUSTRALIA AND IMPLICATIONS FOR THE NATIONAL HIV RESPONSE.

The United Nations General Assembly held a special session to review progress in the fight against AIDS and to decide on a new global plan of action to tackle the epidemic in June 2011. This historic meeting brought together government leaders from all countries as well as advocates from medical, scientific and community sectors and people living with HIV. Australia, alongside Botswana, co-chaired this meeting, and a significant Australian delegation attended, led by the Australian Minister for Foreign Affairs. This session will outline the major features of the new United Nations Declaration on HIV, including new commitments and specific targets to reduce rates of HIV infections, and recognising the higher risk of HIV faced by gay men, IV drug users and sex workers. Members of the Australian delegation will provide conference delegates with their perspectives on the significance of the meeting outcomes, the implications for Australia of the global goals and targets agreed, and how to see these commitments realised.

PAPER NUMBER: 675	SIGNIFICANCE OF THE UN DECLARATION TO THE GLOBAL AND DOMESTIC HIV RESPONSE
Mr Bill Whittaker Pacific Friends of the Global Fund & NAPWA Special representative, NSW, Australia	An overview of the declaration and how it is aimed at influencing global HIV responses at all levels (governmental, non-governmental, UN system). Highlight the main outcomes, targets and timelines and discuss the challenges of progressing these, especially re the Australian domestic and international HIV response.

PAPER NUMBER: 676	IMPORTANT ACTIONS FOR AUSTRALIA
Prof Michael Kidd Flinders University, NSW, Australia	Report on discussions held so far by MACBVVS on the UN Declaration and their implications for the Australian response. What he sees as the most important actions that Australia might take, both for our national response and at State level.

PAPER NUMBER: 677	HOW AUSAID WILL ADDRESS THE TARGETS AND OUTCOMES OF THE UN DECLARATION
Speaker TBC AusAID	How AusAID will address the targets and outcomes of the Declaration – which are the most important/significant - and how these will be integrated into Australia's regional and international response.

THEME B PROFFERED PAPER SESSION: CO-MORBIDITIES AND HIV

PAPER NUMBER: 516

IMPACT OF HIV-ASSOCIATED CONDITIONS ON MORTALITY IN PEOPLE COMMENCING ANTI-RETROVRIAL THERAPY IN LOW-INCOME COUNTRIES

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Background

Mortality rates during the first six months of anti-retroviral therapy (ART) are significantly higher in low-income countries compared to high-income countries. We describe factors associated with mortality, including the occurrence of individual HIV-associated conditions, in patients commencing ART in low-income settings.

Methods

We analysed data collected prospectively on ART-naïve adult patients who commenced ART in 25 Médecins Sans Frontières treatment programs in Africa, Asia and Eastern Europe between 2002 and 2010. Using a proportional hazards model we calculated factors associated with mortality, including the occurrence of specific WHO Clinical Stage 3 and 4 conditions during the 6-month period following ART initiation.

Results

36,664 individuals who commenced ART were followed for a median of 1.26 years (IQR 0.55-2.27). 2922 (8.0%) patients died during follow-up giving a crude mortality rate of 5.41 deaths per 100 person-years (95%CI: 5.21-5.61). The diagnosis of any WHO stage 3 or 4 condition during the first 6 months of ART was associated with an increased mortality (HR 2.21 [95%CI 1.97- 2.47]). After adjustment for age, sex, region and pre-ART CD4 count, diagnosis of the following conditions during the first 6 months of treatment were most strongly associated with increased mortality: extrapulmonary cryptococcosis (adjusted hazard ratio 3.54 [2.74-4.56]), HIV wasting syndrome (HR 2.92 [95%CI 2.92-3.85]), non-tuberculosis mycobacterial infection (HR 2. 43 [95%CI 1.80-3.28]) and pneumocystis jirovecii pneumonia (HR 2.17 [95%CI 1.49-3.16]). Other conditions significantly associated with increased mortality included cerebral toxoplasmosis, pulmonary and non-pulmonary tuberculosis, Kaposi's sarcoma and both oral and oesophageal candidiasis.

Conclusions

The early period after ART initiation in low income countries is a period of high mortality significantly associated with WHO Clinical Stage 3 and 4 conditions. Identification of conditions most strongly associated with mortality during this critical period will assist with prioritization of resources for diagnostics, therapeutic interventions and research.

All Authors- No disclosures of Interest.

THEME B PROFFERED PAPER SESSION: CO-MORBIDITIES AND HIV

PAPER NUMBER: 517

INCIDENCE OF HIV-ASSOCIATED CONDITIONS FOLLOWING INTIATION OF ANTI-RETROVIRAL THERAPY IN LOW INCOME COUNTRIES

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Background

The management of HIV-associated conditions during antiretroviral therapy (ART) in low-income countries is vital, however little information is available on their relative burden.

Methods

We analysed data collected prospectively on patients commencing ART in 25 Médecins Sans Frontières treatment programs in Africa, Asia and Eastern Europe between 2002 and 2010. The incidence of specific HIV associated conditions was calculated during the initial 36 months of ART, stratified by ART duration, age and region.

Results:

34,749 individuals commencing ART were followed a median 1.33 years (IQR 0.51, 2.41). The overall incidence of developing a WHO stage 3 and 4 condition was 11.80 and 4.24 per 100 person-years respectively. This reduced for stage 3 from 33.38 to 5.06 and stage 4 from 14.32 to 1.44 for months 0-3 compared to months 25-36 on ART.

In adults (n=30,803) the most common condition was pulmonary tuberculosis (incidence 22.24 in months 0-3). In children 5-14 years (n=1813), pulmonary tuberculosis was the most common (incidence 25.76 in months 0-3) until 12 months, after which severe bacterial pneumonia took precedence (incidence 5.07 in months 12-24). In children <5 years (n=2133) oral candidiasis was initially the most common (incidence 25.79 in months 0-3), with pulmonary TB taking precedence after 12 months (incidence 4.76 in months 12-24).

Overall incidences were higher in Africa (n=21643) compared with Asia (n=12506) (incidence 30.89 versus 10.64). Pulmonary tuberculosis, oral and oesophageal candidiasis, chronic diarrhea, and severe bacterial infections were more common in Africa. Extra-pulmonary tuberculosis, non-tuberculous mycobacterial infection, cryptococcosis, penicilliosis and toxoplasmosis were more common in Asia.

Conclusions

The incidence of HIV-associated conditions during early ART in low-income countries is high. The burden of individual conditions varies with ART duration, age and region. This knowledge can help target illness prior to or during ART and in allocating resources for their management.

All Authors- No disclosures of Interest.

THEME B PROFFERED PAPER SESSION: CO-MORBIDITIES AND HIV

PAPER NUMBER: 163

HIV-INFECTED PATIENTS WITH CRYPTOCOCCAL MENINGITIS WHO ATTAIN CSF STERILITY PRE-ART COMMENCEMENT EXPERIENCE IMPROVED OUTCOMES IN THE FIRST 24 WEEKS.

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Background: Cryptococcal meningitis (CM) is the most lethal opportunistic infection in HIV-infected patients in resource-constrained sub-Saharan Africa. Antifungal therapy, therapeutic lumbar punctures (LP) and CSF cultures are cost-, time- and labour-intensive. Neurological deterioration (ND) is common following initiation of antiretroviral therapy (cART) with many cases resulting from cryptococcosis-associated immune reconstitution inflammatory syndrome (C-IRIS). We hypothesised that CSF mycological sterility prior to initiation of cART reduces the incidence of ND.

Methods: HIV-infected, cART-naive patients experiencing their first episode of CM were recruited into a, prospective, cohort study in Durban, South Africa. Participants were treated with amphotericin, followed by fluconazole and cART. Therapeutic LPs were performed as necessary and routinely repeated prior to cART commencement. Participants were followed for 24 weeks from time of cART commencement for deaths, ND and CSF mycological relapses. All CSF collected were cultured and incubated for 30 days; quantitative cultures were performed on the very last CSF taken prior to cART commencement and at ND.

Results: 107 patients commenced cART after a median duration of 14 days of amphotericin; 52 patients (48.6%) demonstrated a sterile CSF while 55 patients (51.4%) continued to have cryptococcal growth on CSF cultures. Patients with "sterile CSF" compared to patients with "non-sterile CSF" had significantly fewer ND events (n=11, 21.2% "sterile" and n=27, 49.1% "non-sterile"; hazard ratio (HR) 0.340; 95% CI 0.180-0.642, p=0.0009), fewer episodes of mycological relapse HR 0.104 (95% CI 0.030-0.367, p=0.0004) and reduced mortality, although this did not reach statistical significance (HR 0.51; 95% CI 0.216-1.120; p=0.1233).

Conclusions: CSF sterility at the time of cART initiation is associated with significantly fewer ND events and mycological relapses at 24-weeks post ART commencement. Strategies to improve culture sterility prior to ART commencement should be trialled to reduce the risk of ND in HIV-CM co-infected patients.

DISCLOSURE OF INTEREST STATEMENT:

All authors: no conflict in interest declared

PAPER NUMBER: 388

INTERFERON-GAMMA RELEASE ASSAY SCREENING FOR LATENT TUBERCULOSIS INFECTION IN HIV-INFECTED INDIVIDUALS: IS ROUTINE TESTING WORTHWHILE IN AUSTRALIA?

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Background

International guidelines recommend screening for latent tuberculosis infection (LTBI) in HIV-infected individuals, but there is limited data from high-income countries on the interferon-gamma releasing assays (IGRAs). We analysed the routine application of one IGRA, Quantiferon Gold (QFN), on clinical management and risk of tuberculosis (TB) in Melbourne, Australia.

Methods

A retrospective analysis was conducted on a cohort of HIV-infected patients attending a large sexual health service, between March 2003 and February 2011. Data were extracted from medical records, including chart review for all positive QFN cases. Laboratory data was obtained from the Mycobacterial Reference Laboratory which captures all statewide TB notifications.

Results

919 HIV-infected patients had ≥1 QFN performed, of whom 29 (3.2%) were positive, and 4 (0.4%) remained equivocal after repeat testing. The mean age was 40.9 (σ=11.3) years, and 88% were male. 63% (551) were Australian born, while 21% (193) were born in Asia or Africa. QFN was positive in 2.0% (11) of Australian born and 5.0% (16) overseas born patients (OR 2.58, 95%CI 1.1-5.6, p=0.017); and 12.7% (10) African born patients (OR 7.08, 95%CI 2.90-17.3, p<0.001). No other significant associations were found. Of 29 patients with a positive QFN, 5 (17.2%) were known to have been treated for LTBI or TB previously, 21 (72%) had a follow up chest radiograph, and 18 (62%) were commenced on isoniazid therapy. Two cases of culture-positive TB occurred after QFN screening: 1 (3.4%) among QFN-positive and 1 (0.1%) among QFN-negative patients (OR 31.6, 95%CI 1.9-518, p=0.016). Median surveillance after screening was 26.4 (σ=12.1) months.

Conclusions

Ethnicity was the strongest predictor of LTBI, but the smaller proportion of Australian patients screening positive may also justify QFN testing on clinical grounds. However, in our context, active TB is rare and raises questions about the economics of universal LTBI screening of HIV-infected patients.

Disclosure of interest statement

No pharmaceutical or industry grants were received in the development of this study

THEME B PROFFERED PAPER SESSION: CO-MORBIDITIES AND HIV

PAPER NUMBER: 262

CANCERS IN THE AUSTRALIAN HIV OBSERVATIONAL DATABASE (AHOD)

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Background: Data linkages between Australian national surveillance databases in 2007 demonstrated a continued decline in incidence of Kaposi Sarcoma (KS) and non-Hodgkin lymphoma (NHL) in HIV infection since the introduction of effective antiretroviral therapy (ART), although incidence remained at substantially elevated levels. The incidence of Hodgkin lymphoma also appeared to be declining, and anal cancer incidence remained stable. The objective is to describe the patient characteristics, HIV disease stage and antiretroviral treatment history among AHOD participants diagnosed with cancer.

Methods: 2181 AHOD registrants were linked to the National AIDS Registry/National HIV Database NAR/NHD and Australian Cancer Database to identify those with a notified cancer diagnosis. Included in the current analyses were cancers diagnosed after HIV infection.

Results: 156 linked cancers were identified. 114 cancers were diagnosed after HIV infection among 109 patients. Median age at the time of cancer diagnosis was 43.3 (SD: 9.3) for AIDS defining cancers (ADC) and 49.4 years (SD: 10.9) for non-ADC (NADC). More than half of the diagnoses (n=68, 60%) were ADC, of which 69% were KS and 31% NHL. Among the 46 NADC, the most common cancers were melanoma (20%, n=9) and lung cancer (13%, n=6). A further 4 diagnoses of cancer of the anus and Hodgkin lymphoma, and 3 diagnoses each of cancer of the oesophagus and lip were reported. Overall, 75% of all cancer diagnoses were infection related (IR) (cancers possibly/probably associated with an infectious agent), and of the NADC, 39% were IR. At the time of cancer diagnoses, 71% of the NADC most recent CD4 cell count was above 200 cells/ml compared with 44% of the ADC. Similarly, 67% of non-IR cancers occurred above 200 cells/ml, compared with only 40% of IR.

Conclusion: ADCs remain the predominant cancers in this population. Immune deficiency was prevalent at the time of ADC diagnosis.

Disclosure of interest:

The Australian HIV Observational Database is funded as part of the Asia Pacific HIV Observational Database, a program of The Foundation for AIDS Research, amfAR, and is supported in part by a grant from the U.S. National Institutes of Health's National Institute of Allergy and Infectious Diseases (NIAID) (Grant No. U01-AI069907) and by unconditional grants from Merck Sharp & Dohme; Gilead; Bristol-Myers Squibb; Boehringer Ingelheim; Roche; Pfizer; GlaxoSmithKline; Janssen-Cilag. The Kirby Institute is funded by The Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, The University of New South Wales.

THEME C PROFFERED PAPER SESSION: SEX AND RISK

PAPER NUMBER: 474

HIV INCIDENCE TRENDS BY AUSTRALIAN JURISDICTION REVEAL A MARKED RISE IN QUEENSLAND: AN EXTENDED BACK-PROJECTION ANALYSIS OF MEN WHO HAVE SEX WITH MEN.

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Background: Trends in HIV diagnoses differ across Australia and are primarily driven by men who have sex with men (MSM). However, incidence is a more precise indicator of disease trends than prevalence. We use national population surveillance data to estimate the incidence of HIV infections among MSM by jurisdiction, and infer the proportion of undiagnosed infections.

Methods: Annual surveillance data for AIDS diagnoses, HIV diagnoses and recently acquired HIV infections were obtained from 1980 to 2009. A modified statistical back-projection method was used to reconstruct HIV incidence by jurisdiction.

Results: HIV incidence peaked for all jurisdictions in the early 1980s, and then declined into the early 1990's, after which incidence increased. Trends then differ between jurisdictions. In New South Wales and South Australia, estimated HIV incidence peaked at 371 and 50 cases respectively in 2003, and has since decreased to 258 and 24 cases respectively in 2009. HIV infections in Queensland have more than doubled over the last decade, from 84 cases in 2000 to 192 cases in 2009. Victoria and Western Australia have seen a rise in HIV incidence from 2000 to 2006 (to a peak of 250 and 38 incident cases respectively), followed by a plateau to 2009. HIV incidence in the Northern Territory, Tasmania and Australian Capital Territory have increased since 2000, however case numbers remain very small (<20 per year). The estimated proportion of HIV infections not yet diagnosed to 2009 ranges from 10% (NSW) to 18% (Queensland), with an average of 12% across Australia.

Conclusion: Estimated HIV incidence trends in Australia reveal a marked increase in Queensland over the last 10 years. HIV diagnoses reflect changes in estimated incidence since 2000.

DISCLOSURE OF INTEREST STATEMENT

The authors acknowledge funding from the Australian Government Department of Health and Ageing; and grant numbers FT0991990 and DP1093026 from the Australian Research Council. No funding from industry was received for the development of this study.

PAPER NUMBER: 170

RATES OF CONDOM USE AND OTHER RISK REDUCTION PRACTICES AMONG HIV-NEGATIVE AND HIV-POSITIVE GAY MEN IN AUSTRALIA: ANALYSIS OF THE GAY COMMUNITY PERIODIC SURVEYS, 2007-2009

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Background: We reviewed data collected in the Gay Community Periodic Surveys (GCPS) to ascertain the prevalence of condom use and risk reduction practices used during unprotected anal intercourse (UAI) among HIV-negative and HIV-positive gay men.

Methods: A hierarchy of nine mutually exclusive anal intercourse practices was constructed, ranked from the safest to the riskiest practice for HIV transmission. The prevalence of men engaging in each practice was estimated, pooling data collected in the GCPS between 2007 and 2009. Men were categorised according to the riskiest practice they reported. Comparisons were made between HIV-negative men, HIV-positive men with an undetectable viral load, and HIV-positive men with a detectable viral load.

Results: Responses from 16,495 participants were included. Consistent condom use was the most common strategy, reported by 33.8% of HIV-negative men, 25.5% of HIV-positive men with an undetectable viral load and 22.5% of HIV-positive men with a detectable viral load. Among HIV-negative men, the second most common strategy was engaging in UAI only within the context of a seroconcordant relationship (reported by 20.4% of HIV-negative men). Among HIV-positive men, the second most common practice was disclosing HIV status to some casual partners and engaging in UAI (~20%). Having a detectable or undetectable viral load did not appear to significantly affect the frequency of practices among HIV-positive men. Relatively few participants reported the consistent use of other strategies during UAI: 9-11% of men reported consistent seropositioning and 11-12% reported always withdrawing before ejaculation.

Conclusion: Consistent condom use and limiting UAI to seroconcordant relationships remain the most common strategies used by HIV-negative men to prevent HIV transmission. HIV-positive men are more likely to engage in selective HIV disclosure prior to UAI with casual partners. The minority of gay men relying upon withdrawal to prevent HIV transmission may be unaware it is relatively ineffective.

Disclosure of Interest

The National Centre in HIV Social Research is supported by the Australian Government Department of Health and Ageing. The Gay Community Periodic Surveys are funded by state and territory health departments and supported by AIDS Councils and NAPWA member organisations.

THEME C PROFFERED PAPER SESSION: SEX AND RISK

PAPER NUMBER: 484

INCREASED RATES OF ROUTINE SCREENING FOR SYPHILIS AS PART OF HIV MONITORING IN MEN WHO HAVE SEX WITH MEN AND ITS IMOACT ON SYPHILIS PREVALENCE

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Background: In Victoria most infectious syphilis notifications are among men who have sex with men (MSM), with HIV positive MSM being five times more likely to be reinfected with infectious syphilis than HIV negative MSM. Mathematical modelling suggests that increased testing in HIV positive MSM will limit syphilis prevalence. As such, many high caseload clinics in Victoria now include syphilis serology with blood tests performed as part of HIV clinical management. We investigated the impact of this clinical intervention on syphilis positivity among HIV positive MSM in Victoria.

Methods: Syphilis and viral load testing data from the Victorian Primary Care Network for Sentinel Surveillance on BBV/STIs (VPCNSS), January 2007-June 2010, were used to asses syphilis testing and positivity rates for HIV positive MSM.

Results: Average number of syphilis tests among HIV positive MSM increased by nine tests each quarter from January 2007 (p<.001) and mean tests per individual per year increased from 2.5 in 2007 to 2.7 in 2009 (p=.017). The percentage of viral load tests accompanied by syphilis serology increased from 66% in 2007 to 81% between 2008 and 2010 (<0.001). In 2007, 53% of individuals with ≥3 viral load tests in the calendar year also had ≥3 syphilis tests; this increased to 75% between 2008 and 2009. Infectious syphilis positivity among HIV positive MSM was 3.6% in 2007, 3.3% in 2008 and 3.6% in 2009. In the first half of 2010, syphilis positivity in this group dropped to 1.1%.

Conclusion: Following a sustained period of increased syphilis testing among HIV positive MSM, most recent VPCNSS data show a substantial decrease in syphilis positivity in this group. Assuming that sexual risk practices have not markedly changed in this group, these data support the contention that high frequency testing and treatment can impact significantly on syphilis prevalence.

Disclosure of interest statement

The authors have no conflict of interest to declare with regards to this research.

PAPER NUMBER: 572

INCREASED RATES OF SYPHILIS TESTING AND THEIR IMPACT ON RATES OF SYPHILIS POSITIVITY IN HIV NEGATIVE MEN WHO HAVE SEX WITH MEN

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Background: Syphilis notifications have increased substantially among men who have sex with men (MSM) in Australia over the past decade. Mathematical modelling suggests increasing the frequency of syphilis testing among MSM, particularly those classified as 'high risk', would be effective in controlling the syphilis epidemic. We examined trends in syphilis testing and diagnoses rates among HIV negative MSM attending high caseload clinics in Melbourne.

Methods: Syphilis testing and behavioural data among HIV negative MSM attending the Victorian Primary Care Network for Sentinel Surveillance on BBV/STIs (VPCNSS) sites between January 2007-June 2010 were used to asses syphilis testing and positivity rates.

MSM were categorised as 'high risk' if they reported >10 partners in six months or >20 partners in 12 months or inconsistent condom use.

Results: Average number of syphilis tests among HIV negative MSM increased by 40 tests each quarter from January 2007 (p<.001) and mean tests per individual per year increased from 1.3 in 2007 to 1.4 in 2009 (p=.008). The proportion of 'high risk' MSM tested for syphilis at least twice in a calendar year increased from 24% in 2007 to 29% in 2009 (p=.005). Significant proportional increases (p=0.031) in twice yearly syphilis tests also occurred among other MSM (22% to 26%).

Infectious syphilis positivity among HIV negative MSM was 2.1% in 2007 and 2008, 2.0% in 2009 and dropped to 1.1% in the first half of 2010. Among 'high risk' MSM, syphilis positivity increased from 2.3% in 2007 to 2.7% in 2009 and fell to 1.3% in 2010.

Conclusion: Following a sustained increase in syphilis among MSM in Victoria, most recent VPCNSS data show a substantial decrease in syphilis positivity in this group. This analysis shows that increased syphilis testing frequency among MSM, including those considered 'high risk', may be impacting significantly on syphilis prevalence.

THEME C PROFFERED PAPER SESSION: SEX AND RISK

PAPER NUMBER: 145

DESIRE AND RISK: SICK, BAD OR 'HOT'?

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Background: Some gay men find sexual behaviours that are considered high risk for HIV transmission especially desirable. Such desires, and acting on them, have often been portrayed in pathological terms or as evidence of irresponsibility. We investigated the desire for and practice of risky sex among Australian gay men.

Methods: Pleasure and Sexual Health was an online survey of 2306 Australian gay men recruited during mid-2009.

Results: The majority of men were very excited by the prospect of ejaculation inside their partners without condoms, either orally (62.9%) or anally (58.8%), and equally by the prospect of their partners ejaculating inside them, either orally (55.2%) or anally (53.6%). However, only a minority (26.3%) reported any unprotected anal intercourse with casual partners (UAIC) in the previous six months. While those who expressed risky desires were more likely to report recent UAIC ($p<0.001$), there was little indication that such desires, or their practice, were related to low self-esteem or lower education. Men who were very excited by and engaged in these risky behaviours were, however, more socially involved with other gay men and identified more strongly as gay ($p<0.001$). They also tended to identify more strongly with sexually adventurous gay subcultures. For the most part, despite these apparent high risk behaviours, most men also employed other risk-reduction strategies, and were highly committed to avoiding HIV transmission (92.5% of HIV-positive men) or infection (95.3% of HIV-negative men).

Conclusion: The desire for sexual behaviours that present higher risk for HIV transmission is not necessarily evidence of low self esteem or social isolation. Such desires often reflect the kinds of sexual milieus in which individuals participate. They might participate in these subcultures because of their desires or their desires might change in response to their social context.

DISCLOSURE OF INTEREST STATEMENT:

The Kirby Institute and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

NOTES

THEME D PROFFERED PAPER SESSION: HIV SERVICES AND SOCIETIES IN THE PACIFIC

PAPER NUMBER: 471 — LOVE PATROL: HEMI TAF TUMAS!

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Background

This paper will discuss audience reaction to the Pacific's first TV series, "Love Patrol", a specifically designed drama on HIV/STI issues. Pacific cultural and traditional factors present significant challenges in preventing HIV where taboos prevent open discussion of sexual matters and compound the vulnerability of people in the region. The third series of Love Patrol, produced by Wan Smolbag Theatre of Vanuatu and distributed across the region, has a sex worker as a central character and introduces the Pacific's first gay TV character. I will show how Love Patrol is playing a role in breaking down taboos and changing audience attitudes towards marginalised populations in Fiji and Vanuatu.

Methods

This study utilised in-depth interviews with viewers and semi-structured interviews with community leaders and service providers in Fiji and Vanuatu to assess what role Love Patrol is having in stimulating community dialogue and influencing community attitudes.

Results

The audience reception of Love Patrol is extremely positive; it is highly valued as a credible and entertaining educational vehicle. It is creating greater openness and willingness in talking about traditionally taboo subjects and stimulates community dialogue. The data suggests that Love Patrol is associated with positively influencing audience attitudes towards men who have sex with men (MSM) and sex workers. There is also some evidence that it is playing a role in empowering local MSM networks and increasing sex worker access of services.

Conclusions

This study is still ongoing but my results are indicative of Love Patrol getting people in local communities talking about HIV/STI issues and increasing acceptance of those most at risk. In the context of Melanesia, where both MSM and sex work are highly stigmatized, these results have implications for the potential of locally produced 'edutainment' to play a role in social change as part of HIV responses.

PAPER NUMBER: 197 — "GOING TO TOWN": SEX WORK AND SOCIAL LIFE IN PORT VILA.

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Background: In order to develop effective and sustainable HIV interventions for sex workers, it is necessary to understand the contexts in which sex work commonly takes place, and the reasons for and meanings given to commercial sexual transactions from the point of view of those selling sex.

Methods: In December 2010, in-depth interviews were conducted with 20 sex workers in Port Vila, Vanuatu.

Results: Many female interviewees were disillusioned with non- commercial intimate relationships due to previous experiences of betrayal, abandonment, exploitation or abuse. Sex work was undertaken in order to buy consumer goods and items that would be otherwise unattainable, and also to maintain an independent social and economic life. Sex work in Port Vila is informally organised and based around "going to town". Interviewees described a commercialisation of urban social interactions, and selling sex was referred to simply as "going out". Many hide their ongoing involvement in sex work after undertaking to stop selling sex.

Conclusion: Sex work in Port Vila is a response to the challenges of rapid urbanisation and a consumer economy. Sex work is also an option that women, in particular, have taken to escape painful and abusive relationships and to pursue autonomy. Interventions that appeal to sex workers' desires to look after themselvesand take control in their lives will be a more effective HIV prevention strategy than attempts to discourage them from sex work.

Research was funded through an Aus AID HIV social research grant and the topic was investigator driven. No interests to disclose.

THEME D PROFFERED PAPER SESSION: HIV SERVICES AND SOCIETIES IN THE PACIFIC

PAPER NUMBER: 475

THE PNG HIV MODEL: EXPLAINING THE PAST, DESCRIBING THE PRESENT, AND FORECASTING THE FUTURE

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Background: Papua New Guinea (PNG) has the highest prevalence of HIV in the Pacific region with an estimated 0.9% of the adult population infected. While prevalence has levelled off recently the characteristics of PNG's HIV epidemic are still uncertain.

Methods: To better understand the drivers of the HIV epidemic in PNG and the potential impact of public health interventions we developed a detailed mathematical model of HIV transmission in urban and rural PNG using available epidemiological, demographic, sexual behaviour, biological, and clinical data. This model was designed and calibrated to represent the specific characteristics of the HIV epidemic in PNG.

Results: Our model was able to accurately represent the HIV epidemic in PNG since 1990 and allowed us to understand the key drivers of epidemic in rural and urban areas. Using the model we evaluated the impact of the roll out of HAART since 2003. The availability of HAART in PNG is estimated to have averted over 4500 HIV/AIDS related deaths and contributed to a reduction in HIV incidence. The model is particularly useful for evaluating the potential synergistic impact of a variety of public health interventions such as increases in condom use, male circumcision, vaginal microbicides, or the earlier initiation of ART. As an example, increasing condom usage among female sex workers in urban and rural areas to 90% and 55% of acts, respectively, could result in ~8000 infections averted over the next 10 years.

Conclusion: We have developed a model that captures the specific characteristics of the PNG HIV epidemic. This model is a useful tool for stakeholders in PNG to understand past trends in the HIV epidemic, to evaluate the potential impact of behavioural and biomedical interventions, and to inform the development of evidence-based public health policy.

All Authors- No disclosures of Interest.

PAPER NUMBER: 426

PROVIDING HIV CLINICAL SERVICES IN RURAL PAPUA NEW GUINEA THROUGH A PUBLIC-PRIVATE PARTNERSHIP

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Background: Oil Search (PNG) Limited, a petroleum exploration and development company working in remote areas of Papua New Guinea (PNG), utilises the company's health service to extend public health care to the broader communities in its operational areas.

Methods: The Oil Search health team comprises over 70 staff made up of health managers, doctors, health extension officers, nurses and laboratory staff. The team is headed by a Chief Medical Officer and Corporate Health Manager who provide clinical governance through an endorsed health management system. All community health programs are aligned with the Papua New Guinea National Department of Health Plan 2001-2010 and follow guidelines set out in individual strategic plans. In 2007, the company, with additional funding support from the Asian Development Bank, entered into a public private partnership (PPP) with the PNG National Department of Health, two Provincial Health Divisions and local church health service providers to manage the development of a comprehensive community HIV program. This paper presents the results of this programme.

Results: Donor funding was utilised to improve the primary health care platform by health facilities renovation, medical equipment provision and health worker education. Behaviour change communication was undertaken in communities, coinciding with a national condom social marketing campaign. Company health staff established HIV testing and treatment services in 15 facilities. To date, over 10,200 HIV tests have been conducted with 113 testing positive, 61 who are currently on antiretroviral therapy.

Conclusion: Over the past decade, PPPs have gained importance in strengthening the response to HIV. Oil Search has demonstrated the major role a corporate organisation can play by combining corporate investment with business strategy, expertise and resources to strengthen health structures and capacity. Oil Search is now a principal recipient of the Global Fund to strengthen the national response to HIV in PNG.

Disclosure of interest

Oil Search (PNG) Limited is a fully owned subsidiary of a dual listed company, both in Papua New Guinea and Australia. Funds for this project were received from the Asian Development Bank supplemented by Oil Search itself. No conflicts of interest are noted.

THEME D PROFFERED PAPER SESSION: HIV SERVICES AND SOCIETIES IN THE PACIFIC

PAPER NUMBER: 378 — DETERMINANTS FOR FERTILITY DESIRES OF HIV POSITIVE WOMEN LIVING IN THE WESTERN HIGHLANDS PROVINCE OF PAPUA NEW GUINEA

Dr Marie Lucy Aska

PNG Sexual Health Society

Objective: A cross-sectional descriptive study intended to identify the determinants of fertility desires of HIV positive women living in the Western Highlands Province, Papua New Guinea, a male dominated patrimonial society.

Methods: The data collection was conducted in February, 2010. Two hundred and ninety one HIV infected women participated through personal interviews using questionnaires. Data were analysed using descriptive statistics and inferential statistics using Chi-square tests, and logistic regression.

Results: The majority had polygamous relationship backgrounds, were illiterate subsistence farmers, and earned very low incomes. 34% of the participants desired a child in the future. In Chi-square test, variables associated with desire for a child included age, marital status, number of children, currently living with partner, recietp of bride price payment, domestic physical violence, sexually active in previous three months, partner's desire for a child, and current contraceptive use. Using multiple logistic regression, significant predictors for wanting a child were: younger ages (aged 18 – 25 years OR=5.51 and aged 26 – 35 years OR 4.37), having no children (OR=3.63), and partner's desire for a child (AOR=13.04). All medical factors were not significantly associated with fertility desire accept contraceptive use, and participants felt there was poor reproductive health care service in the HIV clinics. Personal reasons for positive fertility desire were mainly socio-culturally oriented and influenced.

Conclusion: An integration of reproductive healthcare services into HIV clinics is recommended.

Counselling of HIV clients should be more holistic rather only medically oriented.

Key words: Fertility desires, HIV positive women, Wester Highlands Province, Papua New Guinea

PAPER NUMBER: 526 — "STRONGER OR TOUGHER": REASONS FOR PENILE CUTTING IN PAPUA NEW GUINEA

MacLaren D[1], Tommbe R[2], Redman-MacLaren M[1], Browne K[4], Mafile'o T[1], Manineng C[3], and McBride WJH [1] on behalf of the 'Acceptability of Male Circumcision for HIV Prevention in PNG' study.

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Background: Papua New Guinea is a diverse country with a population of 6.8 million people speaking more than 800 languages. PNG has more than 90% of all reported cases of HIV in Oceania. Following trials that showed male circumcision reduces the risk of heterosexual men acquiring HIV, MC is now recommended in comprehensive HIV prevention packages for populations with a heterosexual, generalised epidemic and where most men are not circumcised. The 'Acceptability and Feasibility of Male Circumcision for HIV Prevention in PNG' study documented reasons for penile cutting in four locations across PNG.

Methods: Both men and women completed structured questionnaires about penile cutting. Sites were two university campuses in large urban centres, a remote mountain gold mine and coastal oil palm plantation. These are locations where people from across the country gather for work or study. The questionnaire included specific questions on the reasons for penile cutting.

Results: 864 males and 560 females completed questionnaires. 57% of males reported some form of penile cutting. Reasons reported by men were both historical and contemporary: being a part of custom/tradition; cleanliness; peer influence; to increase the size of the penis; avoid STI; increase sexual pleasure; prolong sexual intercourse; perceived increase in female sexual pleasure.

Conclusion: There was a diverse range of reasons for penile cutting reported in this study population. Any potential male circumcision for HIV prevention programs in Papua New Guinea need to take into account the wide range of traditional and contemporary penile cutting practices, and the reasons these cuts are being done.

DISCLOSURE OF INTEREST STATEMENT:

This study was funded by NHMRC Grant No: 601003. No pharmaceutical grants were received in the development of this study.

THEME A SYMPOSIUM: IMMUNOLOGY AND HIV PREVENTION AT THE MUCOSAL SURFACE

PAPER NUMBER: 68

LACTIC ACID: A NATURAL MICROBICIDE IN THE FEMALE GENITAL TRACT

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Background: Lactic acid (LA), present in the healthy female vagina, is produced by Lactobacilli and acidifies the vagina to pH~3.8 by maintaining a ~1.0% racemic mixture of D and L isomers of LA. LA has potent and broad-spectrum microbicidal activities including inhibiting bacteria associated with bacterial vaginosis (BV) and inactivating HSV, which are associated with an increase in HIV acquisition. Since LA inactivates HSV we hypothesized that LA also inactivates HIV.

Methods: HIVBa-L was treated with L-LA, D-LA, DL-LA, acetic acid and low pH (HCl adjusted) in the absence and presence of 75% seminal plasma (SP) to mimic a 1:4 dilution of LA during coitus or cervicovaginal secretions (CVS). Incubations were performed at 37oC and pH adjusted and continuously monitored. Following incubation, buffered medium was added to dilute out the effects of acid and infectious titre determined in TZM-bl cells.

Results: Inactivation of HIVBa-L (104-fold) by 1.0% L-LA (pH 3.8) was observed within 1 min and was more potent (~103-fold) and rapid than 1.0% acetic acid (pH 3.8) and low pH alone (pH 3.8, HCl adjusted). 0.3% L-LA was more potent than D-LA in inactivating HIVBa-L. [3]0.4% L-LA inactivated (>103-fold) HIV-1 clades A, EA, C and three clade B patient isolates. 1.0% L-LA retained maximum HIV virucidal activity even in the presence of 75%SP, and the presence of 50% CVS did not alter L-LA virucidal activity.

Conclusions: L-LA is unique as a potential microbicide. It is naturally present in the vagina, inhibits BV bacteria without affecting lactobacilli and has potent HIV and HSV virucidal activity. LA inactivation of HIV shows chiral dependence, suggesting a protein target, and is rapid, irreversible and more potent than low pH alone and acetic acid. Its use in combination with an antiretroviral is anticipated to increase anti-HIV efficacy.

PAPER NUMBER: 598

PASSIVE ANTIBODY TRANSFER STUDIES TO GUIDE THE DESIGN OF HIV-1 VACCINES

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To guide vaccine design, we assessed whether human monoclonal antibodies (MAbs) b12 and b6 against the CD4 binding site (CD4bs) on HIV-1 gp120 and F240 against an immundominant epitope on gp41 could prevent vaginal transmission of SHIV-162P4 to macaques. The two anti-gp120 MAbs have similar monomeric gp120-binding and virion-capture properties, measured *in vitro*, but b12 is strongly neutralizing while b6 is not. F240 is non-neutralizing,. but captures virions ~10-fold more efficiently than b6 or b12. Applied vaginally at a high dose, the strongly neutralizing MAb b12 provided sterilizing immunity in 7/7 animals, b6 in 0/5 animals and F240 in 2/5 animals. Compared to control animals, the protection by b12 achieved statistical significance whereas that due to F240 did not. For 2/3 unprotected F240-treated animals, there was a trend towards lowered viremia. The potential protective effect of F240 may relate to the relatively strong ability of this antibody to capture infectious virions. Additional passive transfer experiments also indicated that the ability of the administered anti-gp120 MAbs to neutralize the challenge virus was a critical influence on protection. Furthermore, when data from all the experiments were combined, there was a significant increase in the number of founder viruses establishing infection in animals receiving MAb b6, compared to other non-protected macaques. Thus a gp120-binding, weakly neutralizing MAb to the CD4bs was, at best, completely ineffective at protection. A non-neutralizing antibody to gp41 may have a limited capacity to protect, but the results suggest that the central focus of HIV-1 vaccine research should be on the induction of potently neutralizing antibodies.

D.R.Burton, A.J.Hessell, B.F.Keele, P.J.Klasse, T.A.Ketas, B.Moldt, D.C.Dunlop, P.Poignard, L.A.Doyle, L. Cavacini, R.S.Veazey and J.P.Moore. (2011). Limited or no protection by weakly or nonneutralizing antibodies against vaginal SHIV challenge of macaques compared with a strongly neutralizing antibody. Proc.Natl.Acad.Sci. USA 108, 11181-11186.

THEME A SYMPOSIUM: IMMUNOLOGY AND HIV PREVENTION AT THE MUCOSAL SURFACE

PAPER NUMBER: 660

THE ROLE OF THE GUT IN HIV INFECTION.

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The gut has come to be thought of as a major contributor to the pathogenesis of HIV infection. In acute infection, the high infection rate and rapid depletion of CD4+ T cells in the gut suggests that infection at this site may be a major driver of the peak viral load. In chronic infection, the leakage of gut contents (such as LPS) is thought to contribute to high levels of chronic immune activation and long-term immune failure. Studies have also suggested a failure of immune reconstitution in the gut under therapy, suggesting this is a difficult site to reconstitute.

However, other studies suggest that the gut may be a passenger rather than a driver of infection events in HIV. Studies of CD4+ T cell depletion in acute infection show that this happens much earlier than the peak in viral load. Thus, although CD4+ T cells in the gut may be much more susceptible to infection than in other sites, they are unlikely to contribute substantially to the peak viral load. In addition, studies show a slow decline in LPS levels following therapy, despite a rapid decline in CD4+ T cell activation. This suggests that CD4+ T cell activation may decline in the presence of continuing high LPS levels.

This presentation will discuss the evidence for and against the importance of the gut in the pathogenesis of acute and chronic HIV infection.

DISCLOSURE OF INTEREST STATEMENT:

The Complex Systems in Biology Group and funded by the NHMRC, ARC, and NIH. No pharmaceutical grants were received.

NOTES

SYMPOSIUM: ENSURING ADEQUATE RESPONSE TO AUSTRALIA'S FIRST PEOPLES

PAPER NUMBER: 604

HIV DIAGNOSES IN INDIGENOUS PEOPLES: COMPARISON OF AUSTRALIA, CANADA AND NEW ZEALAND

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Background: In Australia, Canada and New Zealand, Indigenous people account for 2.5%, 3.8% and 15.5% of their respective nation's total population. All three countries acknowledge the major health disparities that exist between non-Indigenous and Indigenous peoples. A number of factors have been identified that can increase Indigenous peoples susceptibility to HIV infection, including access to appropriate health services, poor outcomes in many social determinants of health, high rates of STI and increasing injecting drug use.

Method: National surveillance data between 1999 and 2008 provided diagnoses for Aboriginal and Torres Strait Islanders (Australia), First Nations, Inuit and Métis (Canada excluding Ontario and Quebec) and Māori (New Zealand). Each country provided similar data for a non-Indigenous comparison population. Direct standardisation used the 2001 Canadian Aboriginal male population for comparison of five-year diagnosis rates in 1999–2003 and 2004–2008. Using the non Indigenous population as denominators, we report diagnosis ratios for presumed heterosexual transmission, men who have sex with men (MSM) and among people who inject drugs.

Results: Age standardised HIV diagnosis rates in indigenous peoples in Canada in 2004–2008 (178.1 and 178.4/100 000 for men and women respectively) were substantially higher than in Australia (48.5 and 12.9/100 000) and New Zealand (41.9 and 4.3/100 000). Diagnosis ratios for IDU cases were higher among Indigenous than non-Indigenous peoples in Australia and Canada. Higher HIV diagnosis rates related to heterosexual contact particularly among young Aboriginal women in Canada confirm a widening epidemic beyond conventional risk groups. MSM diagnosis ratios were notably similar in the three countries for both Indigenous and non Indigenous men.

Conclusion: There is an urgent need for policy and programme review of HIV and its management in Aboriginal peoples in Canada and a need to better understand risks and put in place prevention strategies to overcome HIV challenges for Indigenous peoples in Australia and New Zealand.

PAPER NUMBER: 603

HIV IN ABORIGINAL AUSTRALIANS: PREVENTION IN PRISON SETTINGS SHOULD BE A KEY FOCUS

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"Understanding HIV vulnerability among Aboriginal people must begin with a consideration of the historical legacy of colonization"

Aboriginal and Torres Strait Islander (hereinafter Indigenous) people in Australia bear a disproportionate burden of disease for sexually transmissible and blood-borne viral infections and high levels of social disadvantage and incarceration; identified risk factors that increase vulnerability to HIV infection. While Australia's HIV epidemic is relatively stable in non-Indigenous and Indigenous populations, it is recognised that Indigenous Australians are particularly vulnerable to a generalised HIV epidemic due to higher proportions of diagnoses in people who inject drugs and heterosexual people.

While incarceration alone is not a risk factor for HIV transmission in Australia, Indigenous people are at an increased risk for a generalised epidemic should rates of HIV increase in prisons and detention settings. The number of Indigenous Australians in prison is grossly disproportionate to the population; with Indigenous people comprising 2.5% of the Australian population but over 25% of the nation's prisoners in 2010. This disparity has increased since the findings of the Royal Commission into Aboriginal Deaths in Custody were released in 1991. Since then rates of incarceration have increased overall by 70% among Indigenous people compared to 3% among non Indigenous people. Furthermore rates of incarceration among Indigenous women have increased by 343% during the same period, Indigenous prisoners are younger, sentences are shorter by 1.6 years on average and recidivism is 50% more likely, increasing movements between prison and community.

This paper examines these risk factors and describes a mechanistic transmission model that aims to predict the quantitative and qualitative risk of HIV transmission to the broader community, with particular reference to contact with the social justice system. This work will contribute to HIV prison prevention efforts in the future, ensuring all efforts are put in place to reduce risk of a generalised epidemic occurring from prison settings among Indigenous Australians.

Disclosure of interest statement:
No competing interests

SYMPOSIUM: ENSURING ADEQUATE RESPONSE TO AUSTRALIA'S FIRST PEOPLES

PAPER NUMBER: 602

COMPARISON OF PATTERNS OF HIV DIAGNOSIS IN THE ABORIGINAL AND THE NON-INDIGENOUS POPULATION IN AUSTRALIA, 1992 - 2009

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Background: The Australian Aboriginal and Torres Strait Islander (Indigenous) population is recognised as being at increased risk of HIV infection, due to a range of factors including HIV risk behaviour, high rates of sexually transmissible infections other than HIV and poor access to appropriate health care. Long term trends in the pattern of HIV diagnosis in the Aboriginal and non-Indigenous population, based on national HIV surveillance data, are described.

Methods: Cases of newly diagnosed HIV infection were notified to State/ Territory health authorities and forwarded to the National HIV Registry for national collation and analysis. Non-Indigenous status excluded cases whose exposure occurred in a high HIV prevalence country, and populations born in high HIV prevalence countries in sub-Saharan Africa and South East Asia. Age standardised population rates of HIV diagnosis and the source of exposure to HIV in Indigenous and non-Indigenous cases were compared.

Results: From 1992 to 2009, 341 Indigenous and 12,931 non-Indigenous cases of HIV infection were newly diagnosed in Australia. The rate of HIV diagnosis in the Indigenous population declined steadily from 5.3 per 100 000 in 1992 – 1997, to 4.88 in 1998 – 2003 and to 4.16 in 2004 – 2009. The rate of HIV diagnosis in the non-Indigenous population declined from 5.32 in 1992 – 1997
to 3.82 in 1998 – 2003 and increased to 4.22 in 2004 – 2009. Exposure to HIV was attributed to male-to-male sexual contact (MSM) in the majority of both Indigenous (50%) and non-Indigenous cases (77%), and included 8% and 4%, respectively, with a history of injecting drug use (IDU). The percentage of Indigenous cases attributed to IDU without MSM increased from 3% in 1992 – 1997 to 20% in 2004 – 2009 whereas the percentage among non-Indigenous cases remained below 5% in 1992 – 2009. Heterosexual contact was the source of exposure to HIV in 30% of Indigenous and 13% of non-Indigenous cases.

Conclusion: While rates of HIV diagnosis were similar in the Indigenous and non-Indigenous population, the increasing proportion of cases attributed to injecting drug use and heterosexual contact in the Indigenous population indicate the need for strengthening preventive interventions.

PAPER NUMBER: 605

A STRUCTURED AND SUSTAINED RESPONSE TO SURVEILLANCE FOR HIV IN REMOTE INDIGENOUS COMMUNITIES IN SOUTH AUSTRALIA

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Background: The role of surveillance to detect early cases of HIV in communities is established. In 1995 Nganampa Health Council commenced a program in remote Indigenous communities of South Australia (SA) to control sexually transmitted infections (STIs) and prevent Human Immunodeficiency Virus (HIV) through a comprehensive program ("Eight Ways to Beat HIV"). The amount of HIV testing was increased through provision of appropriate pre-test counseling material in local language and through supporting clinicians to test for HIV wherever there were documented risks.

Methods: HIV testing was audited between 1994-2011 to determine the number of tests completed per year, reasons for testing and number of individuals tested annually. The number of individuals with chlamydia, gonorrhoea or syphilis infections per year were audited (2006-2011).

Results: In 1999, 97 tests were taken for HIV. The mean annual number of HIV tests in first five years of the program (1996-2000) was 484, rising by 74% to 840 tests between 2006-2010, despite a reduction in STI prevalence. The mean number of HIV tests undertaken per individual diagnosed with an STI (2006-2010) was 3.2. On average 0.77 HIV tests were completed (2006-2010) per person among the current population 14-40 years of age. The most common reasons for HIV testing to be undertaken were for a diagnosed STI, symptoms of an STI and opportunistically.

Conclusion: These data indicate that a high rate of surveillance for HIV has been sustained in some remote areas of Australia. Some factors assisting high testing rates are appropriate pre-test counseling material, clear guidelines to remote clinicians, and increasing the volume of targeted testing through intense screening such as annual population-wide screening. Structured programs with monitoring can increase the accuracy of targeted testing. There is no evidence HIV rapid tests are required in remote communities as a tool to increase access to HIV testing.

SYMPOSIUM: ENSURING ADEQUATE RESPONSE TO AUSTRALIA'S FIRST PEOPLES

PAPER NUMBER: 606

IN IT FOR THE LONG HAUL – DEVELOPING AND MAINTAINING EFFECTIVE HIV SERVICES FOR RURAL AND REMOTE ABORIGINAL PEOPLE

Rosemary McGuckin

WA rural GP

Health services for Aboriginal people in rural and remote Australia that have not yet experienced a newly diagnosed case of HIV in one of their people spend considerable time thinking and planning for that possibility. However even services familiar with this scenario frequently experience situations when their carefully constructed local systems and processes fall apart. This presentation talks about when and why this happens, and other lessons learnt, through working in HIV management for and with Aboriginal people in several rural and remote settings in Australia. It discusses issues such as the need to find balance between the needs of the HIV positive person, their family, and the wider community; the overwhelming importance of establishing and maintaining long-term engagement, based on trust, by health services with the affected person; the difficulties posed by high staff turnover, and how to decide, and who decides, what constitutes a local "culturally appropriate" service and who should provide it.

Effective HIV service delivery at the primary, secondary and public health level in this environment is evolutionary, and requires flexibility, humour and a willingness to learn from the patients.

PAPER NUMBER: 607

FAR NORTH QUEENSLAND AND THE PNG BORDER – THE HIV RESPONSE

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Far North Queensland (FNQ) is in a unique geopolitical situation due to its close proximity to Papua New Guinea (PNG). The Australian Islands of the Torres Strait lie close to PNG, with the maritime border only 5km wide at one point. Within the 'Protected Zone' of the Torres Strait region, free movement (without passports or visas) is available to the peoples living within this Zone, including those on most of the Torres Strait Islands and in 13 prescribed coastal villages in the Western Province (WP) of PNG. Traditional activities and visits are carried out across the border, such that 59,000 people movements for these reasons were recorded in the 2008/2009 financial year. Traditional activities under the Treaty include activities on land (such as gardening, food collection and hunting), activities on water (such as fishing for food), ceremonies or social gatherings (such as marriages), and traditional trade.

Little is know about the sexual networks connecting the Torres Strait and PNG, but sexual activity undoubtedly occurs and movements of both Torres Strait Islanders and PNG citizens extend down Cape York and into Cairns. Cairns itself is home to over 3000 PNG expats and burgeoning trade links and the proposed Liquefied Natural Gas project in PNG are bringing more movement to and from PNG.

Heterosexual acquisition of HIV in PNG by men from Cairns is occurring not infrequently and educational programs aimed at businessmen going to PNG have been carried out.

The Kasa Por Yarn radio project has been running successfully in the Torres Strait and is conducted in the Torres Creole language. The Australian Federation of AIDS Organisations has also run radio advertisements aimed at raising HIV awareness, and the 2 Spirits Program of the Queensland Association for Health Communities has designed Creole brochures and posters. Condom marketing has been undertaken in the Torres Strait by the Cairns Population Health Unit.

THEME B SYMPOSIUM: HIV/HEPATITIS CO-INFECTION

PAPER NUMBER:	HIV/HCV COINFECTION: TREATMENT DECISION MAKING IN A NEW ERA
Gail Matthews The Kirby Institute and St Vincent's Hospital, Sydney Australia	For many years individuals with HIV/HCV coinfection have been recognized as a complex population at high risk of morbidity and mortality. Clinicians involved in the health management of this group have long been frustrated by the lack of effective therapies available and the low level of treatment uptake. Recent rapid developments however in the field of hepatitis C, both in the areas of disease assessment and therapeutics, now raise new hope for the treatment and care of HIV/HCV coinfected individuals. This session will discuss how the treatment decision making process has altered in the context of recent data and how the duration of infection, IL28B testing, noninvasive fibrosis assessment and the development of novel antiviral agents may all influence the decision to commence therapy.

PAPER NUMBER: 61	ACUTE HEPATITIS C
Dr Joe Sasadeusz	

THEME B SYMPOSIUM: HIV/HEPATITIS CO-INFECTION

PAPER NUMBER: 62	NEW THERAPIES FOR HCV
Professor Gregory Dore Viral Hepatitis Clinical Research Program, Kirby Institute, The University of New South Wales, Sydney, Australia	The landscape of hepatitis C virus (HCV) therapy will change considerably over the next decade with the probable licensure of many HCV direct-acting antiviral (DAA) therapy agents. The initial two DAA agents (protease inhibitors telaprevir and boceprevir) have recently obtained FDA approval, and many other DAA agents are in phase II/III development, including further HCV protease inhibitors, nucleos(t)ide analogue and non-nucleoside analogue polymerase inhibitors, NS5A inhibitors, and cyclophilin inhibitors. Phase III trials evaluating the addition of telaprevir or boceprevir to pegylated interferon and ribavirin in both HCV treatment naïve and experienced populations with chronic HCV genotype 1 have demonstrated considerable improvements in sustained virological response, with many patients able to shorten total treatment duration from 48 weeks to 24-36 weeks. Although these initial DAA-based treatment results are encouraging, additional toxicity, problematic dosing schedules, and potential drug – drug interactions pose challenges for clinical management, particularly in HIV/HCV coinfection. Phase II trials with telaprevir and boceprevir in HIV/HCV populations are underway. Subsequent DAA agents appear to have improved tolerability and dosing schedules and open the door for IFN-free DAA based combination therapy. Development of DAA therapy will lead to a major shift in HCV clinical management, particularly with the potential for IFN-free combination therapy.

NOTES

THEME C PROFFERED PAPER SESSION: PILLS AND PREVENTION

PAPER NUMBER: 358

HIV TREATMENT AS PREVENTION: IS IT A SERIOUS CHANGE IN HIV PREVENTION FOR GAY MEN?

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Background: The HPTN052 trial has recently reported a 96% reduction in HIV risk in serodiscordant heterosexual couples due to early ART start by HIV positive partners. Late last year, the iPrEX study reported a 92% reduction in HIV risk in homosexual men who took a daily pill of Truvada (FTC+TDF) and had detectable blood levels of both drug. Can preventative use of ART make a big difference in HIV prevention among gay men in the next few years?

Methods: This is a review of the newly released evidence with discussion of the implications and challenges for HIV prevention among gay men in Australia.

Results: These are at least two methods promising a new hope in HIV prevention among gay men. However, both have important challenges. The probability of HIV transmission through anal compared to vaginal intercourse is 20-fold higher; therefore the risk reduction effect observed in HPTN052 is yet to be replicated in gay men. There is still a strong tension between the personal health interests of HIV positive people and public health interests to start ART earlier. Drug adherence is an important issue, particularly concerning HIV negative men. The cost of ART medications remains high, and the dilemma is whether, how, when and to whom to provide it as HIV prevention. Importantly, behavioural prevention strategies have been 'the first line of defence' from HIV and STI, and it is yet not clear how behavioural and biomedical approaches will interact in gay communities.

Conclusion: New evidence about ART effectiveness raises a hope that biomedical prevention methods can make change in HIV epidemic. Each of the methods will have its own target population, and both will face important challenges which need to be considered before investing in new prevention approaches.

PAPER NUMBER: 466

HIV PRE-EXPOSURE PROPHYLAXIS FOR AUSTRALIAN GAY MEN IS EFFECTIVE BUT TOO EXPENSIVE

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Background: The recent success of the Pre-exposure Prophylaxis Initiative (iPrEX) trial gives optimism for the development of PrEP as an effective HIV prevention intervention. Despite this potential, the population level impact of rolling out PrEP needs to be carefully assessed.

Methods: Using the results from the iPrEX study and a detailed stochastic computational model of HIV transmission we investigated the potential impact and cost-effectiveness of PrEP interventions in Australian gay men.

Results: Our modelling showed that significant reductions in HIV infections can be obtained through the use of PrEP. If all gay men take PrEP with an overall individual level of efficacy of 50%, similar to that reported in the iPrEX trial, then there would be a 50% reduction in cumulative infections over the next 10 years. As with the iPrEX trial, more infections are averted in men with high adherence. Large reductions can still occur if just those men at highest risk of HIV take PrEP continuously, particularly those in sero-discordant regular partnerships. Even if condom use and risk reducing behaviour is decreased after implementation, PrEP can still have an impact if coverage and adherence are sufficiently high. However, as a broad-based intervention PrEP may not be cost-effective, although if restricted to the most at-risk men it may be cost-effective.

Conclusion: PrEP can have a large effect on HIV incidence in gay men if coverage, adherence, and efficacy are high even if there is a reduction in condom use but the widespread use of PrEP is unlikely to be cost-effective in Australia. If PrEP interventions are to be implemented they would need to be accompanied by clear and well-targeted education campaigns to educate gay communities and to emphasize the importance of maintaining condom use.

THEME C PROFFERED PAPER SESSION: PILLS AND PREVENTION

PAPER NUMBER: 459

ANTIRETROVIRAL TREATMENT INTERRUPTIONS IN DEVELOPED AND DEVELOPING COUNTRIES: IMPLICATIONS FOR 'THE TREATMENT-AS-PREVENTION' STRATEGY

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Background: One potential compromising factor of 'treatment-as-prevention' is antiretroviral treatment (ART) interruption, after which viral load increases and onward HIV transmission may occur. Clinical guidelines discourage treatment interruption (TI). We describe the incidence, duration, and frequency of TIs across 13 countries covering high and low income settings.

Methods: Data from two large HIV observation cohorts (AHOD and TAHOD) were analysed. All adults commencing ART (≥3 ART drugs) from 2000 to 2009 with ≥1 clinical visit post-ART initiation were included. TI was defined as stopping ART for >30 days followed by ART recommencement. Survival analysis and poisson regression methods were used.

Results: 4717 patients (971 from AHOD, 3746 from TAHOD) were followed for a median 4.4 years (interquartile range (IQR):2.1-6.5); 75.5% were men (94.1% in AHOD, 70.6% in TAHOD). Of these patients; 434 (9.2%) had 1 TI and 132 (2.8%) had ≥2. The median time to the first TI was 0.9 years (IQR:0.2-2.2) and 2.6 years (IQR:1.4-4.2) to the second. Overall, TIs comprised 3.1% of total survival time. In AHOD the incidence of TI was 11.0 per 100 person years (PY) in 2000-2005 falling to 2.6 per 100 PY in 2006-2009. In TAHOD, TI incidence was 4.8 per 100 PY in 2000-2005 decreasing to 1.1 per 100 PY in 2006-2009. The median duration of the 770 TIs was 152 days (IQR:73-367). The median viral load was 140 copies/ml (IQR:49-9,300) before the first TI (≤1 year before stopping and >24 weeks post ART initiation), vs 34,300 copies/ml (IQR:2,700-100,000) +/-30 days after re-starting ART.

Conclusions: TIs last ~6 months, substantially increase viral load and since 2006 are experienced by 1-2% of patients per year. These findings have public health implications for 'treatment-as-prevention'.

PAPER NUMBER: 525

DESIGNING ETHICAL RESEARCH IN HIV PREVENTION

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Background

The dynamics of biomedical HIV prevention have undergone a sea change. After many years of trials demonstrating failed strategies, apart from male circumcision in generalised epidemics, the last two years have seen four positive results for biomedical HIV prevention research spanning a range of modalities: a vaccine, a microbicide, pre-exposure prophylaxis, and treatment-as-prevention. Each of the studies was limited by study population, magnitude of effect, or both; however there is now some RCT evidence to support the use of a biomedical prevention technology across each of the sexual transmission routes. Accordingly, designing new research studies brings with it new technical and ethical difficulties.

Methods

We reviewed the strengths and weaknesses of two different models for ongoing biomedical HIV research: product-centred (continued RCT of single products); and observational approaches that evaluate combination prevention that evaluates packages of interventions. We considered each model from ethical, technical and resource perspectives and according to received frameworks of research ethics and regulatory requirements.

Results

On-going product-centred trials appear to be most suitable to developing optimally effective third and fourth generation products. Using high prevalence populations in the developing world to test single interventions however has become increasingly difficult to justify. Evaluating combined packages of interventions has the potential to rapidly decrease HIV transmission in endemic areas but leaves the problem of sorting out the most cost effective interventions difficult to resolve.

Conclusion:

Research focused on highly effective biomedical tools for HIV prevention is problematic from an ethical perspective, if such research is delays the introduction of partially effective interventions. Developing robust methods to evaluate the efficacy of combined approaches is critical.

No interest to disclose

THEME C PROFFERED PAPER SESSION: PILLS AND PREVENTION

PAPER NUMBER: 304

MEASURING ATTITUDES TOWARDS HIV PRE-EXPOSURE PROPHYLAXIS: FINDINGS FROM THE PREPARE PROJECT

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Background: In November 2010 the results of the iPrEx study were released showing that daily pre-exposure prophylaxis (PrEP) reduced risk of HIV infection among men who have sex with men (MSM). In January 2011 the Centers for Disease Control and Prevention published interim guidance for clinicians prescribing PrEP. The *PrEPARE Project* was designed to elicit gay men's attitudes to PrEP in the immediate post-iPrEx era.

Methods: An online survey of gay and bisexual men was conducted in April–May 2011. The questionnaire contained 14 items on attitudes towards PrEP. Non-HIV-positive participants responded to a further 11 items on PrEP preparedness. Responses to the items were given on a scale of 1 to 5 (with a higher score indicating more optimism about PrEP).

Results: 1,248 men completed the survey and met the eligibility criteria. The mean age was 31.5 years (range 18–69 years); 71.6% were HIV negative. Responses to the PrEP items formed four distinct factors: targeting (4 items; α=0.56); confidence in PrEP (3 items; α=0.54); cautiousness (3 items; α=0.44); and payment (2 items; α=0.76). One item did not load on any factor. Mean scores for each subscale ranged from 2.82 to 3.57 and did not differ according to serostatus of respondent.

Reponses to the PrEP preparedness items formed three factors, all with reliable scales: willingness to take PrEP (7 items; α=0.81); condom use intentions while on PrEP (2 items; α=0.75); and concerns (2 items; α=0.44). Mean scores for these subscales ranged from 2.28 to 3.54.

Conclusion: Items on PrEP preparedness in particular formed internally consistent subscales identifying distinct underlying concepts related to non-HIV-positive men's attitudes to PrEP. These men indicated moderate willingness to take PrEP, but were somewhat concerned about taking antiretrovirals, and were somewhat likely to agree that they would still use condoms if taking PrEP.

Disclosure of Interest: The National Centre in HIV Social Research and the Australian Federation of AIDS Organisations are supported by the Australian Government Department of Health and Ageing. The PrEPARE Project is funded by The University of New South Wales.

PAPER NUMBER: 263

INTEREST IN USING HIV PRE-EXPOSURE PROPHYLAXIS AND THE LIKELIHOOD OF MAINTAINING CONDOM USE AMONG AUSTRALIAN GAY MEN: FINDINGS FROM THE PREPARE PROJECT

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Background: Pre-exposure prophyalxis (PrEP) with antiretroviral drugs is an experimental strategy to prevent HIV infection. We investigated interest in PrEP among Australian gay and bisexual men and the likelihood of a decline in condom use if PrEP were available.

Method: A national, online survey was conducted in April-May 2011. The survey assessed attitudes to PrEP, medicine-taking, condoms and HIV treatments, as well as demographics, sexual practices, relationships with men, HIV testing and HIV status. Based on items completed only by HIV-negative and untested men, scales were constructed assessing willingness to use PrEP (α=0.81) and the likelihood of maintaining condom use if using PrEP (α=0.75). Pearson's correlation and multiple linear regression were used to identify factors associated with each scale.

Results: 1248 men completed the survey. 93% identified as gay and 82% were Australian-born. Age ranged from 18 to 69 years (M=31.5, SD=10.9). Willingness to use PrEP was associated with: more frequent engagement in unprotected anal intercourse with casual partners; a lack of comfort in discussing or using condoms, and; believing that one was at increased risk of HIV infection. The likelihood of maintaining condom use while using PrEP was associated with: believing that one was at increased risk of HIV infection; confidence and ease in using condoms, and; older age.

Conclusion: The gay men most interested in using PrEP appear to be those who would most benefit from an alternative to condoms, given that they engage in unprotected sex, report problems with using condoms and perceive themselves to be at risk of HIV infection. Older men with more positive attitudes to condoms, but who also perceive themselves to be at risk of HIV infection, are the most likely to say they would continue using condoms, suggesting condom use would be maintained among those most committed to their use.

Disclosure of Interest: The National Centre in HIV Social Research and the Australian Federation of AIDS Organisations are supported by the Australian Government Department of Health and Ageing. The PrEPARE Project is funded by The University of New South Wales.

THEME D PROFFERED PAPER SESSION: RACE AND RISK: HIV IN ASIA AND AUSTRALIA

PAPER NUMBER: 481

ARE ASIAN MEN WHO HAVE SEX WITH MEN (MSM) AT HIGHER RISK OF HIV AND STI INFECTION?

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Background

People of culturally and linguistically diverse backgrounds (CALD) and MSM are recognised as priority populations in the 6th National HIV & 2nd National Sexually Transmissible Infections (STI) Strategies The Sydney Sexual Health Centre (SSHC) sees MSM from many different CALD backgrounds, particularly Asia. This study aimed to assess if Asian MSM were at higher risk of HIV/STIs than other MSM.

Methods

Data on demographics, sexual behaviour, and results of HIV/STI tests were extracted from the Centre database for all first clinic attendances by HIV-negative MSM from 1998-2009. A Chi-square test was used to assess differences in patient characteristics and HIV/STI positivity between Asia-born MSM and non-Asia born MSM.

Results

Over the 12-year period, 10,167 new MSM were seen at SSHC, 959 (9.4%) were born in Asian countries including Thailand, China and Vietnam. The annual proportion of MSM who were born in Asia increased over time (6% in 1998, 10% in 2005 to 14% in 2009 ptrend=<0.01). Asian MSM were more likely to be aged <25 years (27% vs 21% p=<0.01), and less likely to report ≥3 partners in the last 3 months (40% vs 44% p=0.01), inconsistent condom use in the past 3 months (57% vs 61% p=0.04), ever injecting drugs (0.6% vs 8% p<0.01), or to have genital symptoms at the time of the clinic visit (25% vs 34% p=<0.01). Chlamydia positivity at first visit was significantly higher in Asian MSM compared to non-Asian MSM (8% vs 6% p=0.01) but similar for HIV (6% vs 5%, p=0.13) and all bacterial STIs (13 % vs 11% p=0.12).

Discussion

These data do not suggest Asian MSM overall are at significantly more risk of HIV infection than non-Asian MSM, but the high HIV/STI positivity rates confirm the need for ongoing prevention strategies targeted MSM including those from Asia.

Disclosure of interest:

No grants of any kind, including pharmaceutical, were received in the development of this study

PAPER NUMBER: 165

"I'M SCARED, JUST THINKING ABOUT THAT:" THAI GAY MEN IN SYDNEY AND HIV TESTING

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Background:

The proportion of new HIV infections among gay men from culturally and linguistically diverse backgrounds is relatively proportionate to their proportion of the general population. However, Thai gay men have a relatively larger number of HIV infections. This study explored how Thai gay men in Sydney perceive and experience HIV risk, and how they manage this risk in their lives and interactions with other gay men.

Methods:

As this was an exploratory study, qualitative research methods were used. Data were collected in focus group interviews and in semi-structured one-on-one interviews. A total of 26 men agreed to participate.

Results:

For some men, knowing their HIV serostatus was important and they had regular tests at their GP or sexual health clinics. Some also reported having had regular tests in Thailand, usually as part of regular blood donations or health checks at work. Some had an HIV test at the beginning of a new relationship, and then never tested again. And for some, the only HIV test they have ever had was part of the health check for their visa when coming to Australia. One theme running through many interviews was fear: the fear of having done something "unsafe", and the fear that the test result could be positive. This fear actually prevented some from having a test. Some men also had inaccurate information about testing, and some did not know where they could get tested and if they had to pay for a test.

Conclusions:

Health promotion for Thai gay men needs to disseminate accurate information about HIV tests, places where they can get free and confidential tests, and address the fear that prevents some men from getting tested.

DISCLOSURE OF INTEREST STATEMENT:

The study was funded by NSW Health. The National Centre in HIV Social Research is funded by the Commonwealth Department of Health and Ageing. No pharmaceutical grants were received for this study.

THEME D PROFFERED PAPER SESSION: RACE AND RISK: HIV IN ASIA AND AUSTRALIA

PAPER NUMBER: 270

WHAT IS THE POTENTIAL FOR BISEXUAL MEN IN CHINA TO ACT AS A BRIDGE OF HIV TRANSMISSION TO THE FEMALE POPULATION? BEHAVIOURAL EVIDENCE FROM A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background:

HIV prevalence among men who have sex with men (MSM) in China has rapidly increased in recent years. It is suggested that MSM could be a potential bridge of HIV transmission to the general female population. We investigated the bisexual behaviour of MSM in China through systematic review and meta-analysis.

Methods:

We conducted a systematic review and meta-analyses on published peer-reviewed literature published in Chinese and English during 2001-2010. Marital status and sexual behavioural indicators of MSM are calculated with 95% confidence intervals. Meta-regression analyses were also performed to examine factors associated with high heterogeneities across the studies.

Results:

Forty-three eligible articles (11 in English and 32 in Chinese) were identified in our qualitative and quantitative synthesis. Our results showed that 17.0% (95% CI: 15.1-19.1%) of MSM in China are currently married to a woman and 26.3% (95% CI: 23.6-29.1%) of MSM had female sexual partners in the last six months. The pooled estimates for condom use between MSM and female sexual partners was 41.4% (95% CI: 35.5-47.5%) at last sex act and 25.6% (95% CI: 23.0-28.4%) for consistent use over the last six months. The consistent condom use rates with regular, non-commercial casual and commercial female sex partners in last six months were 23.3% (95% CI: 11.25-42.1%), 39.0% (95% CI: 28.8-50.3%) and 55.8% (95% CI: 41.4-69.4%), respectively.

Conclusions:

A substantial proportion of Chinese MSM is currently married or has sexual contact with female(s) in the past 6 months. In addition, low condom usage was common between married MSM and their wives and hence put general females at a higher risk of contracting HIV infection. Harm-reduction programs targeting married MSM and their female partners are necessary to curb the further spread of HIV infection to the general female population.

PAPER NUMBER: 156

JUST A PREFERENCE: EXPLORING 'ONLINE SEXUAL RACISM' AND ITS RELATIONSHIP TO SEXUAL-RISK-TAKING AMONG GAY AND BISEXUAL MEN IN AUSTRALIA

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Background

The Internet has become one of the primary ways that gay and bisexual men meet each other. This has given rise to some context-specific phenomena, such as online sexual racism (OSR). OSR is discrimination towards or against potential sexual partners based on race/ethnicity. OSR appears to be more visible online than offline. Experiences of discrimination have been shown to affect men's decision-making about safe sex, but it is not known if OSR has a similar impact.

Methods

A national online survey was conducted to explore OSR and its correlates. Advertising was conducted on a popular website for gay and bisexual men. Gay, bisexual and other men who have sex with men could participate. Sexual behaviour, use of the Internet, perceptions and experiences of OSR, and attitudes to multiculturalism were assessed. Sexual-risk-taking (scored from 1-36) was assessed by averaging the potential risk of HIV transmission across recent sexual encounters, based on condom use, sexual position during anal intercourse and the HIV status of partners.

Results

1752 men aged 16 to 82 ($M = 32.0$, $SD = 10.2$) completed the survey. Almost all (95.9%) had seen online profiles that excluded particular ethnicities. Over half (58.5%) reported that they had seen online profiles that excluded them because of ethnicity, with Asian men most commonly reporting this experience. Men who had experienced this form of OSR were more likely to report sexual behaviour with a risk of HIV transmission.

Conclusion

OSR is perceived to be relatively common by gay and bisexual men in Australia. The experience of OSR appears to be associated with sexual behaviour that has an increased risk of HIV transmission, although the mechanism for this association requires further investigation. Interventions to reduce OSR may be warranted, to reduce discrimination based on ethnicity, and to assist in HIV prevention.

THEME A PROFFERED PAPER SESSION: VACCINES

PAPER NUMBER: 285

INCREASING DIVERSITY OF HIV-1 SUBTYPES CIRCULATING IN VICTORIA: A 6 YEAR ANALYSIS.

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Background: Characterisation of HIV subtypes can provide a more comprehensive understanding of the epidemic within a distinct region, and when combined with notification data, may also be helpful in enhancing current HIV prevention strategies.

Methods: In this study, we characterised 1056 HIV positive individuals (948 males and 108 females) living in Victoria and whose infection was detected for the first time between 2005 and 2010 inclusive. HIV-1 strains were subtyped based on pol gene sequence. Phylogenetic analysis was performed on all non-B subtype sequences identified.

Results: Of the 1056 sequences analysed, 825 were subtype B and 231 were non-B. Overall 6 HIV-1 subtypes, 6 circulating recombinant forms (CRFs) and 12 unique recombinant forms (URFs) were identified. Regardless of gender, the majority of individuals were infected with a subtype B virus (78%). Subtype B was dominant in males (n = 806, 85%). In contrast, the majority of females were infected with non-B subtypes (n = 89, 82%), in particular subtype C (n= 48, 45%). Phylogenetic analysis of the non-B subtypes revealed that the majority of clustering, and thereby transmission, occurred with CRF01_AE strains. Despite the relatively high numbers identified in females there was very little clustering of subtype C viruses. Subtypes C and A1 both historically associated with heterosexual transmission, and CRF01_AE often associated with IVDU, were also associated with transmission within the MSM population, demonstrating the potential for non-B subtypes to expand into the MSM population.

Conclusions: The observation of increasing numbers of females and heterosexual males infected with non-subtype B viruses, the majority imported through migration and travel to countries where there is a high prevalence of HIV, suggests a targeted public health message may be required to prevent further increases within these two groups.

PAPER NUMBER: 341

ASSESSING NOVEL HIV-1 ENVELOPE PROTEIN CLONES AS VACCINE IMMUNOGENS.

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Background: The HIV envelope protein (Env) mediates critical steps in HIV infection including binding to target-cell receptors and viral entry. Env is the principle target of neutralizing antibodies (NAb), however because of the very high sequence variability and glycan shielding of Env, NAb often have limited activity in vivo. We hypothesize that the Env of some viral strains may have more exposed functionally conserved domains and that this may translate to the generation of broader and more potent NAb responses when such Env clones are used as immunogens.

Methods: Screening a panel of Env clones for reactivity to the CD4 receptor and NAb was performed by ELISA. Selected Env clones were used to immunize mice with a DNA prime/protein boost regimen. Sera were assessed for virus neutralization using a pseudotyped reporter assay. Targeted changes to Env sequence were made by site directed mutagenesis and mutant Env was assessed by ELISA for binding to a CD4 binding site targeting NAb, b12.

Results: Initial screening identified Env clones that had high affinity for the CD4 binding site and NAb. Immunization with Env of one brain-derived Env clone elicited better NAb responses than other clones tested. Sequencing of this clone revealed that normally conserved glycans at residues 197 and 386, which have been shown in previous studies to protect the CD4 binding site of Env, were absent. Restoration of the glycan at residue 386 reduced b12 binding, however unexpectedly, restoration of the glycan at residue 197 enhanced binding. Modeling suggested that the glycan at residue 362 might shield the CD4 binding site, and this was confirmed experimentally.

Conclusion: We have identified a brain-derived Env clone that warrants further development as a vaccine component. Artificial manipulation of the glycans of this clone may allow further enhancement of immunogenicity.

DISCLOSURE OF INTEREST STATEMENT:

This study was not funded by commercial interests.

THEME A PROFFERED PAPER SESSION: VACCINES

PAPER NUMBER: 240

THE QUIET ACHIEVER: EVIDENCE OF POL SPECIFIC ADCC ESCAPE AGAINST HIV-1

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Background: Antibodies that mediate killing of HIV infected cells by NK cells (ADCC) could be a very useful component of a successful HIV vaccine strategy. However, the majority of ADCC responses studied to date target HIV-1 Env protein. Env is highly variable and can readily mutate to escape potent ADCC. We hypothesised that preferable ADCC responses might be to conserved internal proteins such as Pol.

Method: ADCC responses to overlapping HIV-1 consensus peptide pools were analyzed using an ICS assay measuring NK cell activation in 83 ART-naïve HIV+ subjects followed prospectively for 3 years. We mapped 32 responses to individual consensus HIV subtype B 15mer peptides within the Pol protein and to 12 pools of 20 peptides consisting of 15mers, overlapping at 11 amino acids. We sequenced subject's autologous virus and assessed the ability of their ADCC responses, across a titration of peptide concentrations, to recognize autologous virus-derived peptide epitopes and consensus derived peptides.

Results: From the 83 subjects, 54 recognized Env peptides and, 32 recognized Pol peptides. Of 11 mapped Env responses studied, 8 showed loss of recognition of autologous virus-derived peptides. Of the 32 Pol-specific responses identified, 12 have been mapped to regions of Pol and appear to target highly conserved sequences. One Pol-specific ADCC response was mapped to a 15mer peptide within Integrase. Virus sequenced 10 years after initial infection, showed evidence of immune escape when tested against autologous peptides.

Conclusion: Targeting ADCC to more conserved proteins may be a more effective ADCC-based vaccine approach. We found Pol is a significant target for ADCC responses in HIV-1 infected subjects. Evidence of immune escape at one Pol-specific ADCC epitope is suggestive of immune escape. Identifying ADCC antibodies targeting conserved non-Env proteins such as Pol may reveal more potent ADCC antibodies and pave way for an effective ADCC-inducing vaccine against HIV.

DISCLOSURE OF INTEREST STATEMENT:

This work was funded by ARC postgraduate scholarship. No pharmaceutical grants were received in the development of this study

PAPER NUMBER: 291

ROLE OF A NOVEL TYPE I INTERFERON EPSILON AND ITS USE AS A MOLECULAR ADJUVANT TO ENHANCE HIV-SPECIFIC MUCOSAL IMMUNITY

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Background: Newly discovered type I interferon-epsilon (IFN-e) was found to be constitutively expressed in reproductive tissues and our previous studies indicated that IFN-e could play a potential role in modulating mucosal immunity.

Methods: As HIV is a disease of the mucosae, we have studied the immuno-biology of IFN-e by co-expression of IFN-e with HIV vaccine antigens (VV-HIV-IFN-e) and tested its adjuvant activity using FPV-HIV-IFN-e/ VV-HIV-IFN-e intranasal-intramuscular (i.n./i.m.) prime-boost immunization. HIV-specific CD8+ T cell response was evaluated by intracellular cytokine staining, IFN-g & IL-2 ELISpot.

Results: Our immuno-biology studies further confirmed that IFN-e plays a role in lung T cell immunity. Then when IFN-e was delivered as a mucosal adjuvant i.n FPV-HIV-IFN-e prime/ i.m. VV-HIV-IFN-e booster immunization, remarkably enhanced HIV-specific CD8+ T cell responses were observed in Genito-rectal nodes and Peyer's patches compared to the control i.n. FPV-HIV/ i.m. VV-HIV vaccination. However, no enhance responses were observed in systemic compartment spleen. Interestingly these mucosal CD8+ T cells were also found to be multifunctional and were able to express IFN-g, TNF-a and IL-2, which is a hall marker of protective immunity. In contrast, no such elevated mucosal response were observed when FPV-HIV-IFN-e/VV-HIV-IFN-e were delivered using i.m./i.m. immunization route.

Conclusion: Our results clearly indicated that IFN-e is a good mucosal adjuvant that can enhance HIV-specific mucosal CD8+ T cell immunity. As HIV is 1st encountered at the mucoase, a vaccine that can elicit immunity in the genito-rectal tract & gut is an exciting prospect for a HIV vaccine.

Disclosure of interest statement:

The study are funded by NHMRC grants-525431& APP1000703

THEME A PROFFERED PAPER SESSION: VACCINES

PAPER NUMBER: 328	HIV VACCINES: QUANTITY OR QUALITY OF T CELL IMMUNITY?
Charani Ranasinghe & Ronald J. Jackson Molecular Mucosal Vaccine Immunology Group, Dept. Immunology, The John Curtin School of Medical Research, The Australian National University, ACT 0200. Australia	Background: Our previous findings have demonstrated that a mucosal (intranasal, i.n.) immunisation can induce HIV-specific T cells of high quality or avidity that offers better protection against viral challenge compared to systemic (intramuscular, i.m.) immunisation. We have found that mucosal immunisation generates HIV-specific CD8+ T cells with lower IL-4 & IL-13 cytokine expression compared to systemic immunisation and IL-13 is crucially important in determining the avidity of HIV-specific CD8+ T cells. Recently, we have constructed HIV-1 recombinant vaccines that co-express different forms of IL-13 inhibitors and evaluate their efficacy to generate enhance protective immunity. Methods: BALB/c mice were prime-boost immunised i.n./i.m. or i.m./i.m. with fowl pox virus co-expressing HIV gag/pol and a IL-13 inhibitor(s) and attenuated vaccinia virus expressing the same genes. At different time points immunity was evaluated by ELISpot, intracellular cytokine staining, tetramer staining/dissociation and cytokine antibody arrays. Mucosal influenza-HIV challenge was also used to evaluate protective immunity. Results & Discussion: Results indicate that IL-13 plays an important role in T cell quality. We have shown that IL-13 inhibitor vaccine has the ability to transiently inhibit IL-13 in-vivo & enhance T cell quality/protective immunity. Also these vaccines have a greater capacity to generate good mucosal immunity specifically in the gastrointestinal tract, which is the primary site of HIV-1 replication & CD4+ depletion. We are now testing a range of inhibitors & we aim to discuss which IL-13 inhibitor plays a more important role in protective immunity. We strongly believe that when designing a vaccine against HIV-1, a vaccine that can more effectively translate into humans would be of greater significance. Disclosure of interest statement: This work was supported by the NHMRC project grant award 525431 & Development grant award APP1000703 (CR), ACH2 EIO grant 2010-11 (CR) & Bill & Melinda Gates Foundation grant OPP1015149 (CR)

NOTES

SATELLITE SESSION: APPROACHES AND CHALLENGES IN DIFFERENT HIV EPIDEMICS

Delegates from countries in Southern Africa, Asia and the Pacific will give presentations on what it is like to work in HIV epidemics described as 'generalised', 'concentrated', and 'low prevalence'. The major features and challenges of these settings will be discussed. A panel of experts will promote discussion about differences and similarities across different types of HIV epidemics and how people address these in their respective work capacities. As well as providing delegates from these regions with a forum to exchange information, this session will also provide the audience with the opportunity to ask about particular areas of interest.

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CASE PRESENTATION BREAKFAST

PAPER NUMBER: 477

ON AGAIN OFF AGAIN: CAVITATORY PULMONARY MYCOBACTERIUM AVIUM COMPLEX (MAC) DISEASE – COMPLIANCE, RESISTANCE AND IMMUNE RECONSTITUTION DISEASE (IRD) IN AN HIV/HCV COINFECTED MAN

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We report a 52-year-old HIV/HCV co-infected smoker with pulmonary *MAC* with variable drug susceptibility test (DST) presenting after commencement of combination antiretroviral therapy (cART). HIV was diagnosed in 2006 when he presented with ***PJP***; CD4+ was 10 cells/uL; respiratory samples were mycobacteria negative.

In January 2008, fifteen months after commencing cART, he developed a productive cough. At this time, CD4+ was 200cells/uL with undetectable HIV RNA (VL). Radiological investigation demonstrated bilateral consolidation, nodules, and thick walled upper zone cavities. Sputum was Acid fast bacilli (AFB) smear positive and culture confirmed drug-susceptible *MAC*. Treatment was commenced with rifabutin, ethambutol, and clarithromycin.

During the following three year period, he had intermittent adherence to therapy. On three occasions he presented to hospital with constitutional symptoms and was found to have a low CD4+ count and detectable viral load. On each occasion he was AFB smear negative but *MAC* culture positive. DST (October 2009): ciprofloxacin & clarithromycin resistant; intermediate to amikacin & rifabutin. DST (January 2010): rifabutin resistant. DST (March 2011): intermediate to ciprofloxacin.

Following two months of treatment, he is responding to cART, rifabutin, ethambutol, and clarithromycin, evidenced by an improvement in respiratory symptoms, reduction in sputum AFB count, and an undetectable VL.

Pulmonary *MAC* is uncommon in HIV infection. This case may represent pulmonary *MAC* IRD or "classical" *MAC*. Treatment is challenging and cure not always possible. HIV-related pulmonary *MAC* and the management of drug resistant cases will be discussed.

PAPER NUMBER: 235

CHEMOTHERAPY AND HIV PRIMUM NON NOCERE: A DIFFICULT PARADIGM TO MAINTAIN

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A 48 year old man with long standing HIV and hepatitis B (HBV) co-infection, was diagnosed with stage IV diffuse large B cell lymphoma (DLBCL) involving the right tonsil and sacrum. He was referred to the Infectious Diseases Unit prior to commencing rituximab-based intensive chemotherapy for consideration of appropriate antiviral treatment.

Although his HIV was completely virologically suppressed on abacavir, lamivudine, and ritonavir-boosted lopinavir his CD4 cell count was198 cells/µl. Previous HIV genotypes demonstrated the presence of reverse transcriptase mutations (M41L, V118I, M184V, L210W, T215Y/S, A98AG/G, K101H/Q, K103N, V108V/I) conferring resistance to most NRTI and NNRTIs. His HBV viral load was 1000IU/ml on lamivudine, with susceptibility testing showing HBV resistance to lamivudine, reduced susceptibility to entecavir, and sensitivity to adefovir. Other significant medical history included renal calculi and haemorrhagic gastritis.

The optimal management of the HIV, HBV and lymphoma were considered. Issues included: resistant HIV and choice of antiretroviral regimen to minimize drug interactions with chemotherapy agents; management of HBV and prevention of hepatitis flare during chemotherapy; and management of complications of the lymphoma treatment regimen.

His treatment course was complicated by prolonged anaemia, multiple episodes of line-related sepsis, Pneumocystis jirovecii pneumonia despite compliance with cotrimoxazole prophylaxis, myocardial infarction, cardiac toxicity from doxorubicin, mucositis requiring TPN and raising concerns about absorption of antiretrovirals, and raltegravir-induced rhabdomyositis. He remains lymphoma free 6 months post-treatment. His current HBV and HIV regimen is tenofovir, emtricitabine, ritonavir, darunavir.

This case illustrates the complex physiologic and pharmacologic considerations in patients with HIV, HBV and haematological malignancies, particularly in patients who are antiretroviral treatment experienced.

There are no conflicts of interest for any of the authors.

CASE PRESENTATION BREAKFAST

PAPER NUMBER: 243

RHABDOMYOLYSIS IN A PATIENT RECEIVING RALTEGRAVIR AS HIV POST-EXPOSURE PROPHYLAXIS: A CASE STUDY

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Background: Raltegravir is the first HIV-1 integrase inhibitor to be approved for clinical use, both as an initial treatment and in treatment-experienced patients. In 2008, case reports of rhabdomyolysis attributed to raltegravir emerged.

Methods: We report the first documented Australian case of rhabdomyolysis in a patient receiving raltegravir.

Results: As part of an ongoing clinical trial, a 29-year-old man was prescribed raltegravir and tenofovir/emtricitabine (TDF/FTC) for non-occupational post-exposure prophylaxis (NPEP). He had no history of musculoskeletal problems. The only concomitant regular medication was citalopram. Having started a new exercise program 1 week earlier, his baseline serum creatine kinase (CK) was 265 U/L (reference range <130 U/L). After 1 week of NPEP, his CK was 29,294 U/L. He was asymptomatic and without motor weakness. His renal function was normal and myoglobinuria was absent. As there was no evidence of end-organ damage, raltegravir and TDF/FTC were continued. The CK declined without intervention, falling to 176 U/L by the completion of NPEP (week 4). Following another at-risk sexual contact one day later, he self-initiated TDF/FTC and raltegravir left over from his previous NPEP course. Four days later, without further exercise, the serum CK was 2,770 U/L. Raltegravir was ceased and TDF/FTC continued instead. By week 12, the CK had fallen to 150 U/L, again without intervention. The patient's HIV serology following NPEP was negative.

Conclusion: Myopathy can occur in patients receiving raltegravir in the absence of HIV infection. Although there are only four published reports of raltegravir-associated rhabdomyolysis, pooled data from phase 2 and 3 trials reported CK elevations in 13.9% of raltegravir recipients vs. 9.4% in controls. Clinicians should consider monitoring CK when prescribing raltegravir. Further studies are required to establish the prevalence and risk factors, including exercise, for myopathy in patients receiving raltegravir.

DISCLOSURE OF INTEREST STATEMENT

FJ Lee receives funding from the National Health and Medical Research Council of Australia.

A Carr has received research funding from Abbott, the Balnaves Foundation, Bristol-Myers Squibb, GlaxoSmithKline/ViiV Healthcare, and Merck; consultancy fees from Bristol-Myers Squibb, Gilead Sciences, GlaxoSmithKline/ViiV Healthcare, Merck and Roche; lecture and travel sponsorships from Abbott, Boehringer-Ingelheim, Bristol-Myers Squibb, Gilead Sciences, GlaxoSmithKline/ViiV Healthcare, and Merck; and has served on advisory boards for Abbott, Bristol-Myers Squibb, Gilead Sciences, GlaxoSmithKline/ViiV Healthcare, Merck and Roche.

HIV/AIDS CONFERENCE PLENARY

PAPER NUMBER: 576	GLOBALISATION AND HIV RISK. DEVELOPMENT, DEPENDENCY AND VULNERABILITY IN THE PACIFIC
A/Prof Heather Worth University of New South Wales	The Pacific is a vast territory made up of mainly small island states with many development issues, from large-scale mineral resource extraction in Papua New Guinea, to the collapse of the garment industry in Fiji. These seemingly disparate concerns have connections to HIV vulnerability. In this paper I will use case studies from the mining boom in PNG, the sale of marine resources in Kiribati, and the working conditions of garment workers in Fiji create the economic and social conditions under which men and women are at risk of HIV.

PAPER NUMBER: 674	FINDING A CURE FOR HIV: THE NEED FOR SCIENCE, COLLABORATION AND ADVOCACY
Lewin SR[1,2,3] [1] Infectious Diseases Unit, Alfred Hospital [2] Department of Medicine, Monash University [3] Centre for Virology, Burnet Institute	Combination antiretroviral therapy (cART) has led to a major reduction in HIV-related mortality and morbidity but HIV can still not be cured. With the absence of an effective prophylactic or therapeutic vaccine, increasing numbers of infected people, emerging new toxicities secondary to cART and the need for life-long treatment, there is now a real urgency to find a cure for HIV. Achieving either a functional cure (long-term control of HIV in the absence of cART) or a sterilizing cure (elimination of all HIV-infected cells) remains a major challenge. Several studies have now demonstrated that treatment intensification with additional antiretrovirals (ARVs) appears to have little impact on latent reservoirs. Some potential and promising approaches that may reduce the latent reservoir include very early initiation of cART and the use of agents that could potentially reverse latent infection. Agents that reverse latent infection will promote viral production; however, simultaneous administration of cART will prevent subsequent rounds of viral replication. Drugs such as histone deacetylase inhibitors and methylation inhibitors, both currently used and licensed for the treatment of some cancers; cytokines such as IL-7; or other activating agents including prostratin and anti-PD-1, show promising results in reversing latency in vitro when used either alone or in combination. In addition, gene therapy has been shown to effectively reduce expression of the HIV co-receptor CCR5 in both animal models and ex vivo human studies. Newer gene therapy vectors such as homing endonucleases can also selectively target and excise integrated HIV, at least in in vitro models. Clinical trials of activating agents and gene therapy as potential strategies to reduce latent reservoirs are already underway and results from at least some of these studies should be available in the next one to two years. Ensuring access to ARVs must remain a top priority as no strategy for a cure for HIV can be entertained without effective ARVs for all who need it. Balancing funding priorities for treatment access as well as research for both an effective vaccine as well as a cure remains a difficult challenge, particularly in the current economic environment. Recent new initiatives to fund collaborative private-public partnerships, enhance community engagement and define a scientific road map for cure research are likely to significantly accelerate advances in the elusive path to finding a cure.

HIV/AIDS CONFERENCE PLENARY

PAPER NUMBER: 579	THE FIRST U.S. NATIONAL HIV/AIDS STRATEGY: PROGRESS AND PERIL
Mr. Dana Van Gorder Executive Director Project Inform	Background This presentation will discuss key goals and activities pursuant to the National HIV AIDS Strategy (NHAS), progress and substantive issues to date with its implementation, the potential for the effort to succeed, and remedial actions that will need to be taken if it falls short. Methods Nearly half of 1.2 million HIV-positive individuals in the U.S. have yet to engage in care and treatment, the nation suffers 50,000 new infections each year, and people of color and women experience poorer health outcomes than others affected by HIV/AIDS. President Barack Obama released the NHAS in July of 2011. The document has established a significant new direction in HIV/AIDS through its focus on directing resources to populations and geographies most impacted by the epidemic; expanded testing and linkage to care to improve individual health outcomes and prevent new infections; exploration of additional biomedical prevention approaches; and increased coordination of government agencies. Results Public and non-profit HIV/AIDS agencies have largely embraced the new direction established by the NHAS, and federal agencies have taken ambitious steps to implement it. However, successful outreach to those populations that have yet to engage in systems of HIV care and prevention, the size and complexity of the nation's HIV/AIDS infrastructure, the financing required to achieve its goals, and national politics pose substantial challenges to the success of the NHAS in achieving a new level of control over the epidemic. Conclusion Conceived as President Obama signed the Affordable Care Act, the ability of the NHAS to succeed is primarily dependent upon whether, in fact, access to health insurance coverage is finally extended to significantly greater numbers of U.S. residents, and secondarily dependent upon the ability of public and non-profit HIV/AIDS agencies to adopt more evidence-based approaches to their work.

NOTES

THEME B SYMPOSIUM: TEST AND TREAT-ISSUES OF OUTREACH

PAPER NUMBER: 63	TESTING & LINKAGE TO CARE PLUS TREATMENT: OVERCOMING RESISTANCE TO PARTICIPATION IN HEALTH CARE IN THE UNITED STATES
Mr. Dana Van Gorder Executive Director Project Inform	Background This presentation will discuss key structural and individual barriers to increasing uptake of testing and linkage to care and treatment (TLC+) in the U.S., and initiatives being used or needed to address those barriers. Methods Thirty years into a robust response to HIV/AIDS, half of 1.2 million HIV-positive individuals in the U.S. are not engaged in care and treatment despite overwhelming evidence of its benefits. The first National HIV/AIDS Strategy focuses on increasing HIV testing and quickly linking HIV-positive people to care and treatment in order to improve individual health outcomes and prevent new infections. A complicated set of factors drives low participation in TLC+. Socioeconomics, stigma and denial are often cited reasons. But insufficient knowledge about the benefits of TLC+ and availability of affordable health care, poor participation among care providers in efforts to promote it, and outdated ideas about the interests of HIV-positive people among AIDS service organizations (ASOs) also constitute barriers to progress in the epidemic. Results The results of HPTN052 emboldened efforts to encourage TLC+, and new initiatives are being launched to increase participation. These include streamlining laws and processes to encourage increased testing, locating testing in key clinical settings, creating incentives for providers to link HIV-positive people to care, focusing resources on jurisdictions of highest HIV prevalence, and social marketing in communities most affected by HIV. Additional initiatives are needed, however, such as increased efforts to promote testing through sexual networks, use of HIV surveillance data, and promotion of the benefits of TLC+ by ASOs. Conclusion Renewed focus on fundamental approaches to controlling the epidemic, increased understanding of the benefits of early treatment among healthcare providers and ASOs, appeals to HIV-positive people to participate in self care, coupled with expanded financing of care and treatment, could achieve major new gains against HIV and AIDS.

PAPER NUMBER: 64	ISSUES IN OUTREACH – A LOCAL PERSPECTIVE
Dr Olga Vujovic	

THEME B SYMPOSIUM: TEST AND TREAT-ISSUES OF OUTREACH

PAPER NUMBER: 609	CHALLENGES TO TEST AND TREAT: A PERSPECTIVE FROM THE PACIFIC
Dr Arun Menon	

PAPER NUMBER: 66	WHEN HIV-POSITIVE CHILDREN GROW UP: A CRITICAL REVIEW OF THE TRANSITION LITERATURE
Persson A[1] and Newman CE[1] [1] National Centre in HIV Social Research, The University of New South Wales, Sydney NSW Australia	**Background:** During the first decade and a half of the HIV epidemic, perinatally acquired HIV was regarded as an inevitably fatal illness in all parts of the world, with death likely to occur in early childhood. In contrast, most HIV positive children and young people living in high income countries now have access to effective treatments which have had a dramatic impact on their survival and quality of life. Many of these children are now ageing into adolescence and adulthood and this has given rise to a growing body of research literature on this population. **Methods:** In this paper, we review two of the most common themes in this literature, namely transition into adolescent sexuality and transition into adult clinical care. We present some key results from a critical discourse analysis which identifies several problematic assumptions which operate in this literature. **Results:** Young people with perinatally acquired HIV are framed within this literature as being inadequately equipped to manage these transitions without comprehensive interventions, partly due to challenges associated with adolescence itself, partly due to neurocognitive and psychosocial dysfunctions commonly attributed to these children. Yet little evidence is provided for these conclusions, particularly given the quite recent emergence of this population. **Conclusion:** Perinatally infected young people are often positioned as a 'problem' to be solved by experts, which hampers the objective of gaining a better understanding of this population in terms of their needs and difficulties, but also their capabilities and achievements. Paying more deliberate attention to these young people as a vital source of knowledge and information about what it means to grow up with HIV could offer invaluable insights into how clinical and psychosocial care services can most appropriately support this 'challenging' population as they move into adulthood.

THEME D PROFFERED PAPER SESSION: DRUGS, ALCOHOL AND HIV RISK

PAPER NUMBER: 461

SO SUCCESSFUL...YET SO FORGOTTEN THE EXCLUSION OF PEOPLE WITH A HISTORY OF INJECTING DRUG USE IN THE HIV/AIDS DEBATE AND RESPONSE

Nicky Bath[1], Sione Crawford[2], Annie Madden[3], Joe Kim[1]

1 NSW Users and AIDS Association

2 NSW Users and AIDS Association

3 Australian Injecting and Illicit Drug Users League

Background: The sixth National HIV Strategy 2010 – 2013 states that "HIV prevention among people who inject drugs has been highly successful in Australia. This success has been underpinned by the early introduction and maintenance of NSPs and the contribution of peer-based education and drug-user organisations in HIV prevention. Despite this early success, however, injecting drug users are still a priority population because rates of HIV among this group are sensitive to even small adjustments in the availability of injecting equipment."

The continued inclusion of people who inject as a priority population in the strategy, is of course welcomed by drug user organisations across the country. Australia's drug user organisations recognise that there is no room for complacency and the threat of an increase in HIV infections among people who inject is real and requires focus, energy and revitalisation.

Methods: This paper will explore the positioning of HIV amongst people who inject in the Australian context from two perspectives:

1. Individual – by examining an evaluation of an education resource published by the Australian Injecting and Illicit Drug Users league, (AIVL) that was launched to coincide with World AIDS Day 2010
2. Organisational – by discussing both the national (AIVL) and a state wide (NSW Users and AIDS Association) drug user organisation's experiences of participating in the HIV response.

Results: The presentation will show that at the individual level, HIV remains an important issue for people who inject.

Conclusions: From an organisational perspective, the presentation will show that rather than being heralded for the success achieved, drug user organisations at times struggle to be heard.

DISCLOSURE OF INTEREST STATEMENT:

N/A

PAPER NUMBER: 522

SUPPLY, DEMAND AND HARM REDUCTION STRATEGIES IN AUSTRALIAN PRISONS

Dolan, K.[1] Rodas, A. & Bode, A[2].

1. National Drug and Alcohol Research Centre, UNSW,

2. Australian National Council on Drugs.

Background: Internationally people with HIV are over represented among prison populations, except in Australia. Inmates with D&A (drug and alcohol) problems are vastly overrepresented in Australian prisons. Therefore imprisonment provides an opportunity to address D&A problems and to prevent harms such as HIV and HCV transmission, re incarceration and post release mortality.

Methods: Jurisdiction were surveyed about drug use by prisoners, components of their Strategy eg urinalysis, drug detector dogs, drug withdrawal, HIV and hepatitis C testing, D&A programs and post release programs. Relevant literature was reviewed. Applications were submitted to 17 ethics committees.

Results: Significant delays in obtaining approval were experienced and 2 jurisdictions declined to complete the survey. Females had higher levels of drug use than males and a history of amphetamine use was higher than heroin use. In general, urinalysis and drug dogs detected little drug use or few drugs in prison. Drug withdrawal at, or prior to, prison entry was common. HIV remained very low (<1%) and HCV low (15-32%). Numerous D&A programs operated, without rigorous evaluations. The availability of methadone ranged from 0 to 25% with a national average of 10%. Methadone was found to reduce post release mortality and re-incarceration.

Conclusion: Most prison departments engaged in unnecessary delays (except Justice Health NSW) in providing data, if at all. Harm Reduction Strategies in Australian prisons were varied but in the most part not based on evidence. Independent rigorous research could guide each Strategy to be more effective. In general D&A treatment for people and harm reduction could be improved to reduce the rate of re-incarceration and post release mortality.

Disclosure of interest

We disclose that the ANCD funded this study and one author, Adam Bode, is employed by the ANCD

THEME D PROFFERED PAPER SESSION: DRUGS, ALCOHOL AND HIV RISK

PAPER NUMBER: 48

DRUG USERS COMMUNITY ACTIVISM: REVISED INDONESIAN NARCOTICS LAW, DRUG USERS REHABILITATION AND DECRIMINALIZATION.

Andreas Pundung [1]

Issue: Harm reduction principles and drug users decriminalization in the new Indonesian narcotics law.

Description: Since 2005, the Indonesian government to revise the Narcotics Act (act No.22/1997) as a reaction to large amounts of illegal drugs trade and drug users in Indonesia. Unfortunately, governments still use a represive approach to address the demand for illicit drugs at home. As a result, drug users as victims of illegal drugs market is still criminalized in the new drug bill. On the other hand, the drug user community has grown larger and larger in Indonesia. They also began to have enough knowledge about the relationship between criminalization and HIV transmission among injecting drug users. They learn from the experiences of other countries that public health approach better than using a security approach in dealing with drug users in Indonesia. To recommend the idea of using public health approach in the new bill, the drug user community began to build alliances with human rights and legal aid organizations and began to demand the government to implement the idea through a series of lobbying, campaigning, and legal advocacy work. As a result, a new Narcotics Act (act No.35/2009) puts Rehabilitation for drug users as a primary goal of the set actions. The action itself has begun to apply the principles of harm reduction to reduce HIV transmission among injecting drug users.

Lessons learned: Community involvement of drug users is the main key to success in changing the drug policy in Indonesia.

Next steps: Drug user community was to monitor and be involved in develop rules for implementation of the new narcotics measures to ensure implementation of the principles of harm reduction and human rights-based approach against drug users to cut or at least reduce HIV transmission among injection drug users.

PAPER NUMBER: 368

THE ROLE OF ALCOHOL IN THE SELLING AND EXCHANGING OF SEX IN PORT MORESBY

Dr Nicola Man [2], Dr Angela Kelly [1], Mr Aeno Herick [1], Ms Martha Kupul [1], Dr Patrick Rawstorne [2], Associate Proffessor Heather Worth [2]

1 Papua New Guinea Institute of Medical Research,

2 University of New South Wales

Background: Sex workers are considered a more-at-risk population for HIV. In order to inform PNG policy and programming, a study was conducted to ascertain risk and vulnerability to HIV. This paper examines the central role that alcohol and drugs play in HIV risk amongst the sex worker population in Port Moresby.

Methods: An Integrated Bio behavioral Survey using Respondent Driven Sampling was undertaken in Port Moresby in 2010. A total of 593 men, women and transgender who had sold or exchanged sex in the past 6 months participated in the study. Twenty-five also participated in an in-depth interview.

Results: The majority of participants reported having been under the influence of alcohol and/or drugs during sex with a client in the last 6 months (84%) and at the last occasion (78%). Most of them were under the influence of alcohol only (60% of overall) or alcohol and drugs (15%) on the last sex occasion with a client, and 3% were under the influence of drugs only. More transgender (91%) were under the influence of alcohol and/or drugs compared with women (76%) and men (77%) at last sex with a client ($p=0.04$), while more men (40%) compared with transgender (21%) and women (13%) were under the influence of drugs ($p<0.001$). Being under the influence of alcohol and/or drugs was the second most common reason provided for not using a condom at last sex with a client. Qualitative data further illustrates the role of alcohol in the selling of sex.

Conclusion: Alcohol use remains a serious concern in this population. Following community consultation regarding these findings, the sex worker community has made a recommendation that programs need to be designed which facilitate the skills of sex workers to make informed work safety choices including but not limited to separating work from drinking.

Disclosure of interest: This research was funded by AusAID through a *Targetted HIV Social Research Grant* to the International HIV Research Group of the University of New South Wales, Australia. This research was conducted in Partnership with the Papua New Guinea Institute of Medical Research with the support of the members of the community who sell and/or exchange sex in Port Moresby, Papua New Guinea.

THEME D PROFFERED PAPER SESSION: DRUGS, ALCOHOL AND HIV RISK

PAPER NUMBER: 608	KAVA AND HIV RISK IN FIJI
Associate Professor Heather Worth[1] [1]School of Public Health and Community Medicine, University of New South Wales	Kava is consumed throughout the Pacific. It is a drink made from by sun-dried kava root which is pounded into a fine powder and mixed with water. It has both sedative and anesthetic properties. In Fiji, it is commonly known as ***grog*** and is often a central component in bringing people together for storytelling and socializing. However, there are claims that kava drinking puts people at risk of HIV. In this paper I will discuss the relationship between kava drinking and HIV using evidence from three studies in Fiji. I will argue that none of the studies shows a correlation between kava consumption and unsafe sex; and on the contrary I will argue that kava drinking as the centrepiece of a collective endeavour may be a fruitful tool for HIV prevention.

NOTES

THEME B PROFFERED PAPER SESSION: NEW CONCEPTS IN PRIMARY CARE

PAPER NUMBER: 508

VIDEOCONFERENCING TO FACILITATE HIGH QUALITY CARE OF HIV PATIENTS ACROSS A WIDE GEOGRAPHICAL AREA: 18 MONTHS EXPERIENCE OF AN HIV 'VIRTUAL CLINIC' IN QUEENSLAND.

Dr Mark Kelly[1], Dr Jennifer Broom[2], Dr David Sowden[2]

[1] Brisbane Sexual Health and HIV Service,

[2] Department of Infectious Diseases, Nambour Hospital

Background: HIV clinical care in Queensland is provided in diverse clinical settings, over a large geographical area. Clinical experience ranges from a full time caseload of HIV patients to clinicians who manage only a small number of patients per year. Complex antiretroviral regimens, a rapidly changing body of evidence regarding treatment, and a patient cohort with multiple co morbidities associated with long term chronic disease, have resulted in HIV clinical care becoming increasingly complicated and requiring of specialist consultation. Videoconferencing has the potential to overcome geographical challenges to clinician interaction.

Methods: A monthly videoconference with participation from 8 HIV clinics from a broad geographical area was set up in 2009. At each conference a clinical case would be presented by one clinic, a registrar would review the literature on the challenging clinical aspects of the case, and an HIV specialist from an alterative clinic would discuss the case. Open discussion would follow and a consensus decision on the difficult clinical aspects of the case would be reached.

Results: 15 HIV virtual clinics have been conducted over an 18 month period. A broad range of clinical issues were presented including management of: antiretroviral resistance, immune discordant responses to antiretroviral therapy, aggressive lymphoma, renal disease, dyslipidaemia, complicated syphilis and pregnancy in a noncompliant HIV positive female. Clinical consensus was reached on a majority of occasions. A high level of participation continues.

Conclusion: Videoconferencing was successfully utilised to allow specialist consultation on complex HIV cases across HIV clinics in Queensland. Future research is planned to assess whether the consensus opinion of the virtual clinic is taken up by the presenting clinic, and to examine the process of videoconferencing by telemedicine specialists to determine barriers to communication and achieving desired outcomes in this process.

Disclosure of Interest

All participants are employed by Queensland Health. No external funding (including pharmaceutical grants) was received in the development of this project.

PAPER NUMBER: 542

TREATMENT OF BLOOD-BOURNE VIRUSES IN GENERAL PRACTICE: PROGRESS AND CHALLENGES

David Baker[1,2]

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Background: National Strategies call for increased involvement of general practice in providing care for people living with HIV and chronic hepatitis B and C. Antiviral therapy can be prescribed for HIV infection by trained GPs but not in general for hepatitis B or C. This paper described the uptake of antiviral treatment in these groups in a large urban general practice.

Methods: Data was extracted from the clinic database for HIV chronic hepatitis B (CHB) and chronic hepatitis C (CHC) and supplemented with data from a CHB medical record audit and data from the Australian HIV Observational Database (AHOD).

Results: There were 1572 patients with HIV infection and of 169 patients also enrolled in AHOD 94% were being treated with antiretroviral therapy with 94% having undetectable viral loads. 44 of 130 patients with CHB were selected for an audit. Of HIV-CHB patients, 84% were on HBV therapy and in 69% therapy was administered by the general practice with a negative current HBV viral load in 73%. Among the HIV-negative CHB patients, 22% were on HBV therapy and in all cases the therapy was administered by a specialist clinic. Only 7 of 1538 patient with chronic with hepatitis C (CHC) were being treated with interferon/ribavirin therapy within the general practice (under a new pilot program).

Conclusions: Treatment uptake in this setting is high for patients with HIV and HIV- CHB co-infection but low with CHB mono-infection and CHC. Expanding the HIV primary-care model to allow antiviral therapy to be provided to people living with CHB and CHC may increase uptake within these populations.

DISCLOSURE OF INTEREST STATEMENT:

No pharmaceutical grants were received in the development of this study

THEME B PROFFERED PAPER SESSION: NEW CONCEPTS IN PRIMARY CARE

PAPER NUMBER: 130

POOLED WEEK-48 SAFETY AND EFFICACY RESULTS FROM ECHO AND THRIVE PHASE III TRIALS COMPARING RILPIVIRINE (RPV) VS EFAVIRENZ (EFV) IN TREATMENT-NAIVE HIV-1-INFECTED PATIENTS RECEIVING EMTRICITABINE/ TENOFOVIR (FTC/TDF).

Dr Mark Bloch[1], Dr Mark Nelson[2], Dr S Walmsley[3], Dr P Ruane[4], Dr D Jayaweera[5], Dr S Vanveggel[6], Dr P Williams[6], Dr K Boven[7], Dr B Guyer[8]

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Background: RPV can be combined with FTC/TDF into a single tablet regimen (STR). EFV combined with FTC/TDF is already available as an STR. Therefore, the aim of this study was to compare the efficacy and safety of these two once-daily regimens..

Methods: Treatment-naïve adult patients (N=1096) received RPV 25mg qd or EFV 600mg qd in combination with FTC/TDF in ECHO (n=686) and in a subset of subjects in THRIVE (n=410). The primary objective was to demonstrate non-inferiority (12% margin) of RPV to EFV in confirmed virologic response (ITT-TLOVR) at Week 48. The pooled 48-week primary analysis results of the subset of subjects receiving FTC/TDF as a background regimen in two double-blind, randomized, double-dummy RPV versus EFV Phase III studies, ECHO and THRIVE, are presented.

Results: RPV + FTC/TDF (n=550) was non-inferior to EFV + FTC/TDF (n=546) across all categories of baseline viral load (VL); ITT-TLOVR VL <50 copies/ml 83.5% compared to 82.4% respectively (95% CI; 1.0 [-3.4, 5.5]) and in those >95% adherent 86.5% compared to 88.2%. There were fewer virologic failures in the EFV group; 9.5% vs 4.2 % respectively. Adherence was a strong predictor for response. Incidences of the following tolerability measures were significantly lower in the RPV group than in the EFV group: adverse events (AEs) leading to discontinuation, grade 2–4 AEs possibly related to treatment, rash, dizziness, abnormal dreams/nightmare, and grade 3/4 laboratory abnormalities for lipids.

Conclusions: At Week 48, RPV+FTC/TDF was non-inferior to EFV+FTC/TDF across a broad range of patients. There was a high virologic response rate in both groups with fewer virologic failures in the EFV group and fewer incidences of AEs leading to discontinuation in the RPV group. Overall, the data support the clinical benefit of FTC/RPV/TDF currently in development as a once-daily, STR for the treatment of HIV infection.

DISCLOSURE OF INTEREST STATEMENT:

This study was funded by Gilead Sciences Inc. Foster City, California, USA

PAPER NUMBER: 333

HOW RECENTLY DIAGNOSED GAY MEN FEEL ABOUT THE PROSPECT OF HIV TREATMENTS

Mr Ian Down[1,2], Mr Jack Bradley[1], Dr Jeanne Ellard[3], Dr Graham Brown[2,4], Associate Professor Garrett Prestage[1,2]

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[3] National Centre in HIV Social Research, University of New South Wales, Sydney, NSW, Australia

[4] Curtin University, Perth, WA, Australia

Background: Recent research has suggested that early initiation of antiretroviral treatment by those newly diagnosed with HIV may result in improved health outcomes. There is growing evidence this may also significantly reduce the likelihood of onward transmission of the virus to their sex partners. This paper explores how recently diagnosed gay men in Australia feel about the prospect of beginning treatment.

Methods: 54 men recently diagnosed with HIV infection across Australia were interviewed as part of the HIV Seroconversion Study. Participants spoke about their knowledge of HIV treatments, and their feelings about the prospects of beginning treatment.

Results: While the idea of starting HIV treatments provided some participants with a sense of control over the virus, others expressed a preference that their body be allowed to regulate its immune system without the introduction of medication for as long as possible. Some participants seemed to believe that the advent of treatments had had little effect on their prognosis, and others appeared to have limited knowledge of the advances in treatments over time and were fearful of side effects typically associated with older classes of drugs. Many participants were concerned that adherence would be difficult, while some were apprehensive about the prospect of beginning a regimen of therapy they would have to maintain for the rest of their lives.

Conclusions: If early initiation of treatment is to be encouraged, appropriate mechanisms must be in place to provide recently diagnosed individuals with the information and support they need to enable them to make informed choices and to address their fears.

THEME B PROFFERED PAPER SESSION: NEW CONCEPTS IN PRIMARY CARE

PAPER NUMBER: 353	HIV TRANSMISSION AND HIV TESTING : POLICY TO PRACTICE
Ms Levinia Crooks	In 1994 the Intergovernmental Committee on AIDS put in place a set of guiding principles governing HIV testing. Similar principles had been included in National Strategies. The first HIV Testing Policy was released in 1998, reviewed in 2006 and then again in 2011. The question is why is an HIV Testing Policy still required; what does the 2011 policy offer which can translate into practice and can it accommodate to new and emerging evidence. Australia is recognised as having a high testing rate and sound surveillance system. But recent modelling suggests that up to 20% of people living with HIV may be unaware of their status. Importantly when asked their status, around 80% (all be it small samples) of gay men incorrectly indicate that they are HIV negative. We are also beginning to see increasing infection rates among some migrant populations and while gay men remain the highest priority for prevention messages the make-up of the HIV infected population in Australia is changing. A look back analysis of stored sera has demonstrated that there are a number of identifiable clusters of HIV, where infections are likely to have occurred during sero-conversion, or soon after exposure. This seems to be supported by the behavioural data and our virological data tells us that people are most infectious soon after infection or much later on in the context of untreated infection. More analysis is required, to try and get a better understanding about exactly when infections are occurring. People living with HIV will provide a great insight into this but patient reports alone will not answer this question. Clinicians report that, when asked how recently you had your last PAP smear, dental consult or HIV test, patients are highly inaccurate and generally believe this has happened more recently that records reveal. Likewise discrepancy between believed and pathology confirmed sero-status suggests that individuals may be inaccurate in identifying their infection-resulting event when asked retrospectively. If a significant number of infections are occurring at or near sero-conversion and these are also resulting in onward transmission, then simply increasing opportunities for testing may not have the impact on transmission which is hoped for. This presents us with the dilemma of having to explain very complex messages about transmission. The new approach to HIV Testing Policy may provide a vehicle for continuing this exchange of ideas.

NOTES

THEME A PROFFERED PAPER SESSION: BENCH TO BEDSIDE-TRANSLATION OF BASIC SCIENCE INTO THE CLINIC

PAPER NUMBER: 548

NULLBASIC; A POTENT PROTEIN-BASED HIV-1 INHIBITOR CAN PREVENT HIV-1 REPLICATION IN HUMAN T CELLS.

Ann Apolloni[1], Min-Hsuan Lin[1], Michael H. Kershaw[2] and David Harrich[1].

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Introduction: Previous work has shown a novel mutant of the 2-exon HIV-1 Tat protein, termed Nullbasic, was able to potently inhibit multiple steps of the HIV-1 replication cycle. [1]. We established a Moloney murine leukaemia virus (MoMuLV) retroviral vector system to produce virus like particles that could express Nullbasic-EGFP or EGFP. Jurkat cells, a human CD4+ T cell line, were then transduced with these Moloney virus like particles. Transduced cell lines were infected with HIV-1 to assess the effect of MoMuLV Nullbasic-eGFP on HIV-1 replication.

Methods: Nullbasic was created by replacing the entire arginine-rich basic domain of WT Tat with glycine residues. GCsamEN-Nullbasic-EGFP or GCsamEN-EGFP were transfected to produce (MoMuLV) transducing particles. VLP were used to transduce Jurkat cells in retronectin coated plates. 48hrs post transduction, EGFP-positive cells were collected by FACS and stable lines established. Prior to infection Jurkat cells expressing EGFP were enriched using FACS. 48hrs later Jurkat-NB-EGFP, Jurkat-EGFP and parental Jurkat cells were infected with HIV-1. HIV-1 replication was monitored over an 18 day period using an HIV-1 p24 antigen ELISA. EGFP expression was also monitored by FACS during this period.

Results: Approximately 80-90% of the Jurkat-Nullbasic-eGFP and Jurkat-eGFP cell lines were positive prior to infection with HIV-1.

HIV-1 replication was sharply reduced in Jurkat-Nullbasic-EGFP cells compared to Jurkat-EGFP cells over an 18 day period. The replication experiments also monitored the effect of G418 and showed replication results were unaffected by the presence of G418 over the time period of analysis. Also flow cytometry analysis showed that Nullbasic-EGFP and EGFP were stably maintained for several months suggesting that expression of Nullbasic was not cytotoxic.

Discussion: We are currently repeating these replication experiments in primary CD4+ human PBMCs which have been transduced with the same Moloney virus like particles as above. It is more than likely that HIV-1 infection of these transduced CD4+ PBMCs will yield the same results as for the Jurkat transduced lines which would then support the likelihood that Nullbasic will be a very potent antiviral agent that will strongly inhibit HIV-1 replication in vivo.

Therefore we are looking at using animal models such as a PBL-RAG2-hu model to monitor HIV-1 infection to determine if Nullbasic 1) is stably maintained 2) can protect CD4+ T-cells from HIV-1 infection and 3) can reduce viral loads during acute infection in "treated" mice.

PAPER NUMBER: 597

HIV ANTIGENS CONJUGATED TO TLR2 AGONISTS STIMULATE A TH17 RESPONSE IN HIV INFECTED LONG TERM NONPROGRESSORS

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Background: New approaches to HIV immunogenicity and vaccine development are urgently needed. The infection and depletion of gut and blood (helper)

CD4 lymphocytes which secrete interlukin IL17 (Th17 cells) appears to be a major factor in progression of SIV infection to AIDS in new world monkeys compared to the benign course in old world monkeys. Such depletion of Th17 lymphocytes has also been shown in intestine of HIV infected humans. Stimulation of human dendritic or Langerhan-like cells with TLR2 agonists can induce the Th17 phenotype in contacting CD4 lymphocytes.

Methods: Therefore we conjugated two HIV peptides, previously shown to be broadly recognised by CD4 lymphocytes, to the Toll like receptor 2 (TLR2) agonist, Pam2Cys. (Similar HSV derived lipopeptides bind to dendritic cells and NK cells and stimulates their maturation or activation via TLR2).

Results: In two HIV long term non progressors (LTNPs: which have preserved CD4 memory lymphocyte responses peptide A, conjugated to Pam2Cys, stimulated a twofold or greater increase in both interleukin 17 and interferon y responses from both CD4 (Th17) and CD8 Tc17) lymphocytes, as measured by intracellular cytokine staining. IL17 responses were slightly greater from CD8 than CD4 lymphocytes but were not induced by another HIV lipopeptide, unconjugated HIV peptides or from normal controls. IFNγ responses were greater from CD4 than CD8 lymphocytes.

Conclusions: Thus dual Th/Tc1 and Th/Tc17 responses can be stimulated in the same patient. These responses need to be examined over time for durability in the same patient and also in acute seroconverters to HIV determine whether they correlate with preservation of immunity or progression to disease. Such conjugation of antigenic peptides to TLR agonists has been proposed as vaccine candidates for other viruses and could contribute to an HIV vaccine, perhaps via the mucosal route.

THEME A PROFFERED PAPER SESSION: BENCH TO BEDSIDE-TRANSLATION OF BASIC SCIENCE INTO THE CLINIC

PAPER NUMBER: 422

ANTI-HIV ANTIBODIES FROM BOVINE COLOSTRUM MEDIATE SPECIFIC KILLING BY HUMAN IMMUNE CELLS

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Background: Bovine colostrum is a cost-effective source of very large quantities of antibodies (Ab). HIV-specific neutralising Ab and Ab-dependent cellular cytotoxicity (ADCC)-specific Ab, as highlighted by the Thai RV144 vaccine efficacy trial, play a potential role in protection against HIV-1 infection. Bovine colostrum-derived Ab that mediate both neutralising and/or ADCC activity, could potentially provide an effective and low cost means of preventing HIV transmission.

Methods: Two dairy cows were vaccinated intramuscularly with 100µg of purified envelope protein (Env) gp140 oligomers of clade A, B or C before conception. Colostrum IgG were purified and analysed for Env-binding by ELISA. Colostrum IgG were tested for their binding to Fc-receptors on human immune cells using whole blood flow cytometric assays. Colostrum IgG-mediated killing was measured by the rapid fluorometric ADCC assay (RFADCC) using CEMNKr cells and PBMCs from healthy human donors.

Results: Purified colostrum IgG from both cows specifically bound to gp140 Env in ELISAs at concentrations ≥ 1.6 µg/ml and showed broad neutralisation at concentrations ≥ 1.6 µg/µl. Colostrum-derived IgG bound Fc-receptors (FcR) of human neutophils, monocytes and NK cells in a dose-dependent manner. FcR-mediated killing of gp140-coated CEMNKr cells was observed for anti-gp140 colostrum IgG but not for non-immune colostrum IgG. No killing of CEMNKr cells was detected in the absence of gp140.

Conclusion: Colostrum-derived polyclonal Ab showed broad cross-clade binding if cows were vaccinated with HIV-1 Env gp140 oligomers. Our results show that IgG with high binding ability to gp140 have robust ADCC function and mediate HIV-specific killing through human immune cells, suggesting bovine IgG are functional in the human host. FcR-mediated cell functions have the potential to provide a rapid and potent response against both free HIV-1 and HIV-infected cells, which might be particularly important in Ab-mediated approaches for prevention of HIV transmission.

There are no conflicts of interests.

PAPER NUMBER: 533

HACH STUDY: MONOCYTE ACTIVATION MARKERS ASSOCIATED WITH CARDIOVASCULAR DISEASE IN HIV PATIENTS

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Background: Chronic HIV infection increases the risk of developing cardiovascular disease (CVD). Activated monocytes play an important role in CVD pathogenesis due to production of pro-inflammatory cytokines, transendothelial migration into atherosclerotic lesions and foam cell formation. In the HaCH Study (HIV and Cardiovascular Health) we investigated monocyte-related biomarkers for predicting CVD in HIV patients.

Methods: 52 cases and 50 controls have been recruited for the HaCH Study. HIV-infected participants were all receiving antiretroviral therapy. Carotid intima-media thickness (cIMT) was used as surrogate clinical endpoint. Blood serology was conducted at The Alfred Hospital. Traditional risk factors were recorded. We measured monocyte activation and chemokine receptor expression as novel candidate predictors of atherosclerosis via flow cytometric analysis. Plasma markers were measured via ELISA. Correlations were assessed using univariable and multivariable median regression.

Results: Cases and controls were well matched and had similar systolic blood pressure, BMI, fasting lipids, glucose, D-dimer and fibrinogen levels. Proportion of smokers and diabetes was significantly higher in cases than in controls ($p<0.0001$; $p=0.026$). Cases had significantly higher Framingham risk scores than controls ($p=0.002$) and higher hsCRP values ($p=0.002$). Median cIMT was slightly higher in cases (0.617mm) compared to controls (0.598mm). Changes in surface and plasma marker expression in HIV infection and correlation with cIMT will be presented. CD11b expression on monocytes was increased in HIV infected individuals ($p\leq0.0001$), but, unexpectedly, showed an inverse correlation with cIMT. CD11b expression on monocytes was an independent predictor for cIMT (controlling for traditional risk factors) on multivariable median regression ($p<0.005$).

Conclusions: The inverse association between CD11b and cIMT in both HIV-infected and uninfected individuals suggests that adhesion of CD11b+ monocytes to activated endothelium leads to depletion of CD11b+ monocytes in the circulation of patients with high cIMT. Increased recruitment of monocytes into atherosclerotic plaques via activated CD11b may promote atherosclerosis.

Disclosure of interest statement

No conflicts of interest.

THEME A PROFFERED PAPER SESSION: BENCH TO BEDSIDE-TRANSLATION OF BASIC SCIENCE INTO THE CLINIC

PAPER NUMBER: 232

THE SEARCH FOR A SIMPLE TEST TO PREDICT IMMUNE RESTORATION DISEASE ASSOCIATED WITH MYCOBACTERIUM TUBERCULOSIS

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Background: Immune restoration disease associated with co-infection with *Mycobacterium tuberculosis* (TB IRD) causes significant morbidity and mortality among HIV patients who commence antiretroviral therapy (ART) in resource-poor countries where tuberculosis is endemic. TB IRD may present as a "paradoxical" worsening of TB following initial improvement on TB therapy, after initiation of ART or as "unmasking" of TB not clinically apparent pre-ART. A better ability to predict IRD would improve patient management.

Methods: Plasma samples were collected before the initiation of ART from TB-IRD patients identified in New Delhi, India (n=19), Kuala Lumpur, Malaysia (n=7), Jakarta, Indonesia (n=5), Phnom Penh, Cambodia (n=26) and Durban, South Africa (n=29). Patients from each clinic without TB IRD were assayed in parallel. Plasma levels of immunoglobulin-G (IgG) to purified protein derivative (PPD), lipoarabinomannan (LAM) and 38kDa antigens of Mtb were assessed using in-house ELISAs. Chemokines, 1,25(OH)2 Vitamin D3, IL-18 and soluble CD14 were assayed by cytometric bead array or commercial ELISAs. Polymorphisms in immune-related genes were detected with Taqman probes using Cambodian and Indian samples.

Results: Pre-ART IgG levels to PPD, LAM and 38kDa antigen were similar in the IRD and control groups at each site. Plasma levels of 1,25(OH)2 Vitamin D3 were influenced by ethnicity but were also similar in IRD patients and controls. The genetic analysis identified weak associations with a vitamin D receptor allele and IL18 in Indian patients. The most notable finding was that IRD patients start ART with low levels of chemokines that may control mycobacteria. This was clearest with CCL2 and CXCL8.

Conclusions: The association between low chemokine levels and IRD is consistent with the hypothesis that IRD arise when HIV patients begin ART with elevated levels of replicating mycobacteria and/or mycobacterial antigen.

Disclosure of Interest

I certify that no authors have a conflict of interest in relation to this abstract

NOTES

SATELLITE SESSION: ADDRESSING THE BARRIERS OF STIGMA, DISCRIMINATION AND CRIMINALISED AND ENVIRONMENTS IN ASIA AND THE PACIFIC. *SPONSORED BY AUSAID. PRESENTED BY THE HIV CONSORTIUM.*

This symposium will look at stigma, discrimination and the impact of laws that criminalise people who are at risk of HIV. It will explore the effect these barriers have on implementing effective HIV responses in Asia and the Pacific and explore strategies to address these barriers.

This session will include presenters from countries from the region. Presentations will focus on partnership approaches, effective strategies, activities and advocacy efforts to address barriers. The session will cover topics relevant to community and peer based advocates, health care workers, as well as relevant new research.

PAPER NUMBER: 678 — WORKING TOWARDS LAW REFORM FOR SEX WORKERS IN PNG

Sally Joseph

Friends Frangipani, Papua New Guinea

Background: Friends Frangipani are the national sex workers association of Papua New Guinea. Sex work is criminalized in PNG and sex workers are subjected to stigma and discrimination, poor treatment and violence. However the laws are currently under review. Friends Frangipani are advocating for s ex workers rights and working towards decriminalization as part of the national response to HIV.

Methods

FF are members of the Community Development Minister's Reference Group on Decriminalisation.
We have a voice/face in the National Dialogue on HIV and the LAW (June 2011).
We will be facilitating discussion groups as part of the national dialogue.
Working with other affected communities (MSM/TG/PLHIV) we will represent a united voice.
Presentation at international forums/dialogues.

Results

Through our advocacy:
FF members are more aware of human rights and legal issues
Marginalised communities are more mobilized
Our families and communities are more aware of our issues
Some NGHOs are stakeholders are supportive
FF is becoming internationally recognized
Individual politicians are becoming supportive
There have been many challenges and barriers to participation in law reform:
We experience some difficulty participating in meetings
Not friendly attitude from some groups (eg national women's groups)
Not being given space to talk/being underestimated
Language barriers/education levels
Not being informed/invited to meetings
Weak implementation of the GIPA principle.

Conclusion

We will wait to see how the review of laws will be received
Strong opposition from churches – saying we are practicing immorality
It will take time to change people's thinking
We are optimistic that the government will respond to this as a public health issue.

PAPER NUMBER: 679 — "I AM GOING TO DIE ANYWAY": STIGMA FROM WITHIN IDU COMMUNITY IN MAKASSAR, SOUTH SULAWESI

Nurul Ilmi Idrus

Faculty of Social and Political Sciences, Hasanuddin University Makassar, Indonesia

Shanti Riskiyani

Faculty of Public Health, Hasanuddin University Makassar, Indonesia

According to the National Action Plans and Strategies (SRAN 2010-2014), stigma is one of the seven challenges in the effort to control HIV and AIDS in Indonesia and particularly evident among people who inject, as one of the most-at-risk groups. Most studies on the stigmatization of PLWHA focus on the role of the general public or people's experiences with health services with little concern for how stigma is played out within a community from its own members. This study addresses a gap identified in the literature on stigma, namely stigma from within IDU communities.

Among 3895 PLWHA in South Sulawesi, 3058 live in the capital city of Makassar where this study was carried out. Through focus groups and in-depth interviews with twenty IDUs, we explore various forms of HIV-related stigma from within the IDU community, specifically the effect of stigmatization, and feelings and experiences of stigmatization within their daily interaction with their community.

The study shows how IDU are stigmatized against by others from within their community and the form in which this stigmatization takes place, including gossip (on the basis of physical appearance, suspicion when visiting referenced clinics), social isolation, and other avoidance strategies.

Stigmatization within IDU living with HIV and AIDS has significant implications on the decision to take a HIV test and disclosure, and is expressed: "It's better to die without knowing HIV status than to get tested and being stigmatized by other IDU." This expression demonstrates that stigma experienced from within the community is an issue that needs to be addressed in an effort to end stigma and discrimination against PLWHA.

PAPER NUMBER: 680 — THE CONTINUING CHALLENGES OF STIGMA SURROUNDING HIV IN PREVENTING SUCCESSFUL IMPLEMENTATION OF PMTCT PROGRAMS IN BALI

Dr Luh Putu Lila Wulandari, MPH* (presenter) Dinar SM Lubis, MPH* Emily Rowe, PhD** dr D.N.Wirawan, MPH**

* School of Public Health, Faculty of Medicine, Udayana University, Bali, Indonesia

** Kerti Praja Foundation

In this presentation we will talk about how stigma, based on our project experiences, can be a challenge across all PMTCT cascade, from improving the number of women being referred to VCT clinic, of women willing to undergo test, of women whose test found to be positive and referred to PMTCT services for caesarean section, of women who are HIV positive and on ARV treatment. We will discuss the current interventions available in Bali to help women dealing with stigma. We will propose recommendations for improved interventions in addressing stigma in the community.

THEME D SYMPOSIUM: SHOULD SYRINGES BE GIVEN TO PRISONERS?

Currently this issue is a hot topic in the ACT. A recent report by the Public Health Association of Australia examined different options for operating a needle and syringe program in the ACT prison. Come and hear two teams debate the topic.

AFFIRMATIVE-

Amanda Bresnan, ACT Greens, Canberra, ACT, Australia

Helen Tyrrell, Chief Executive Officer, Hepatitis Australia, Canberra, ACT, Australia

Annie Madden, Executive Officer, AIVL, Canberra, ACT, Australia

NEGATIVE-

Kim Sattler, Secretary, Unions ACT, ACT, Australia

NOTES

THEME B PROFFERED PAPER SESSION: LONG TERM SURVIVAL – THE GOOD, THE BAD AND THE UGLY

PAPER NUMBER: 257

EXAMINATION OF LONG TERM SURVIVAL IN HIV POSITIVE PATIENTS WITH UP TO 15 YEARS OF ANTIRETROVIRAL THERAPY

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Background: Life expectancy has increased for newly diagnosed HIV patients since the inception of combination antiretroviral treatment (cART), but there remains a need to better understand the characteristics of long-term survival in HIV-positive patients. We examined long-term survival in HIV-positive patients receiving cART in the Australian HIV Observational Database (AHOD), to describe changes in mortality compared to the general population and to develop longer-term survival models.

Methods: Prospective data were examined from 2,675 HIV-positive participants in AHOD who started on cART. Standardised mortality ratios (SMR) were calculated by age, sex, and calendar year across prognostic characteristics using Australian Bureau of Statistics national data as reference. SMRs were also examined by CD4 category (<350 cells/µl, 350-499 cells/µl, ≥500 cells/µl) by year of duration of cART (<3, 3-5, 6-8, 9-11). Survival was analysed using Cox-proportional hazards and parametric survival models.

Results: The overall SMR for all-cause mortality was 3.5 (95% CI: 3.0-4.0). SMRs by CD4 count were 8.9 (95% CI: 7.5-10.6) for CD4<350 cells/µl; 2.0 (95% CI: 1.4-2.8) for CD4=350-499 cells/µl; and 1.5 (95% CI: 1.1-2.0) for CD4 ≥500 cells/µl. In patients with CD4 ≥500 cells/µl, SMRs were 1.7 (95% CI: 0.7-4.1) for those on cART<3 years, 1.3 (95% CI: 0.7-2.5) for cART 3-5 years, 1.9 (95% CI: 1.1-3.1) for cART 6-8 years and 1.3 (95% CI: 0.8-2.2) for cART 9-11 years. Multivariate models demonstrated improved survival associated with increased recent CD4, reduced recent viral load, younger patients, absence of HBVsAg positive ever, year of HIV diagnosis and incidence of ADI. Parametric models showed a fairly constant mortality risk by year of cART up to 15 years of treatment.

Conclusion: Observed mortality remained fairly constant by duration of cART and was modeled accurately by accepted prognostic factors. In patients with CD4 counts>500 cells/µL, mortality was slightly raised compared with the general population.

PAPER NUMBER: 210

THE DIFFERENTIAL EFFECTS OF RITONOVIR-BOOSTED ATAZANAVIR, EFAVIRENZE OR ZIDOVUDINE/ABACAVIR PLUS TENOFORVIR EMTRICITABINEN ON MARKERS OF RENAL FUNCTION DURING TREATMENT OF HIV INFECTION; A RANDOMISED TRIAL

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Changes in renal function have been described in HIV-infected patients initiating combination antiretroviral therapy (cART). We investigated the impact of different initial regimens on serum creatinine, estimated glomerular filtration rate (eGFR) and plasma cystatin c levels over two years in Altair, a randomized controlled study.

ART-naive, HIV-positive participants were randomized to Arm I: EFV/TDF/FTC, Arm II: r/ATV/TDF/FTC or Arm III: ZDV/ABC/TDF/FTC. At baseline, weeks 48 and 96 plasma creatinine, cystatin c were measured. eGFR was derived at these time points using the CKD-EPI formula. Treatment arms were compared using Chi-Square tests. Linear regression and multiple predictor models (forward stepwise analysis) were used to explore associations between baseline covariates and eGFR change from baseline.

A total of 276 patients were included in this analysis (Arm I=100,Arm II=100,Arm III=76). Treatment groups were well balanced at baseline. At 96 weeks, mean changes from baseline serum creatinine, plasma cystatin c and eGFR for Arm II were 3.74 µmol/L, -0.09mg/L and -4.1mL/min, respectively. These changes were significantly different compared with Arm I ($p \leq 0.002$). Four events (Arm I=2, Arm II=1, Arm III=1) involving renal pathology were reported over 96 weeks. Baseline predictors of decreases in eGFR to week 48 were age ($p \leq 0.001$), higher eGFR ($p \leq 0.001$), male sex ($p \leq 0.001$), Asian ethnicity (p=0.005 v Caucasian), Black ethnicity (p=0.006 v Caucasian) and randomization to Arm II (p=0.002 v Arm I). The elevation in all arms in cystatin-c at baseline declined significantly less over 48 weeks in Arm II (p<0.001 v Arm I).

Although of unclear clinical significance, r/ATV was associated with a significant reduction in eGFR and a significantly lower reduction in plasma cystatin c compared with EFV or ABC/AZT in patients also receiving TDF/FTC**.** Greater decrease in eGFR may be the result of direct ritonavir or ATV nephrotoxicity or interaction with TDF. Ethnic differences in estimations of renal function warrant further investigation.

Disclosure of interest

Financial support and study drugs for the ALTAIR protocol was provided by Gilead Sciences (Foster City, CA, USA). This study was funded by the Australian Government Department of Health and Ageing. The views expressed in this publication do not necessarily represent the position of the Australian Government. The Kirby institute is affiliated with the Faculty of Medicine, University of New South Wales.

THEME B PROFFERED PAPER SESSION: LONG TERM SURVIVAL – THE GOOD, THE BAD AND THE UGLY

PAPER NUMBER: 377

PLASMA MARKERS OF BONE LOSS AND BONE FORMATION DECREASE WITH INTERMITTENT ANTIRETROVIRAL THERAPY PREDICT CHANGE IN BONE MINERAL DENSITY

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Background: In the SMART Body Composition sub-study (SMART BC), hip and spine bone mineral density (BMD) by DXA and qCT steadily declined with continuous antiretroviral therapy (ART), but remained increased after 1 year of intermittent ART. We investigated whether changes in bone turnover markers (BTM) were affected by ART group and whether these predicted BMD change at month 12 (M12).

Methods: For 202 participants with M12 BMD measurements, we evaluated bone formation markers (bone alkaline phosphatase [bALP], osteocalcin, procollagen type 1 N-terminal propeptide [P1NP]), bone resorption markers (N-terminal cross-linking telopeptide of type 1 collagen [NTX], C-terminal TX [βCTX]), and bone regulators (osteoprotegerin, RANKL) at baseline, M4 and M12. We compared intermittent and continuous ART groups for mean BTM and BMD changes using t-tests. Association of changes in each BTM from baseline to M4 (n=162) with changes in BMD from baseline to M12 were identified using linear regression, adjusted for baseline BTM level and, in the pooled analysis, for treatment group.

Results: Baseline characteristics were: median age 44 years, 17% female, 74% on ART. In the intermittent ART group, 45% had restarted ART at M12. Compared to the continuous ART group, mean bALP, osteocalcin, P1NP, NTX, and βCTX decreased significantly with intermittent ART, whereas RANKL increased (all $p<0.01$ at M4 and M12). With intermittent ART, changes in some BTMs at M4 were significantly ($p<0.05$) correlated with BMD change at M12: bALP (spine DXA), NTX (hip and spine DXA), and CTX (hip). Pooled across treatment groups, changes in bALP, NTX, βCTX and osteoprotegerin at M4 significantly predicted change in hip and/or spine BMD at M12.

Conclusions: Early changes in BTMs predict BMD changes over 12 months. Significant decreases in bone formation and resorption markers with intermittent ART suggest that the ART-induced increased bone turnover can reverse when ART is interrupted.

Disclosure: The SMART study was funded by the National Institute of Allergy and Infectious Diseases, National Institutes of Health, U01AI042170 and U01AI46362. ClinicalTrials.gov identifier: NCT00027352.The SMART Bone Biomarker work was funded by an (ARRA) American Recovery and Reinvestment Act through the NIH.

PAPER NUMBER: 351

LOWER FAT MASS AND LOWER BONE FORMATION PREDICT GREATER BONE LOSS WITH TENOFOVIR IN HIV-INFECTED ADULTS

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STEAL was a randomised, simplification trial that found bone mineral density (BMD) decreased with tenofovir/emtricitabine (TDF/FTC) compared with abacavir/lamivudine (ABC/3TC). We aimed to examine predictors of TDF/FTC associated bone loss.

We determined predictors of change in right-proximal femur and lumbar-spine BMD, by DXA, in STEAL participants (per-protocol [PP]) through Wk96. Pre-defined sub-analysis included participants not on TDF or ABC at baseline ("naive"). Bone turnover markers (BTMs) tested were: formation (BALP, P1NP), resorption (CTx) and cytokine-signalling (osteoprotegerin). Independent predictors of BMD change were determined using forward stepwise linear regression. Randomised groups were compared at Wk96 for BTM changes and 10-year fracture risk (FRAX®) by t-test, and for proportions warranting antiresorptive therapy (US NOF guidelines) using contingency-table and chi-square test.

Baseline characteristics (98% male, mean age 45 years, current TDF 29%, current ABC 20%, current protease-inhibitor 23%) of PP (n=301, 84%) and 'naive' (n=157, 43%) populations were similar to the main study population. In PP population, baseline predictors of greater femur bone loss were TDF randomisation ($p=0.001$), lower total fat mass (p trend=0.009), lower P1NP ($p=0.015$), and higher hip t-score (p trend=0.006). Baseline predictors of greater spine bone loss were TDF randomisation ($p=0.013$), lower total fat mass (p trend=0.005), PI use ($p=0.004$), and higher spine BMD ($p=0.001$). TDF increased BTMs through Wk96 (P1NP and CTx; both $p<0.01$) but no BTM change at Wk12 predicted bone loss. No significant between-group difference was found in 10-year fracture risk, or in proportions (5% per group) reaching NOF thresholds. BMD and BTM changes in naive-population were of similar magnitude.

In this study, TDF was associated with bone loss, whereas higher fat mass was protective. Lower baseline bone formation predicted greater femoral BMD decrease. TDF was associated with greater increases in bone formation and resorption, but not fracture risk thresholds, in both per-protocol and TDF-naive populations.

The presenting author has no conflict of interests to declare.

THEME B PROFFERED PAPER SESSION: LONG TERM SURVIVAL – THE GOOD, THE BAD AND THE UGLY

PAPER NUMBER: 326

BRAIN METABOLIC PROFILE IN OLDER HIV+ INDIVIDUALS: A 1-H MRS STUDY

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Background: The current study was designed to address 3 questions: 1. Is chronic HIV-infection and age >45y associated with an increased risk of brain metabolic abnormalities? 2. If HIV+ individuals show any brain metabolic abnormalities, does this involve traditionally affected regions of the brain or does it also extend to regions usually affected in pathological aging (e.g., posterior cingulate cortex)? 3. Are brain metabolic abnormalities associated with cardio-vascular risks?

Methods: 84 HIV+ individuals aged 45+ were enrolled with historically advanced disease (nadir CD4 lymphocyte count ≤ 350 cells/μl; and current stable cART ≥ 6 months. 22 HIV-negative age-comparable were enrolled as controls. Single voxel 1-H MRS: Spectra were acquired from the right frontal white matter (FWM), posterior cingulate cortex (PCC) and right caudate nucleus area (Caud) on a 3T MRI scan. All spectra were processed using jMRUI, version 3.0 with baseline correction, and water removal. AMARES was used to fit relative concentrations of N-acetylaspartate (NAA), creatine (Cr), choline (Cho), myo-inositol (mIo), and glutamine/glutamate (Glx). All metabolites were expressed as ratios over unsuppressed H2O signal or Cr.

Results: NAA concentration was reduced in the FWM (p=.05) and in the Caud (p<.02); and to a lesser extent in the PCC (log10; p=.08). mIo/Cr was increased in the FWM (p=.05) in the PCC (p=.05). A higher Framingham score was associated with reduced NAA in the PCC (β=-0.42, se = 0.14; p=.0002). A greater HIV duration was predictive of reduced Caud NAA (β=-.36, SE = .013; p<.02) and reduced log10 PCC NAA (β=-.29, SE = .0013; p<.05). There were no age * HIV status interactions on abnormal metabolite concentrations.

Conclusion: Older age in HIV+ individuals does not compound metabolic abnormalities, but the duration of HIV infection and increased cardiovascular risk were found to be new factors for brain injury.

Disclosure of interest

This study was supported by the Brain Sciences post-doctoral fellowship at the University of New South Wales, and Australian NHMRC Project Grant 568746.

No pharmaceutical grants were received in the development of this study.

PAPER NUMBER: 109

CD4 CELL RESPONSES TO COMBINATION ANTIRETROVIRAL THERAPY IN PATIENTS STARTING THERAPY AT HIGH CD4 CELL COUNTS

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Objective: To examine CD4 cell responses to combination antiretroviral therapy (cART) in patients enrolled in the Australian HIV Observational Database (AHOD) who commenced cART at CD4 cell counts >350 cells/μL.

Methods: CD4 cell counts were modelled using random-effects, repeated-measurement models in 432 HIV-infected adults from AHOD who commenced their first cART regimen and had a baseline CD4 count >350 cells/μL. Using published AIDS and/or death incidence rates combined with the data summarised by time and predicted CD4 cell count, we calculated the expected reduction in risk of an event for different starting baseline CD4 strata.

Results: Mean CD4 counts increased above 500 cells/μL in all baseline CD4 strata by 12 months (means of 596, 717 and 881 cells/μL in baseline CD4 strata 351-500, 501-650 and >650 cells/μL respectively) and after 72 months since initiating cART, mean CD4 cell counts (by increasing baseline CD4 strata) were 689, 746, 742 cells/μL. The expected reduction in risk of mortality for baseline CD4 counts >650 cells/μL relative to 351-500 cells/μL was approximately 8%, an absolute risk reduction 0.33 per 1000 treated patient years.

Conclusion: Patients starting cART at high CD4 cell counts (>650 cells/μL) tend to maintain this immunological level over six years of follow-up. Patients starting from 351-500 CD4 cells/μL achieve levels of >650 cells/μL after approximately three years of cART. Initiating cART with a baseline CD4 count 501-650 or >650 cells/μL relative to 351-500 cells/μL indicated a minimal reduction in risk of AIDS incidence and/or death.

Disclosure of Financial Support

The Australian HIV Observational Database is funded as part of the Asia Pacific HIV Observational Database, a program of The Foundation for AIDS Research, amfAR, and is supported in part by a grant from the U.S. National Institutes of Health's National Institute of Allergy and Infectious Diseases (NIAID) (Grant No. U01-AI069907) and by unconditional grants from Merck Sharp & Dohme; Gilead; Bristol-Myers Squibb; Boehringer Ingelheim; Roche; Pfizer; GlaxoSmithKline; Janssen-Cilag. The National Centre in HIV Epidemiology and Clinical Research is funded by The Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, The University of New South Wales. All authors declare no conflict of interest.

THEME C PROFFERED PAPER SESSION: DIVERSITY, DIASPORA AND HIV

PAPER NUMBER: 565

HIV EPIDEMIOLOGY AMONG PEOPLE FROM CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) BACKGROUNDS IN AUSTRALIA

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Background: Annual HIV diagnoses in Australia attributed to heterosexual transmission as likely route of exposure have been steadily increasing over the past decade. In particular, there are clear patterns of increasing HIV infections among people living in Australia who are from a high-prevalence country (i.e. greater than 1% HIV prevalence) or who have had a partner from a high-prevalence country.

Methods: National HIV surveillance data from 2001 to 2009 were analysed with a focus on new HIV diagnoses associated with heterosexual contact in people born in a high-prevalence country. Age standardised rates were calculated. Trends were assessed by different demographic characteristics, geographical regions and specific countries.

Results: In the ten year period, there were 1,870 new HIV diagnosis associated with heterosexual contact; of the age standardised rate and the average annual diagnosis rate of newly diagnosed HIV infection per capita resident population in Australia was calculated. 744 (40%) were in people born in a high-prevalence country. Of the diagnoses in people from a high-prevalence country; 60% were female and 40% were male, 482 (65%) were born in sub-Saharan Africa (53% female, 47% male) and 194 (26%) were from South East Asia (78% female, 22% male).The number of new diagnoses in people born in a high-prevalence country increased by 94% between 2000-2004 and 2005-2009, from 254 to 493; there was 94% increase in people born in sub-Saharan Africa and 59% increase in those born in South East Asia. Age standardised rates for diagnoses in 2009 among those born in South East Asia was 3.4 per 100,000 people living in Australia, and among those born Sub-Saharan Africa the rate was 27.8 per 100,000 people living in Australia.

Conclusions: These data show concerning increases in HIV diagnosis in Australia among people born outside Australia, with particularly high HIV notification rates in people from Sub Saharan Africa living in Australia.

PAPER NUMBER: 379

LATE DIAGNOSIS OF HIV INFECTION AMONG ADULTS IN NEW ZEALAND – 2005-2010

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Background:

Early diagnosis of HIV is important for the individual, and for the control of spread. A consensus was recently reached among European countries on definitions for late diagnosis: "Late presentation" refers to presentation with a CD4 count <350 cells/μL or an AIDS-defining event, with a subset of "Advanced HIV disease" a CD4 count <200 cells/μL or an AIDS defining event. This study examines late diagnosis in New Zealand from 2005-2010.

Methods:

Since 2005, information on the initial CD4 count has been requested by the AIDS Epidemiology Group on all people newly diagnosed with HIV through anybody testing.

Results:

- An initial CD4 count was provided for 80.3% of the 755 adults diagnosed with HIV not undertaken as part of an immigration medical, or previously diagnosed overseas
- Overall 50.0% were "late presentations" and 32.0% presented with "advanced HIV disease"
- Compared to MSM, people heterosexually infected were more likely to be diagnosed late.
- Late diagnosis was significantly more common among older MSM
- Māori and Pacific MSM were more likely to present with "Advanced HIV disease". Compared to European MSM, the age adjusted relative risks for Māori and Pacific MSM were 2.1 (95% CI 1.4-3.2) and 2.5 (95% CI 1.2-5.0) respectively
- Those with an negative test in the 2 years before diagnosis were very much less likely to be diagnosed late
- Late diagnosis appears to be more common among MSM in New Zealand than in Australia, and occur at a similar frequency as in the UK.

Discussion:

More HIV testing needs to be encouraged and made accessible for people at risk of HIV in New Zealand, particularly Pacific and Māori MSM, and heterosexual men and women. This should result a greater proportion of HIV infected people receiving care at a stage when they can benefit most.

Disclosure of interest

The AIDS Epidemiology Group is funded by the Ministry of Health. No pharmaceutical grants were received in the development of this study.

THEME C PROFFERED PAPER SESSION: DIVERSITY, DIASPORA AND HIV

PAPER NUMBER: 534

INCREASING HIV NOTIFICATIONS IN WESTERN AUSTRALIA - A REFLECTION OF OVERSEAS-ACQUIRED INFECTIONS AMONG OVERSEAS-BORN HETEROSEXUAL PEOPLE

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Background: In the mid-2000's, several Australian states reported increases in HIV notifications, mainly attributed to men who have sex with men. Western Australia (WA) also reported an increase, but this was primarily attributed to an increase in heterosexually-acquired infections.

Methods: Descriptive analysis of trends in HIV notifications in WA, and in particular the contribution of heterosexually-acquired infections and their place of acquisition 2000 to 2010.

Results: From an average of 49 HIV notifications per year over 2000-2004, the number of notifications increased each year thereafter to a record high of 113 cases in 2010.

The increase was mainly attributed to heterosexually-acquired infections, which increased from an annual average of 17 cases in the period 2000-2004 to 65 cases in 2010. Of these, HIV was acquired overseas in 51 cases (78%), most of whom were also born overseas (n=41, 80%).

Among these 41 overseas-acquired overseas-born cases, 95% (n=39) acquired HIV in their region of birth, most commonly in Africa (n=25, 64%) or Southeast Asia (n=12, 31%). Over half these cases (n=22, 54%) were non-Australian residents in visa categories for which pre-entry screening is not required. The same number (n=22, 54%) appeared to be unaware of their HIV status prior to testing as part of Australian entry requirements or for other reasons after arrival in Australia.

Of the 10 overseas-acquired infections in Australian-born people, six were acquired in south-east Asia.

Conclusion: There has been a significant increase in the number of heterosexually-acquired HIV notifications in WA, mostly among people born in high prevalence countries and who acquired HIV in their regions of birth. These data highlight the need for health professionals to consider the need for HIV screening of non-Australian residents from high prevalence countries.

In addition, the importance of safe-sex messages targeting Australians travelling to HIV-prevalent countries is highlighted.

Disclosure of interest statement

All authors are employees of the Department of Health, Western Australia and have no conflicts of interest related to this paper.

PAPER NUMBER: 140

HIV PREVALENCE IS RAPIDLY INCREASING AMONG MEN WHO HAVE SEX WITH MEN IN CHINA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Multiple studies have reported a fast-spreading HIV epidemic among men who have sex with men (MSM) in China. This study aimed to estimate the magnitude and time trends of HIV prevalence among MSM in different geographical regions of China through a systematic review and meta-analysis.

Methods: A systematic review of published articles was conducted by searching Chinese and English databases from 2001 to 2009. Meta-analyses were conducted over all identified studies to estimate national and regional HIV prevalence trends among MSM in China. The effect rates of pooled prevalence estimates, 95% confidence intervals (CI), and relative weight for each study were determined by using random effect models.

Results: Ninety-four articles were identified (25 in English and 69 in Chinese) and analyzed. National HIV prevalence among Chinese MSM has increased in recent years, from 1.4% (95% CI: 0.8-2.4%) in 2001 to 5.3% (95% CI: 4.8-5.8%) in 2009. MSM in Southwest China have the highest HIV prevalence, of 11.4% (95% CI: 9.6-13.5%) in comparison with other regions, which range 3.5-4.8%.

Conclusions: Significant increases in HIV prevalence among MSM were consistently observed across all Chinese regions. There is an urgent need for implementation of effective public health interventions to curb the spread of HIV infection among MSM across China, especially in the Southwest.

THEME C PROFFERED PAPER SESSION: DIVERSITY, DIASPORA AND HIV

PAPER NUMBER: 402

TIME TRENDS AND RISK FACTORS FOR NON-B CLADE INFECTIONS IN SOUTH AUSTRALIA

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Background: Monitoring patterns of HIV subtypes or clades is important for understanding the dynamics of international and local transmission. Clade B has historically been dominant in Australia, but recent years have seen the appearance of non B infections. Since 2000, antiretroviral drug resistance testing has been routinely conducted as part of HIV surveillance in South Australia (SA), and provided information on clades for all new diagnoses. We analysed time trends and patterns in HIV clades for all new diagnoses between 2000-2010.

Methods: Notification data were aggregated into 3 time periods (2000-03, 2004-06, 2007-10). There were 513 new HIV diagnoses, of which 382 had information on clade. The annual number of diagnoses in SA changed little over the period (mean = 47). The proportion of infections acquired in Australia decreased from 82% (2000-03) to 63% (2007-10) (p = 0.002).

Results: The proportion of diagnoses that were clade B declined correspondingly from 79% to 59%. Among cases determined to have been acquired within Australia, 95% were clade B, with the number of non-B cases increasing from 2 cases in the first time period (2%), to 6 (5%) in the second and 7 (4%) in the third. Non B infections comprised 74% of those acquired overseas.

Among the 72% of diagnoses in people born in Australia, 10% were non B; 66% of those were acquired overseas. Of people born overseas, 59% had a non B infection; over 90% were overseas acquired.

The majority of diagnoses (63%) over the time period were in men who had sex with men, 91% of these were acquired in Australia and 88% were clade B.

Conclusions: There has been a substantial increase over the past decade in diagnosed non B infections in S.A., primarily through cases acquired overseas. Domestic transmission of non B infections remains rare but may have increased slightly.

There are no conflicts of interest to declare.

The only money received for this project is the Australian Post Graduate Award. No grants have been received for the development of this study.

PAPER NUMBER : 438

EXTENT AND DURATION OF UNPLANNED ANTIRETROVIRAL TREATMENT INTERRUPTION IN ADULTS WITH HIV INFECTION: A SYSTEMATIC REVIEW

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Background: Interruption of antiretroviral therapy (ART) leads to poorer health outcomes than continuing therapy in people with HIV infection, and has public health consequences, in that it can increase HIV infectiousness as viral load rises. Clinical guidelines since 2006 have discouraged treatment interruption (TI). We conducted a systematic review of studies that have attempted to quantify the extent and duration of unplanned TI.

Methods: We searched electronic databases from 2006 onwards for publications reporting on the extent of unplanned TI in adult patients receiving ART. TI" was defined as an event when patients stop ART and then resume. Studies describing "structured" interruptions, used as a therapeutic strategy, were excluded.

Results: There were 583 papers identified and 18 included. Three studies in Africa (98,690 patients in total) showed the incidence of TI ranged from 1.4-35.3 per 100 person-years of follow-up (PY), and five studies from Europe, United States (US) and Australia (9,067 patients) found incidence of TI ranged from 1.6-8.4 per 100 PY. Two other studies in Africa and one in India reported that 16%-52% of patients had a TI but follow-up period was not reported. Two studies among injecting drug users in France and US showed a TI incidence of 8.5 and 9.9 per 100PY, respectively. One study in people with HCV-co-infection in Canada found a TI incidence of 7.9 per 100PY in men and 10.4 in women. During Hurricane Katrina in the US, 53% of patients had a TI. Within 10 days of release from prison in the US, 94.6% of inmates had a TI. Two studies in Europe showed that 9.8% and 24% of women experienced TI during pregnancy, respectively. Overall, the median duration of TI, from five studies, ranged from 4-33 weeks.

Conclusion: TI is a frequent occurrence in patients receiving ART, despite guidelines encouraging continuous treatment.

DISCLOSURE OF INTEREST STATEMENT: The authors have declared that no conflict of interest exists.

THEME A SYMPOSIUM: CONFRONTING HIV RESERVOIRS AND LATENCY

PAPER NUMBER: 58 — LATENT HIV INFECTION IN T-CELLS AND OPPORTUNITIES FOR THERAPEUTIC INTERVENTION

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Combination antiretroviral therapy (cART) has led to a major reduction in HIV-related mortality and morbidity. However, HIV can still not be cured. There are currently multiple barriers to curing HIV. The most significant barrier is the establishment of a latent or "silent" infection in resting CD4+ T cells. In latent HIV infection, the virus is able to integrate into the host cell genome, but does not proceed to active replication.

We have recently demonstrated that latent infection can be established in resting CD4+ T-cells by direct infection of resting CD4+ T-cells. Following incubation of resting CD4+ T-cells with chemokines we have shown that activation of the RhoA signalling pathway leads to changes in actin depolymerisation allowing for nuclear localisation. More recently we have identified that integration is specifically controlled by the PI3K pathway which is activated by chemokines. We propose that dendritic cells play a critical role in facilitating the establishment of latent HIV infection of resting CD4+ T-cells and have shown in vitro that this is mediated via myeloid DCs. Using these two unique models of latent HIV infection we are now evaluating compounds that either block the establishment or reverse latent infection.

Agents that reverse latent infection will promote viral production; however, simultaneous administration of cART will prevent subsequent rounds of viral replication. Such drugs as histone deacetylase inhibitors, currently used and licensed for the treatment of some cancers, or activating latently infected resting cells with cytokines, such as IL-7 or prostratin, show promising results in reversing latency *in vitro* when used either alone or in combination. Results from both in vitro experiments of HDACi and from a recent clinical trial in HIV-infected patients of vorinostat, a potent HDACi, will be presented

PAPER NUMBER: 59 — REGULATION OF HIV TRANSCRIPTION IN THE BRAIN

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Introduction: HIV-1 penetrates the central nervous system (CNS), causing neurocognitive impairment including HIV-associated dementia (HAD). Macrophages and microglia are sites of productive HIV-1 infection within the CNS. We have recently demonstrated that astrocytes are extensively infected and although astrocytes undergo a restricted infection they may constitute an significant potential reservoir of HIV-1 DNA. Multiple blocks to virus production in astrocytes have been reported, including decreased transcriptional activity of the HIV-1 long terminal repeat (LTR). We recently demonstrated that LTRs isolated from a panel of demented HIV patients are compartmentalized and sequence analysis revealed mutations in regions associated with transcriptional activation which differentiated matched CNS and lymphoid-derived LTRs. Significantly, sequence differences were observed in regions essential to HIV-1 activation in non-CNS cell lines suggesting unique modes of transcriptional activation exist within the CNS and in particular in astrocyte cells. Understanding these unique regulatory mechanisms is essential to determining the contribution of the CNS to the HIV-1 viral reservoir and in developing strategies aimed at HIV-1 eradication.

Methods: HIV-1 LTR sequences from a cohort of HAD autopsy subjects consisting of matched CNS- and lymphoid- derived isolates were examined and activity determined in T cells and in SVG astrocyte cells. Electrophoretic mobility shift assays (EMSA) were used to analyse transcription factor binding activity within the core and basal promoter regions of the LTR.

Results: CNS-derived LTRs were found to have a restricted basal transcriptional activity in both T cells and SVG astrocyte cells and non-CNS derived LTR sequences showed a decreased activity in CNS-derived cells. Restricted basal activity mapped to the three Sp binding motif, previously shown to be essential for both Tat -independent/-dependent activation of the LTR in T cells. Transcriptional activity in astrocytes cells was further regulated by the transcription factor Sp3, a transcription factor capable of repressing Sp motif containing promoters.

Discussion: The reduced transcriptional activity observed for CNS-derived HIV-1 promoters was found to correlate with a reduction in Sp1 binding mapping to mutations within the core Sp binding motif. Further repression was observed due to increased competition for the Sp binding motif by elevated levels of the repressor Sp3 in astrocyte cells. These data suggests CNS derived viruses have a reduced capacity to initiate viral transcription in astrocytes and highlight the unique transcriptional mechanisms existing within astrocytes, ultimately affecting the fate of viral infection and the development of latency.

THEME A SYMPOSIUM: CONFRONTING HIV RESERVOIRS AND LATENCY

PAPER NUMBER:	VIRAL DETERMINANTS OF HIV LATENCY
Damian FJ Purcell. Molecular Virology Laboratory, Department of Microbiology and Immunology, University of Melbourne, Parkville, VIC. dfjp@unimleb.edu.au	All retroviruses can establish a persistent latent infection through integrating as provirus into the host genomic DNA. However, HIV is a complex retrovirus that has evolved several additional virus-encoded mechanisms that assist in the entry and emergence of HIV from latency. Latent integrated HIV proviral DNA persists in reservoirs of long-lived infected cells, such as resting memory T cells, macrophage, microglia and astrocytes. In long-lived CD4+ resting memory T cells cytopathic productive HIV infection selects for a large proportion of latent provirus integrations within introns of transcriptionally active cellular DNA. Several mechanisms restrict the production of HIV during this post-integration latency. Typically, HIV Tat is not expressed and transcription of the HIV-1 provirus is restricted but can be activated using histone deacetylase (HDAC) inhibitors. The HIV Tat protein has multiple functions in promoting productive HIV infection. These include: 1) increasing HIV genomic RNA transcription, 2) increasing HIV RNA splicing, 3) increasing the histone acetylation additions that are characteristic of open active chromatin and 4) decreasing the biogenesis of miRNAs that restrict HIV production. In this presentation we examine how alterations in RNA-processing steps, such as splicing, activate the HIV promoter directly or affect mRNA species that express the HIV Tat protein. The HDAC inhibitor Trichostatin A (TSA) can inhibit splicing in the absence of the viral transcriptional activator Tat. Our results show that RNA splicing regulation that restricts the production of Tat mRNA during latency continues to limit the production of 2kb mRNA for Tat, Rev and Nef after the re-activation of latent HIV-1 with HDAC inhibitors. This has important implications for the use of HDAC inhibitors in re-activation therapy in efforts to reduce the latent reservoir. In this setting, HIV-1 reactivation with HDAC inhibitors may lead to high expression of HIV antigens, but produce relatively low levels of new infectious virus. The HIV RNA-processing steps and the functions of HIV Tat are interesting targets for therapeutic interventions impacting on HIV latency. DISCLOSURE OF INTEREST STATEMENT: This work was funded by the NHMRC, and ACH2. No pharmaceutical grants were received.

NOTES

ACON SATELLITE SESSION CONNECTING WITH GAY MEN – CURRENT CHALLENGES IN GAY MEN'S PREVENTION. *SPONSORED BY NSW HEALTH/ACON/VAC*

PAPER NUMBER: 668

RETHINKING EDUCATION THROUGH ENTERTAINMENT - USING SOCIAL MEDIA FOR SEXUAL HEALTH PROMOTION FOR GAY AND BISEXUAL MEN

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Queer as F**k began as an pilot project using short webisodes on social networking sites to assess the ability to encourage community dialogue around sexual health issues for young gay and bisexual men. The pilot phase of this project feature 10 short webisodes screened on Facebook and YouTube. Topics included relationships, unprotected sex and STI testing. Viewers were then encouraged to discuss content through questions, posts, and polls.

Evaluation findings demonstrated that QAFxxk participants could readily recall some sexual health themes from the videos; that the producers struck the right balances between education and entertainment; and the project acted as a reminder for participants to get a regular sexual health check. Furthermore, the participants felt that the soap opera format was a good way to deliver sexual health messages. It was noted during the pilot season that participants were more likely to engage with episode that depicted sexual health issues through drama, as opposed to characters acting as the voice of the health educator. As such, this presentation will detail the success of the project in delivering a sexual health intervention on social networking sites by using a stronger emphasis on entertainment in subsequent series and demonstrate dramatic threads by screening several episodes.

PAPER NUMBER: 670

AT OUR FINGERTIPS: TAPPING INTO THE POTENTIAL OF SOCIAL NETWORKING SITES

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Emerging directly from the pioneering work of the *Facespace Project* (coordinated by the Burnet Institute in 2009-10), *Queer as F**k* (now in Season 4) has evolved into one of the most ambitious attempts internationally to tap into the enormous health promotion potential of social networking sites (SNS). It is important that processes and outcomes of health promotion initiatives are continually assessed through formal evaluations and reflective practice. Such approaches are even more important when an initiative is novel and where there is little previously published.

We draw upon multiple sources to reflect on the potential utility of SNS and other online media for sexual health promotion to gay men. Specifically, we will:

1. Describe current theoretical approaches that underpin the potential of SNS for health promotion, drawing upon the broader framework of "persuasive technologies" and notions of shared identities and user engagement to encouraging online communities;
2. Present selected findings from a recent systematic review of sexual health promotion using SNS;
3. Describe evaluation challenges for health promotion delivered on SNS, including the short-comings of both traditional evaluation approaches and those currently being used to determine the effectiveness of online health promotion; and
4. Present the most recent survey and focus group findings and site usage statistics from the ongoing evaluation of *Queer as F**k*.

We conclude with a summary of key lessons learned (from *Facespace* and *Queer as F**k*) and important considerations for those contemplating health promotion to gay men using SNS. While many groups claim to use of SNS for health promotion, in reality an overwhelming majority are not effectively engaging their target audience. Fulfilling the health promotion promise of SNS requires adequate resources, a multi-skilled team and iterative and reflective practices to refine the approach and meet the challenges of rapidly changing online environments and consumer preferences

ACON SATELLITE SESSION CONNECTING WITH GAY MEN – CURRENT CHALLENGES IN GAY MEN'S PREVENTION. *SPONSORED BY NSW HEALTH/ACON/VAC*

PAPER NUMBER: 664

IS SOCIAL MEDIA THE HOLY GRAIL TO RE-ENGAGE GAY MEN WITH SAFE SEX MESSAGING?

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Background

30 years into the HIV epidemic, engaging gay men with safe sex messages is becoming extremely challenging. Research shows they pay less and less attention to these messages - in particular when delivered through traditional media. Health promoters are therefore urged to leverage all the possibilities the digital world and social media have to offer. But does it really work?

Methods

For ACON's last condom reinforcement social marketing campaign, we tested several social media options to assess the different levels of engagement such as how much traffic was generated to the dedicated website, how many pages gay men read, or how many minutes they stayed on the website.The tested platforms were: dating sites (Manhunt, Gaydar), Facebook and Grindr (smart phone application).

Results

While these social media platforms attracted significant traffic, we observed that *quantity* and *quality* of engagement are not necessarily aligned as shown in these two examples:

- The traffic generated by Facebook was lower than the dating sites but gay men tended to stay four times longer and engaged with the interactive features of the site.
- Grindr generated ten times more traffic than any other platforms but the quality of engagement proved to be very poor.

Conclusions

Incorporating social media modalities into health promotion campaigns is crucial in reaching gay men. However health promoters need to clearly prioritise their objectives in order to optimise **Results:** quantity (exposure) versus quality (engagement). Additional research is needed in order to better understand the differences in behaviours on different social media platforms.

PAPER NUMBER: 669

LATE HIV DIAGNOSES AMONG GAY AND OTHER MSM – A GOOD NEWS STORY, BUT MORE WORK NEEDED

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Of all late HIV diagnoses in Australia, more than half have always been and continue to be among gay and other men who have sex with men (MSM). Between 2005 and 2009, 433 of 842 late diagnoses (51%) were among gay and other MSM. While late diagnoses have fallen in recent years, more attention to this issue is needed.

In Australia a late HIV diagnosis is identified where the person has a CD4+ cell count of less than 200 cells/µl at diagnosis. Late HIV diagnosis is strongly related to poorer prognosis and increased HIV-related morbidities. People who are unaware of their HIV-positive status may also be unwittingly transmitting HIV, as they are unaware of their infectiousness. Reducing late diagnoses thus has important benefits for individuals and communities, and should be a key focus for HIV educators and clinicians.

Late diagnoses among gay and other MSM have fallen over the last decade despite increased HIV diagnoses. Between 2000 and 2004, 3,084 MSM were diagnosed with HIV, of which 460 were diagnosed late; between 2005 and 2009, 3,374 were diagnosed with HIV, of which 431 were diagnosed late. This improvement is welcome; however, the number of late diagnoses remains uncomfortably high.

This presentation will provide an overview of the surveillance and social research data on gay and other MSM who are diagnosed late. Australian research on structural and psychological barriers to HIV testing will be reviewed. Initiatives which have assisted in reducing late HIV diagnoses will be discussed, and recommendations for new initiatives to further reduce late diagnoses will be presented. The presenter will also discuss what is 'late', i.e. the health and other benefits of diagnosis at both <200 cells/µl and <350 cells/µl.

ACON SATELLITE SESSION CONNECTING WITH GAY MEN – CURRENT CHALLENGES IN GAY MEN'S PREVENTION.
SPONSORED BY NSW HEALTH/ACON/VAC

PAPER NUMBER: 671

DOWNANDIRTY.ORG- THE SEXUALLY ADVENTUROUS MEN "SAM" PROJECT.

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The SAM Project is a joint effort between Victorian AIDS Council/GMHC, People living with HIV Victoria and the Australian Research Centre in Sex, Health and Society. The governing principal of the project is that it is driven, guided and delivered by sexually adventurous men for sexually adventurous men.

The concept of sexually adventurous men changes depending on who you are talking to. In terms of the SAM project, we have defined sexual adventurers as guys with a high understanding of HIV and sexual health in general, multiple sexual partners, involved in esoteric sex, including but not exclusively watersports, bondage and discipline, sadomasochism, fisting, arse play, scat, etc. Many of these scenes involve the use of recreational drugs and sometimes include bareback sex (with or without attendant risk reduction strategies).

Our main objective is to engage with the SAM community and provide this group with a structure that allows ownership of initiatives that come out from this project. We engage with the general SAM Community by Focus Groups, direct feedback and strategic alliances.

1.- Downandirty.org

In consultation with the SAM community, we identified a need for reliable, clear and simply understood information about different sexual practices. We were told that the preferred way to access this information was online, so, in collaboration with SAM we have developed a website devoted to sexual practice and cultural norms surrounding SAM. When SAM talked about reliable information during the consultation phase of this initiative they explained that they wanted to see organized social groups, key players from the SAM community and health professionals involved in order that the information within the site could be relied on as credible and respectful, which was an essential part of creating downandirty.org and running the website.

The website is a space where SAM can interact with medical professionals, specialists on each sexual practice and keep up to date about different events. The consultation included input from The Centre Clinic and organized social groups such as Megafist (Bad Boys), Melbourne Leather Men and Vicbears; SOPV's like Club80 and Wet on Wellington; social venues The Laird, Sircuit; and stores like: Mannhaus, Eagle Leather; Lucrezia and De Sade.

The presentation will outline the development of the website including a video presentation of the 'SAM Stories' section of the site, first person stories from SAMs about their lives, loves and interests.

PAPER NUMBER: 672

A PERSONAL PERSPECTIVE ON FUTURE STRATEGIC AND PROGAMMATIC RESPONSE DEVELOPMENT OPTIONS

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THEME C SYMPOSIUM: HIV AND LAW

PAPER NUMBER: 70 — HIV AND THE CRIMINAL LAW: COMBATING STIGMA THROUGH SCIENCE

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Background: Since the early years of the HIV epidemic, many countries, particularly high-income countries including Australia and New Zealand, have selectively and inconsistently applied criminal law provisions (either HIV-specific or existing criminal offences, or both) to a small number of people living with diagnosed HIV for alleged non-disclosure, exposure and/or transmission. HIV-associated stigma has informed most HIV-specific laws and been a barrier to a fair, rational and just evidence-informed approach to many prosecutions under existing criminal laws. Media reporting of such laws and prosecutions may perpetuate and/or exacerbate such stigma.

Methods: Up-to-date understanding of basic and clinical HIV science, HIV medicine, HIV social science, and HIV-related public health science is required to combat stigma and ignorance and to inform relevant scientific and legal concepts relating to HIV non-disclosure, exposure and transmission.

Results: UNAIDS convened an Experts Meeting in August 2011 comprising more than 40 international experts on HIV science, medicine, law and human rights. The meeting focused particularly on issues relating to risk, harm, intent, defences, proof and penalties.

Conclusion: The Experts Meeting resulted in a better understanding of scientific and legal evidence and concepts relevant to, inter alia, risk, harm, intent, defences, proof and penalties in the context of HIV non-disclosure, exposure and transmission. It will lead to the identification and sharing of better/best practices and options in this context. Recommendations and feedback to UNAIDS on key elements that might guide and improve policy and practice will inform a UNAIDS-convened International Policy Meeting on HIV and the criminal law to be held by the end of 2011.

PAPER NUMBER: 71 — HEALTHY PUBLIC POLICY AND GOOD PUBLIC HEALTH – AUSTRALIAN APPROACHES TO THE MANAGEMENT OF PEOPLE WITH HIV WHO PLACE OTHERS AT RISK

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THEME C SYMPOSIUM: HIV AND LAW

PAPER NUMBER: 72 — THE COLLATERAL DAMAGE FROM HIV CRIMINAL CASES

Dr Sean Slavin

Assistant Director (Research Programs), NAPWA, Sydney, NSW, Australia

PAPER NUMBER: 73 — REWRITING HIV INFECTION AS CRIME: AUSTRALIAN PROSECUTIONS FOR HIV EXPOSURE/ TRANSMISSION AND THE POTENTIAL OF POLICY INTERVENTIONS

Cameron S

Australian Federation of AIDS Organisations

Background: There have been more than 30 prosecutions for HIV exposure or transmission in Australia over the last two decades: a fact only recently established, as policy interest in prosecutions has grown and analysts have begun to keep a tally.

UNAIDS urges governments to limit HIV-related prosecutions to cases of intentional transmission, i.e. where a person knows his or her HIV positive status, acts with the intention to transmit HIV, and does in fact transmit it. That mandate does not fit the profile of most recent Australian prosecutions. Neither does the 'profile' of accused reflect the epidemiology of Australia's HIV epidemic.

In theory, no Australian laws are HIV specific yet HIV appears to be the only disease being targeted by the criminal justice system. Prosecutions are likely occurring with increasing frequency, and have recently occurred in most Australian jurisdictions: all at a time when arguably, the harms of HIV infection are less onerous than they were a decade ago.

Recent prosecutions include acts that have occurred in a wide range of circumstances, with charges relating to men's actions in sexual relationships: with male or female sexual partners; with one or more sexual partners; during casual or committed relationships; during new or long-term relationships; and whether or not HIV infection has resulted. Two recent cases relate to events that occurred more than a decade before trial. That has prompted analysts to ask 'What constitutes an HIV exposure/ transmission crime?' and 'What specifically differentiates 'HIV crimes' from 'behaviours' best addressed by public health interventions?'.

Method: Review and analysis of Australian criminal cases to date, with reference to both criminal and public health law and process across Australian jurisdictions.

Result: Central to 'criminalisation' debates is the potential for prosecutions to undermine the public health response: by negating messages of mutual responsibility, by establishing an expectation of 'disclosure'; by reducing trust in healthcare practitioners; and by increasing stigma against people living with HIV.

Conclusion: A more detailed understanding of the impact of prosecutions on the public health response is required to optimise Australia's response to HIV.

THEME D PROFFERED PAPER SESSION: UNDERSTANDINGS OF RISK: GAY MEN AND HIV IN AUSTRALIA

PAPER NUMBER: 215

ARE YOUNG GAY MEN AT RISK FOR HIV?

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Background: Discussion concerning whether young gay men are at high risk for HIV continues. We assessed HIV-related practices among young gay men to ascertain whether they are at the same risk for HIV as their older counterparts.

Methods: Using data from the Australian Gay Community Periodic Surveys (2006-2010) in the eastern states, we explored whether HIV-related practices of two groups of young gay men (5,282 men aged under 25 years and 9,204 men aged 25-34) differed from the same practices of 8,511 gay men aged 35-44 (the average age of HIV seroconversion falls within this group). Analyses explored sexual practices (relationship status, number of partners, unprotected anal intercourse with regular and casual partners (UAIR and UAIC), knowledge and use of Post-Exposure Prophylaxis (PEP)) and testing for HIV/STIs. Differences in practices were estimated using logistic regression and adjusted for participants: HIV status; sexual identity; recruitment venue; and the year of survey.

Results: Men aged less than 25 years had different patterns of relationships. Young men in relationships had significantly lower levels of UAIR when compared to older men (35-44 years) [adj. OR=0.89 (CI 0.81-0.97]. Fewer men under 25 years had casual partners, but among those who did, the levels of UAIC were significantly higher than in older men [adj. OR=1.23 (CI 1.12–1.36). Younger men had 30-40% higher use of PEP and were less likely to have ever been tested for HIV [adj. OR=0.36 (CI 0.29-0.44)] when compared to men aged 35-44 years. However, if tested, younger men were more likely to report their last test in the previous 12 months compared to men aged 35-44 years.

Conclusion: There are differences in sexual and HIV/STI testing practices which distinguish young Australian gay men from older men. These differences reaffirm the need to continue targeting younger men in HIV prevention initiatives.

No declared conflict of interest.

PAPER NUMBER: 335

HIV POSITIVE GAY MEN HAVE LIMITED UNDERSTANDING OF HEPATITIS C

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Background: Permucosal transmission of Hepatitis C (HCV) is contributing to an emerging epidemic of HCV infection among HIV-positive gay men in Australia, yet there is little discussion among this group about the potential risk of acquiring HCV through sexual contact, or how they might minimize these risks.

Methods: Semi-structured interviews were conducted with 15 HIV-positive gay men diagnosed with acute HCV co-infection in Sydney and Melbourne. Interview topics included: the range and form of sexual and drug practices engaged in, and the contexts in which these occur; beliefs about risk and the nature of individual risk calculation; structural and sub cultural contexts in which risk behavior occurs; and perceived attitudes toward risk.

Results: Generally, respondents were unaware of the risk of acquiring HCV through sexual contact prior to their diagnosis with HCV. Few of the participants reported ever having discussed HCV serostatus with their sexual partners, or having strategies in place to avoid transmission of HCV.

Conclusions: A lack of community awareness of the potential for HCV to be transmitted through sexual contact appears to be contributing to its ongoing transmission among communities of gay men. Increasing gay men's knowledge may facilitate community discussion and in turn, help men identify specific modifiable factors that might mitigate HCV transmission within this population.

THEME D PROFFERED PAPER SESSION: UNDERSTANDINGS OF RISK: GAY MEN AND HIV IN AUSTRALIA

PAPER NUMBER: 334

DO GAY MEN WHO GET INFECTED WITH HIV HAVE A HISTORY OF REGULAR HIV TESTING?

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Background: Regular testing for HIV by those gay men at greatest risk increases the identification of recent HIV infections, thereby reducing the likelihood of onward transmission and improving the health outcomes for those diagnosed.

Methods: The HIV Seroconversion Study (SCS) collects both quantitative and qualitative data from people in Australia who have recently been diagnosed with HIV. Participants are asked about their prior HIV testing history, as well as their motivation for testing at the time of diagnosis. Men who had not recently tested prior to diagnosis were asked their reasons for not having tested.

Results: 247 men completed an online questionnaire, 19.8% of whom did not report having been previously tested for HIV, prior to their diagnosis. 54.3% had tested within 12 months prior to their diagnosis. Most commonly, men were tested if they were experiencing symptoms, or as part of their regular testing pattern. Only 9.3% were tested because they believed they had done something 'risky'. The most common reasons men gave for not testing were because they did not believe they were at risk, or they were afraid to test. In interviews, men often indicated being fearful of the possible reactions of friends and family as the main reason for avoiding testing.

Conclusions: Convenient and confidential testing options are essential for increased testing among those at risk. Alternative testing options, such as rapid testing and community-based testing sites, could encourage those men who have not tested to do so. Better tools to enable men to evaluate their own level of risk, and interventions to reduce stigma and to encourage more supportive environments for newly diagnosed individuals would likely enable earlier and more frequent testing among those at risk.

PAPER NUMBER: 436

SEROSORTING BY HIV-NEGATIVE GAY MEN MAY BE ATTRIBUTABLE TO HIV-RELATED STIGMA RATHER THAN SIMPLY HIV RISK REDUCTION: FINDINGS FROM THE HIV STIGMA BAROMETER STUDY

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Background: The practice of serosorting by gay men has increased over the past decade. There is also an increasing perception by HIV-positive men that HIV-negative men hold stigmatising attitudes including sexual rejection and discrimination.

Method: Participants were invited to complete an anonymous online survey between 1 December 2009 and 31 January 2010. A total of 1,260 men met the eligibility criteria and completed the survey. This analysis includes the 915 men who self-reported as HIV negative. Measures included demographics, number of male sex partners in the previous year and knowledge of serostatus of sex partners. A number of items measured specific concepts and these formed internally consistent scales: reliance on serostatus disclosure; perception of HIV risk; community engagement, and HIV-related stigma.

Results: The mean age of participants was 37.1 years. The mean number of male sex partners in the previous year was 18.1. Only 15.7% reported any known HIV-positive partners; 76.3% reported any HIV-negative partners.

Participants relied moderately on serostatus disclosure in sexual settings but expectations of disclosure by HIV-positive men were high. HIV-related stigma was low overall but was highest in the domain of sexual exclusion. Greater reliance on disclosure was associated with three demographic variables—being younger, having a lower education level, and living outside capital cities—as well as a higher perception of HIV transmission risk, and greater HIV-related stigma. A linear regression analysis showed that HIV-related stigma has the strongest association with reliance on disclosure, and that this is partially mediated by perception of HIV transmission risk.

Discussion: These findings suggest that an increasing sero-divide may be emerging among gay men in the domain of sex and relationships. This sero-divide is related to stigma and avoidance of HIV-positive men as sexual partners rather than simply the increase of sero-adaptation strategies.

The National Centre in HIV Social Research and the Australian Federation of AIDS Organisations are supported by the Australian Government Department of Health and Ageing.

THEME D PROFFERED PAPER SESSION: UNDERSTANDINGS OF RISK: GAY MEN AND HIV IN AUSTRALIA

PAPER NUMBER: 265

MONOGAMY AS AN HIV AND STI PREVENTION STRATEGY AMONG AUSTRALIAN GAY MEN

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Background: Monogamy has a complex position within contemporary gay culture and public health responses to HIV and STIs. Although varied data sources suggest that up to one third of gay men may be in monogamous relationships at any time, little is actually known about the meanings and practices of monogamy among gay men. Is monogamy an HIV and STI prevention strategy for gay men? How do HIV and STI risks inform and shape men's preferences for monogamy or open relationships?

Methods: Drawing on research interviews with gay men in Victoria and New South Wales, this paper will present preliminary analysis of data exploring where monogamy sits as a prevention strategy in gay men's HIV and STI risk calculations, and the ways in which men's preferences for monogamous or open relationships are shaped by HIV and STI risks.

Results: Initial analysis suggests that protection from the risks of HIV and STIs is more likely to be perceived as an advantage of monogamy rather than the basis to a preference for monogamous relationships. However, some participants noted that a preference for monogamy was undermined by a general pessimism with regard to the trustworthiness of relationship partners within safer sex discourses advocating universal condom use. The risk of HIV infection in the context of a purportedly monogamous relationship was identified as the basis to preferences for either a committed single life or 'open' relationships where an agreement regarding condom use with external partners could be negotiated.

Conclusion: These findings challenge the little information and understanding we have regarding monogamy and gay men and raise interesting questions regarding issues around trust and communication for public health approaches to safer sex.

Disclosure of interest statement: This research has been funded by the National Health and Medical Research Council. No pharmaceutical grants were received in the development of this study.

NOTES

THEME B PROFFERED PAPER SESSION: ELIGIBILITY AND ACCESS TO HIV CARE

PAPER NUMBER: 673

NAPWA / AHOD ACCESS STUDY – A TEMPORARY SOLUTION FOR TEMPORARY RESIDENTS LIVING WITH HIV

Jo Watson, NAPWA

PAPER NUMBER: 357

IMPACT OF MEDICARE INELIGIBILITY ON SERVICE DELIVERY AT ROYAL PERTH HOSPITAL.

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Background: The Royal Perth Hospital (RPH) HIV Service includes ~10% of patients who entered Australia on a temporary resident visa, and as such are ineligible for Medicare. The aim of this study is to assess the impact of Medicare ineligibility on service delivery.

Method: Demographic information, access to services, visa status, medication procurement as well as HIV-1 RNA cell counts, and CD4+ cell counts were collected from medical records and volunteered by patients between 2008 and 2011.

Results: RPH currently cares for 83 Medicare-ineligible clients, including 40 (48%) migrant 457 visa holders (30 primary, 10 spouses), the majority of whom are from Southern Africa and are employed in the mining industry. 19% (n=16) were spouses of Australian residents, predominantly from South-East Asia, arriving on visitor visas and at various stages of permanent residency application. Student visa holders accounted for 16% (n=13). 67% are Perth metropolitan-based, with 32% in rural and remote WA.

78% (n=65) are prescribed antiretroviral therapy, accessing online generic companies, with 29 (45%) using Viraday. Six received compassionate supply during pregnancy, and two via a clinical trial. 80% of treated patients have viral loads <100 copies/mL. Only 8% of patients have CD4+ counts <200; 59% have CD4+ counts > 500.

Only 9 (13%) reported accessing community services, with the remainder citing the hospital multidisciplinary team as the main point of support.

Conclusion: Medicare ineligibility creates an increased workload for medical and allied health staff. Although adherence does not appear to be an issue for this group, fear of disclosure within the community means that many patients rely solely on the clinic for emotional and practical support. Numbers of patients are expected to rise significantly over the next 5 years as mining companies recruit skilled workers from high prevalence countries.

No pharmaceutical grants were received in the development of this study.

THEME B PROFFERED PAPER SESSION: ELIGIBILITY AND ACCESS TO HIV CARE

PAPER NUMBER: 473

SPATIAL ANALYSIS OF HIV CLINICAL SERVICE CAPACITY IN AUSTRALIA REVEALS CURRENT AND FUTURE AREAS OF WORKFORCE SHORTAGE

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Background: The current capacity of HIV services in Australia to meet the clinical needs of people living with HIV (PLHIV) has not been quantified. Similarly, whether HIV services are positioned to respond to anticipated increases in patient demand outside of metropolitan centres over the next decade is unknown.

Methods: A survey was conducted to determine the clinical capacity of HIV services in Australia that were registered with the Australasian Society for HIV Medicine (ASHM) in 2010. Geostatistical analysis was used to relate the number of hours available for patient treatment and the number of PLHIV, by geographical region.

Results: In 2010, an estimated 2,074 PLHIV (9.7% of all PLHIV) resided in statistical local areas more than 15km from a HIV service. By 2020, this is estimated to rise to 3,419 (11.5% of estimated PLHIV in 2020). To meet this demand, the establishment of new HIV services are most urgently required in the outer suburbs of Melbourne (Victoria), the north of the Gold and Sunshine Coasts (Queensland), the outer northern suburbs of Adelaide (South Australia), the outer northern suburbs of Perth, and the surrounds of Bunbury and Armadale (Western Australia). For areas with existing HIV clinical services, the number of hours that experienced HIV health professionals are available to treat patients ('clinical-hours') varies substantially between regions. The inner suburbs of Melbourne have one-third the numbers of clinical-hours available per person living with HIV than do the inner suburbs of Sydney. Areas with current HIV services that are most undersupplied are in Queensland (far-north: Townsville and Cairns), and in NSW (St-George-Sutherland and Wollongong; Richmond-Tweed; the lower Blue Mountains and Western Sydney).

Conclusion: This study provides the first quantitative identification of HIV clinical service gaps across Australia. Training of new S100 providers and shared-care practitioners should be directed towards these areas.

DISCLOSURE OF INTEREST STATEMENT

The authors acknowledge funding from the Australian Government Department of Health and Ageing; and grant numbers FT0991990 and DP1093026 from the Australian Research Council. No funding from industry was received for the development of this study.

PAPER NUMBER: 365

ASSESSMENT OF THE CLINICAL CARE OF HIV POSITIVE PATIENTS: A PILOT PROGRAMME OF KEY PERFORMANCE INDICATORS IN HIV CARE IN QUEENSLAND

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Background: HIV clinical care is becoming increasingly complex in an era of advanced antiretroviral therapies and management of multiple co-morbidities and health risk factors. Performance measurement provides an opportunity for individual clinics to examine areas of suboptimal performance and implement changes to improve performance. Development of appropriate indicators is essential to enable broad assessment of clinical performance across diverse clinics.

Methods: Six key performance indicators (KPI) were chosen according to the following criteria: relevance, standard of care, uniformity of data and ease of data collection. Data was collected for the 2010 calendar year. KPIs were the percentage of patients who: had a CD4 count of less than 350 and were on antiretroviral therapy (KPI-1); were on antiretroviral therapy and had a viral load < 200cpm (KPI-2); were female and had a screen for cervical cancer in the year (KPI-3); had a fasting lipid profile (KPI-4) and fasting blood glucose (KPI-5) in the year; had a screen for proteinuria in the year (KPI-6).

Results: Four clinics participated in the pilot programme. Approximately 1,150 patients with HIV attend these clinics. This includes more than 50% of patients with HIV in Queensland. The average and range for each KPI are as follows: KPI-1 91.2 (80-100)%; KPI-2 97.4 (96.6-100)%; KPI-3 87 (50-98.2)%; KPI-4 56.9 (49.2-86)%; KPI-5 53.2 (36.9-83)%; KPI-6 69 (64.4-88.4)%. Individual clinic data was de-identified. KPI measurement will be extended to all public clinics in Queensland next year.

Conclusion: Clinic performance was excellent as measured by HIV-specific parameters but less complete in the assessment of co-morbid conditions. Performance measurement for HIV care is feasible across different clinics. These KPIs provide a tangible method to improve patient outcomes by potentially increasing individual clinic's capacity to achieve agreed standards.

Disclosure of Interest

All participants are employed by Queensland Health. No external funding (including pharmaceutical grants) was received in the development of this project.

THEME B PROFFERED PAPER SESSION: ELIGIBILITY AND ACCESS TO HIV CARE

PAPER NUMBER: 352

PHARMACY DISPENSING FEES AS A BARRIER TO TREATMENT IN HIV POSITIVE PATIENTS ACCESSING CARE FROM AN URBAN CLINIC

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Background: ~80% of HIV+ Australians take combination antiretroviral therapy, 50% use other prescribed medications, and 13% are infected with hepatitis C. ~50% of HIV+ Australians are employed (median, net income $500/wk), and 42% are benefit-dependant. We aimed to identify the effects of financial stress on patients obtaining prescribed medication.

Methods: The HIV, Immunology & Infectious Diseases Unit provides tertiary referral outpatient HIV, viral hepatitis and general immunology care for ~2000 patients. From November 2010 to May 2011 we surveyed patients about various clinic and health-related issues. Five questions addressed medication costs.

Results: We received 500 completed questionnaires (61.2% HIV, 9.5% viral hepatitis, 6.3% HIV/viral hepatitis co-infection, 12.8% with immunological disease and 10% other), with 94.8-96.6% response rate to questions on finances. Mean age was 52 years (SD 11.0) and 81.2% were male. Regarding pharmacy costs, 22.3% with HIV, 15.8% with viral hepatitis, 17.4% with co-infection, 9.8% with immunological disease and 24.1% of 'other' respondents indicated that meeting pharmacy costs was 'difficult' or 'very difficult'. Regarding treatment delay, 14.4% of patients with HIV, 17.8% with viral hepatitis, 17.2% with co-infection, 11.5% with immunological disease and 9.3% of 'other' respondents reported delaying starting a prescribed treatment because of cost. Regarding treatment interruption, 8.4% with HIV, 18.2% with viral hepatitis, 17.2% with co-infection, 6.7% with immunological disease and 7.0% of 'other' respondents reported interrupting a prescribed treatment because of cost. Finally, when asked if they were ever asked about difficulties paying for prescribed medications, 12.1% of respondents indicated they were rarely asked and 68.7% were never asked.

Conclusion: Patients with viral hepatitis, and to a lesser extent those with HIV, have difficulty meeting their pharmacy costs. Patients should be asked regularly if financial issues are interfering with their treatment adherence. The effects of financial stress on antiviral efficacy should be investigated.

DISCLOSURE OF INTEREST STATEMENT

Nil

PAPER NUMBER: 212

ANTIRETROVIRAL ISSUES IN TEMPORARY VISA HOLDERS IN WESTERN AUSTRALIA: A QUALITATIVE REPORT ABOUT ACCESS, ATTITUDE AND ADHERENCE

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Background: Medicare ineligible, HIV infected people residing and/or working in Australia have limited access to: (1) a compassionate supply of patented drugs, or (2), generic drugs purchasable from internet suppliers. As part of a wider, qualitative study of HIV infected people residing in WA on temporary visas we aimed to describe the experience and outcomes of ARV treatment in those with no Medicare access.

Methods: Data from semi-structured interviews, with 12 participants, was gathered between April 2010 and May 2011. Interviews were recorded, transcribed and imported to NVIVO software for thematic analysis. Information concerning health beliefs, medication adherence, side effects, CD4 T-cell count, viral load; and rate of response to generic drugs were recorded.

Results: Seven men and five women ranging in age from 23 to 43 years (mean=30.3±SD=5.8) had experience with ART via compassionate access and/or generic formulation; two women had managed pregnancies. Two with compassionate access experienced side effects in the early stage of treatment necessitating treatment switch. All 10 on current treatment achieved undetectable viral load within 6 months, demonstrated high levels of adherence (5 patients had never missed a dose, 4 > 3 mths ago and 1 < 3 mths ago); and a low frequency of side effects (4/10= reported nil). Interview data illustrated varying experiences with access and cost, and little resentment regarding the need to pay. Where there was threat of treatment interruption clinic staff sought compassionate access to meet the shortfall. Patients showed basic knowledge of HIV and treatment, cited belief in the value of ARV's, and motivation to maintain therapy. Some, particularly Africans, were concerned about access to treatment on return to countries of origin and feared death from AIDS.

Conclusion: Response and adherence to antiretroviral drugs in Medicare ineligible HIV-infected individuals is excellent despite complexities posed by access to treatment.

Disclosure: This study was not supported by a pharmaceutical grant. The presenting author, a PhD student, is the recipient of an Australian Postgraduate Award and the study is funded by the Nurses Memorial Trust of Western Australia.

THEME A PROFFERED PAPER SESSION: BIOMARKERS

PAPER NUMBER: 323

TB-IRIS AFTER COMMENCING ART IS ASSOCIATED WITH EXPANSION OF PRE-EXISTENT CD4+ AND CD8+ EFFECTOR T CELL RESPONSES AGAINST MYCOBACTERIUM TUBERCULOSIS ANTIGENS

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Background: The contribution of T cell responses to the immunopathology of tuberculosis-associated immune reconstitution inflammatory syndrome (TB-IRIS) is not fully understood. Here we present a detailed analysis of T cell responses to *M. tuberculosis* antigens.

Patients and Methods: PBMC from 45 patients with HIV and treated TB, of whom 12 had TB-IRIS, were examined from baseline and weeks 2 and 6 after commencing ART. Production of interferon-gamma (IFN-g) and interleukin-2 (IL-2) by T cells after stimulation with PPD or ESAT-6, and T cell expression of CCR5 and CXCR3, were assessed by flow cytometry. Production of IFN-g and CXCL10 in cell culture supernatants was assessed by ELISA.

Results: Patients with TB-IRIS at baseline, weeks 2 and 6 had higher proportions of PPD-reactive IFN-g+ CD4+ T cells (p<0.0001, <0.0001 and 0.0006, respectively) and ESAT-6-reactive CD4+ T cells (p=0.0207, <0.0001 and 0.0003, respectively). PPD-reactive IFN-g+ CD8+ T cells (p=0.0369, 0.0322 and 0.0027, respectively) and ESAT-reactive CD8+ T cells (p=0.0045, 0.001, <0.0001, respectively) were also higher. In contrast, PPD-reactive IL-2+ CD4+ T cells were higher only at baseline (p=0.0043) and IL-2+ CD8+ T cells were higher only at week 6 (p=0.0046). IFN-g levels in culture supernatants after PPD stimulation were higher at all times in TB-IRIS patients (p=0.0338, 0.0210 and 0.003, respectively) but only at weeks 2 and 6 after ESAT-6 stimulation (p=0.0186 and 0.0443, respectively). CXCL10 levels after stimulation with PPD and ESAT-6 were only higher at week 6 (p=0.0020 and 0.0043, respectively). CCR5 and CXCR3 expression on T cells did not differ at baseline but CXCR3+/CCR5+ CD4+ T cells were higher at week 2 (p=0.035) and CCR5+ CD4+ T cells were higher at week 6 (p=0.0088).

Conclusions: TB-IRIS is associated with amplification of CD4+ and CD8+ effector T cell responses against M. tuberculosis antigens that are present before ART is commenced. CCR5 inhibitors might modulate those responses.

There are no conflicts of interest for any of the authors

PAPER NUMBER: 327

ROLE OF IL-17 IN HIV- SPECIFIC IMMUNITY: IS IL-17 INVOLVED IN T CELL AVIDITY?

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Background: IL-17 producing T-cells have been shown to play a critical role in the control of infectious diseases and in vaccine-induced immunity. Recently, Newcomb et al. have shown that IL-13 can inhibit the total number of CD4+ Th17 cells producing IL-17. Studies in our laboratory have shown that following immunization, IL-13 is involved in HIV-specific CD8+ T cell avidity. Recently, Ranasinghe et al, developed an HIV vaccine, that co-expresses an IL-13 inhibitor, (which temporarily blocks the production of IL-13), and have shown that this vaccine can generate CD8+ T cells of higher avidity and a better protection when compared to control vaccination. Therefore, the aim of this study was to evaluate whether IL-17 also plays a role in HIV-specific CD8+ T cell avidity by regulating IL-4 and IL-13 on HIV-specific T cells

Methods: In this study BALB/c and IL-13-/-, IL-4-/- and STAT6-/- (gene knock out) mice were prime-boost immunized i.n. /i.m. With either the IL-13 inhibitor vaccine or control HIV vaccine strategy. At different time intervals, the expression of HIV-specific IL-17 expression by CD8+ T cells were evaluated using IL-17 ELISPOT, intracellular staining. Also IL-13-/-, IL-4-/-and STAT6-/- KO mice were immunized with control vaccine and CD8+T cells were evaluated in a similar manner.

Results: 14 days, 8 weeks post booster immunization and also following influenza-HIV challenge, results indicate that CD8+ T cells can generate higher levels of gag-specific IL-17 in IL-13 inhibitor vaccine compared to the control vaccine in both systemic and mucosal tissues. Furthermore, 14 days following prime-boost vaccination IL-13-/-, IL-4-/- and STAT6-/- mice also produced increased levels of gag-specific IL-17 than the wild type BALB/c.

Conclusion: Data indicate that IL-17 and IL-13 are closely regulated in HIV-specific T cells and IL-17 may possibly play a direct or indirect role in modulating T cell avidity and protective immunity.

Disclosure of Interest:This work was supported by the NHMRC project grant award 525431 (CR) & development grant award APP1000703 (CR), ACH2 EIO grant 2010-11 (CR) & Bill & Melinda Gates Foundation grant OPP1015149 (CR)

THEME A PROFFERED PAPER SESSION: BIOMARKERS

PAPER NUMBER: 423

HIACT: NK CELL REMAIN HIGHLY ACTIVATED IN HIV PATIENTS RECEIVING SUPPRESSIVE ART

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Background: HIV-1 infection is associated with generalized immune activation. Antiretroviral therapy (ART) significantly reduces T Cell (TC) activation but does not return to levels seen in HIV uninfected individuals. Natural killer (NK) cells are altered in phenotype and dysfunctional in HIV infection. We asked if ART reversed abnormalities in NK function.

Methods: We established a cross sectional study of 16 ART-naive (ART-), 17 ART+ and 20 HIV-uninfected (HIV-) subjects, the HiACT study. Cellular activation was measured by whole blood flow cytometric quantitation of CD38 and HLA-DR on T and NK cells. CD16-dependent NK function was measured using phosphorylation of Syk and mobilization of CD107a in whole blood with/without cross-linking of CD16.

Results: TC from ART- patients expressed high levels of HLA-DR/CD38, which was significantly lower in ART+ patients, but not normalized ($p<0.01$). NK of ART- patients showed significantly decreased Syk phosphoryaltion and CD107a mobilisation in response to CD16 stimulation (both $p<0.05$), compared to HIV-uninfected patients and significantly reduced Syk phosphorylation compared to ART+ ($p<0.01$). NK also showed high rates of baseline degranulation in whole blood of ART- and ART+. NK expression of CD38/HLA-DR was significantly increased in ART- ($p<0.001$), but in contrast to TC remained highly elevated in ART+.

Conclusion: In HIV infection, NK are hypo-responsive to CD16 appear to be highly active in whole blood of HIV+ patients ex-vivo. In contrast to TC, ART did not lower NK activation, suggesting that either NK cells are activated in response to different factors compared to TC or that they are much more sensitive to the same factors (e.g. low level HIV viremia). Thus monitoring NK cell function and activation might be a more sensitive measure of immune restoration in HIV patients than T cell activation.

There are no conflicts of interest.

PAPER NUMBER: 492

THE IMMUNOPATHOGENESIS OF IMMUNE RESTORATION DISEASE ASSOCIATED WITH HEPATITIS C VIRUS IN INDONESIAN HIV PATIENTS RESPONDING TO ART: ACTIVATION OF BLOOD DENDRITIC CELLS BY TLR

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Background: Some HIV/hepatitis C virus co-infected patients beginning ART experience Immune Restoration Disease (IRD) manifested as a rise in serum alanine transaminase. Plasma markers of T-cell activation (sCD26, sCD30) and immune recruitment (CXCL10) increased in many HCV IRD cases, so T-cells may mediate HCV IRD. This may depend on the activation of antigen-presenting cells through toll-like receptors (TLR7/8 and 9) as these molecules recognize molecular patterns characteristic of HCV. Here, we want to know the role of dendritic cells in HCV IRD event, which is initiated by via TLR.

Methods: HCV IRD were investigated in HIV/HCV co-infected individuals (n=50) commencing ART in Jakarta (Indonesia). Peripheral blood mononuclear cells (PBMC) were cryopreserved at weeks 0, 4, 8, 12, 24 and 48 weeks. Nine patients experienced HCV IRD. These resolved without changing treatment. Cytokine production by plasmacytoid (p) and myeloid (m) dendritic cells (DC) were measured by flow cytometry. Here, we use ligands for TLR 7/8 (CLO75) and TLR 9 (ODN2336) to induce cytokine production.

Results: A preliminary analysis of longitudinal sample sets from one IRD patient and 4 non-IRD controls showed that the IRD patient has increased IFNa responses to both TLR agonists, compared to the non IRD patients. This increase was evident at all time points. Interestingly, the production of IL-12 in mDC in IRD patient and non-IRD patients was not different.

Conclusions: The data suggest that pDC have an important role in immune activation in IRD patients after ART and may responsible for HCV IRD event. This will be confirmed by the analysis of other patients in the cohort and correlated with T-cell responses to HCV antigens.

Disclosure of Interest

I certify that no authors have a conflict of interest in relation to this abstract

THEME A PROFFERED PAPER SESSION: BIOMARKERS

PAPER NUMBER: 207

PRELIMINARY EVALUATION OF A RAPID, VISUAL IMMUNOCHROMATOGRAPHIC TEST FOR THE MEASUREMENT OF CD4+ T-CELLS AT POINT OF CARE

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Background: Rapid, point-of-care (RPOC) immunochromatographic tests are a proven technology for use in resource-constrained countries (RCCs). The Burnet Institute has developed a simple, immunochromatographic RPOC test for semi-quantitative measurement of CD4+ T-cells, based on detection of full-length CD4 protein in T-cells, without interference from monocytes or soluble CD4. This study evaluated the accuracy of the visual CD4 RPOC test versus Flow cytometry for determining eligibility of patients for initiation of therapy.

Methods: CD4 RPOC tests were designed with a nominal cutoff of 250 CD4/µl to provide a safety margin above the treatment cutoff of 200 CD4/µl (pre-2010). Samples of EDTA whole blood were collected from HIV-infected patients in Melbourne (Burnet Institute, n=45) or Seattle (PATH, n=42) and were tested by dual-platform Flow cytometry and RPOC CD4 test. Test operators were blinded to Flow cytometry results.

Results: The CD4 RPOC test correctly identified 100% (4/4) patients with counts below 200 CD4/µl (test line weaker than the reference line), and 90% (37/41) patients with CD4 counts above 200/µl (test line equal or stronger than the reference line) in the Burnet study. In the PATH study, the test correctly identified 96% (24/25) patients with CD4 counts below 200 CD4/µl, and 94% (16/17) patients with counts above 200/µl. None of the 5 patients with counts between 200 and 250 CD4/µl were identified as requiring treatment, suggesting that the test did not achieve the planned safety margin above the clinical cutoff. Concordance between independent operators was 85% (36/42), with discordant samples having counts between 175 and 326 CD4/µl.

Conclusions: These results suggest that the visual CD4 RPOC test may have considerable value in improving access to HIV treatment for patients in RCCs. Further studies are required under field conditions, and with patients from RCCs. Second-generation tests will address the treatment cutoff of 350 CD4/µl.

PAPER NUMBER: 503

THE ROLE OF INTERFERON-Γ-INDUCIBLE PROTEINS CXCL9 AND CXCL10 IN THE IMMUNOPATHOGENESIS OF IMMUNE RESTORATION DISEASE ASSOCIATED WITH MYCOBACTERIUM TUBERCULOSIS

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Background: Immune restoration disease (IRD) associated with *Mycobacterium tuberculosis* is a common complication of antiretroviral therapy (ART) in resource-limited settings. It can occur as a paradoxical worsening of treated tuberculosis [paradoxical tuberculosis immune reconstitution inflammatory syndrome (TB-IRIS)] or as a new presentation of tuberculosis which is "unmasked" following the commencement of ART [antiretroviral therapy associated tuberculosis (ART-TB)]. Previous studies have implicated IFN-g responses to mycobacterial antigens in the immunopathogenesis of these conditions so we have examined the interferon-γ-inducible chemokines CXCL9 and CXCL10.

Methods: CXCL9 and CXCL10 responses to purified protein derivative (PPD) and region of difference 1 (RD1) antigens were measured in plasma samples from whole blood interferon-gamma release assays (Quantiferon-TB GoldTM in-tube assay, Cellestis, Australia) at 0, 4, 12 and 24 weeks of ART and at the time of IRD in 15 HIV-1 patients who developed TB-IRIS and 11 HIV-1 patients who developed ART-TB. Each patient was matched with two controls according to sex, pre-ART CD4+ count and TB history.

Results: CXCL9 and CXCL10 responses to RD1 antigens were elevated within ART-TB cases compared to controls over 24 weeks of ART ($P<0.0001$), but responses did not differ within TB-IRIS cases and controls. CXCL10 responses to PPD were higher within TB-IRIS and ART-TB cases compared to controls ($P<0.001$) but CXCL9 responses to PPD did not differ within TB-IRIS cases and controls. CXCL10 responses to PPD and RD1 antigens were diagnostic of ART-TB.

Conclusion: These data provide further evidence that ART-TB is characterised by a dominant IFN-g response against RD1 antigens, which suggests a response against viable *M. tuberculosis.* In contrast, TB-IRIS was only associated with elevated responses to PPD suggesting a dominant response against non-viable mycobacteria. These findings may have implications for the diagnosis of ART-TB.

The authors of this abstract have no conflicts of interest to declare. Funding for this study was provided by the Australian Agency for International Development (AusAID) and the Australian National Centre for HIV Epidemiology and Clinical Research.

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GOLLOW LECTURE

PAPER NUMBER: 74	DREAMING A PATHWAY TO EQUALITY IN HEALTH OUTCOMES FOR AUSTRALIA'S FIRST PEOPLES: STI AND BBVS
Ward J[1] [1] The Kirby Institute, University of New South Wales, Sydney, NSW	Imagine 2021, ten years from now. The fourth and fifth Aboriginal and Torres Strait Islander STI and BBV Strategies have been evaluated with a decision made by all concerned, including Aboriginal and Torres Strait Islander leadership not to pursue a sixth strategy. For reasons none other than we are doing as well or better than non Indigenous Australians. Or am I just dreaming? The extreme health disadvantage experienced by Aboriginal and Torres Strait Islander people is now widely recognised by contemporary Australian society. Initiatives such as the "close the gap campaign" aimed at overcoming disadvantage are widely supported. However an area of major concern for young Aboriginal and Torres Strait Islander people is the sustained rates of STIs and increasing risk of transmission of BBVs. This area of Aboriginal health has not received as much attention as some others. This area is complex to address because of the sensitivity of the issues involved, the disparate perspectives of preventative and clinical service delivery, (the different health sectors and workforce, lack of coordination and resources), the diversity of population characteristics and the responses required to address individual STIs and BBVs across regions. While the solutions for entrenched disparity need to be long term, there has been a temptation, repeated at regular intervals, to find solutions which offer the promise of quick gains. Approaches such as mass treatment programs and incentive based testing and treatment programs fall into this category. An alternative which has proven to yield sustainable outcomes is the strengthening of Aboriginal community led programs and primary health care done simultaneously with community development and capacity strengthening. This approach will inevitably allow for Aboriginal people to have the fullest access to best possible primary health care. In addition the use of performance indicators to track progress and guide modifications to service delivery are needed, combined with targeted initiatives designed in a way that there is full understanding, participation and ownership from Aboriginal communities affected. There have already been some successes in the field of STI control among Aboriginal and Torres Strait Islander peoples of Australia, and there are others that are not out that far out of reach. Examples are the virtual elimination of donovanosis, a very stable HIV epidemic; declines in infectious syphilis in Aboriginal communities. These should be built upon so that the dreams of Aboriginal and Torres Strait Islander Australians and those who are non Indigenous working in this field are fully realised.

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JOINT CONFERENCE SYMPOSIUM: STRIVE: MAKING A DIFFERENCE IN PRIMARY CARE TO ADDRESS STI RATES IN REMOTE ABORIGINAL COMMUNITIES

PAPER NUMBER: 590

IMPLEMNTATION OF AUSTRALIA'S LARGEST CLUSTERED RANDOMISED TRIAL IN ABORIGINAL HEALTH: PROGRESS TOWARD A GOAL

Garton L[1], Guy R[1], Silver B[2], Taylor-Thompson D2 Hengel B,[3] Knox J[1] McGregor S[1] Wand H[1], Rumbold A[4,2], Ward J[1], Kaldor J[1] on behalf of the STRIVE Investigator Group.

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Background: Globally STI randomised trials have proven successful in reducing STIs especially using a variety of STI treatment strategies. All but one of the eight published STI RCTs trials globally have achieved reductions (30-60%) in STI prevalence or incidence. Many remote Aboriginal communities have sustained and elevated rates of chlamydia, gonorrhoea and trichomoniasis despite program and policy efforts to reduce prevalence.

Method: STRIVE is a randomised clustered trial designed to improve sexual health service delivery for people, aged 16 to 34 years, living in 67 remote communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted STI quality improvement program can improve STI testing and management practices to a level sufficient to decrease STI prevalence in the community.

Aim: To determine (1) whether targeted support to health services, using a quality improvement framework can achieve improvements in sexual health clinical services in remote communities; and (2) whether the attainment of best practice levels in clinical activity can reduce prevalence of bacterial STIs.

Summary of outcomes: STRIVE has achieved significant steps, including engagement of 67 remote health services and communities, baseline data collection, the development of STI best practice indicators and a sexual health quality improvement program tailored for remote communities as well as upgrades to patient management systems in three jurisdictions.

Discussion: Randomised trials in any setting can encounter a range of challenges, even when conducted under a model of community involvement and ownership. Some of the challenges we have experienced have included; ensuring proper community and key stakeholders engagement as the trial has progressed, complying with our own proposed project timeframe, the need to seek multiple ethics committee approvals and cross jurisdictional approvals, modifications to several patient management systems and seeking access to laboratory data. STRIVE progress, methodology and expected outcomes will be discussed.

PAPER NUMBER: 592

USE OF QUALITY IMPROVEMENT STRATEGIES TO ADDRESS ENDEMIC RATES OF STI IN REMOTE PRIMARY HEALTH CARE SERVICES

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Background: STRIVE is a cluster randomised trial designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in remote Aboriginal and Torres Strait Islander communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted quality improvement program can improve STI testing and management practices to a level sufficient to decrease community STI prevalence. We describe the components of the sexual health quality improvement program.

Methods: The program is based on a plan–do–study–act annual cycle of quality improvement. Components of the program were developed based on a review of the literature on effective sexual health service delivery. We also adapted existing quality improvement tools and processes shown to be effective at improving the quality of care in other program areas in this setting (e.g. chronic disease).

Results: The components of the program include:

- The establishment of a set of best practice indicators in STI clinical service delivery
- Upgrades to patient management systems within services including an STI template/care plan, STI recall and alerts, and automated STI service activity reports
- A formal assessment using evidence-based CQI tools to identify strengths and weaknesses in current practice within services
- Development and implementation of a written sexual health action plan including goal setting and identification of relevant strategies tailored to the capabilities of the service
- Identification and facilitation of sexual health training opportunities
- Regular review of health service activity and progress towards the action plan
- Financial incentives to support health promotion activities, as well as payments for episodes of care and for incremental improvements in STI testing and treatment

Conclusion: The sexual health quality improvement program is being implemented in participating primary health care services; its impact on the prevalence of bacterial STI will be assessed over the next three years. Although the program has been developed specifically for remote service delivery, many components will have wider relevance to improving delivery of sexual health programs in other settings.

JOINT CONFERENCE SYMPOSIUM: STRIVE: MAKING A DIFFERENCE IN PRIMARY CARE TO ADDRESS STI RATES IN REMOTE ABORIGINAL COMMUNITIES

PAPER NUMBER: 589

THE 2010 BASELINE PREVALENCE STUDY CONDUCTED BY THE STRIVE TRIAL

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Background: STRIVE is a randomised clustered trial designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in remote communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted quality improvement program can improve STI testing and management practices to a level sufficient to decrease community STI prevalence. We describe the results of the baseline prevalence study.

Methods: In 2010-2011, 67 health services participating in STRIVE were invited to undertake a prevalence study involving testing for chlamydia, gonorrhoea and trichomoniasis in 16-34 year olds over a nominated time period. Services were provided with target numbers of tests to achieve (15-150). Health service staff undertook the testing as part of the provision of routine clinical services, except in Far North Queensland where it was done as part of an existing Young Person's Check (YPC).

Results: In the study, 63 services provided data. There were 2,536 individuals aged 16-34 years tested for chlamydia and gonorrhoea, 56% were women. In males chlamydia prevalence was 9.0% 16-34 year olds overall; highest in 16-19 year olds (11.8%), and lowest in 30-34 year olds (4.6%). In females chlamydia prevalence was 8.9% overall; highest in 16-19 year olds (17.7%), and lowest in 30-34 year olds (3.5%). In males gonorrhoea prevalence was 7.2% in 16-34 year olds overall, highest in 16-19 year olds (13.7%), and lowest in 30-34 year olds (4.1%). In females gonorrhoea prevalence was 7.2% overall, highest in 16-19 year olds (13.5%), and lowest in 30-34 year olds (4.3%). A total of 1,828 individuals aged 16-34 years were tested for trichomoniasis, 64% were females. Prevalence of Trichomonas vaginalis was 5.8% in males aged 16-34 years and 17.9% in females. In females T.vaginalis prevalence was 26.4% in 16-19 year olds, 15.8% in 20-24 year olds, 15.5% in 25-29 year olds and 16.1% in 30-34 year olds.

Conclusion: These results demonstrate high STI prevalence in remote communities prior to the STRIVE trial. Prevalence studies will be carried out in participating STRIVE health services over the next 3 years to assess the impact of the trial.

PAPER NUMBER: 588

ROUTINE STI TESTING PATTERNS IN REMOTE HEALTH SERVICES IN THE NORTHERN TERRITORY AND FAR NORTH QUEENSLAND

McGregor S[1], Guy R[1], Garton L[1], Silver B[2], Taylor-Thompson D[2], Hengel B[3], Knox J[1], Wand H[1], Kaldor J[1] ,Ward J[1] Rumbold A4,[2], on behalf of the STRIVE Investigator Group.

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Background: STRIVE is a cluster randomised controlled trial, designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in 67 of the remotest communities in Australia spanning three jurisdictions. To inform STRIVE intervention strategies, we describe baseline testing patterns for bacterial sexually transmissible infections (STIs) in participating services.

Methods: Laboratory records for 66 remote primary health services participating in STRIVE from the Northern Territory, Far North Queensland and Western Australia were analysed. The focus of analysis was individuals tested for chlamydia, gonorrhoea and trichomoniasis infections in 2010.

Results: During 2010, 4,736 individuals aged 16-34 years were tested for chlamydia; 68% were women and chlamydia positivity was 8.8% overall:7.8% in females, 10.9% in males, highest in 16-19 year olds (16.3%), and lowest in 30-34 year olds (4.2%). There were 4,749 individuals aged 16-34 years tested for gonorrhoea, similarly 68% were women, gonorrhoea positivity was 8.1% overall: 6.3% in females and 12.0% in males, highest in 16-19 year olds (14.2%), and lowest in 30-34 year olds (4.2%). A total of 3,503 individuals aged 16-34 years were tested for trichomoniasis and the majority were women (73%). Trichomoniasis positivity was 15.0% overall:18.7% in females, and 5.2% in males. In females, trichomoniasis positivity was highest in 16-19 year olds (18.3%), and lowest in 30-34 year olds (12.2%).

Conclusion: These data show that females aged 16-34 are tested for STIs at much higher rates than men of the same age, and that the greatest positivity rates are among people aged 16-19 years. Further efforts are required to increase testing among young men.

JOINT CONFERENCE SYMPOSIUM: STRIVE: MAKING A DIFFERENCE IN PRIMARY CARE TO ADDRESS STI RATES IN REMOTE ABORIGINAL COMMUNITIES

PAPER NUMBER: 591

HEALTH SERVICE UTILISATION PATTERNS IN FNQ REMOTE COMMUNITIES: IMPLICATIONS FOR STI TESTING

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Background: Far North Queensland (FNQ) remote Aboriginal and Torres Strait Islander communities consistently experience high rate of bacterial sexually transmitted infections (STIs), particularly amongst young people. STRIVE is a clustered randomised trial which aims to assess if a targeted STI quality improvement program can improve STI testing and management practices to a level sufficient to decrease STI community prevalence. To inform STRIVE health promotion and quality improvement programs, we describe consultation patterns and STI testing rates in FNQ services participating in STRIVE.

Methods: Consultations and STI testing data recorded in the patient management systems of three remote FNQ Aboriginal health services participating in STRIVE were analysed. The analysis focused on the 12-month time period prior to the STRIVE trial commencing (May 2010 to April 2011) and testing for chlamydia, gonorrhoea and trichomoniasis infections, excluding screening done as part of the Young Person's Check (YPC).

Results: In the 12 month period, there were 40,756 consultations, of which 8,858 (21%) were in 16-34 year olds. Females aged 16-34 years had a median of 6 consultations per year, and males aged 16-34 years had an average of 3 consultations per year. These consultations were done in 1,216 individuals of which 902 (74%) were community residents (474 females, and 428 males) and 26% were from other communities. Community residents who attended the services represent 99% of the total female community resident population aged 16-34 years, and 81% of the male community resident population aged 16-34 years. Of all 16-34 year old female attendees, 38% were tested at least once in the 12-month period for chlamydia and positivity was 17%, 37% were tested for gonorrhoea and positivity was 7%, and 19% were tested for trichomoniasis and positivity was 21%. Of 16-34 year old male attendees, 19% were tested for chlamydia and positivity was 21%, 19% were tested for gonorrhoea and positivity was 11%, and 9% were tested for trichomoniasis and positivity was 2%.

Conclusion: Results indicate that across three FNQ communities participating in STRIVE most 16-34 year old males and females attend health services regularly and more consultations and higher STI testing rates are being achieved in 16-34 year old females compared with males.

NOTES

JOINT CONFERENCE SYMPOSIUM: HIV AND HPV

PAPER NUMBER: 580

DIGITAL RECTAL EXAMINATION TO SCREEN FOR ANAL CANCER IN HIV POSITIVE MEN HAVING SEX WITH MEN (MSM)

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Anal cancer is more common in MSM and even more common if they have HIV. Anal intra-epithelial neoplasia (AIN) appears to be the precursor and considerable effort is being directed toward evaluating the effectiveness of screening for and treating AIN to prevent anal cancer. This is analogous to the cervical screening programs in wealthy countries. But AIN screening and treatment differs from cervical screening and treatment in several key ways that may delay its introduction into routine clinical care.

First we do not fully understand the natural history of AIN, and particularly why AIN is so prevalent (20 to 50% of HIV+ MSM) when anal cancer is relatively rare. Second, the process of screening for AIN is troubled by problems with non-specific cytology and a resulting high demand for uncomfortable high-resolution anoscopy. Third, there is no consensus on the ideal treatment for AIN; most treatments involve high rates of recurrence, complications, or both.

While we await resolution of these uncertainties, some guidelines recommend regular digital rectal examination (DRE) for early detection of anal cancer. Anal cancers smaller than 3cm when they are treated, have significantly lower recurrence rates and higher five-year survival, suggesting that regular digital examinations will be beneficial. Interim data from a retrospective analysis of anal tumour size will be presented. An ongoing study of routine DRE at Melbourne Sexual Health Centre suggests that the rate of referral for non-cancer diagnoses (false positives) is low and the examination is acceptable to MSM in the HIV clinic.

PAPER NUMBER: 581

UPDATE ON HPV IN HIV POSITIVE WOMEN

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Among HIV-infected women as compared to non- HIV- infected women; human papillomavirus (HPV) infection is more common, detectable at greater viral loads, as well as being present as more persistent infections and as mixed infections. In addition, the various disease manifestations of HPV, including genital warts, cervical intraepithelial neoplasia lesions (CIN) plus anal intraepithelial neoplasia are more common. High grade CIN (CIN2/3) are more common and recalcitrant to standard treatment, particularly when CD4 counts are low. Of note studies in various countries (USA, France Italy and Canada) have had conflicting results regarding the impact of HAART on the persistence of HPV infection and outcomes of treatment of CIN. In some countries, recurrence of cervical disease was more frequent in highly immunosuppressed women, whereas others found no such correlation.

Invasive cervical cancer became an AIDS defining diagnosis in 1993. Data from the International Collaborative Group on HIV and cancer has shown the risk for cervical cancer has remained stable during the past decade in HIV-infected women, with the incidence not decreasing with improved CD4 cell counts in those receiving antiretroviral treatment.

Cervical cytology guidelines will be discussed, as will the place of HPV vaccines which are being trialled in HIV-positive women.

JOINT CONFERENCE SYMPOSIUM: HIV AND HPV

PAPER NUMBER: 582	OROPHARYNGEAL CARCINOMA RELATED TO HUMAN PAPILLOMAVIRUS
Hong A[1] [1]University of Sydney	Human papillomavirus (HPV) induced oropharyngeal squamous cell carcinoma is an unique subtype of oropharyngeal cancer. It has a significantly better prognosis than that caused by tobacco and/or alcohol. The incidence of HPV related oropharyngeal cancer is raising in the western countries. Along the HPV pathways, there are inverse relationships between HPV status, cyclin D1, pRb and EGFR. Overexpression of either cyclin D1 or EGFR predicted poor outcome. Our data have suggested that a combination of HPV status and cyclin D1 or HPV and EGFR provides better prognostic stratification in oropharyngeal cancer than HPV status alone. There are also strong interactions between HPV and T, N stage implicating that the current TNM staging system for oropharyngeal cancer might not be applicable in HPV related cancer. There are on going trials to define the best treatment approach for HPV related oropharyngeal cancer and there are no current level 1 or 2 evidence to de-intensifying treatment for patients with HPV related oropharyngeal cancer.

NOTES

JOINT CONFERENCE SYMPOSIUM: SYPHILIS AND HIV

PAPER NUMBER: 641

POINT OF CARE TESTS FOR SYPHILIS: IS THERE A ROLE FOR THEM IN OUR PATIENTS TODAY AND TOMORROW?

McMullen B[1]

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Point of Care Testing (PoCT) is becoming increasingly relevant in modern medical practice. These tests have the potential to improve timely detection of many infectious diseases and reduce costs and delays associated with centralized laboratory testing. Balanced against these potential advantages are issues of quality and governance. The area of STI testing is particularly ripe for reliable, rapid PoCTs, and syphilis is of major importance in this regard.

This presentation will discuss current syphilis diagnostics then review the evidence on currently available PoCTs for syphilis and discuss their potential applications and limitations in various settings, including high-risk and HIV co-infected patients.

PAPER NUMBER: 647

NEUROSYPHILIS IN PERSONS WITH HIV: A HEADACHE FOR BOTH PATIENTS AND DOCTORS

Kelly M[1]

[1]Brisbane Sexual Health and HIV Service

The diagnosis and management of neurosyphilis in persons with HIV is problematic and not supported by a strong evidence base. While international guidelines exist they are conflicting and imperfectly followed.

Recent observational data from both international and national studies indicate that early neurosyphilis is an emerging issue for persons with HIV and early syphilis. The pathogenesis of this condition is incompletely understood. The clinical manifestations are broad and range from an asymptomatic state to wide-ranging neurological deficits including headache, optical, auditory and other cranial nerve deficits often with long-term sequelae despite treatment. These neurological deficits may be subtle and elude the busy clinician. The neurological symptoms can occur either before or after other clinical manifestations of early syphilis. Recent reports of an association between impaired neurocognitive performance and prior syphilis in persons with HIV are of great concern.

The diagnosis of early neurosyphilis in persons with HIV is problematic given the need for a lumbar puncture; co-existing abnormalities of the cerebrospinal fluid and the lack of a diagnostic gold standard. Some data support targeting asymptomatic patients with HIV and early syphilis with low CD4 counts and high RPR for lumbar puncture. Randomized data do not exist to guide management of early neurosyphilis in persons with HIV yet it is generally agreed that neuropenetrative penicillin based therapy is preferred. Data to assist the clinician in monitoring response to treatment are lacking.

This presentation will review the gaps in the current evidence base and attempt to suggest some steps forward to fill in these gaps.

JOINT CONFERENCE SYMPOSIUM: SYPHILIS AND HIV

PAPER NUMBER: 642 — SYPHILIS IN HIV INFECTION: WHAT'S ALL THE FUSS ABOUT?

Donovan B[1]

[1]The Kirby Institute

Basil Donovan, Sydney Sexual Health Centre, Sydney Hospital; The Kirby Institute, University of New South Wales.

Syphilis killed more people in western countries every year for over 400 years than AIDS killed at its peak in 1994. That leaves a deep cultural and clinical memory – we need regular reassurance that we are managing syphilis as well as possible.

The protean manifestations of syphilis (*Treponema pallidum* infection) are the result of a complex interplay between *T pallidum* and our innate, humoral, and cellular immune responses. Thus it seemed inevitable that the natural history of syphilis must be altered by the shock to our immune systems caused by HIV infection. However, after 30 years all the evidence that we have of a change in natural history of syphilis is some highly-cited anecdotes and case series that are yet to be confirmed by more systematic studies. The possible exception is CNS disease – neurosyphilis.

To date there is no high-level evidence that the routine diagnosis or management of syphilis should be altered by a background of HIV infection. However, our public health response to syphilis should be informed by the close epidemiological and behavioural links between the two infections.

PAPER NUMBER: 527 — HIGH LEVELS OF AZITHROMYCIN RESISTANT SYPHILIS IN SYDNEY

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The Kirby Institute, University of New South Wales

Background

The genetic mutation A2058G in the 23S ribosome of *Treponema pallidum* confers resistance to azithromycin, and is associated with macrolide treatment failure. This mutation has been detected in samples from San Francisco, Dublin and China. This is the first study to report this mutation in Australia.

Methods

PCR amplification of the 23S rDNA gene was performed on stored DNA samples collected from 2004-2008. These samples had previously tested positive for the presence of *Treponema pallidum* DNA using a PCR targeting the 47kDa membrane protein gene.

23S rDNA amplicons were subject to restriction endonuclease digestion using the enzyme MboII. Samples containing the A2058G mutation were identified by the presence of two unique bands on agarose gel electrophoresis.

Results

To date, amplification of 23S rDNA has been successful in 106 samples, with restriction endonuclease digestion identifying 92 of these (86.8%) as containing the genetic mutation A2058G. Preliminary results indicate there has been little variation in the prevalence of this mutation from year to year.

Discussion

The high prevalence of azithromycin resistant syphilis in Sydney (86.8%) is similar to that seen in other countries with syphilis epidemics in men who have sex with men, such as the USA (76.5% in 2005) and Ireland (88% in 2004). However, it is interesting to note that the prevalence in Sydney has been consistently high, rather than gradually increasing as seen in other sites. Widespread use of macrolides for treatment of other bacterial infections may have contributed to this phenomenon. Further analyses will focus on samples from 2008 onward, and correlate azithromycin resistance with HIV status, macrolide use and sexuality. This study illustrates that macrolides should not be used for treatment of syphilis in Sydney.

PROFFERED PAPER SESSION: STI LAB LUNCH

PAPER NUMBER: 446

THE INFLUENCE OF ORGANISM LOAD ON THE SENSITIVITY OF POINT-OF-CARE TESTS FOR CHLAMYDIA

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Background: Nucleic acid amplification tests (NAAT) are now the mainstay for laboratory-based screening of chlamydia and gonorrhoea. While sensitive and highly suitable for screening, NAAT methods need to be performed in dedicated clinical laboratory facilities. In some remote communities, there are delays in result turnaround time, and difficulties locating patients when results are received, leading to delayed treatment of chlamydial infections. In this pilot study, we examined the performance of a candidate chlamydia POC assay validated for use in male urine samples.

Methods: To date, 58 male urine samples have been included in the evaluation (25 Chlamydia NAAT-positive and 33 Chlamydia NAAT-negative), with additional samples to be assessed. The specimens were tested according to kit guidelines and the sensitivity and specificity calculated using NAAT as the reference test. For a subset samples we also assessed the POC sensitivity according to organism DNA load indicated by NAAT cycle threshold values (22 to 38 cycles). In addition, 10-fold dilutions of Chlamydia culture were tested by both POC and NAAT.

Results: Of the 35 chlamydia NAAT-positive samples, the POC assays was positive in 21 samples giving a sensitivity of 60.0% (95%CI:42.1-76.1%); and of the 33 chlamydia NAAT-negative urine samples, all were negative by the POC assay, giving a specificity of 100% (95%CI:89.4-100.0%). For 28 chlamydia NAAT-positive samples with DNA loads available, the POC more readily detected (81.8%, 95%CI:48.2-97.7%) chlamydia in samples with higher organism loads (i.e. cycle threshold values of 30 or less) than those with lower organism load where only 5.9% (95%CI:0.1-28.7%) were positive.

Conclusions: The early findings from our evaluation show that the POC assay had a very high specificity, however sensitivity in samples with lower organism loads may have implications for use of POC assays for screening purposes compared with testing symptomatic patients.

PAPER NUMBER: 439

POINT-OF-CARE TESTS FOR THE DETECTION OF *N. GONORRHOEAE*; A SYSTEMATIC REVIEW OF OPERATIONAL CHARACTERISTICS AND PERFORMANCE

Watchirs Smith L[1], Hillman R[2], Ward J[1], Whiley D[3], Causer L[1], Skov S[4], Donovan B[1], Kaldor J[1], Guy R[1]

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Background: *Neisseria gonorrhoeae* infection, if left untreated, can result in serious reproductive health complications. In some high prevalence settings significant delays in treatment can occur due to lack of laboratory infrastructure, delays receiving results, or loss to follow-up of patients. Rapid point-of-care tests have the potential to improve detection and management of *N.gonorrhoeae* infection. We undertook a systematic review of studies that evaluated the performance of point-of care tests for detection of *N.gonorrhoea*.

Methods: PubMed and Embase databases were searched. We extracted information about the setting, participants, type of point-of-care test, reference test, operational characteristics of the test and performance (sensitivity, specificity and positive predictive value (PPV)). Findings were stratified by type of test.

Results: The search identified 100 papers, 14 studies were included; 11 evaluated leukocyte esterase strips and 3 immunochromatic strips. The gold standard was PCR in 6 studies, culture in 7 studies and unspecified in one study. In five studies at least half of the patients were symptomatic. The median sensitivity of leukocyte esterase was 65% (range:23-86%), the median specificity was 70% (range:32-99%), and median PPV was 16% (range:5-50%). One study found the leukocyte esterase test had a sensitivity of 75% in symptomatic women but only 23% overall. Most leukocyte esterase tests involved 4 steps and took <2minutes. The median sensitivity of immunochromatic strips was 75% (range:54-94%), median specificity was 97% (range:89-98%) and median PPV was 58.5% (range:55%-97%). Immunochromatic strips involved 5-7 steps, and took 15-30 minutes.

Conclusions: In our review, immunochromatic tests and leukocyte esterase tests for detection of *N.gonorrhoeae* had a similar sensitivity that may be an over-estimation due to the inclusion of mainly symptomatic patients. Immunochromatic tests had a higher specificity. Despite limitations, both tests may still provide advantages over syndromic management in high prevalence and logistical challenged settings.

PROFFERED PAPER SESSION: STI LAB LUNCH

PAPER NUMBER: 383

PROMISCUOUS *NEISSERIA GONORRHOEAE* - CULTURE OR PCR?

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Background: There has been recent debate in Australia to replace culture in with nucleic acid amplification tests (NAATs) for the detection of gonorrhoea to improve control of gonorrhoea in gay men. However, sequence variation continues to cause problems for these methods. False-negative results have been reported for NAATs targeting the gonococcal *cppB* and opa genes. A case of a false-negative test result in an *N. gonorrhoeae* PCR targeting the gonococcal *porA* pseudogene, being a popular *N. gonorrhoeae* PCR target has recently been reported. False-positive results for NAATs are well described in the literature.

Methods: A case of pharyngeal and rectal N. gonorrhoeae from a male patient who presented with anal pain to a sexual health clinic in Newcastle in March 2011 is described. The isolate, when tested by N. gonorrhoeae porA pseudogene PCR, provided negative results.

Discussion: The homology of N. gonorrhoeae to other Neisseria species, subtype sequence diversity, and the promiscuous nature of N. gonorrhoeae with regards to sharing genetic material is discussed. A literature review of false negative and positive results of various NAATs caused by sequence variations and cross reaction with other Neisseria subspecies is described. Increasing third generation cephalosporin resistance to Neisseria gonorrhoeae is also discussed. Public Health implications regarding notification and the unknown infectivity of PCR positive and culture negative gonorrhoea are discussed.

Conclusions: Due to the promiscuous nature of *Neisseria gonorrhoeae*, it is envisaged that NAATs will continue to present challenges for diagnosis. Culture based methods are essential for surveillance of antibiotic resistance and should continue to be used in parallel with NAATs to identify new sequence variations that may affect sensitivity and specificity of current and future NAATs. Supplemental NAATs assays should be adequately funded.

PAPER NUMBER: 449

NEISSERIA GONORRHOEAE RESISTANCE TO CEFTRIAXONE: WHERE ARE WE AT?

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Background: *Neisseria gonorrhoeae* (NG) has developed resistance to almost every class of antimicrobials used to treat it. The extended spectrum cephalosporins (ESCs), particularly the injectable agent ceftriaxone, are now the mainstay of treatment in most settings. However, NG isolates exhibiting reduced-susceptibility to ceftriaxone are now prevalent in Australia and elsewhere, and a fully resistant strain was recently reported in Japan.

Methods: In this study, we investigate the issue of emerging resistance to ceftriaxone in NG, with a particular focus on the genetic basis of the problem. We report our local data in the context of findings in the recent literature.

Results: Alternations in the gonococcal penicillin binding protein 2 (PBP2) are pivotal to emerging resistance to ceftriaxone in NG. These include a "mosaic" PBP2 sequence and variants thereof, arising from genetic recombination events, as well as other spontaneous substitutions in PBP2, including A501V, G542S and P551L. In addition, reduced-susceptibility to ceftriaxone is evident in genetically distinct gonococcal populations. Therefore the phenomenon is not simply due to spread of a single gonococcal strain. Treatment failures using ceftriaxone for pharyngeal gonorrhoea have so far been reported in Australia and Sweden.

Conclusion: Emerging resistance to ceftriaxone is well advanced in clinical gonococcal isolates. Without adequate surveillance we may soon lose ceftriaxone as a first-line treatment for gonorrhoea.

PROFFERED PAPER SESSION: STI LAB LUNCH

PAPER NUMBER: 7

THE EPIDEMIOLOGICAL ASSOCIATIONS OF BV CANDIDATE BACTERIA IN SEXUALLY EXPERIENCED AND INEXPERIENCED WOMEN WITH BV AND NORMAL VAGINAL FLORA

Fethers KA[1,2], Twin J[3,4], Fairley CK[2], Fowkes FJ[1,5] Garland SM[3], Fehler G[2], Morton AM[2], Hocking JS[1], Tabrizi S[3†], and Bradshaw CS[1,2,6†]

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Background:

Several bacterial candidate organisms (COs) have recently been shown to be highly specific for BV. The epidemiological profiles for these COs are unknown and no studies have examined COs in young sexually-inexperienced women, whether these COs are sexually-transmitted, or how they relate to specific sexual activities..

Methods:

This study incorporates 2 study populations: The Female University Student Study which recruited women aged 17–21 years attending the University of Melbourne, and a sexually-experienced clinic population from Melbourne Sexual Health Centre. Participants completed a questionnaire addressing demographics and detailed sexual practices. Gram-stained vaginal smears were scored by the Nugent method. Three-hundred-and-thirty-nine samples from women with normal flora and BV were selected for analysis using quantitative PCR assays (qPCR) targeting the specific 16S rRNA gene sequences of eight published COs (*G. vaginalis, A.vaginae, Megasphaera spp. Sneathia spp.*, BVAB1, BVAB2, BVAB3, and *Leptotrichia spp.*) and *L.crispatus.* Detection of COs and ***L.crispatus*** and their total bacterial loads were compared between women with BV and normal flora. The associations between prevalence of COs and specific sexual behavioural practices were examined by univariate and multivariate analysis.

Results:

Analysis found all COs were strongly associated with BV compared with normal flora and *L.crispatus* was negatively associated. *G.vaginalis* and *A.vaginae* were relatively common in sexually inexperienced women: however other COs were absent in a truly virginal population. When women with normal flora and BV were analysed separately, *Sneathia spp.*, BVAB1, BVAB2, BVAB3, *Leptotrichia spp.* and *G. vaginalis* all demonstrated a progressive increase in prevalence with increasing sexual experienced and increasing numbers of vaginal sexual partners. *Megasphaera spp.* however differed from other COs, with a higher prevalence being strongly associated with increasing oral sex frequency and oral sex partner number.

Conclusions:

These data provide compelling evidence for sexual transmission of several COs – with absence of COs in virginal women and increasing prevalence with increasing sexual exposure. Interestingly the COs *Sneathia spp.*, BVAB1, BVAB2, BVAB3, *Leptotrichia spp.* and *G.vaginalis* are significantly associated with vaginal sex while the epidemiological association of *Megasphaera spp.* differed from the other COs being significantly associated with oral sex.

JOINT CONFERENCE SYMPOSIUM: HIV AND WOMEN

PAPER NUMBER: 629	BIOMEDICAL PREVENTION OF HIV IN WOMEN: A PROMISE IN PRE-EXPOSURE PROPHYLAXIS
Marrazzo, J[1] [1]University of Washington, USA	Despite remarkable advances in antiretroviral treatment, infection with HIV-1 is still incurable, and current prevention strategies including abstinence, condom use, and male circumcision are only partially effective. To date, four clinical trials have provided promising data that pre-exposure prophylaxis (PrEP) using antiretroviral agents (ARV) may offer a promising strategy. The CAPRISA 004 study demonstrated that periocoital vaginal insertion of 1% tenofovir gel significantly reduced women's risk of acquiring HIV-1. The iPrEx study demonstrated that daily oral tenofovir-emtricitabine (TDF/FTC) reduced the risk of HIV-1 acquisition in men who had sex with men by a similar magnitude. The Partners in Prevention PrEP Study demonstrated efficacy of nearly 62-73% with daily oral TDF or TDF/FTC among the HIV-negative partner of serodiscordant couples, who generally reported excellent adherence. Daily oral TDF/FTC was also effective among heterosexual adults in the Botswana-based TDF2 Study. While the findings of these studies have infused much-needed energy into the field of HIV prevention, many questions remain to be answered before PrEP can be widely implemented across all populations at risk for HIV-1, particularly since one study (FEM-PrEP) of daily oral TDF/FTC in women at high risk for HIV acquisition was recently halted for futility. In this session, we will review the current status of PrEP as a means to prevent HIV-1 acquisition in women.

PAPER NUMBER: 584	MEDICAL ASPECTS OF HIV MANAGEMENT SPECIFIC TO WOMEN
Giles M[1] [1]The Alfred Hospital	Women are often underrepresented in clinical trials of antiretroviral therapy. Many studies therefore extrapolate the findings (efficacy and toxicity) to women although they may only comprise a small proportion of participants. This paper will review the current data from randomised controlled trials addressing the specific question of gender based differences in outcome and toxicity. In addition, as women with HIV infection get older issues such as menopause will become increasingly common. Little is known about the impact of HIV on the age of menopause, the symptoms and management of menopause and the impact this will have on comorbidities such as bone disease and cardiovascular disease. This presentation will summarise the current data available surrounding menopause and HIV and highlight the priority areas for future research.

JOINT CONFERENCE SYMPOSIUM: HIV AND WOMEN

PAPER NUMBER: 585	STIGMA AND WOMEN LIVING WITH HIV: A COOPERATIVE INQUIRY
Bruning J[1] [1]Positive Women Inc, New Zealand	This presentation explores the impact of stigma on women in Aotearoa/New Zealand living with HIV through the use of co-operative inquiry, an innovative, participatory, action-based and somewhat revolutionary, research method. Co-operative inquiry is about discovery and learning. It is not about confirming or validating previous theories or hypothesis. All participants, including the researcher, were women living with HIV, who worked together as co-participants in a research project which was done 'with' rather than 'about' those who took part and was based on feminist grounded theory. Through the process of sharing experiences, reflection and discussion, participants were encouraged to learn to interpret meaning and gain a better understanding of their world. By working through an agreed set of actions, this process lead to personal transformations and consciousness-raising for all who took part. It also highlighted how the involvement of people living with and affected by HIV is both paramount and instrumental to all HIV related advocacy, policies and interventions. Key findings were significant not only for the participants but also for future governmental and community interventions and policies in regards to HIV awareness and education.

NOTES

JOINT CONFERENCE SYMPOSIUM: PRISONERS AND JUVENILE DETAINEES; ARE THESE OUR FORGOTTEN POPULATION?

PAPER NUMBER: 586 — THE 2010 NATIONAL PRISON ENTRANTS' BLOODBORNE VIRUS AND RISK BEHAVIOUR SURVEY – UPDATE AND REPORT LAUNCH

Butler T

Justice Health Research Program, Kirby Institute

Prisoner populations are characterised by engagement in a range of risk behaviours, most notably injecting drug use. This puts them at an increased risk of exposure to blood-borne viruses such as hepatitis B, hepatitis C and HIV. Surveys of prisoners in Australia have found the prevalence of hepatitis C to be up to forty times higher than the general community and hepatitis B to be around thirty times higher. With variations in testing strategies between jurisdictions, the National Prison Entrants' Bloodborne Virus and Risk Behaviour Survey (NPEBBV&RBS) provides systematic information on bloodborne virus epidemiology in one of Australia's most marginalised groups.

The triennial survey was first conducted in 2004 with four jurisdictions, increasing to 7 in 2007, and in 2010 all states and territories participated. Prison entrants are screened over a two week period at 29 reception prisons across Australia. The response rate to the survey is high at around 75% with Indigenous prisoners represented in the survey.

This presentation will report on some of the key findings from the 2010 NPEBBV&RBS and launch the current report.

PAPER NUMBER: 587 — ADVOCACY FOR A PRISON NEEDLE AND SYRINGE PROGRAM TRIAL WITH PROMINENT AUSTRALIANS

Ryan, J[1]

[1]Chief Executive Officer, Anex

Background: There are about 30,000 Australians in correctional facilities, an estimated 71 percent of whom had used illicit drugs in the 12 months before incarceration. In the words of the National NSP Strategic Framework, "injecting drug use in prison and the absence of NSPs in prisons represents a gap, a risk and a limitation in all jurisdictions and requires urgent attention". Only the Australian Capital Territory (ACT) has publicly explored the possibility of introducing a needle and syringe program (NSP) in a prison. The single biggest obstacle has, and remains, opposition from the prison officers' union which threatens industrial action.

Discussion: Political and supporting media strategy has been critical in positioning in-prison NSP as a responsible public health measure. Anex established a Harm Minimisation in Prisons Committee (HMPC) comprising respected medical and research leaders. Prominent Australians from across the political spectrum were enlisted as a means of publically re-positioning prison NSP away from its portrayal as a "leftist" pro-prisoner rights issue as its opponents often do. Former military leaders have signed up, as has Nobel Laureate Professor Peter Doherty, the eminent Sir Gustav Nossal, former Governor General Bill Hayden as well Janet Holmes a Court. We proposed that the Government establish an investigation into potential models and steps to overcome barriers to implementation. The Public Health Association was contracted to conduct the investigation which concluded a trial is feasible and recommend it should proceed. The decision is expected later this year. At least three other jurisdictions' officials have privately expressed willingness to investigate prison NSP options.

Conclusion: Enlisting respected opinion leaders from across the political spectrum has provided enhanced political legitimacy for a contentious area of corrections practice. Ongoing and careful political strategy throughout other jurisdictions is required to supplement the existing evidence-base supporting prison NSP.

JOINT CONFERENCE SYMPOSIUM: PRISONERS AND JUVENILE DETAINEES; ARE THESE OUR FORGOTTEN POPULATION?

PAPER NUMBER: 620	SEXUAL BEHAVIOUR AND WELLBEING OF AUSTRALIAN PRISONERS
Richters J[1] [1]University of NSW	Background: Prisoners are at risk for sexual ill health. On average they start having sex at an earlier age than other people, have more sexual partners and more unprotected sex, and are more likely to have done sex work. They are also an under-serviced and under-researched group. Methods: We used a computer-assisted telephone interview based on the Australian Study of Health and Relationships to survey a random sample of 2,351 men and women in prison in New South Wales and Queensland in 2006–2008. Inmates were ineligible if they could not speak English, were intellectually disabled, seriously mentally ill, unavailable (e.g. due to a court appearance), or could not safely be moved to the telephone location. The response rate was 83% in NSW and 75% in Queensland. Results: Most men (96%) in prison identified as heterosexual and reported attraction (91%) and sexual experience (87%) only with females. Many women in prison (29%) identified as bisexual and 8% as lesbian. Prisoners reported more lifetime opposite-sex partners than people in the community (median men 24 v. 6; women 10 v. 3). More than a third of men in prison (36%) had ever paid for sex, as had 3% of women; 8% of men and 24% of women had ever been paid for sex. Prisoners were more likely than Australians in general to have had an STI, but their knowledge levels about STIs were as good as other people's. Female prisoners were more likely than other Australians to disapprove of abortion, but they were more likely to have had one. Rates of sexual difficulties were high among both male and female prisoners. High proportions (13% men and 59% women) had a history of sexual coercion. Conclusions: Prisoners as a group are vulnerable to sexual ill health when outside jail because of low income, low education, inadequate housing and, for some, chaotic lives and drug use. Surveys of prisoners are a unique opportunity to research a disadvantaged group who are usually omitted from household surveys. Prison is also a setting for provision of sexual health care that many do not receive when outside prison. With thanks to the SHAAP team for 2005–2008 and later: Tony Butler, Basil Donovan, Luke Grant, Tony Falconer, Alun Richards, Lorraine Yap, Kristie Kirkwood, Karen Schneider and Eva Malacova

NOTES

JOINT CONFERENCE/THEME C SYMPOSIUM: TESTING AND PREVENTION

PAPER NUMBER: 75 — HIV TESTING AND PREVENTION: THE NEW ZEALAND EXPERIENCE

Saxton P[1]

[1]New Zealand AIDS Foundation

This presentation will briefly discuss the role of HIV testing as a tool in epidemic control.

Epidemiological, behavioural and clinical data profiling New Zealand as a low-level, concentrated HIV epidemic with moderate levels of HIV testing among men who have sex with men (MSM) will provide a backdrop to a discussion of recent responses including the introduction of rapid HIV testing in 2006.

The paper concludes with some thoughts on the challenges and opportunities posed by new testing technologies in this setting, in particular with regard to hegemonic HIV prevention praxis in New Zealand.

PAPER NUMBER: 76 — TESTING TIMES - PEER BASED DISCUSSION IN COMMUNITY-BASED TESTING ENVIRONMENTS

Langdon PA, Atkinson M, Bradstreet B

Western Australian AIDS Council, West Perth, Australia.

Email of presenting author: tlangdon@waaids.com

An innovative peer-led testing service has been developed by the WA AIDS Council (WAAC) to improve HIV and STI testing rates of gay men and men who have sex with men (msm). The service uses the best aspects of the medical model, the public health model with the introduction of a peer-based aspect, necessitating a paradigm shift for all those involved. It is an example of the reorientation of health services, built on trust, respect and partnership which are the hallmarks of the Australian HIV response.

WAAC has operated a range of testing options including outreach clinics in sex on premises venues (SOPVs) for nearly two decades. In January 2007, STI testing became available to asymptomatic gay men/msm at the WAAC office in partnership with a private pathology provider, in response to the re-emergence of syphilis in this population. Men received pre & post test discussion by peer educators in accordance with Australian testing guidelines and those with positive results were referred on for treatment.

The M Clinic, a stand-alone HIV/STI testing clinic was established in July 2010. It is situated 3kms from the Perth CBD in a medical precinct. Again peer educators provide pre & post test discussion augmented by a clinical nurse and 2 physician sessions to facilitate treatment. Access barriers have been addressed such as the employment of appropriately trained staff, waiting times, hours of service, culturally appropriate promotion, location convenience etc. Over 750 men have accessed this unique service in its first year of operation, including many men aged less than 30 years as well as people living with HIV.

This service delivery model provides opportunities for ambitious outcomes including:

- Accessing men who would otherwise not seek testing resulting in the early detection and treatment of STIs and appropriate support and referral pathways for new HIV diagnoses;
- Providing meaningful and authentic discussion of sexual health and related issues using peers with appropriate referrals;
- Linking men in with integrated health promotion services provide by WAAC and other agencies;
- Reintroducing and normalising a robust testing culture in the gay/msm community; and
- Building specialised sexual health workforce capacity.

DISCLOSURE OF INTEREST STATEMENT:
The WA AIDS Council and the M Clinic is funded by the WA Department of Health.

JOINT CONFERENCE/THEME C SYMPOSIUM: TESTING AND PREVENTION

PAPER NUMBER: 619

RAPID HIV TESTING IN HOMOSEXUAL MEN: EARLY LESSONS FROM THE SMARTEST STUDY.

Tim Read [1,2], Christopher Fairley [1,2], Joe Vincini [3], Andrea Morrow [1], Jane Hocking [4], Catriona Bradshaw [1,5], Lenka Vodstrcil [1,2], Andrew Grulich [6], Marcus Chen [1,2]

[1] Melbourne Sexual Health Centre, Alfred Health, Melbourne

[2] School of Population Health, University of Melbourne

[3] National Serology Reference Laboratory, Australia

[4] Centre for Women's Health, Gender and Society, School of Population Health, University of Melbourne

[5] Dept Social and Preventive Medicine, Monash University, Melbourne

[6] National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney.

Modelling of the Australian HIV epidemic indicates that increasing the frequency of HIV testing by homosexual men will reduce HIV transmission. Surveys and international experience indicate many prefer rapid testing and may even use it to test more frequently. The SMARTest study aims to determine if Australian men having sex with men (MSM) will have HIV tests more often if they can have a rapid HIV test.

The SMARTest study is an ongoing open-label randomised trial comparing the frequency of HIV testing in MSM with access to clinic-based rapid HIV testing against MSM with access to usual lab-based serology with a one week wait for results. The study is being conducted at Melbourne Sexual Health Centre. Participants are followed for 18 months and complete a short questionnaire at baseline, 6, 12 and 18 months, asking about testing and sexual behaviour. The Determine HIV1/2 Ag/Ab Combo rapid test (Alere) was selected because the P24 Ag test probably reduces the mean time to seroconversion, compared to other rapid tests. Protocols for training and quality control were developed with the assistance of the manufacturer, and the National Serological Reference Laboratory, Melbourne.

Four hundred men were enrolled from Sept 2010 to March 2011. Cases of confirmed and false reactive rapid tests will be presented. Results on initial reactions to rapid testing will be presented. Data on testing frequency are expected in late 2012.

Practical problems arising when starting a rapid HIV testing service in a sexual health centre will be discussed. Point-of-care testing for HIV appears to be acceptable, but its introduction requires careful planning and training.

PAPER NUMBER: 404

COMMUNITY-BASED HIV TESTING SERVICES FOR GAY MEN: A SYSTEMATIC REVIEW

A. Pedrana[1,2], M. Stoove[1,2], A. Bowring[1], M. Hellard[1,2,3], R. Guy[4]

[1]Burnet Institute, Centre for Population Health, Melbourne, Australia, [2]Monash University, Department of Epidemiology and Preventative Medicine, Melbourne, Australia, [3]University of Melbourne, The Nossal Institute for Global Health, Melbourne, Australia, [4]The Kirby Insitute, aniversity of New South Wales, Sydney, Australia

Background: The recent review of the Australia National HIV testing policy sparked debate about who, (clinical vs. non-clinical staff) should be able to conduct rapid HIV testing for screening purposes and in what settings (clinics, community, home). We systematically reviewed the literature to describe community-based HIV testing services internationally to inform both the policy debate and the future implementation of HIV service models in Australia.

Methods: We searched Medline, EMBASE and Cochrane databases from 1980 to October 2010. Included studies described HIV testing outcomes at community-based testing services that included gay men as clients.

Results: We identified 44 community-based HIV testing services; 18 fixed-site only, seven on-site services with outreach and 19 outreach only. Services operated in 8 countries, most in the US (64%), and 77% offered rapid HIV antibody testing at the point-of-care followed by whole blood collection for confirmatory testing if the rapid test was reactive or indeterminate. OraQuick Advance Rapid HIV-1/2 Antibody or Abbott Determine HIV-1/2 rapid with finger-prick were the most commonly used rapid testing devices. Twenty-two services reported testing outcomes in gay men; the median proportion who had never tested previously for HIV was 34.1% (range: 7.8%-44.0%) and the median HIV positivity per service was 3.9% (range:0.3%-60.0%).Twenty-six services described staffing profiles; 62% employed non-medical HIV testing and counselling staff; 31% employed nurses/health care workers; and 15% employed physicians/medical officers. Thirty-five services described referral pathways for clients diagnosed with HIV which usually involved referral to a nearby partnering community-based organisation or sexual health clinic for follow up care.

Conclusion: Community-based HIV testing services are widely utilised internationally and most rely on non-clinically trained staff to undertake point-of-care testing. These services have attracted high risk men (evidenced by reported HIV positivity rates) and provide models of HIV testing that attract a significant proportion of gay men who have never tested before.

JOINT CONFERENCE SESSION AND HIV/AIDS CLOSING

PAPER NUMBER: 593	TOWARDS COITALLY-INDEPENDENT MICROBICIDES: STUDIES WITH VAGINAL RINGS AND SILICONE-BASED GEL DELIVERY SYSTEMS
John P Moore, PJ Klasse, Ronald A Veazey, Robin J Shattock and R. Karl Malcolm	We will describe in vitro and rhesus macaque studies aimed at developing a coitally-independent delivery system(s) for vaginal microbicides. In this work, we have focused on the small molecule CCR5 inhibitors CMPD167 and Maraviroc. We have formulated these compounds in vaginal rings that can remain in situ for up to a month while gradually releasing their active contents. As a second delivery option, Maraviroc was formulated in a silicone-based gel that is superior to traditional water-based gels, from the perspective of delivering high concentrations of the inhibitor to the vagina for prolonged periods (up to one day). We have performed pharmacokinetic studies in the rhesus macaque aimed at assessing how well the vaginal rings and silicone-based gels perform under in vivo conditions, compared to water-based gels and oral dosing. We are also assessing how to determine whether, and for how long, the rings and silicone-based gels can protect the animals against vaginal SHIV-162P3 challenge.

A BILL TO PROVIDE FOR THE ERADICATION OF NEW HIV INFECTION IN AUSTRALIA BY THE YEAR 2020

This year the debate will be conducted loosely in a 'parliamentary style' in keeping with the Conferences being held in Canberra as the seat of National Government.

The format of the debate will be based on a 'government' introducing a 'bill', the intention of which is to 'Provide for the eradication of new HIV infection in Australia by the year 2020'. In keeping with the concept of a parliamentary style debate, Mr Shane Rattenbury, speaker of the ACT Legislative Assembly, has agreed to act as facilitator.

AFFIRMATIVE:

Associate Professor Darren Russell, Director of Sexual Health, Cairns Sexual Health Service, Cairns, QLD, Australia

Justice Richard Refshauge, Supreme Court Judge, ACT, Australia

NEGATIVE:

Dr Edwina Wright, ID Physician, Alfred Hospital, Melbourne, VIC, Australia

Mr Rob Lake, Executive Director, AFAO, Newtown, NSW, Australia

ashm

Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

Poster Listing

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POSTER LISTING

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1	Balakrishnan	Pachamuthu	DETECTION OF RECENT HIV-1, CLADE C INFECTION USING A NOVEL BIOINFORMATIC ALGORITHM
2	Chopra	Abha	IMPORTANCE OF PRIMER SELECTION AND PCR AMPLIFICATION IN ESTIMATING HIV VIRAL VARIATION USING TRADITIONAL AND 454 SEQUENCING.
3	Cunningham	Philip	DEVELOPMENT OF A NOVEL IN-HOUSE GENOTYPIC ASSAY FOR THE DETECTION OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) DRUG RESISTANCE IN DIVERSE GROUP M SUBTYPES AND CIRCULATING RECOMBINANT FORMS
4	Estiasari	Riwanti	MEASURING LUMBAR PUNCTURE OPENING PRESSURE IN RESOURCES LIMITED SETTING
5	Gray	Richard	CONCURRENCY AND SEXUAL PARTNERSHIP DYNAMICS AMONG A SAMPLE OF YOUNG MUSIC FESTIVAL ATTENDEES
6	Petravic	Janka	LIFECYCLE OF HIV-INFECTED CELLS
7	Schneider	Karen	EXPECTED EPIDEMIOLOGICAL IMPACTS OF INTRODUCING AN HIV VACCINE IN THAILAND: A MODEL-BASED ANALYSIS
8	Aitchison	Stacey	HIV DEMOGRAPHICS IN A SINGLE CLINIC: CONTINUED ROOM FOR IMPROVEMENT
THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV			
9	Aleksic	Eman	MOLECULAR EPIDEMIOLOGY OF MYCOBACTERIUM TUBERCULOSIS (MTB) IN KIRIBATI
10	Ankus	Jacinta	CLINICAL MENTORING THAT WORKS - RESEARCH FINDINGS FROM THE REVIEW OF THE COLLABORATION FOR HEALTH IN PAPUA NEW GUINEA (CHPNG) AUSTRALASIAN SOCIETY FOR HIV MEDICINE (ASHM) CLINICAL MENTORING PROGRAM.
11	Bloch	Mark	LONG-TERM ATAZANAVIR EXPERIENCE IN A HIGH HIV CASELOAD PRIMARY CARE PRACTICE IN SYDNEY, AUSTRALIA.
12	Bloch	Mark	EXPERIENCE WITH NON NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NNRTIS): FAILURE, RESISTANCE AND SUSCEPTIBILITY TO ETRAVIRINE
13	Body	Amy	INCIDENT HEPATITIS B (HBV) INFECTION SUBSEQUENT TO THE DIAGNOSIS OF HIV INFECTION IN MELBOURNE HIV COHORT
14	Bopage	Rohan	ALLERGIC BRONCHOPULMONARY ASPERGILLOSIS IN HIV
15	Boyd	Mark	PHARMACOKINETICS OF PLASMA LOPINAVIR/RITONAVIR FOLLOWING THE ADMINISTRATION OF 400/100, 200/150 AND 200/50 MG TWICE DAILY IN HIV-NEGATIVE VOLUNTEERS
16	Carey	Catherine	RESULTS OF THE FOLLOW-UP PHASE OF THE STALWART STUDY
17	Carey	Dianne	PHARMACOKINETICS, EFFICACY AND SAFETY OF TWO DOSING STRATEGIES OF RALTEGRAVIR PLUS ATAZANAVIR IN ANTIRETROVIRAL-EXPERIENCED HIV-INFECTED ADULTS (SPARTA)
18	Castley	Alison	HIV SUBTYPES AND ANTIRETROVIRAL DRUG RESISTANCE PROFILES AMONG NEW HIV PRESENTATIONS IN WESTERN AUSTRALIA, 2010
19	Castley	Alison	LONGITUDINAL ASSESSMENT OF VIRAL LOAD MEASUREMENTS IN THE WESTERN AUSTRALIAN HIV COHORT, 2007 - 2010
20	Chibo	Doris	DEVELOPMENT OF A GENOTYPE-BASED ASSAY TO PREDICT CO-RECEPTOR TROPISM.
21	Chou	Meng-Shiuan	STRESS MANAGEMENT - PROSPECT OF PNI-BASED BEHAVIORAL INTERVENTION IN PLWHA
22	Cordery	Damien	THE INFLUENCE OF HLA SUPERTYPE ON THYMIDINE ANALOGUE INDUCED BODY COMPOSITION CHANGES IN STEAL
23	Costa	Jessica	WHAT STANDARD CLINICAL ASSESSMENTS GET PERFORMED ON PATIENT'S WHILST THEY ARE INVOLVED IN CLINICAL TRIALS?
24	Cysique	Lucette	NEUROCOGNITIVE IMPAIRMENT IN OPTIMALLY TREATED HIV-INFECTED INDIVIDUALS
25	Estiasari	Riwanti	CRYPTOCOCCAL MENINGITIS IN HIV PATIENTS IN CIPTO MANGUNKUSUMO HOSPITAL JAKARTA INDONESIA
26	Forrester	Catherine	COMPLEMENTARY MEDICINES USE IN HIV POSITIVE PEOPLE: A REVIEW OF EXISTING LITERATURE
27	Forrester	David	CHANGING THE WAY THE WORLD VIEWS HIV/AIDS AND CREATING A BETTER ENVIRONMENT FOR THOSE LIVING POSITIVELY

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29	Giola	Massimo	IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME IN AN AIDS PATIENT WITH CRYPTOCOCCAL MENINGITIS
30	Holmes	Sean	THE EVOLUTION ON ELECTRONIC HEALTH AND ITS IMPACT ON PATIENTS WITH CHRONIC AND COMPLEX HEALTH CARE NEEDS.
31	Hull	Peter	DIFFERENCES BETWEEN HIV-POSITIVE GAY MEN THAT TAKE ANTIRETROVIRAL TREATMENT (ART) AND THOSE THAT DON'T: ANALYSIS OF THE GAY COMMUNITY PERIODIC SURVEYS, 2000-/1 TO 2008/9
32	Hunter	Michael	LATE DIAGNOSIS OF HIV IN PATIENTS WITH VIRAL HEPATITIS: A CASE SERIES
33	Januraga	Pande Putu	WHERE DO THEY GO FOR HEALTH PROBLEMS; THE ROLE OF PRIVATE PROVIDERS IN DEVELOPMENT OF COMPREHENSIVE HEALTH CARE FOR FSWS IN BALI
34	Kaan	Ian	DOES SEXUAL IDENTITY IMPACT ON CLIENTS' EXPERIENCES OF STIGMA AND DISCRIMINATION? A CLIENT SERVICES SNAPSHOT.
35	Kanapathipillai	Rupa	HIV ASSOCIATED PLASMABLASTIC LYMPHOMA: A RAPIDLY-PROGRESSIVE CASE
36	Kea	Chettra	FACTORS ASSOCIATED WITH DELAYED ACCESS TO HIV CLINICAL SERVICES AMONG ADULT PATIENTS IN PHNOM PENH
37	Kelly	Mark	TENOFOVIR ASSOCIATED PROTEINURIA: A RETROSPECTIVE STUDY EXAMINING PREVALENCE, PREDICTORS AND OUTCOME
38	Kelly	Mark	K103R: A NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITOR (NNRTI)-ASSOCIATED POLYMORPHISM THAT MATTERS!
39	Kelly	Mark	DELIVERING CONSISTENT AND COMPREHENSIVE HIV CLINICAL CARE: THE DEVELOPMENT OF CONSENSUS ALGORITHMS FOR THE SCREENING AND MANAGEMENT OF CO-MORBID CONDITIONS IN HIV POSITIVE PATIENTS IN QUEENSLAND.
40	Khol	Vohith	FACTORS ASSOCIATED WITH LOSS TO FOLLOW-UP IN PATIENTS ATTENDING HIV TREATMENT SERVICES IN CAMBODIA
41	Koelmeyer	Rachel	IF IT AIN'T BROKE, DON'T FIX IT: THE IMPACT OF PATIENT AND DOCTOR CONCERNS ON COMMENCING AND CHANGING ANTIRETROVIRAL TREATMENT.
42	Koh	Yin Ling	THE UTILITY OF FIBROSCAN FOR THE ASSESSMENT OF LIVER FIBROSIS IN HIV MONOINFECTION (FILM STUDY: FIBROSCAN OF LIVER IN HIV MONOINFECTION)
43	Komari	Nurul	CYTOMEGALOVIRUS ENCEPHALITIS IN CIPTO MANGUNKUSUMO HOSPITAL JAKARTA: A CASE SERIES
44	Latigo	Melissa	DO HEALTH SYSTEM DELAYS IMPACT RECEIPT OF TEST RESULTS? EVIDENCE FROM HIV EARLY INFANT DIAGNOSIS PROGRAM IN UGANDA
45	Lee	Evelyn	THE CHANGING PROFILE OF HIV-POSITIVE GAY MEN IN AUSTRALIA: ANALYSIS OF THE GAY COMMUNITY PERIODIC SURVEYS, 2000-2009
46	Libertino	Samantha	PEER EDUCATION AND SUPPORT IN A CLINICAL SETTING
47	Mahoney	Andrew	ACUTE HEPATITIS C CO-INFECTION IN VICTORIAN MEN WHO HAVE SEX WITH MEN: INVESTIGATION INTO AN OUTBREAK WITH SUSPECTED SEXUAL TRANSMISSION.
48	Maki	Priscilla	A CASE STUDY OF HIV IN THE WESTERN HIGHLANDS OF PAPUA NEW GUINEA (PNG) – THE IMPACT ON A FAMILY
49	McMahon	James	REPEATED ASSESSMENTS OF FOOD SECURITY PREDICT CD4 CHANGE IN THE SETTING OF ANTIRETROVIRAL THERAPY
50	Millard	Tanya	SELF MANAGEMENT NEEDS OF MEN LIVING WITH HIV IN AUSTRALIA 2011
51	Mulya	Deshinta	FACTORS ASSOCIATED SURVIVAL AMONG TB-HIV PATIENT IN RS SARDJITO REFFERED HOSPITAL YOGYAKARTA: A RETROSPECTIVE COHORT STUDY
52	Murray	Ken	ASSISTED ACCESS TO SCULPTRA TREATMENT
53	Needham	Kate	WHO IS BEING TESTED FOR HIV IN OUR HOSPITALS? A REVIEW OF HIV TESTING AND DOCUMENTATION LEVELS AT CANBERRA HOSPITAL
54	Niggl	Maxwell	EVALUATING THE IMPACT OF PLHIV SPEAKERS ON FIRST YEAR MEDICAL STUDENTS TO INFORM FUTURE PRACTICE - A QUANTITATIVE AND QUALITATIVE ANALYSIS.
55	Perera	Roshnal	DIAGNOSIS OF ORAL AND CUTANEOUS KAPOSI'S SARCOMA IN AFRICA: CHALLENGES INVOLVING HISTOLOGY AND MOLECULAR DETECTION
56	Pham	Quang	TRANSMITTED DRUG RESISTANCE AMONG RECENTLY HIV INFECTED PATIENTS
57	Philips	Vicky	'FIT AND FIRM': IMPLEMENTATION OF A SUPERVISED WALKING AND STRENGTH EXERCISE GROUP IN PEOPLE LIVING WITH HIV

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59	Price	Julia	LIPODYSTROPHY, IS IT STILL RELEVANT?
60	Puls	Rebekah	PHARMACOKINETICS OF PLASMA LAMIVUDINE (3TC) AND ITS ACTIVE INTRACELLULAR ANABOLITE 3TC-TRIPHOSPHATE (3TC-TP) OVER A 24 HOUR DOSING INTERVAL FOLLOWING ADMINISTRATION OF 3TC 300 MG AND 150 MG ONCE DAILY TO HIV-NEGATIVE HEALTHY VOLUNTEERS.
61	Puls	Rebekah	ASSESSING SITE PERFORMANCE IN A MULTINATIONAL CLINICAL TRIAL
62	Pumai Awi	Jane	CREATING NEW FORMS OF APPLIED THEATRE FOR HIV AND AIDS EDUCATION IN PAPUA NEW GUINEA
63	Purnomo	Lia	DIETITIAN AND EXERCISE PHYSIOLOGIST INVOLVEMENT IN A POINT-OF-CARE LIPID SCREENING SERVICE: THE PATIENT PERSPECTIVE
64	Purwaningsih	Sri	CHARACTERISTICS OF LOSS TO FOLLOW UP PATIENTS IN THE ERA OF HAART : STUDY AT EDELWEISS CLINIC DR SARDJITO HOSPITAL YOGYAKARTA
65	Rajesh	Radhakrishnan	HIGHLY ACTIVE ANTIRETROVIRAL THERAPY INDUCED DRUG-DRUG INTERACTIONS IN INDIAN HUMAN IMMUNODEFICIENCY VIRUS POSITIVE PATIENTS
66	Redmond	Andrew	HIV AND AGEING IN QUEENSLAND: 2011
67	Reyes	Josephine	THE RELATIONSHIP BETWEEN ADHERENCE TO CLASS-SPECIFIC ANTIRETROVIRAL THERAPY AND HIV DRUG RESISTANCE MUTATIONS
68	Richards	Deborah	THE 5 YEAR SAFETY AND EFFICACY OF THE ONCE DAILY ANTIRETROVIRAL-NAÃIVE PATIENT REGIMEN OF EFAVIRENZ (EFV)/EMTRICITABINE (FTC)/ TENOFOVIR DISOPROXIL FUMARATE (TDF)
69	Riley	Richard	ENHANCING SUSTAINABILITY BY SUCCESSFULLY ENGAGING MAINSTREAM PROVIDERS AS HIV PREVENTATIVE HEALTH PARTNERS
70	Saha	Tapas	WE SHOULD ENCOURAGE SEX WORKERS'TO USE CONDOM TO PREVENT HIV/AIDS.
71	Shakala	Nader	THE CHARACTERISTICS OF HIV-POSITIVE ADULTS WITH AND WITHOUT DIAGNOSES OF MALIGNANCY ATTENDING THE HIV CLINIC AT ST. VINCENT'S HOSPITAL, SYDNEY, AUSTRALIA.
72	Vujovic	Olga	INPATIENT REHABILITATION OF HIV POSITIVE INDIVIDUALS: AN AUDIT OF PROCESS AND OUTCOMES
73	Whitfeld	Margot	HIV AND PSORIASIS - CLINICAL FEATURES AND TREATMENT STRATEGIES
74	Wilson	Moira	ZERO RATE OF MOTHER-TO-CHILD TRANSMISSION WITH VAGINAL DELIVERY AS THE PREFERED MODE OF DELIVERY IN THE 'HAART ERA': THE WESTERN AUSTRALIAN EXPERIENCE.
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76	Wraight	Howard	SWIFT STUDY: SWITCHING FROM LAMIVUDINE/ABACAVIR (3TC/ABC) TO EMTRICITABINE/TENOFOVIR DF (FTC/TDF) IMPROVED FASTING LIPID PARAMETERS WHILE MAINTAINING VIROLOGIC SUPPRESSION
77	Wraight	Howard	THE 10 YEAR SAFETY AND EFFICACY OF A TENOFOVIR DISOPROXIL FUMARATE (TDF) - CONTAINING ONCE-DAILY HIGHLY ACTIVE ANTIRETROVIRAL THERAPY (HAART)
78	Zhou	Julian	LOSS TO FOLLOW-UP IN HIV-INFECTED PATIENTS UNDER CLINICAL CARE IN THE ASIA-PACIFIC REGION
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80	Astuti	Putu	AIDS IS AROUND US, BUT WE DON'T KNOW IT FOR SURE: VIEW OF PEOPLE IN DENPASAR, BALI, 2010
81	Astuti	Putu	TYPES OF STI AMONG PATIENTS WHO VISIT A CLINIC AT THE LARGEST TRADITIONAL MARKET IN DENPASAR, BALI
82	Brown	Graham	RISK AVERSE TO LIFE AS RISK - UNDERLYING PERSPECTIVES OF SEX AND RISK AMONG GAY MEN IN THE PASH STUDY
83	Causer	Louise	THE FIELD RESEARCH TRAINING PROGRAM (FRTP): A NEW MODEL FOR SUPPORTING HIV RESEARCH CAPACITY BUILDING IN DEVELOPING COUNTRIES.
84	Duong	Thanh	HIV PREVENTION SERVICE COVERAGE FOR MEN HAVING SEX WITH MEN IN 4 PROVINCES IN VIET NAM

POSTER NUMBER	LAST NAME	FIRST NAME	SPEAKERS PAPER TITLE
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86	El-Hayek	Carol	THE IMPORTANCE OF CONTINUED MONITORING OF HIV AMONG YOUNG MSM IN VICTORIA
87	Everingham	Andrew	DOES ACTIVE FOLLOW-UP INCREASE THE RATE OF RETURN FOLLOW-UP FOR CLIENTS PRESCRIBED NPEP? A PILOT STUDY.
88	Feeney	Lance	EVALUATING THE EFFECTIVENESS OF A HEALTH LITERACY WORKSHOP FOR PEOPLE WITH HIV IN NSW
89	Gardiner	Bernard	LOCATING LBGTI FRIENDLY AND COMPETENT HEALTH PROVIDERS
90	Ginau	Martha	DOCUMENTING, MONITORING AND LEARNING OF THE COMMUNITY CONVERSATIONS INITIATIVE
91	Guy	Rebecca	MEN WHO HAVE SEX WITH MEN (MSM) WHO INJECT DRUGS: ARE THEY AT HIGHER RISK OF SEXUALLY TRANSMISSIBLE INFECTIONS (STIS)?
92	Jenkinson	Rebecca	PARTNERS OF PARTNERS: THE IMPORTANCE OF SEXUAL NETWORK STRUCTURE FOR THE TRANSMISSION OF HIV AND OTHER STIS.
93	Kauli	Jacqueline	IN THE FIELD: COMMUNITY CONVERSATIONS
94	Kelvin	Elizabeth	VULNERABILITY TO SEXUAL VIOLENCE AND EXPLOITATION AMONG ENTERTAINMENT CENTER EMPLOYEES IN HUNAN PROVINCE, CHINA
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96	Kosasih	Robert	COMPARISON OF OPIOID SUBSTITUTION THERAPY AND INJECTING DRUG USERS' BEHAVIOR IN 3 PROVINCES OF INDONESIA, 2009 AND 2010
97	Maharaj	Praneel	FURTHER USE OF HEPATITIS B PREVALENCE STUDY IN THE HIV RESPONSE THE WAY FORWARD
98	Mallitt	Kylie-Ann	TRUST AND RISK: 'HOW WELL DO I KNOW HIM?'
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THEME A: UNDERSTANDING AND IDENTIFYING HIV: BASIC SCIENCE, BIOLOGY AND PATHOGENESIS

POSTER NUMBER: 1
PAPER NUMBER: 241

DETECTION OF RECENT HIV-1, CLADE C INFECTION USING A NOVEL BIOINFORMATIC ALGORITHM

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Background: New molecular approach to efficiently measure HIV-1 incidence would provide an important advance in epidemiological research and disease surveillance. As diversity of the HIV population within an individual patient is potentially informative about the age of the infection, we applied a new bioinformatics approach to indirect measures of genetic diversity obtained from population based genotypes are useful indistinguishing recent from chronic HIV-1, clade C infection.

Methods: Drug naïve HIV-1 patients, who were chronically infected (n=38) and recently infected (n=22) were included in the study. The recently infected individuals were identified using detuned assay (HIV-1 BED Incidence EIA 4.10; Calypte® Biomedical Corporation, Rockville, Maryland, USA). The viruses were subjected to PCR and nested-PCR for the amplification of reverse transcriptase (RT) region of pol gene and sequenced. The frequency of ambiguous nucleotides in recently and chronically infected viruses were measured. The ambiguity index was calculated and the differences in numbers of ambiguous bases were compared using Mann-Whitney *U* test. Phylogenetic analysis and sequence quality control were performed with Mega 4.

Result: The median of ambiguity index for acute and chronically infected individuals were 0.35 and 0.58, respectively. A higher ambiguity index was observed in chronically infected individuals than recently infected individuals ($p<0.05$). All the RT regions of *pol* gene sequences clustered monophyletically with Indian subtype C

Conclusion: Higher ambiguity index and greater genetic variations exist in chronically infected individuals, which likely reflect the diversification of HIV-1 RT with the age of infection. Measuring the fraction of ambiguous nucleotides could be a useful marker to find out the age of HIV-1infection and detection of recently infected cases. Therefore, this method could be effectively used for research and surveillance.

Key words: Ambiguous base; Recent HIV infection; Age of infection; Disease Marker

DISCLOSURE OF INTEREST STATEMENT:

No funding or financial support received by "YRG Centre for AIDS Research and Education", to carry out this work.

POSTER NUMBER: 2
PAPER NUMBER: 405

IMPORTANCE OF PRIMER SELECTION AND PCR AMPLIFICATION IN ESTIMATING HIV VIRAL VARIATION USING TRADITIONAL AND 454 SEQUENCING

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Background: Traditional bulk sequencing of divergent viral populations such as HIV provides limited insight into minor variants. We have examined traditional Sanger sequencing, single genome amplification (SGA) and 454 FLX to profile intra-host HIV diversity. We investigated the importance of primer selection and contrasted PCR based amplification with linear isothermal amplification during cDNA conversion.

Method: The HIV viral population from a single subject was amplified and sequenced from RNA extracted from plasma. RNA was converted to cDNA using oligo dT or gene specific primer (GSP). The cDNA was amplified using two rounds of PCR and then sequenced using both Sanger sequencing and FLX 454. SGA was carried out on a separate aliquot of the plasma, using the same GSP for cDNA conversion and the same primers for PCR as for the bulk and 454 sequencing. 454 sequencing was also carried out on a sample amplified using an RNA Ovation kit.

Bulk sequence, SGA variants and reconstructed 454 variants were compared by calculating the number and relative frequencies of the variants.

Results: The viral variants and their proportions identified by SGA matched closely with those identified using 454 sequencing when the same primers were used for cDNA conversion and PCR amplification. However, using oligo dT for cDNA conversion and alternative primers for PCR amplification, differences between the proportions of variants and the individual variants identified were observed.

Discussion: Differential amplification can occur between variants using PCR amplification when sequencing diverse organisms such as HIV. This is relevant for all sequencing where primers are used for conversion, selection and/or amplification. Given the continuing use of complementing technologies it is important that care is taken when drawing conclusions from results as to which are major and minor variants.

THEME A: UNDERSTANDING AND IDENTIFYING HIV: BASIC SCIENCE, BIOLOGY AND PATHOGENESIS

POSTER NUMBER: 3
PAPER NUMBER: 296

DEVELOPMENT OF A NOVEL IN-HOUSE GENOTYPIC ASSAY FOR THE DETECTION OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) DRUG RESISTANCE IN DIVERSE SUBTYPES AND CIRCULATING RECOMBINANT FORMS

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Background: Current commercial HIV-1 drug resistance genotyping assays were developed based on subtype B viruses and usually involve sequencing the protease (PR) and reverse transcriptase (RT) regions of the pol gene to identify mutations conferring drug resistance. Introduction of integrase inhibitors necessitates the expansion of existing genotypic assays for detection of mutations to these compounds. We ,developed an in-house genotypic assay targeting PR, RT and the integrase gene using plasma samples from individuals who were infected by a variety of HIV-1 group M subtypes and CRFs.

Methods: The in-house assay was validated by comparing nucleotide sequences and drug resistance profiles from 73 patients, to data from the Siemens Trugene HIV-1 genotyping assay and the prototype Abbott ViroSeq HIV-1 Integrase genotyping assay. Twenty-eight dried blood spot (DBS) samples were included in a pilot study to investigate whether the in-house assay can be adapted for use with this sample type as an alternative specimen to plasma.

Results: The in-house assay compared favourably with the commercial systems, with an overall concordance of 98.8% and successful amplification of 65 (89.0%) genetically divergent samples (plasma viral load ranges <50–833,400 copies/ml) belonging to the HIV-1 subtypes A, B, C, D, G, CRF01_AE, and CRF02_AG. Twenty-one DBS samples with viral load ranging from 2500–53,200 copies/ml, were successfully genotyped by the in-house assay.

Conclusions: We developed and validated an in-house genotypic assay that is appropriate for the surveillance and monitoring of HIV-1 drug resistance in patients infected by major Group M subtypes and CRFs. Due to its cost-effectiveness and potential to be used with DBS, this study illustrated clinical utility in the developing world. This is particularly important in view of increased availability of antiretroviral treatment in resource-limited countries, where adequate surveillance of drug resistance may provide clear guidelines for actions in case of therapeutic failure.

POSTER NUMBER: 4
PAPER NUMBER: 666

MEASURING LUMBAR PUNCTURE OPENING PRESSURE IN RESOURCES LIMITED SETTING

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Background: Measuring opening pressure in lumbar puncture (LP) is very important especially in Cryptococcal Meningitis cases. It needs a LP manometer which is not always available in resources limited setting like Indonesia.

Methods: To measure LP opening pressure, we used infusion line. After inserting the spinal needle, the infusion line was connected to the needle. The line was held above the patient letting the CSF flow until it stops. With the infusion line still in erect position, we measured the height of the CSF so we can predict the opening pressure.

Results: Even though it is not precise this simple method is useful to predict the opening pressure and compare it with closing pressure in spinal tap. It is very helpful in treating Cryptococcal Meningitis cases.

Conclusions: An infusion line can substitute for a manometer in resources limited setting area where manometer is not available. This simple way can help a neurologist to predict the opening pressure and decide the next step of treatment.

DISCLOSURE OF INTEREST STATEMENT

No grant were received in the development of this study

THEME A: UNDERSTANDING AND IDENTIFYING HIV: BASIC SCIENCE, BIOLOGY AND PATHOGENESIS

POSTER NUMBER: 5
PAPER NUMBER: 364

CONCURRENCY AND SEXUAL PARTNERSHIP DYNAMICS AMONG A SAMPLE OF YOUNG MUSIC FESTIVAL ATTENDEES

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Background: Knowledge of sexual behaviour and the dynamics of sexual partnerships within a population can improve the understanding of transmission of sexually transmitted infections (STI s) and help assess the impact of potential interventions. Partner concurrency and the rate of partner acquisition are particularly important factors affecting the transmission of STIs.

Methods: A cross-sectional survey of 1333 young people (aged 16-29 years) was conducted at the 2009 Melbourne Big Day Out music festival. Participants were asked to self-complete a questionnaire regarding their sexual behaviour and characteristics of their recent sexual partners. Sexually active participants were also asked to complete a sex chart for the previous year, recording the months when they had sexual intercourse with their three most recent partners. This analysis assesses the level of concurrency within the study population and the length of time between the formation and separation of partnerships.

Results: Those who had sex in the previous year had an average of 1.1 partners in the previous 3 months, with no significant difference between males and females. Males were on average 0.8 years older than their most recent sexual partner and the duration of partnerships followed an exponential distribution up to seven years, with an average length of 2.12 years (95% CI 1.7-2.6). Of the 864 participants who provided sex chart data, 17.8% (95% CI 14.5-19.5) reported concurrent partnerships during the previous year. The mean time difference between the end of one partnership and the start of another was an overlap of one month.

Conclusion: The relatively high proportion of young people engaging in concurrent partnerships and the overlap of sexual partnerships indicate that new sexual partnerships tend to commence prior to the end of another partnership, facilitating the transmission of STIs. These results will be useful in the evaluation of STI transmission in young Australians.

POSTER NUMBER: 6
PAPER NUMBER: 454

LIFECYCLE OF HIV-INFECTED CELLS

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Background: Although the cycle of infection, viral production, and infected cell death is well understood as a general process, relatively little is understood about the dynamics of this process within infected cells.

Method: We explored the dynamics of viral production and death in vitro by infecting human cells with HIV-1 constructs that expressed enhanced green fluorescent protein (EGFP) and determining the amount of viral protein produced by infected cells in time using flow cytometry. We developed a model of intracellular viral production to understand our experimental results. We assumed that the observed EGFP fluorescence level represented the balance of protein production and degradation. In our model of the infected cell population, EGFP fluorescence distribution at any time depended on probability distributions of four independent parameters: time to the start of protein production, protein production and degradation rates, and the lifespan of infected cells.

Results: Analysis of the FACS data showed that the productively infected cells exhibited a broad, approximately log-normal distribution of viral protein content (spanning several orders of magnitude) that changed its shape and mean fluorescence intensity over time. Higher viral production did not appear to drive faster death, as death rate apparently did not correlate with mean EGFP content.

Conclusions: After exploration of possible correlations of parameter distributions, we propose that cells exhibit a wide range in the time from infection to protein production, and that late producers are slow producers. Moreover, this delay in protein production may explain the observed slope of viral decay in vivo under therapy.

DISCLOSURE OF INTEREST STATEMENT:

The research presented in this work was funded by Australian Research Council Discovery Project grant DP0987339.

THEME A: UNDERSTANDING AND IDENTIFYING HIV: BASIC SCIENCE, BIOLOGY AND PATHOGENESIS

POSTER NUMBER: 7
PAPER NUMBER: 287

EXPECTED EPIDEMIOLOGICAL IMPACTS OF INTRODUCING AN HIV VACCINE IN THAILAND: A MODEL-BASED ANALYSIS

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Background: The RV144 trial conducted in Thailand was the first to demonstrate modest protective efficacy of an HIV vaccine. Its estimated initial efficacy was ~74%, but this waned considerably over time.

Methods: We developed a mathematical model to reflect historical and current HIV trends across different at-risk populations in Thailand. The model was used to estimate the expected number of infections that would be averted if a vaccine with outcome characteristics similar to the RV144 vaccine was implemented in Thailand at varying levels of coverage.

Results: In the absence of a vaccine, we projected roughly 65000 new HIV infections among adults during the period between 2011 and 2021. Due to the waning efficacy of the vaccine, one-off vaccination campaigns were found to have modest long-term public health benefit. We forecast that an RV144-like vaccine with coverage of 30% of the population would lead to a 3% reduction in HIV incidence during the next 10 years. In comparison, 30% coverage of annual or biennual re-vaccination with the vaccine was found to result in 23% and 14% reductions in incidence, respectively. Coverage of 60% without re-vaccination resulted in a 7% reduction. Epidemiological outcomes were found to depend primarily on three factors: vaccination coverage, vaccine efficacy, and the duration of protection the vaccine provided.

Discussion: Due to the short duration of protection that the vaccine provides, our model predicts modest benefit from a one-off vaccination campaign with a RV144-like HIV vaccine in Thailand. Re-vaccination appears to be a key factor for long-term public health benefits. The feasibility of vaccine implementation as well as its economic viability is still to be determined.

NOTES

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 8
PAPER NUMBER: 252

HIV DEMOGRAPHICS IN A SINGLE CLINIC: CONTINUED ROOM FOR IMPROVEMENT

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Background

Improvements in potency and tolerability of antiretroviral therapy (ART) have led to concomitant increased life expectancy and reductions in disease progression among patients with HIV. A retrospective review of rates of undetectable viral load and normal CD4 cell counts in the Victorian HIV Service was conducted for the period 2001 – 2010.

Objectives

Trends over time for CD4 cell counts, HIV viral loads (HIVVL), and AIDS illnesses, death, ART and new HIV diagnoses for the period 2001 to 2010 were examined over time at a tertiary HIV clinic. The population was defined as patients who attended the ID Clinic at least 3 times a year, from 2001 to 2010. The Victorian HIV Observational database (VHOD) was used to obtain data for the variables of interest.

Results

From 2001-2010 there has been an increase in the number of patients attending 3 or more times per year. There was a decrease in proportion of patients with HIVVL>200 copies/ml (63.9%→26.0%), CD4 <50 /µL (9.1%→3.1%), deaths (2.0%→0.6%) and HIVVL >200 copies/ml on ART (42.3%→9.1%). An increase in proportion with CD4 >500 /µL (27.3%→37.9%) was observed and a steady increase in the median T cell count at primary and non-primary AIDS diagnosis was observed. The proportion on ART showed a steady increase from 2001 to 2010 (74.8%→92.3%). From 2001 to 2010 there has been a decrease in new HIV diagnoses (6.2%→3.1%) attending the clinic, primary and subsequent AIDS illnesses (3.3% →1.7%), (7.5%→3.5%) respectively.

Conclusion

Improved levels of immune function and proportions with undetectable HIV viral load, an associated reduction in primary and progressive AIDS illnesses and death were observed over the period 2001-2010. Although the rate of virological failure (>200 copies/ml on ART) has decreased over time, further attention to adherence and toxicity support should result in further reduction in the future.

POSTER NUMBER: 9
PAPER NUMBER: 122

MOLECULAR EPIDEMIOLOGY OF MYCOBACTERIUM TUBERCULOSIS (MTB) IN KIRIBATI

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Background: Tuberculosis (TB) remains a major global disease epidemic, particularly in high HIV burden settings. Within the Pacific island nation, Kiribati, TB case notification is 423/100,000/year, representing a substantial increase over the past decade. Routine HIV testing is not well established and HIV prevalence data are limited. We investigated molecular and epidemiological factors associated with the emerging TB epidemic in Kiribati.

Methods: Patients diagnosed with TB (positive sputum smear or clinically) at Tunguru Central hospital, Kiribati, completed questionnaires, were offered HIV testing and gave further sputum samples. Positive cultures underwent drug susceptibility testing and genotype testing using RFLP, MIRU-VNTR and spoligotyping.

Results: 163 patients were recruited; 55% were female, 77% lived in large households (median=9, range 1-20), 129 (79%) were sputum smear positive and 74 (45%) were culture positive, after specimen transport to Noumea. Nine patients were tested for HIV and all were negative. The majority of isolates belonged to major TB clades; Beijing (50%), LAM (16%), S (11%) and others (11%). However a novel Kiribati_H37Rv-like strain was found (12%). Beijing strains were more common amongst house workers (62%) and those from the largest atoll (79%). Overall 78% of isolates belonged to clusters representing recent transmission; 67% clustering among Beijing strains compared to 46% among non-Beijing (p=0.06).

Drug resistant was low; only 2 streptomycin mono-resistant strains were identified.

Conclusions: This is the first report of TB strains circulating in Kiribati and we describe a novel Kiribati_H37Rv-like strain. Although HIV testing was limited (note small numbers tested), neither HIV nor TB drug resistance appear to major drivers for the Kiribati TB epidemic. Rather, high rates of clustering suggest recent transmission potentially driven by Beijing TB strains. A young population distribution and high residential density are likely contributors.

This data suggest that a targeted preventative transmission approach could be beneficial in Kiribati.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 10
PAPER NUMBER: 264

CLINICAL MENTORING THAT WORKS - RESEARCH FINDINGS FROM THE REVIEW OF THE COLLABORATION FOR HEALTH IN PAPUA NEW GUINEA (CHPNG) AUSTRALASIAN SOCIETY FOR HIV MEDICINE (ASHM) CLINICAL MENTORING PROGRAM.

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Background:

CHPNG has funded ASHM since 2008, to provide short but regular clinical mentoring visits to National Catholic Health Service (NCHS) sites across Papua New Guinea (PNG) by experienced medical clinicians. In December 2009 an independent research project was commissioned to examine the impact of the program.

Methods:

The four aspects of research were:

- A literature review of clinical mentoring programs in resource-poor settings,
- A survey of health care workers from clinical mentoring sites,
- In-depth interviews with patients who have come into contact with clinical mentors,
- Interviews with major stakeholders.

NCHS sites of Yampu, Rabiamul, Mendi and Tari, were selected for research. They are located in the highland provinces, which have the highest incidence of HIV in PNG.

Results:

From the survey of health care workers the mean score out of 5 for the usefulness of clinical mentoring was 4.7. A mean score of 4.3 was given for the suitability of and skills of the mentor who visited them.

The 12 patients interviewed (7 men and 5 women) commented that they felt they received good medical treatment without stigma or discrimination; mentors are of good character; and relationships were built over time.

Interviews from key stakeholders indicated the success of the program and the reputation it has developed. Comments were made regarding the need to consistently meet clinical mentoring site needs and mentoring visits remain regular and consistent.

Conclusions:

Findings show that the program is well regarded amongst clinical sites and stakeholders, has had a significant impact on health sites and has assisted in better clinical management of HIV positive people.

Conclusions from the review and program coordination indicate the importance of:

- Continuity and regularity of mentoring visits,
- Confidence and cultural sensitivity of mentors,
- Monitoring and evaluation strengthening,
- Collaboration with the PNG National HIV Program.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 11
PAPER NUMBER: 251

LONG-TERM ATAZANAVIR EXPERIENCE IN A HIGH HIV CASELOAD PRIMARY CARE PRACTICE IN SYDNEY, AUSTRALIA

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Background: Atazanavir (ATV) is used in combination with other antiretroviral therapy for the treatment of HIV-1 infection. Previous clinical trials using ATV have been up to 2 years. This study collected long-term ATV data in a primary care setting.

Methods: A retrospective case review of a cohort of HIV-1 infected patients attending a high HIV caseload practice in Sydney, Australia was conducted. Eligible patients commenced ATV from year 2002-2008. Data collection began from baseline (ATV commencement) to current (2011) or ATV cessation. Primary objective was to examine long-term (2 years or greater) ATV experience in HIV-1 infected patients in a primary care setting. Demographic data (Year of birth, gender at birth, date HIV diagnosed and CDC HIV classification), immunological, virological and metabolic markers were collected.

Results: Of 79 patients reviewed, 97% were male with CDC category A (92%), B (4%) and C (1%). ATV continued for 2 years or greater in 84%; currently taken by 87% (Range 1 – 84 months). Ritonavir boosted ATV was taken by 66%. At Baseline, 18% patients were naive; CD4 count mean 326 (SD 160) cell/μL, CD8 count mean 1092 (SD 547) cell/μL and HIV viral load mean log10 5.36 (SD 5.48) copies/mL. From Baseline (naive patients); 71% showed an increase in CD4%, 93% showed an increase in CD4 count, 86% showed a reduction in HIV viral load <50 copies/mL and 14% showed a reduction in HIV viral load <400 copies/mL. Of total cohort, complete ATV cessation occurred in 13% due to virological failure (3%), toxicity (6%) and other reasons respectively (4%). Increase in bilirubin was seen in 65%; Baseline median 9 (Range 3-65) U/L and Most recent follow-up median 35 (Range 4-118) U/L.

Conclusion: Long term use of ATV in primary care in Sydney, Australia has demonstrated a high level of efficacy and tolerability.

POSTER NUMBER: 12
PAPER NUMBER: 355

EXPERIENCE WITH NON NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NNRTIS): FAILURE, RESISTANCE AND SUSCEPTIBILITY TO ETRAVIRINE

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Background: NNRTI's are widely used in HIV treatment as components of combination antiretroviral therapy (cART). Tolerability issues and a relatively low barrier to resistance have been limiting features of NNRTI use. NNRTI resistant virus may be susceptible to newer generation drugs such as etravirine.

Methods: A retrospective observational study of the case records of all HIV patients attending a high HIV caseload primary care practice in Sydney, Australia from 1997 to 2009 determined the degree of NNRTI exposure and subsequent failure. Susceptibility to etravirine was calculated by the Etravirine Weighted Score System (EWSS) as low (0-2), intermediate (2.5-3.5) or high (>4) mutation score.

Results: Of 2044 adult HIV-1 patients attending the practice, 66.0% received cART, with 46.4% receiving an NNRTI. The NNRTIs used included nevirapine (61.1%), efavirenz (52.4%), etravirine (3.6%) and delavirdine (0.5%). NNRTIs were used as first line therapy in 52.4% of patients. NNRTI treated patients failed treatment due to virological failure (6.6%), toxicity (7.1%) and for other reasons (14.6%). Virological failure occurred in 6.7% and 5.9% of patients receiving nevirapine and efavirenz respectively. No etravirine failures have been observed. Resistance testing resulted in the most commonly reported NNRTI mutations K103N, G190A and Y181C in 35.3%, 27.5% and 25.5% of patients failing NNRTI therapy respectively. Using the EWSS, the majority of virological failures to NNRTI therapy showed low (50.0%) or intermediate (34.2%) etravirine weighted mutation scores and are expected to show maximum virological response following treatment with etravirine. A small proportion (15.7%) of patients demonstrated high etravirine weighted mutation scores.

Conclusions: NNRTI therapy has been an important component of cART resulting in low levels of virological or toxicity failure in a high caseload primary care practice in Australia. Etravirine can be a potentially effective option in the majority of cases of failure with other NNRTI therapy.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 13
PAPER NUMBER: 295

INCIDENT HEPATITIS B (HBV) INFECTION SUBSEQUENT TO THE DIAGNOSIS OF HIV INFECTION IN A MELBOURNE HIV COHORT

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Background: The characteristics associated with incident HBV infection in HIV positive individuals is not well described in the Australian setting.

Objective: To determine the characteristics of HIV-infected individuals in a Melbourne cohort who contract HBV subsequent to their HIV diagnosis between 1985 and 2011. To determine risk factors for acquiring HBV and to determine the scope of opportunity for HBV prevention strategies in this susceptible cohort.

Methods: Individuals susceptible to HBV at the time of their HIV diagnosis were identified on the basis of their HBV serology stored within the Victorian HIV database. Individuals with baseline serology negative for hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (HBsAb) and hepatitis B core antibody (HBcAb) were identified as the susceptible group. From this group, those who had a subsequent positive test for HBcAb and/or HBsAg were identified as infected with HBV subsequent to their HIV diagnosis. Incident cases will be matched with controls from the initially susceptible group who did not seroconvert for analysis.

Results to date: 581 individuals were identified as susceptible at the time of their HIV diagnosis. Sixty-two individuals in this group subsequently seroconverted representing the incident cases. These individuals form the basis of a detailed case series. Data collected includes demographic details, immunological and virological characteristics, antiretroviral treatment and vaccination history.

Expected outcomes: The factors associated with incident HBV infection in an Australian setting including the role of vaccination and HBV-active antiretroviral therapy will be described.

POSTER NUMBER: 14
PAPER NUMBER: 425

ALLERGIC BRONCHOPULMONARY ASPERGILLOSIS (ABPA) IN HIV

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A 52 year old gay man with history of asthma since childhood was diagnosed with HIV on routine screening in 2006. His nadir CD4 count was 210 and he suffered no opportunistic infections. He commenced combination anti-retroviral treatment (cART) with lopinavir/ritonavir and tenofovir/emtricitabine. His HIV infection was well controlled.

Subsequently he presented with generalized skin atrophy and ecchymoses, consistent with Cushing's syndrome. A history revealed that, inhaled fluticasone had been introduced by his general practitioner to control asthma symptoms. Co-administration of fluticasone and ritonavir has been described to increase serum fluticasone area-under-the-curve by up to 350 fold. A short synacthen stimulation test confirmed marked adrenal suppression. The fluticasone was ceased under prednisolone cover to prevent Addisonian crisis. The prednisolone was weaned over 8 months.

In 2011, he was admitted to hospital with acute dyspnea. A CT chest showed complete collapse of the left upper lobe. Bronchoscopy revealed obstruction of the left upper main bronchus with a thick mucus plug. Bronchial samples grew *Aspergillus fumigatus*. Peripheral blood analysis revealed eosinophilia and a total serum IgE 1049 (<100). He was diagnosed with allergic bronchopulmonary aspergillosis (ABPA) and commenced on prednisolone with prompt symptom control. His respiratory physician felt he required additional potent inhaled steroids and re-commenced inhaled fluticasone, precipitating Cushing's syndrome within 3 weeks. Efavirenz was substituted for lopinavir/ritonavir and his symptoms resolved without loss of viraemic control.

There is only one report of ABPA in HIV in the literature. This may be an under-recognised condition in HIV. ABPA is an immunologically mediated pulmonary disease characterised by hypersensitivity to *Aspergillus fumigatus*, and uncontrolled may progress to bronchiectasis, fibrosis and pulmonary hypertension. Pathophysiology of ABPA in HIV is complex and will be discussed. Corticosteroids are the mainstay of treatment. Interactions between HIV therapy and intercurrent illness both common and rare, communication between managing physicians is important.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 15
PAPER NUMBER: 338

PHARMACOKINETICS OF PLASMA LOPINAVIR/RITONAVIR FOLLOWING THE ADMINISTRATION OF 400/100, 200/150, AND 200/50 MG TWICE DAILY IN HIV NEGATIVE VOLUNTEERS.

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Background Development and post-marketing data suggest that some licensed ARV doses could be reduced. In Encore3, we assessed the pharmacokinetics (PK) of lopinavir/ritonavir (LPV/r) following the administration of 3 doses to HIV-negative volunteers prior to clinical trials examining the safety and efficacy of novel dose regimens in HIV-infected subjects.

Methods Volunteers were administered LPV/r 400/100mg, 200/150mg then 200/50mg twice daily (BID) for 7 days sequentially (Meltrex tablets). Each 7-day phase was separated by a 7-day washout period and LPV/r steady-state PK was assessed over 12 hours on the last day of each phase (days 7, 21 and 35). PK parameters (area under the curve, AUC; maximum plasma concentration, Cmax; minimum plasma concentration, C12h) were compared using 400/100mg as reference by determining geometric mean ratios (GMR) and 90% confidence intervals (CI). Safety and tolerability were assessed.

Results Twenty-two volunteers (8 female) completed the study per-protocol. LPV PK parameters at the 200/150 and 200/50mg doses were: GMR (90%CI) AUC 0.74 (0.65-0.84) and 0.45 (0.40-0.51); Cmax 0.75 (0.66-0.85) and 0.54 (0.40-0.60); C12h 0.74 (0.62-0.89) and 0.30 (0.25-0.36). All subjects when dosed with 400/100 or 200/150mg had LPV concentrations above the minimum effective concentration (1000ng/mL), although 3 of 22 subjects had lower concentrations on receipt of 200/50mg. No serious adverse events were observed and mild/moderate diarrhoea was the most common adverse effect.

Conclusions These PK data indicate that therapeutically relevant plasma concentrations of LPV can be achieved with lower administered doses and support further exploration of these lower LPV doses in properly designed randomised clinical trials. Preservation of therapeutically relevant LPV doses requires administration of higher doses of ritonavir. Although the tested doses are unlikely to be used, a new dose of LPV/r could lower cost and improve access in developing countries.

POSTER NUMBER: 16
PAPER NUMBER: 448

RESULTS OF THE FOLLOW-UP PHASE OF THE STALWART STUDY

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Background: STALWART evaluated whether intermittent interleukin-2 (rIL-2) alone or with ART around rIL-2 cycles increased CD4+ counts compared to no therapy. Patients ART-naïve (or off ART ≥ 1 year) with CD4+ T cells ≥ 300 /mm3 were randomized 1:1:1 to: rIL-2 alone, rIL-2 with peri-cycle HAART or no rIL-2 or ART (control). Following completion of ESPRIT and SILCAAT studies all STALWART rIL-2 cycling was stopped and the data unblinded (January 27 2009). Results indicated that participants who received rIL-2 had higher CD4+ cell counts without significant change in viral load.

Methods: An amendment to the STALWART protocol was written to continue safety assessments in the groups that received rIL-2 compared to those that did not. This extended phase of STALWART ended on February 28 2011.

Results: There were 222 participants of the original 267 STALWART participants followed in this safety follow-up study. By the study end, approximately 75% of participants had started ART. Median CD4+ T cell counts (439, 464, 514) and percent of patients with HIV RNA ≤400 copies (73%, 69%, 74%) were similar across the rIL-2, rIL-2 + ART and control groups respectively. Over the two years of extended follow-up, 8 patients assigned to rIL-2 vs 3 control patients experienced death or opportunistic disease (HR = 1.45 [0.38,5.45] p=0.59). Six of 11 of the participants who experienced a first event during the extension had not started continuous ART.

The increased risk of grade 3 or 4 events experienced by the rIL-2 groups during the initial trial period (HR=2.93 [1.42,6.04], p=.004) did not persist during the additional 2 years of follow-up, after cycling was discontinued (HR=0.62 [0.24,1.62], p=.33, p-value=.01 for difference across time periods).

Conclusion: Participants who received rIL-2 may want to discuss when to start ART with their physician given that more participants who were not on continuous ART, developed an OI or died during the two year extended follow-up.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 17
PAPER NUMBER: 213

PHARMACOKINETICS, EFFICACY AND SAFETY OF TWO DOSING STRATEGIES OF RALTEGRAVIR PLUS ATAZANAVIR IN ANTIRETROVIRAL-EXPERIENCED HIV-INFECTED ADULTS (SPARTA)

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Background: New antiretroviral drug classes provide opportunities to explore novel alternative regimens.

Methods: HIV+ adults (<50 copies/mL) on atazanavir (ATV) were randomized to raltegravir (RAL) 400 mg + ATV 300 mg twice daily (q12h) for 4 weeks (n=12) followed by RAL 800 mg + ATV 300 mg + ritonavir (RTV) 100 mg once daily (q24h) (n=13) for 4 weeks or vice versa. Plasma samples collected after each 4-week period were analysed for RAL and ATV concentrations using validated assays. The primary endpoint was geometric mean ratio (GMR) of ATV minimum concentration (C_{min}) for q12h and q24h. Pharmacokinetic (PK) data were log transformed and analysed using ANOVA. Equivalence was the 90% confidence interval (CI) of the GMR lying between 0.80–1.25.

Results: 25 males, mean age 45 (range 35-57) years, mean weight 76.7 (±11.7) kg were randomized. ATV Cmin and area under the curve (AUC_{0-24}) and RAL maximum concentration (C_{max}) and C_{min} differed between regimens (Table). ATV C_{min} q24h/q12h GMR (1.30 [90% CI, 1.08, 1.58]) and RAL C_{min} q24h/q12h GMR (0.48 [90% CI, 0.31, 0.75]) demonstrated non-equivalence between q12h and q24h dosages. ATV q12h geometric mean (GM) C_{min} (0.46 mg/L) was above the minimum effective concentration (0.15 mg/L). There was no period or sequence effect for PK parameters (p>0.1 all measures). Viral load was maintained over 8 weeks. There were no serious adverse events and no discontinuation due to adverse events (AEs). The most common AE was hyperbilirubinaemia in 12% patients during q12h regimen and 16% during q24h (p=0.17).

Conclusion: ATV 300 mg + RAL 400 mg q12h was safe and maintained virologic control. ATV exposure was higher with 300 mg q12h than with boosted ATV. RAL exposure did not differ between strategies.

	Atazanavir (n=25)					Raltegravir (n=25)				
	300 mg q12h		300 mg + RTV 100 mg q24h			400 mg q12h		800 mg q24h		
	GM (90% CI)	CV %	GM (90% CI)	CV %	GMR[a] (90% CI)	GM (90% CI)	CV %	GM (90% CI)	CV %	GMR[a] (90% CI)
C_{max}, mg/L	3.34 (2.72, 4.10)	46	4.18 (3.33,5.26)	47	1.25 (0.97,1.62)	1.26 (0.98,1.63)	89	2.51 (1.91,3.30)	91	1.99 (1.50,2.63)
C_{min}, mg/L	0.46 (0.35, 0.60)	75	0.60 (0.44,0.81)	93	1.30 (1.08,1.58)	0.06 (0.04,0.08)	30	0.03 (0.02,0.04)	26	0.48 (0.31,0.75)
AUC_{0-24} h*mg/L	30.74 (25.14,37.60)	51	23.31 (18.57,29.28)	53	0.76 (0.59,0.98)	10.82 (8.55,13.70)	57	9.26 (7.40,11.60)	66	0.86 (0.65,1.12)
T_{max}[b], h	2.76 (2.35, 3.24)	43	2.98 (2.58, 3.43)	50		2.57 (2.00, 3.30)	60	2.96 (2.36,3.72)	56	

[a]GMR for q24h vs. q12h

[b] values are arithmetic mean (90% CI)

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 18 PAPER NUMBER: 490

HIV SUBTYPES AND ANTIRETROVIRAL DRUG RESISTANCE PROFILES AMONG NEW HIV PRESENTATIONS IN WESTERN AUSTRALIA, 2010.

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Introduction: We have previously identified a shift in HIV demographic patterns in Western Australia (WA) between 2000 - 2009, characterised by a greater breadth of HIV-1 subtype diversity and a decreased incidence of subtype B virus infection in our population. Here we aim to examine this trend in newly-presenting patients in 2010, and to investigate any associated changes in the prevalence of drug resistant mutations.

Methods: Our laboratory provides a state-wide HIV-1 drug resistance testing service for WA. In this study, we assessed data on 61 and 105 newly-presenting HIV-1 patients in 2005 and 2010, respectively. We analysed the data for HIV-1 viral load (VL), HIV-1 reverse transcriptase (RT) and protease (PI) sequences for DRMs as well as HIV-1 subtype. We did not attempt HIV-1 genotyping on patients where the VL was <1.6$\log_{10}$cpm.

Results: In 2005 and 2010 respectively we identified similar proportions of newly-presenting patients with undetectable VL (<1.6$\log_{10}$cpm: 9.8% and 8.6% respectively), low-level viremia (1.6-3 $\log_{10}$cpm: 9.8% and 11.4%) and higher VL levels (3-4 $\log_{10}$cpm: 8.2% and 17.1%; 4-5 log10cpm 48% and 36.2%; >5.0 $\log_{10}$cpm: 26.2% and 26.7%).

Among 84 baseline HIV-1 genotypes performed in 2010, we found 36 B subtype RT+protease sequences (42.9%) including 19 samples with reported DRM's (8 NRTI, 12 NNRTI and 2 major PI); 23 AE subtypes (27%) including 6 with DRM's (3 NRTI, 6 NNRTI, 1 major PI); 22 clade C subtypes (26%) including 5 with DRM's (1 NRTI, 4 NNRTI, 1 major PI); 1 AG subtype; 1 A/B and 1 AE/AG recombinant form.

Conclusions: The dramatic shift in genetic diversity among incident cases of HIV in Western Australia has continued from 2005-2010, with a majority of non-clade B subtypes identified. This has not been accompanied by detectable adverse effects on viral load or genotypic drug resistance among new HIV presentations.

POSTER NUMBER: 19 PAPER NUMBER: 491

LONGITUDINAL ASSESSMENT OF VIRAL LOAD MEASUREMENTS IN THE WESTERN AUSTRALIAN HIV COHORT, 2007 – 2010

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Background: The availability of effective and tolerable antiretroviral regimens in Australia has been associated with high levels of virological suppression and undetectable plasma HIV RNA levels. In this context, the management of patients where low-level viremia has been detected has become complex, with some uncertainty regarding the implications of these results with regard to the emergence of drug-resistant viral mutations and subsequent virological failure.

Methods: We collected data from all viral load results performed from 2007–2010 at the Royal Perth Hospital Department of Immunology, a NATA-accredited diagnostic laboratory which provides a statewide HIV service. All viral load (VL) assays were performed using the Cobas Ampliprep/Cobas TaqMan HIV-1 (version 1) assay, with a lower limit of detection of 40 (1.6 $\log_{10}$) copies/mL.

Results: 11,900 VL tests were performed during this period, collected from 1500 HIV patients. Of these, 98 patients (6.5%) had evidence of transient high-level viremia (>1,000 copies/mL); this pattern occurred more than once in 8 patients. Viral 'blips', with detectable viremia in one blood test only (<1,000 copies/mL) were observed in 263 patients (17.5%); more than once for 64 patients. Evidence of more sustained low-level viremia (VL <1,000 copies/mL on two or more consecutive bleeds) was observed among 84 patients (5.6%), including 8 for whom this scenario occurred more than once.

Conclusions: In a large population-based sample of viral load measurements collected between 2007-2010, we identified transient low-level viremia (<1,000 copies/mL) among a substantial minority of patients (17.5% with isolated 'blips', 5.6% with more sustained viremia), as well as transient high-level viremia in 6.5% of patients. Subsequent virological suppression was achieved in all of cases identified in this manner, indicating that transient viremia is not necessarily predictive of virological failure, although analyses currently underway will address whether this was achieved through treatment revision and/or modification of medication adherence.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 20
PAPER NUMBER: 286

DEVELOPMENT OF A GENOTYPE-BASED ASSAY TO PREDICT HIV CO-RECEPTOR TROPISM

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Background: Predicting the co-receptor usage of the infecting HIV strain is a prerequisite to the prescription of the CCR5 co-receptor antagonist Maraviroc. Previously the domain of phenotypic assays, recent improvements to genotype-based methods to determine co-receptor utility has made this drug a more accessible option for patients failing multiple drug classes.

Methods: RT-PCR and sequencing methods, both in-house and published, were used to genotype a region in *env* containing the V3 loop. Subsequent HIV-1 viral co-receptor usage (tropism) was predicted using the Geno2Pheno algorithm with 20% false positive rate (FPR) cut-off nominated. The lower limit of detection (RNA copies/ml) was determined and the subtype specificity of the assay was assessed. Samples previously phenotyped using the Trofile™ assay were also genotyped and the results compared.

Results: A total of 77 patients comprising individuals failing their current drug regimen, patients newly diagnosed or infected, and individuals with diverse subtypes were investigated. The lower limit of detection of the assay was 500 HIV RNA copies/mL. Subtypes detected included; subtype B (n=62), subtype C (n=6), CRF01AE (n=5), subtype A1 (n=1), CRF02_AG (n=1), CRF12_BF (n=1), subtype D (n=1). 39 individuals failing antiretroviral drug therapy were assessed; 21 were X4-tropic. Of 19 newly diagnosed patients, 14 viruses (including 5 with primary HIV infection) had X4-tropic strains. The remaining 11 viruses tested represented various HIV subtypes. Subtype did not appear to influence co-receptor prediction. Finally, a comparison of 10 phenotyped strains with their matching genotype revealed concordance in 9 out of 10 viruses. The discordant sample was predicted as R5-tropic by the Trofile™ assay and X4-tropic by genotyping.

Conclusions: The use of genotype-based methods, together with the Geno2pheno algorithm set at a 20% FPR, appears to be a robust method for prediction of co-receptor usage in the absence of local phenotyping assays.

POSTER NUMBER: 21
PAPER NUMBER: 544

STRESS MANAGEMENT - PROSPECT OF PNI-BASED BEHAVIORAL INTERVENTION IN PLWHA

M Chou

With the innovation of medical technologies, both the life expectancy and survival rate of people living with HIV/AIDS (PLWHA) have raised dramatically since USCDC recorded the first HIV/AIDS case in June 1981. This achievement has, on the other hand, exposed PLWHA to prolonged struggle between life and death and surfaced the hardship as to how PLWHA manage the chronicle stress, alongside their deteriorating physical state. Depression, fatigue, delirium, and AIDS dementia complex (ADC) are but few commonly seen psychiatric comobidities in PLWHA coping with stress. Over the past two to three decades, the advancement in neurosciences and immunology uncovered the connections between one's immune system, psychological well-being, and general health outcome. Thence, research has been conducted in psychoneuroimmunology (PNI) as a less intrusive approach to the prevention and treatment of HIV/AIDS. Some studies show that health maintenance habits such as aerobic exercise may increase the number of CD4 cells in HIV patients while others reveal the effect of mirthful laughter on stress and killer cell activity. This paper summarizes the up-to-date key findings of psychoneuroimmunological studies in regards to HIV and AIDS with an emphasis on the behavioral aspect of intervention. In the conclusion, we discuss the methodological weaknesses of the existing research as well as the lessons we learned for future PNI studies.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 22
PAPER NUMBER: 195

THE INFLUENCE OF HLA SUPERTYPE ON THYMIDINE ANALOGUE INDUCED BODY COMPOSITION CHANGES IN STEAL

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Background: Antiretroviral-related lipodystrophy is characterised by subcutaneous fat loss and is primarily related to thymidine analogue (TA) use.

A recent study suggested that stavudine-induced lipodystrophy is associated with HLA-B*4001.

STEAL study data provides a unique opportunity to examine the potential association of HLA genotypes with changes in body composition.

The hypothesis for this analysis was that HLA supertype is not associated with TA induced peripheral fat loss in STEAL participants.

Methods: The STEAL study was a randomised, open-label 96-week study comparing TDF-FTC and ABC-3TC fixed dose combinations in 357 HIV-infected, virologically stable participants. Body composition was determined using DEXA every 48 weeks. Blood samples were sequenced for the genotype of six HLA genes (HLA-A, -B, -C, DP, DQ and DR). Due to the large number of unique HLA alleles the genotypes were coded into supertype groups for analysis.

The mean percent peripheral fat was compared between participants with and without prior TA use. Analyses were also carried out for each HLA supertype strata within the TA exposed group. Comparisons were made using Mann Whitney rank-sum tests.

Results: Participants with prior TA use had significantly lower baseline mean peripheral fat percentage compared to those without prior TA use (31.9% vs 34.7%, p=0.0045). However, participants carrying three particular HLA supertypes, A01, B08 and DQ2, showed no significant difference in mean peripheral fat percentage at baseline by TA use.

Amongst participants with prior TA exposure there were significant differences in mean peripheral fat by allele expression. Significant differences were seen between those expressing HLA A01 or no A01 (34.91% vs 30.3%, p=0.0087); B08 or no B08 (36.2 % vs 31.1%, p=0.0317) and DQ2 or no DQ2 (35.16% vs 30.06%, p=0.0081).

Conclusion: This analysis suggests that HIV-infected individuals carrying HLA A01, B08 or DQ2 supertype alleles may be resistant to TA induced peripheral fat loss.

POSTER NUMBER: 23
PAPER NUMBER: 390

WHAT STANDARD CLINICAL ASSESSMENTS GET PERFORMED ON PATIENT'S WHILST THEY ARE INVOLVED IN CLINICAL TRIALS?

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In 2008, the Alfred ID Outpatient Unit commenced an annual review for its HIV Positive patients to ensure they were being assessed yearly for risk of cardiovascular, renal and liver disease, STI's, and their general mental health and well-being.

Patients attending the outpatient clinic are offered the opportunity of participating in clinical trials managed by the ID Clinical Research Unit. The research unit co-manages the patient with their treating physician whilst they participate in research projects. It has been well documented that patients benefit clinically from trial participation, however the assessments performed by the research team are largely directed by the specific requirements of the study.

The project aims to indentify if trial participation had any effect on annual general medical assessments being performed.

This project reviewed the medical notes of 52 participants enrolled in a clinical trial over a 12 month period since 2008 attending either The Alfred ID outpatient clinic or one of two high HIV case load General Practice Clinics.

The revision process involved utilising the Alfred ID Outpatient Annual Review template to review participant's medical histories and determine if their general medical review was occurring simultaneously with the studies requirements.

The project highlighted a disparity in the level of coverage in areas required by the annual assessment in some clinical trial participants. This ranged from greater than 90% in assessment of adherence to treatment, weight, BP, syphilis serology and fasting lipids, to less than 50% in assessment of annual hepatitis serology, chlamydia and gnorrhoea screening, smoking and exercise information.

This fragmented assessment undermines achieving a comprehensive picture of participant's health risks and well-being. The Clinical Research Unit has now recommended the yearly assessment tool be incorporated into it's customised clinical trial proformas.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 24
PAPER NUMBER: 519

NEUROCOGNITIVE IMPAIRMENT IN OPTIMALLY TREATED HIV-INFECTED INDIVIDUALS

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Background: We report the detailed demographic composition and the prevalence of neurocognitive impairment in the Australian Neurocognitive HIV and Aging study.

Methods: Between June 2009 and June 2011, 225 HIV+ individuals were screened at St. Vincent's Hospital ambulatory immunology care. Among those, 107 accepted to participate into the study. Seven patients were excluded. Twenty-eight HIV-negative (HIV-) participants were also screened and 2 were excluded. In total, 100 HIV+ individuals, mean age 56 years (3% females; 92% from English-speaking background, ESB) completed the study examinations, including a brain MRI scan (but 10 who were not eligible). The 26 HIV- participants had a mean age of 53.5 years (23% females; 96% ESB).

Results: Pre-morbid abilities were not statistically different between the groups (estimated FSIQ: HIV+ = 111 vs HIV- = 114), but years of formal education was (HIV+ = 13.9 vs HIV- = 15.4; $p<.01$). Demographically-corrected rate of impairment, based on the Global Deficit Score method (GSD≥0.5) was 21% in the HIV+ group versus 3.5% in the HIV- group ($p=.03$). In the HIV+ group, median HIV duration was 20 years, median current HAART duration was 24 months, 98% had undetectable plasma HIVRNA, median nadir CD4-T cells count was 180, and current was 528. Clinically significant depressive complaints were reported by 16% of the HIV+ group versus 0% in the controls ($p<.05$). Decrease in independence in activities of everyday living and cognitive complaints were significantly elevated in the HIV+ group compared to the HIV- group ($p<.001$). In a stepwise regression model, cognitive complaints remained the main factor associated with overall neurocognitive impairment ($p<.002$).

Conclusions: In this optimally treated HIV+ middle-aged cohort, neurocognitive impairment reaches 21%. The magnitude of HIV+ persons' insight into their neurocognitive deficits is a new finding and suggests that some deficits are sub-clinical. The planned follow-up assessment will be important.

Disclosure of interest

This study was supported by the Brain Sciences post-doctoral fellowship at the University of New South Wales, and Australian NHMRC Project Grant 568746.

No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 25
PAPER NUMBER: 599

CRYPTOCOCCAL MENINGITIS IN HIV PATIENTS IN CIPTO MANGUNKUSUMO HOSPITAL JAKARTA INDONESIA

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Background: Cryptococcal meningitis is an uncommon opportunistic infection in HIV patients but the mortality is still high.

Methods: We studied retrospectively all patients diagnosed as Cryptococcal meningitis in Cipto Mangunkusumo Hospital from January 2010 until June 2011. We reviewed demographic profile, clinical feature, diagnosis, laboratory results and outcome.

Results: There were 10 cases of Cryptococcal meningitis (9 male). Mean age was 32.60 ± 3.63 year-old. Almost all of the patients experienced headache (9 cases). Fever, decreased of consciousness, seizure and vomit were found in 8, 5, 3 and 3 cases respectively. Mean CD4 level was 60.8 ± 145.79 cells/μL . Brain CT scan of all cases showed no mass effect but contrast enhancement was found in 1 case. Five cases revealed ischemic lesion in Brain CT Scan. Lumbar punctures were done in all cases. Mean number of cells in CSF was 53.9 ± 82.94/μL with PMN 37.9 ± 70.77 /μL and MN 16 ± 22.4 /μL. Mean ratio of CSF glucose and blood glucose was 0.37 ± 0.16. India ink smear was positive in all cases. Two patients also had CMV detectable by PCR. Eight patients received Amphotericin B and Fluconazole for 2 weeks and continued with Fluconazole alone. Two patients got only Amphotericin B. Mean length of stay was 35.22 ± 13.84 days. From 10 cases, 2 cases did not survive, 7 patients survived including 5 patients with handicap, 1 patient is still on treatment. The patients who had CMV survive.

Conclusions: The mortality and morbidity of cryptococcal meningitis are still high in Jakarta. The most common clinical feature is headache with no mass effect in brain image.

DISCLOSURE OF INTEREST STATEMENT

No grant were received in the development of this study

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 26
PAPER NUMBER: 329

COMPLEMENTARY MEDICINES USE IN HIV POSITIVE PEOPLE: A REVIEW OF EXISTING LITERATURE

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Background: Use of complementary medicines (CMs) by people living with HIV is of relevance to health care providers, partly because of potential risks including drug interactions, but also to understand reasons for use and intended benefits, such as managing antiretroviral therapy (ART) side effects and addressing unrelieved symptoms. As ART use has evolved, CM use may have changed over time, reflecting the improved tolerability and efficacy of conventional treatments

Methods: A systematic literature review was undertaken to identify papers reporting patterns of CM use in the Western HIV positive population. Searches were performed using Medline, EMBASE and Science Direct. Only studies describing use of herbal or other natural supplements were included. Each study was examined for its methodology, time of data collection, location, and relevant findings.

Results: Fifteen studies were identified; eight from the United States, two from Canada, one from the United Kingdom, one from the European Union and three from Australia. Data collection was undertaken prior to 2005 and the majority utilised surveys. Whilst CM use was described in all studies, the use of specific CMs was rarely reported. Considerable variation in the definition of CM made interpretation of prevalence data and comparisons difficult. Where reported, vitamins and mineral supplements were most popular and often used as adjuncts to standard treatments. Only one study reported on possible drug interactions and one other examined information sources. Commonly reported reasons for use were to increase energy, immunity, wellbeing and relaxation. Where examined, most patients using CM disclosed use to their physician and the majority perceived benefits with use.

Conclusions: Studies conducted mainly in the United States confirm the popularity of CM amongst people with HIV. Relatively little information has been published about usage patterns since 2005 and little is known about the use of specific CMs or potential drug interactions.

DISCLOSURE OF INTEREST STATEMENT: No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 27
PAPER NUMBER: 415

CHANGING THE WAY THE WORLD VIEWS HIV/AIDS AND CREATING A BETTER ENVIRONMENT FOR THOSE LIVING POSITIVELY

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Background: I am a heterosexual male and have been living HIV positive for ten (10) years. Over this period, I have found a huge gap in services with very little support for heterosexual HIV/AIDS diagnosed people whereas the Gay and Lesbian Community appear to have a wonderful support network and look out for one another within their Community.

I envisaged that a Social Networking website with an objective of addressing the identified gap in services for heterosexuals whose issues are different to those of the Gay and Lesbian Community would assist in bridging that gap.

Whilst this website predominately offers support for heterosexuals, it is for everyone who is affected by HIV/AIDS. Friends, Family & partners can come to get a understanding of what HIV/AIDS is and how it can affect someone's life explained in plain language.

Methods: Straight Talk Australia Inc. developed a website where all HIV/AIDS positive people and their families can network with others as well as search for information and research to relay current and past evidenced based medical understanding about the HIVAIDS virus whilst addressing issues of transmission and difficulties with stigma and disclosure.

The Straight Talk Inc. website is already linked with Str8talk UK and has the ability to form as many different network communities as required as it grows.

Results: It is envisaged that the support and information provided by Social Networking will reduce isolation and the associated burdens of grief, loss and depression that sometimes result in suicide.

Conclusions: *Str8talk will change the way the world views HIV and create a better environment for those living positively*

DISCLOSURE OF INTEREST STATEMENT:

Straight Talk Australia Inc. and its associated website has to date been funded by Mr. David Forrester himself.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 28
PAPER NUMBER: 239

TENOFOVIR DISOPROXIL FUMARATE IS ASSOCIATED WITH CHRONIC KIDNEY DISEASE IN AN AGEING AUSTRALIAN HIV COHORT

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Background: Previous studies indicate Tenofovir Disoproxil Fumarate (TDF) is associated with chronic kidney disease (CKD). This study aimed to examine the effect of TDF on renal function in an ageing Australian HIV population.

Methods: This is a retrospective, observational study of 88 HIV infected patients who had continually attended a tertiary referral hospital HIV outpatient clinic in Sydney between January 2002 and March 2011. CKD was defined using the Cockcroft–Gault formula as ³25% decline in estimated glomerular filtration rate (eGFR) for persons with baseline eGFR of £60 ml/min per 1.73 m^2. Linear regression was used to assess the associations of multiple factors such as age, duration of years on TDF, number of years diagnosed with HIV and duration of disease prior to commencement on TDF, with percent change in eGFR. We used paired *t*-test to compare changes in serum creatinine levels and eGFR over the study period.

Results: Seventy-nine patients were on combination antiretroviral therapy (ART) at the time of the study. Sixty-nine (87%) patients were maintained on TDF as a part of combination ART. Twelve (17%) patients on TDF showed a significant eGFR mean decline of 11.27 ml/min per 1.73 m^2 (t=4.60, df_{68}, P< 0.0001). The median (IQR) age of these 12 patients was 52 (47.5 – 61.5) years and the median (IQR) number of years on TDF was 4.75 (4-7) years. The mean TDF exposure time for those with CKD was longer compared to those without CKD, a difference of 1.92 years (t= 2.58, df_{67}, P=0.0125).

Conclusions: In an ageing Australian HIV cohort, TDF containing ART was significantly associated with CKD in 17% of patients. In this clinic setting, the duration of TDF exposure impacted on the risk of developing CKD at a median TDF duration of 4.75 years, CKD was significantly associated with longer duration of use. This study highlights the need for ongoing close monitoring of renal function in an ageing HIV cohort where TDF-containing ART regimens are common.

DISCLOSURE OF INTEREST STATEMENT

No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 29
PAPER NUMBER: 427

IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME IN AN AIDS PATIENT WITH CRYPTOCOCCAL MENINGITIS

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Background: Antiretroviral therapy (ART) greatly improves the survival of HIV/AIDS patients with cryptococcal meningitis (CM). HIV immune reconstitution inflammatory syndrome (IRIS), an exaggerated and frequently deadly inflammatory reaction that complicates recovery from immunodeficiency, can however be elicited by ART.

Case study: BM, a 23-year old NZ European/Pakeha male, was admitted to another public hospital in December 2010 with CM. He tested positive for HIV, and consequently a diagnosis of AIDS was made. He was started on iv Amphotericin B + Flucytosine and subsequently transferred to our hospital, since he is a resident of our area. The CM treatment was continued with oral Fluconazole and ART was started (Tenofovir + Emtricitabine + Lopinavir/r). The CD4 count, which was 35/mm^3 before starting ART, showed an explosive response to 498/mm^3 a month later, and the HIV-RNA decreased in the same time from 5.69 to 3.33 log copies/mL. The Cryptococcal antigen fell from > 1:256 to 1:64. B was discharged on 2/3/2011 to a residential facility for supported living and supervision with medications. He was readmitted on 20/3/2011 after he was found unresponsive with a GCS of 9. A lumbar puncture was performed, which showed aseptic meningitis (CSF findings: glucose 2.8 mmol/L, protein 1.44 g/L, WCC 184 million/L, 100% lymphocytes, Cryptococcal antigen 1:16, negative microscopy, no growth) consistent with CM IRIS. ART and Fluconazole were continued and he was started on oral high-dose Dexamethasone (subsequently tapered) with good improvement. He was discharged on 4/5/2011 to another facility with increased level of care.

Conclusions: A recent review has confirmed that currently there are no routinely available biomarkers to predict the risk for CM IRIS. We suggest that, especially in the case of explosive CD4 response to ART, CM patients should be closely monitored and promptly investigated for CM IRIS in case of clinical deterioration.

DISCLOSURE OF INTEREST STATEMENT:

No competing interests exist.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 30
PAPER NUMBER: 53

THE EVOLUTION ON ELECTRONIC HEALTH AND ITS IMPACT ON PATIENTS WITH CHRONIC AND COMPLEX HEALTH CARE NEEDS.

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Objective

To outline Australia's rapidly developing electronic health environment at the national level and the impact it has on both health care providers and the patient.

Background

The Australian Government established the National Health and Hospital Reform Commission (NHHRC) to improve health care delivery for all Australians. One of its recommendations is to promote increased use of multi disciplinary patient controlled interoperable eHealth.

The National E-Health Transition Authority (NEHTA) has been set up to:

- urgently develop the essential foundations required to enable eHealth;
- coordinate the progression of the priority eHealth solutions and processes;
- accelerate the adoption of eHealth, and;
- lead the progression of eHealth in Australia.

Further NEHTA's activities, workplan and strategies are compatible with, and reflect the aims of the Australian Government's National E Health Strategy. The NHHRC recommended that by 1 July 2012, "every Australian should be able to have a personally controlled electronic health record that will at all times be owned and controlled by that person". The Australian Government supported this proposal, making an initial budget allocation of $467 million. The National E-Health Transition Authority together with the Australian Department of Health and Ageing has commenced development of the personally controlled eHealth record with the first stage to be completed by mid 2012.

NEHTA is developing a series of specifications to support a nationally consist approach to information exchange. These include Discharge Summary, Referral, Specialist Letter, Shared Health Summary, Event Summary and possible Care Plan. This will enable integration and standardisation of the currently fragmented health care environment. A new identification system for patients and healthcare providers has already been legislated.

The involvement of clinicians and consumers in the development, implementation and adoption of eHealth is vital. The involvement of medical colleges, professional associations and other national groups in supporting clinicians is also critical to the overall success of eHealth initiatives.

To meet this ambitious timeline it's imperative that clinicians are able to participate by accessing and uploading information to the electronic health record in standardised formats and securely and safely exchanging information. To be part of this process and gain maximal advantage from these developments all health providers will need to computerise their practises.

This presentation will present:

- The NEHTA Continuity of Care solutions and their relevance to HIV positive patients (Discharge Summary,
- Referral, Specialist Letter, Shared Health Summary, Event Summary and Care Plan).
- Steps involved in developing these packages.
- Barriers and drivers.
- How these solutions will be integrated to support the formation of a Personally Controlled Electronic Health
- Record (PCEHR).
- Patient Privacy and Medico Legal considerations.

Conclusions

It is possible to have integrated electronic patient records that have the confidence of both the patient and provider, that are useful to both, will benefit both and improve the efficiency and effectiveness of healthcare in Australia.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 31
PAPER NUMBER: 218

DIFFERENCES BETWEEN HIV-POSITIVE GAY MEN THAT TAKE ANTIRETROVIRAL TREATMENT (ART) AND THOSE THAT DON'T: ANALYSIS OF THE GAY COMMUNITY PERIODIC SURVEYS, 2000-/1 TO 2008/9

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Background: We reviewed data collected in the Gay Community Periodic Surveys (GCPS) to examine differences between HIV-positive gay men who use ART and those that do not and examined changes over time.

Methods: We combined the responses from all HIV-positive GCPS participants in 2000/1 and 2008/9. We compared participants taking ART and those not taking ART in 2000/1 and 2008/9 on a range of available demographic and behavioural variables.

Results: In 2000/1, 1205 HIV-positive men completed surveys. Of these men 827 (68.6%) were taking ART. In 2008/9, 1127 HIV-positive men completed surveys with 792 (70.3%) reporting ART use i.e. there was no significant change in ART uptake over time.

In 2000/1, men taking ART were significantly older than those not taking ART (40.5 vs. 36.6 years). This difference in age was still evident in 2008/9 (43.8 vs. 38.6 years)

In 2000/1, men taking ART were significantly less likely to be employed compared with men not taking ART (63.5% vs. 72.8%). In 2008-09 this difference was no longer evident (69.8% vs. 73.5%).

Echoing trends among gay men in general, there were declines in free time spent with gay men and the number of gay friends, particularly among men taking ART.

The proportion of HIV-positive men reporting unprotected anal intercourse with casual partners was significantly lower among men taking ART compared with those not taking ART in 2000/1. This difference was not evident in 2008/9.

Conclusion: While the level of treatment uptake among HIV-positive men in the GCPS has been relatively stable over the last decade, over time there has been considerable change in the differences between HIV-positive gay men taking ART and those not taking ART, such as employment, time spent with gay men and sexual behaviour. These changes may be driven by the greater efficacy of treatment regimes, but also reflect changes seen amongst gay men in general.

POSTER NUMBER: 32
PAPER NUMBER: 237

LATE DIAGNOSIS OF HIV IN PATIENTS WITH VIRAL HEPATITIS

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Background: We became aware of cases of late HIV diagnosis in patients in hepatitis clinical care. HIV has a negative impact on the natural history of hepatitis B virus (HBV) and hepatitis C virus (HCV) infection. Timing and selection of therapy is often different in patients with HIV hepatitis co-infection. Late diagnosis of HIV is associated with poor clinical outcome and increased transmission.

Methods: We identified cases where there was a missed opportunity to diagnose HIV by emailing a group of HIV clinics.

Results: Ten cases were identified. Eight patients attending for HBV or HCV management were not tested for HIV at the time of hepatitis diagnosis (median time to HIV diagnosis five years). T wo cases were identified where a patient with HCV initially tested negative for HIV.

Seven out of ten cases were late presenters (CD4+ count<200 cells/µL at diagnosis) and the median CD4 count at diagnosis was 120; range 0 to 510). We identified clinical issues which may have been avoidable had HIV been diagnosed earlier: *Pneumocystis jirovecii* pneumonia (2 patients), entecavir monotherapy of HBV (3), peripheral neuropathy (2), lymphoma (1), CMV colitis (1), untreated syphilis (1), cytopenia (1), and extensive anal warts (1).

Conclusion: These cases illustrate the consequences of late HIV diagnosis and the importance of testing patients in hepatitis care. HIV services should liaise with hepatitis treatment providers to enhance HIV testing uptake.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 33
PAPER NUMBER: 504

WHERE DO THEY GO FOR HEALTH PROBLEMS; THE ROLE OF PRIVATE PROVIDERS IN DEVELOPMENT OF COMPREHENSIVE HEALTH CARE FOR FSWS IN BALI

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Background: Female sex workers (FSWs) is a group that have high vulnerabilities in getting HIV-AIDS, therefore they need comprehensive health care services to prevent the transmission. In Bali this group has been provided health care in some STDs and HIV-AIDS dedicated clinics which provided by government and NGO, but still limited known about how they seek health care facilities if got diseases. The objective of this research was to describe the health seeking behavior of FSWs in Denpasar, Bali.

Method: This was a descriptive cross sectional study with 84 samples which randomly taken from Padanggalak area, one of the biggest brothel complexes in Denpasar. Data was collected using questioner in April 2011.

Results: All of FSWs have health problems in the last six months and most of them (86.9%) have general problem while only 13.1% have STDs related problems. Regarding health seeking behaviors, 85.7% were actively tried to solve their problems and 55.6% of them looked for formal health care facilities. Among those who looked for health care facilities, 62.5% chose private physicians while the rest chose health centers, hospital clinics, and private nurses. Among those who went to formal health care providers, 62.5% of them went to provider from outside Padanggalak area. This becomes interesting since most of the respondents (85.7%) were not covered by health insurance system.

Conclusion: The FSWs showed interest in seeking health care facilities even to private providers that usually more expensive compare to government facilities. Involvement of private providers should be considered in developing comprehensive health care services for FSWs. More research and upgrading skill of those providers in order to respond the health needs of FSWs should be conducted.

Keywords: sex workers, health care, Bali

POSTER NUMBER: 34
PAPER NUMBER: 482

DOES SEXUAL IDENTITY IMPACT ON CLIENTS' EXPERIENCES OF STIGMA AND DISCRIMINATION? A CLIENT SERVICES SNAPSHOT.

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Background. It is widely accepted that the implications of stigma and discrimination faced by people living with HIV correlates to poorer health outcomes (both physical and psychological). We asked the question, 'Does sexual identity impact on clients' experiences of stigma and discrimination?'

A study at a local publicly funded specialist clinic in Northern Sydney was conducted to review current clients' perspectives regarding service provision, experiences of discrimination, current access to HIV support services and perceived needs.

Methods. From June to December 2010, 79 HIV positive clients attending a local publicly funded clinic were recruited to take part in a survey.

Results. Of the respondents, 27 identified as heterosexual, 7 as bisexual, and 43 as gay (two did not respond). The median age was 47 years. There were observable differences between heterosexual and gay respondents. Compared with the gay respondents, heterosexuals were less likely to disclose their HIV status, less likely to access HIV based organisations and more likely to report experiences of discrimination and negative attitudes from healthcare providers.

Conclusion. While the numbers in this study were lower than expected, the differences indicated that we need to respond by providing targeted services and support. This highlights the need to address discrimination and negative attitudes of healthcare providers through advocating and encouraging the wider HIV sector to actively market their services, in particular to those who identify as heterosexual.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 35
PAPER NUMBER: 348

HIV ASSOCIATED PLASMABLASTIC LYMPHOMA: A RAPIDLY-PROGRESSIVE CASE

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Background:

HIV-associated plasmablastic lymphoma is an aggressive B-cell lymphoma, previously described in oral and extra-oral sites most frequently in severely immunosuppressed males. The presence of c-myc oncogene appears associated with a more aggressive clinical course in published case reports. Large cohort studies demonstrate increased risk of Non Hodgkins Lymphoma with severe immunosuppression. We report a case of rampantly progressive HIV-associated plasmablastic lymphoma, in a female without severe immunosuppression.

Case Report:

A 43 year-old, Caucasian female HIV-positive patient with CD4-count of 299 cells/mm^3, not yet on anti-retroviral therapy, was admitted with a two-week history of cough, fever, right-upper quadrant pain and peri-orbital haematomas. No organomegaly or lymphadenopathy was detectable on admission. Over the next 48 hours, she developed rapidly progressive hepatosplenomegaly and widespread lymphadenopathy. Consecutive blood films displayed increasing numbers of large blastoid cells. BMAT revealed complete effacement of marrow spaces with large blastic cells, negative for B cell markers and EBV LMP-1. Flow cytometry was strongly positive for NK-cell marker CD56 and plasma-cell marker CD38. A t(2;8) variant Burkitt translocation was identified by cytogenetics, resulting in a MYC-IgK light chain fusion gene. Despite commencement of chemotherapy, the patient died from multi-organ failure 4 days after admission. Autopsy revealed extensive high-grade lymphoma infiltrating most organs, with spleen, liver and lymph nodes extensively replaced by atypical lymphoid cells.

Conclusion:

The rampant progression of this patient's lymphoma, in the absence of severe immunosuppression, with a tumour doubling time of days, was extraordinary. Whether this was attributable to the c-myc oncogene, or underlying impaired anti-tumour immunity of HIV, or both, is uncertain. If the latter is true, is there a role for anti-retroviral therapy in asymptomatic HIV-positive patients to prevent such sequelae? Further research is required to assess the role of early antiretroviral therapy in prevention of NHL in HIV-positive patients.

POSTER NUMBER: 36
PAPER NUMBER: 509

FACTORS ASSOCIATED WITH DELAYED ACCESS TO HIV CLINICAL SERVICES AMONG ADULT PATIENTS IN PHNOM PENH

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Background: To determine risk factors associated with the delayed entry into HIV clinical services among adult patients.

Methods: Patients aged 18 years and over registered at the Social Health clinic who completed their initial visit form between 10th November 2004 to 1st September 2010 were included in the study. Delayed entry was defined based on CD4 cell count at the initial visit (< 200 cell/mm^3). Multivariate analysis was used to investigate risk factors for the delayed entry, by comparing demographic and clinical characteristics between patients in the two CD4 categories.

Results: Of 2,775 patients, the mean CD4 cell count was 233 cell/mm^3 (33 – 352), and 56% presented at a CD4 count below 200, with 95.2% having clinical symptoms at their initial visit. In multivariate analysis, men were more likely to present at a lower CD4 count to the HIV services than women (OR=1.75, 95% CI; 1.45 – 2.10). Patients age greater than 39 years old were also more likely to access services at a later stage (OR= 2.18, 95% CI; 1.59 – 2.98) than the lower age group. Ever use of tobacco and traditional medicine were also significantly associated with late entry into HIV services.

Conclusion: Despite the availability of antiretroviral services, a substantial proportion of patients came late to the clinic. To deal with this issue, it will be important to increase knowledge about the existence of service for HIV patients and promote health-seeking behaviors among people with HIV-infection.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 37
PAPER NUMBER: 362

TENOFOVIR ASSOCIATED PROTEINURIA: A RETROSPECTIVE STUDY EXAMINING PREVALENCE, PREDICTORS AND OUTCOME

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Background: Proteinuria predicts progression to chronic kidney disease (CKD) and all cause mortality in patients with HIV. This condition has been reported in up to 30% of patients with HIV. Antiretroviral therapy (ART) particularly tenofovir has been associated with proteinuria and CKD although data supporting ART modification in the management of proteinuria is lacking.

Methods: The medical records of patients treated with tenofovir for more than 12 months were retrospectively reviewed. Age, gender, viral load, nadir and current CD4 count, concomitant ART agents, duration of tenofovir therapy and results of annual proteinuria screening were collated.

Results: 168 patients were reviewed. Their mean duration of tenofovir exposure was 4 ½ years equating to 770 person years of follow-up. 85% of patients did not develop proteinuria. 26 patients developed proteinuria and 12 patients ceased tenofovir because of proteinuria. Pertinent characteristics of these 12 patients included: mean urinary protein creatinine ratio (UPCR) 65 (range 29-213 N<15) g/mol, mean eGFR 74 (range 59 - >90), mean serum PO_4 0.83 (range 0.62-1.22 NR 0.81-1.45) mmol/L and two patients had glycosuria. Nine of these 12 patients had complete resolution of proteinuria following tenofovir cessation without any other specific intervention. 2/12 patients experienced a decrease in UPCR which remained above the normal range following tenofovir cessation. 1 patient experienced an increase in UPCR despite tenofovir cessation. Patients taking protease inhibitors were more likely than those not taking protease inhibitors to develop proteinuria (19% versus 3% p=0.01). No other differences between patients who developed proteinuria and those who did not develop proteinuria whilst taking tenofovir were detected.

Conclusions: 15% (26/168) of patients taking tenofovir for more than 12 months developed proteinuria which was more common in patients also taking protease inhibitors. Proteinuria completely resolved in 9/12 patients who ceased tenofovir. ART modification may play an important role in the management of proteinuria in persons with treated HIV.

Disclosure of Interest

All participants are employed by Queensland Health. No external funding (including pharmaceutical grants) was received in the development of this project.

POSTER NUMBER: 38
PAPER NUMBER: 367

K103R: A NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITOR (NNRTI)-ASSOCIATED POLYMORPHISM THAT MATTERS!

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Background:

K103R, a naturally occurring polymorphism in HIV reverse transcriptase, is detected in up to 3.3% of antiretroviral naïve patients. Standard genotype resistance assay reports indicate that these viruses are susceptible to nevirapine, efavirenz and etravirine. Little is known about the impact of this polymorphism on subsequent use of etravirine in patients who fail first-line NNRTI therapy.

Methods:

The case records of two patients with baseline K103R who developed mutations associated with reduced sensitivity to etravirine upon failing efavirenz-based therapy were reviewed.

Results:

Genotypic and phenotypic resistance assays indicated that the isolates from both patients were sensitive to etravirine prior to efavirenz therapy but evolved further NNRTI mutations (E138A in patient A and V179D, V106M in patient B) when the patients failed efavirenz. These changes resulted in increases in etravirine resistance associated mutation scores (1 to 4 in patient A and 1 to 3 in patient B) and increases in virtual phenotype etravirine fold-change score (1.2 to 2.7 in patient A and 1.6 to 2.6 in patient B). Neither patient developed R103N. This mutation is unlikely to evolve in the setting of viral resistance as substitution of arginine (N) for asparagine (R) requires at least two nucleotide changes (AGA to A**AC** or A**AT**, AGG to A**AC** or A**AT**). This contrasts with the more common scenario where wild-type lysine (K) mutates to arginine (N) by a one nucleotide substitution (AAA to AA**C** or AA**T**, AAG to AA**C** or AA**T**). R103N would not have been predicted from *in vitro* data either.

Conclusions:

While K103R does not impact upon first line antiretroviral therapy with NNRTI it may negatively impact subsequent therapy by developing non-103N mutations which reduce the susceptibility of the virus to etravirine. Clinicians should be aware of this risk.

Disclosure of Interest

All participants are employed by Queensland Health. No external funding (including pharmaceutical grants) was received in the development of this project.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 39
PAPER NUMBER: 369

DELIVERING CONSISTENT AND COMPREHENSIVE HIV CLINICAL CARE: THE DEVELOPMENT OF CONSENSUS ALGORITHMS FOR THE SCREENING AND MANAGEMENT OF CO-MORBID CONDITIONS IN HIV POSITIVE PATIENTS IN QUEENSLAND.

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Background

HIV clinical care is becoming increasingly complex with the increased life expectancy associated with contemporary antiretroviral therapy necessitating a requirement to focus on chronic disease management and modification of health risk factors in this population. Clinical algorithms assist clinicians in comprehensive screening and management in at risk patient groups. The 2010 Queensland HIV Clinicians Meeting (QHCM) endorsed the collective development of clinical algorithms to address emerging clinical conditions relevant to the care of persons with HIV.

Methods

Eight clinical topics were selected and individual clinics volunteered to develop a draft algorithm according to an agreed format. This draft was reviewed by a steering group and then distributed to external HIV-clinician and non-HIV clinician experts. The next draft was discussed at state-wide videoconferences held at regular intervals during the year. The final draft was presented for state-wide endorsement at the 2011 QHMC.

Results

Five evidence-based and peer-reviewed algorithms were presented for endorsement including the screening for and management of: latent tuberculosis; proteinuria; cardiovascular disease risk; osteoporosis; and neurocognitive impairment in persons with treated HIV. The latent tuberculosis algorithm was not endorsed due to concerns regarding accessibility of tuberculin skin testing in all regions of the state. All other algorithms were endorsed and are currently being implemented across Queensland. Three other algorithms are under development including; anal cancer screening, vaccination, and non-AIDS malignancy screening. Algorithms will be reviewed annually.

Conclusion

Evidence-based, peer-reviewed algorithms can be developed by a consensus process at the state level. These form the basis of standards of care, clinical performance measurement and can be used to guide targeted clinical research. The integration of these algorithms into clinical HIV care will be assessed along with their utility in enhancing the comprehensiveness of assessment of co-morbid conditions in HIV positive patients in Queensland.

Disclosure of Interest

All participants are employed by Queensland Health. No external funding (including pharmaceutical grants) was received in the development of this project.

POSTER NUMBER: 40
PAPER NUMBER: 502

FACTORS ASSOCIATED WITH LOSS TO FOLLOW-UP IN PATIENTS ATTENDING HIV TREATMENT SERVICES IN CAMBODIA

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Background: Loss to follow-up is a key indicator for monitoring the quality of services provided to patients with HIV. This study aimed to identify risk factors for loss to follow-up of patients received HIV care at public clinics in Cambodia.

Methods: The study design was a retrospective cohort. Databases from 6 public clinics contributed to the study. Data for patients enrolled in the clinics from January, 2004 to August, 2010 were analysed. Loss to follow-up was defined of a gap between patient visits of more than 3 months if on antiretroviral therapy, or for more than 6 months if not on therapy. Clinical (WHO stage), immunological (CD4 count) and socio-demographic factors were considered as potential risk factors for loss to follow-up. Cox regression methods were used to identify independent risk factors, with loss to follow up as the outcome.

Results: Among 9,849 patients enrolled during the study period, 30% were lost to follow up. The event rate was 15 per 100 person-years. In multivariate regression, patients whose baseline CD4 count was greater than350 were more likely to be lost to follow than those under 350 (HR=1.6, 95% CI: 1.4 - 1.8, p<0.001). Loss to follow-up was also more frequent in patients without any formal education compared to those who ever received any education (HR=1.3, 95% CI: 1.2 - 1.5, p<0.001).

Conclusion: Baseline CD4 count and education could be used as indicators of potential loss to follow-up of HIV patients at public clinics, and form a basis for reviewing clinical strategies aimed at improved retention. More information is needed on reasons for loss to follow up.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 41
PAPER NUMBER: 168

IF IT AIN'T BROKE, DON'T FIX IT: THE IMPACT OF PATIENT AND DOCTOR CONCERNS ON COMMENCING AND CHANGING ANTIRETROVIRAL TREATMENT.

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Background: Advances in the development of antiretroviral treatments (ARV) have provided clinicians and people living with HIV (PLHIV) with many treatment choices. In this study, we investigated the experiences of PLHIV in commencing and changing antiretroviral therapy from the perspective of their doctors.

Methods: As part of a larger study of treatment decisions, we conducted eighteen structured telephone-based interviews with HIV S100 prescribers in Australia. The interviews centred on the antecedents of and barriers to commencing and changing ARV and the dynamics of the doctor-patient relationship in managing these processes. Thematic analysis was used to identify key themes in the processes of commencing and changing ARV.

Results: The interviewees included eight medical specialists and ten general practitioners; two-thirds were male. The interviewees worked in primary care, hospital-based practices and community sexual health centres. Approximately two-thirds worked in urban locations; the remainder worked in regional and rural settings.

Beyond clinical considerations, the psychosocial characteristics of PLHIV played a key role in the processes of commencing and changing ARV. Prior to the commencement of ARV, an assessment of the patient's readiness, understanding of the demands of taking ARV and ability to adhere to ARV were among the main considerations for commencing ARV. Barriers to commencing ARV included a lack of perceived readiness and ability to adhere by the doctor, patient concern about side effects and the psychological implications of starting ARV to the patient. The major barrier to changing treatment was perceived patient resistance to change and a perceived 'fear of the unknown'. Doctors also indicated a desire on their part and on behalf of patients not to 'rock the boat'.

Conclusions: As improvements in the tolerability, efficacy and ease of taking ARV continue, consideration of patients' psychosocial characteristics are likely to play an important role in achieving optimal outcomes for PLHIV.

POSTER NUMBER: 42
PAPER NUMBER: 532

THE UTILITY OF FIBROSCAN FOR THE ASSESSMENT OF LIVER FIBROSIS IN HIV MONOINFECTION (FILM STUDY: FIBROSCAN OF LIVER IN HIV MONOINFECTION)

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Background and aims: In HIV infected patients, liver disease remains a major cause of morbidity and mortality even in those without coexistent viral hepatitis. We aimed to determine prevalence and etiology of hepatic fibrosis in a selective cohort of HIV monoinfected patients using non-invasive Fibroscan technology.

Methods: A prospective cohort study was conducted. Patients identified from outpatient database fulfilling eligibility criteria including 1)ALT/AST>45U/L or 2)platelets</=120x10^9/L of unknown etiology on 2 occasions at least 3 months apart or 3)receipt of didanosine(DDI) for >6 months in the preceding 1 year were invited. Participants underwent Fibroscan. Baseline metabolic, biochemical and demographic data were collected. Hepascore (a serum marker of non-invasive fibrosis) was calculated from stored serum.

For categorical variables, Chi-Square or Fisher's Exact tests and for continuous variables, Mann-Whitney U test were used in analysis.

Results: 53 patients were enrolled. 50/53(94%) were male. Mean age and mean body mass index(BMI) were 50 years and 26kg/m^2 respectively. Mean duration of HIV infection and antiretroviral therapy(ART) were 15 years and 10 years.

On Fibroscan 43(81%) patients had fibroscore(FS)</=7kPa(range 2.6-6.9kPa)(low FS group, no or mild fibrosis) and 10(19%) patients had FS>7kPa(range 7.1-45.7kPa)(high FS group, significant liver fibrosis).

In the high FS group, 3(30%) had metabolic syndrome, 6(60%) had diabetes mellitus, 3(30%) consumed alcohol above recommended limit and mean duration of DDI use was 22.6 months. The corresponding figures for low FS group were 5(12%)(p =0.16), 4(9%)(p=0.001), 19(44%)(p=0.49) and 30.1 months(p=0.27).

Median hepascore was 0.89 in the high FS group vs 0.34 in the low group(p=0.04).

Of 8 patients in the high FS group with follow-up liver imaging, 4(50%) had hepatic steatosis and 2(25%) had hepatic cirrhosis.

Conclusion: In this HIV monoinfected cohort, the prevalence of significant liver fibrosis was approximately 20%. Diabetes mellitus but not metabolic syndrome, high alcohol consumption or DDI use was positively associated with hepatic fibrosis.

DISCLOSURE OF INTEREST STATEMENT:

This survey was funded with the current funding arrangements for this service from NSW Health: no additional funds were received from any external source.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 43
PAPER NUMBER: 339

CYTOMEGALOVIRUS ENCEPHALITIS IN CIPTO MANGUNKUSUMO HOSPITAL JAKARTA: A CASE SERIES

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Background: Diagnosis of cytomegalovirus (CMV) encephalitis had been difficult to make in HIV-AIDS patients because it often masked by other central nervous system (CNS) opportunistic infections. In our hospital we approach HIV-AIDS patients with suspected CNS infection first by exploring the three most common diseases, which are cerebral toxoplasmosis, tuberculous meningitis, and cryptococcal meningitis. We considered a CMV encephalitis if we had ruled-out those three most common CNS opportunistic infection.

Objective: We reported five cases of CMV encephalitis in HIV patients who admitted to Cipto Mangunkusumo Jakarta hospital in the last two years with different clinical manifestations.

Case Illustration: Five HIV positive patients (4 male, 1 female) had been diagnosed with CMV encephalitis from clinical symptoms and positive result of CMV antigen testing in cerebrospinal fluid. The predominant symptom(s) of CMV encephalitis in case 1 was cognitive impairment, case 2 were general seizures and cognitive impairment, case 3 were decreased consciousness followed by cognitive impairment, while case 4 and 5 predominantly manifested as movement disorder and cognitive impairment. The CD4 cell count of these patients was <200/µL (four of them had CD4 cell count <50/µL). The routine cerebrospinal fluid analyses of these patients are not specific. Four of them also had one or more other CNS opportunistic co-infection (cerebral toxoplasma, tuberculous meningitis, or herpes simplex encephalitis). Four patients received intravenous Gancyclovir and demonstrated clinical improvement. One patient could not afford intravenous Gancyclovir and unfortunately died at the hospital.

Conclusion: We reported five cases of CMV encephalitis with different clinical manifestations. Four of them received intravenous Gancyclovir and demonstrated clinical improvement.

POSTER NUMBER: 44
PAPER NUMBER: 95

DO HEALTH SYSTEM DELAYS IMPACT RECEIPT OF TEST RESULTS? EVIDENCE FROM HIV EARLY INFANT DIAGNOSIS PROGRAM IN UGANDA

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Background: Anecdotal evidence suggests that reducing test result turnaround time is important in ensuring that caregivers receive infant HIV test results. However, the statistical association between turnaround time and test result receipt has not been studied. A measure of this association is important in determining the public health impact of operational interventions designed to reduce turnaround time.

Methods: We reviewed a total of 845 infant HIV test records for tests performed between January 2008 and February 2009 at a regional referral hospital, district hospital and health center IV facility in Uganda. We used logistic regression to assess whether turnaround time was associated with result receipt. Operational factors such as clinic entry point and infant age were included in the analysis.

Results: At the regional referral hospital, the odds of result receipt was greater at turnaround times less than 25 days (OR= 2.05; p = 0.013). Compared to the immunization clinic entry point, the odds of result receipt was greater at the PMTCT clinic (OR: 10.43; p <0.0001) and less at the pediatric ward (OR: 0.31; p = 0.001).

In the health center IV, the odds of result receipt was less among infants older than 9 months of age compared to infants aged 3 months and younger (OR: 0.24; p = 0.01).

In a pooled analysis, the odds of result receipt was less among infants aged 6 to 9 months (OR: 0.75; CI: 0.60, 0.93; p = 0.009) and older than 9 months (OR: 0.42; CI: 0.28, 0.64; p <0.0001) compared to infants aged 3 months and younger. Turnaround time was not associated with result receipt in the pooled analysis (OR: 1.39; CI: 0.92, 2.10; p = 0.120).

Conclusion: We find an association between turnaround time and result receipt at a 25 day cut-off value at the regional referral hospital. Clinic entry point was shown to have a significant impact on result receipt.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 45
PAPER NUMBER: 172

THE CHANGING PROFILE OF HIV-POSITIVE GAY MEN IN AUSTRALIA: ANALYSIS OF THE GAY COMMUNITY PERIODIC SURVEYS, 2000-2009.

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Background: We reviewed the profile of HIV-positive men in the Gay Community Periodic Surveys (GCPS) to assist health services, community organisations and researchers in remaining responsive to the changing needs of this population.

Methods: We pooled the responses from all HIV-positive and HIV-negative GCPS participants in 2000/1 and 2008/9. We compared HIV-positive participants between 2000/1 and 2008/9 on available demographic and sexual practice variables and did the same for HIV-negative participants. We also compared HIV-positive and HIV-negative participants within each time period.

Results: In 2000/1, 10537 men participated in the GCPS (11.4% HIV-positive and 88.6% HIV-negative). In 2008/9, 11083 men participated (10.2% HIV-positive and 89.8% HIV-negative).

i) Comparing HIV-positive men in 2000/1 and 2008/9. HIV-positive men have become significantly: older; more educated; more likely to be employed full-time; less involved with gay men; less sexually active; more likely to be in a seroconcordant relationship and; more likely to have unprotected anal intercourse with regular (UAIR) or casual partners (UAIC). Many of these changes were also observed among HIV-negative participants. There was no significant change in HIV-positive men's ethnic profile or the proportion on treatment (~70%).

ii) Comparing HIV-positive with HIV-negative men in 2008/9. HIV-positive men were significantly: older; less educated; less likely to be employed full-time or in a monogamous relationship; more likely to be Anglo-Australian, have a lot of gay friends, have more than 10 partners in 6 months, an HIV-positive regular partner or UAIC.

Conclusion: Despite improvements over time, HIV-positive men still lag behind HIV-negative men in terms of educational attainment and workforce participation. HIV-positive men remain more socially involved with gay men and less ethnically diverse than HIV-negative men. While they report fewer partners than they used to, HIV-positive men still report more sex partners and higher rates of UAIC than HIV-negative men in the GCPS.

POSTER NUMBER: 46
PAPER NUMBER: 149

PEER EDUCATION AND SUPPORT IN A CLINICAL SETTING

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In 2010 the HIV Clinical Nurse Consultants (CNCs) at the Infectious Diseases Department (IDD) at Fremantle Hospital and the Peer Educator at Western Australian AIDS Council (WAAC) identified that patients attending IDD for the management of their HIV infection were not accessing the broad range of services at WAAC. This was due to a variety of self-perceived reasons. It was also acknowledged that people working found it more difficult to get time off work to access services, and wanted "a one stop shop".

In April 2010 a "peer support clinic" was set up twice a month in the IDD. Patients were identified and contacted by the HIV CNC and offered an appointment in the peer support clinic. This appointment was usually at the same time as their clinic appointment with the doctor/ HIV CNC. A patient's satisfaction survey questionnaire that could be accessed either on line via survey monkey or in paper form was given to patients 3 months after the peer support clinic appointment.

From April 2010 to April 2011, 16 patients attended at least one appointment. There have been 14 surveys given out (2 patients have moved interstate and are not contactable).

The presentation will provide results from the completed surveys. Preliminary results show that patients found it convenient to attend the peer support clinic at the same time as their clinical appointment, feel less isolated, more confident about disclosure and living with HIV, and more informed about transmission and treatment.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 47
PAPER NUMBER: 487

ACUTE HEPATITIS C CO-INFECTION IN VICTORIAN MEN WHO HAVE SEX WITH MEN: INVESTIGATION INTO AN OUTBREAK WITH SUSPECTED SEXUAL TRANSMISSION

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Background: Hepatitis C virus (HCV) co-infection in people living with HIV/AIDS (PLWHA) is emerging as a cause of significant morbidity and mortality. The potential for sexual transmission in men who have sex with men (MSM) has been recognised in small clusters, yet there has been a limited public health response in Australia to address this risk. In response to an apparent increase in referrals of acute HCV in co-infected MSM to specialist centres, the Victorian Department of Health undertook an investigation.

Methods: A review of all notified cases of HCV from high HIV-case load general practitioners or HIV referral centres in Victoria was conducted from April 2010 to April 2011 to find newly acquired cases co-infected with HIV. A case series analysis was performed utilising hepatitis C enhanced surveillance and sexually transmissible infections (STIs) notification data to identify risk factors for hepatitis C transmission. Phylogenetic analysis of viral sequences was undertaken to assess for clusters of transmission, and then correlated with risk factor information.

Results: Forty-five notified cases of co-infected MSM were identified, of which 26 met the newly acquired HCV case definition. Sexually transmission was considered likely in 18 of the 26 cases. Only 9 cases had a history of injecting drug use ever. The median age at HCV diagnosis was 43 (range 26-57), and the median time from HIV to HCV diagnoses was 26 months (range 2-212). All cases had previously been notified with other STIs; 18 cases had had an STI after the diagnosis of HIV. Several clusters of identical viruses were found on sequencing, aiding in epidemiological linkage of cases and specific risk factors.

Conclusion: This investigation shows that sexual transmission of HCV in MSM with HIV is a concern in Victoria. This finding has important implications for public health messages, particularly to the PLWHA community.

Disclosure of interest statement:
No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 48
PAPER NUMBER: 181

A CASE STUDY OF HIV IN THE WESTERN HIGHLANDS OF PAPUA NEW GUINEA – THE IMPACT ON A FAMILY

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Background
Rabiamul HIV Clinic has over 1300 registered patients, with an average of 30 new HIV diagnoses each month. The clinic sees patients, often with complex circumstances that impact on their ability to access treatment, care and support.

Methods:
The Clinic is staffed by an Officer in Charge, two nursing officers, two nurses and one receptionist. The staff manages:

- Counselling and psychosocial support
- ART and Opportunistic Infections
- Prevention of Parent to Child Transmission
- Pediatric treatment
- Rape services including post exposure prophylaxis

Case Study: Mary presented with her daughter who had been raped and abused by her step father. The Team provided care for Mary's daughter who was diagnosed with HIV and subsequently Mary herself.

Results:
The team worked with Mary and her daughter through a number of interventions including:

- HIV Counseling, Testing and treatment
- Home visits
- Clothing and food
- Support for other family members

Despite the support by the clinic team, complex issues intensified such as mental health, isolation, family breakdown, culminating in the family moving back to their village and the clinic was unable to maintain contact.

Conclusion:
The team has identified the following challenges:

- Transferring care of patients to other clinics, ensuring contact is made
- Addressing legal aspects of the case
- Lack of intensive psychological support for patients
- Importance of indentifying other potential contacts (Mother, siblings)

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 49
PAPER NUMBER: 366

REPEATED ASSESSMENTS OF FOOD SECURITY PREDICT CD4 CHANGE IN THE SETTING OF ANTIRETROVIRAL THERAPY

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Background: Food insecurity is highly prevalent in HIV-infected populations, and its associations with treatment response increasingly studied. However, analyses utilizing repeated food security assessments in the era of highly active antiretroviral therapy (HAART) are lacking.

Methods: Nutrition for Healthy Living cohort participants in the northeastern United States with ≥ 4 measures of personal food insecurity, from 1995-2005 were assessed. Food security variable classifications were: dichotomous variable (always secure, or insecure [≥ 1 visit insecure]) or trichotomous variable (always secure, partially insecure or always insecure). Univariate and multivariate linear regression was performed for the outcome CD4 T-cell change from baseline to last study visit. Additional covariates included: cumulative years HAART, and other markers of socioeconomic status.

Results: Among 592 subjects, mean age was 40.6 years, 70.3% were male, 217 (37%) were always food secure, and 375 (63%) were food insecure at ≥ 1 visit. Food secure individuals had shorter median follow up (4.4 vs 6.0 years, *P* <0.01), and at baseline were less likely to have a history of intravenous drug use (IDU) (14.8% vs 47.7%, *P* <0.001). Parameter estimates from regression models are presented. In multivariate models cumulative HAART use predicted CD4 change (40.3 cell greater change / additional year of HAART, *P* <0.001) with the only additional covariate being food insecurity (99.5 cell less change over the period observed, *P* <0.001 [dichotomous variable]). A model using a trichotomous definition of food security showed similar predictions for CD4 change for subjects who were partially and always food insecure. Other sociodemographic factors were not predictive.

Single and multiple linear regression for CD4 T cell change from baseline to final study visit

	Univariate Model Parameter Estimate	p-value	Multivariate Model 1 Parameter Estimatea	p-value	Multivariate Model 2 Parameter Estimateb	p-value
Intercept			-8.04		-8.13	
Age – increase by 1 year	2.73	0.09	-	-	-	-
Cumulative years of HAART – increase by 1 year	41.34	<0.001	40.36	<0.001	40.38	<0.001
Active or past IDU	-101.02	<0.001	-	-	-	-
Gender (being female)	-41.98	0.14	-	-	-	-
Race (not being white)	-60.47	0.02	-	-	-	-
Povertyc at final visit	-90.77	<0.001	-	-	-	-
Mean BMId > 25	Ref	-	-	-	-	-
Mean BMI 20 - 25	11.57	0.65	-	-	-	-
Mean BMI < 20	-82.33	0.16	-	-	-	-
Food insecuree	-111.84	<0.001	-99.52	<0.001		
Food securef	Ref				Ref	
Partially food insecureg	-121.16	<0.001			-100.18	<0.001
Always food insecureh	-110.45	0.01			-95.07	0.03

Note:
a Dichotomous definition of food security
b Alternative model using a trichotomous definition of food security
c Total household income below federal poverty line or personal annual income < $10,000
d Body mass index average over all study visits in kg/ m2
e Food insecure at 1 or more study visits
f Food secure at all study visits
g Food insecure at 1 or more, but not all study visits
h Food insecure at all study visits
HAART – Highly active antiretroviral therapy; IDU – Intravenous drug use

Conclusions: Repeated assessments of food security are robust predictors of immunological response, with even single episodes of food insecurity identifying patients at risk. These observations persist while controlling for a HAART measure that was a potent predictor of CD4 change, and other markers of socioeconomic status.

DISCLOSURE OF INTEREST STATEMENT: Financial support for this work was from the National Institutes of Health (R01 HL 65947, P30DA13868, P30 AI42853, P01 DK45734), and the National Health and Medical Research Council (Postgraduate Scholarship to J.H.M.). No pharmaceutical grants were received in the development of this study

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 50 PAPER NUMBER: 148

SELF MANAGEMENT NEEDS OF MEN LIVING WITH HIV IN AUSTRALIA 2011

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Background: Self-management has been identified as an effective intervention for people adjusting to other chronic illnesses and has also been trialled with populations living with HIV. The aim of this study was to conduct a multifaceted needs assessment which will be used to inform the development of an online self management program for men living with HIV. The objectives of the needs assessment were to describe the health related quality of life (QOL) of men living with HIV, the impact of living with HIV for positive men and the perceived problem areas and service and support needs of positive men.

Methods: The Short-Form Health Survey (SF-12) was administered to a sample of HIV positive men (n=69) to provide a general overview of their health related QOL. The findings analysed using PASW v18 and were then compared with normative data for Australia. Focus groups were also conducted with HIV positive men to explore issues including the impact of HIV on their lives, perceived problem areas and perceived service and support needs. A service provider focus group was also conducted with industry professionals. Focus groups analysed using the constant comparative method.

Results: Initial data analysis has revealed that HIV positive men experience significantly lower QOL when compared with normative data for the Australian population and patients with other chronic conditions. Focus groups revealed themes including: the desire for more holistic health care; isolation; and finding accurate, credible information. Themes identified from the service provider focus group include: disclosing positive status; challenging myths; negotiating the health care system; and negotiating risk.

Conclusions:

Knowledge gained from this study will be used to inform the development of an online self management program for men living with HIV/AIDS. Additionally, the findings provide useful insight in to the health related QOL of men living with HIV and their service and support needs.

POSTER NUMBER: 51 PAPER NUMBER: 308

FACTORS ASSOCIATED SURVIVAL AMONG TB-HIV PATIENT IN SARDJITO REFFERED HOSPITAL YOGYAKARTA : A RETROSPECTIVE COHORT STUDY

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Background: Tuberculosis (TB) is a cause of death and opportunistic disease most commonly found in people with HIV. The role of TB in survival of patients with HIV/AIDS in developing countries brings its own burden both financially and clinically. An understanding of the factors that can affect the survival of TB-HIV co-infection is needed to improve patient care and to develop health management of HIV/AIDS patients.

Objective: To determine factors that may be related to TB-HIV co-infection survival at Sardjito reference hospital.

Methods: We retrospectively retrieved data from HIV/AIDS hospitalized patients from January 2007 – December 2009 in Sardjito Hospital Yogyakarta to identify TB-HIV patients. The Kaplan-Meier method was used to estimate survival. We used Cox regression methods and multivariate analysis to find factors associated with TB- HIV survival.

Results: A total of 110 TB-HIV patients were recorded during period of time January 2007 and September 2009. The total duration of follow up is 1249 person years. The majority of patients were male 79 (71.82%). The mean age (mean+SD) at admission is 32.48+7.09. Using cox regression univariate analysis, we found that stage IV WHO classification (HR 2.81 CI 1.38-5.69 p=0.004), lack of consciousness during admission (HR 2.82 CI 1.36-5.85 p=0.005), untreated TB (HR 2.21 CI 1.03-4.7 p=0.041), and pneumonia (HR 2.07 CI 1.07- 4.01 p= 0.03) were factors related with poor survival among TB-HIV coinfection.

Conclusion: Early treatment of TB infection and the management of coinciding co-morbidity is essential to improved patient's survival.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 52
PAPER NUMBER: 395

ASSISTED ACCESS TO SCULPTRA TREATMENT

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BACKGROUND

It's not yet clear why or how lipoatrophy occurs in HIV-positive people. However, it is believed to be a side effect of some (now rarely used) Highly Active Antiretroviral Therapy (HAART).

Severe facial lipoatrophy can be an obvious marker of HIV infection. People with moderate-to-severe facial lipoatrophy have the highest rates of depression among People Living With HIV (PLWH). Studies have shown treatment is associated with declines in anxiety and depression scores.

Sculptra (used as a series of injections to the affected area) has recently been included in the Pharmaceutical Benefits Scheme for treatment of severe facial lipoatrophy.

In such circumstances, 3 or 4 treatments (approximately 6 weeks apart) are often required. Private Aesthetic Medicine practitioners usually charge $300 - $600 per treatment session, placing this procedure out of reach for many people who are eligible for Sculptra.

Clinicians at Liverpool Hospital HIV Outpatient Clinic in New South Wales have endeavoured to facilitate maximal uptake of treatment.

METHODS

A nurse and doctor were trained in Sculptra techniques and offered treatments at no cost to eligible patients attending the clinic.

Patients were offered treatment for the cost of a prescription i.e. $34.20 (employed) or $5.40 (health care card holder) per treatment.

RESULTS

9 persons have so far elected to commence treatment.

Each treatment session involves over 20 injections into the affected area, and all patients opted to continue treatments until optimal results were reached – for some people this involved over 100 injections over the duration of treatment.

Although no formal surveys were used, all patients reported improved self esteem and confidence in their day to day lives.

CONCLUSION

Provision of Sculptra treatment at low cost for the correction of treatment associated severe facial atrophy assists patients to access this treatment option to help revive their self esteem.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 53
PAPER NUMBER: 499

WHO IS BEING TESTED FOR HIV IN OUR HOSPITALS? A REVIEW OF HIV TESTING AND DOCUMENTATION LEVELS AT CANBERRA HOSPITAL

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Background: Current guidelines do not stipulate minimum requirements for documentation for HIV testing, despite recognition that this is an important clinical and medico-legal issue. Information regarding HIV testing in Australian hospitals is limited. This study aimed to (1) identify the demographic characteristics of patients tested for HIV at a tertiary hospital (2) determine reasons for testing and (3) assess levels of HIV related documentation.

Methods: 100 patients were randomly selected from a consecutive sample of 300 tertiary hospital patients tested for HIV in early 2009. Patient records were reviewed to determine patient demographics, clinical data relating to HIV testing and documentation of risk history, consent and pre and post test discussion.

Results: 85/100 patient records contained sufficient data to be included in the analysis. Tested patients were 60% male; 93% aged 18 years or more; 65% heterosexual (35% no sexuality documented); 34% born overseas, 7% from a country of high HIV prevalence and 6% Aboriginal or Torres Strait Islander. Key reasons for testing were documented as end-stage renal failure, pre-operative assessment, antenatal screening and other clinical indication.

63% (54/85) of records contained documentation of risk history, consent and pre and post-test information. 9/54 (17%) documented history of injecting drug use, 0/54 documented other risk factors for HIV acquisition - sexual practices, sexual preference, sexual partner with HIV, coming from country of high HIV prevalence or prior custodial sentence. Of the 54, 15 (28%) included documentation of HIV test ordered, 5 (9%) of consent before testing, and 3 (6%) of providing pre-test information. No documentation of providing post-test information was found.

Conclusions: Documentation of risks for exposure before HIV testing, consent and pre and post-test discussion is limited in this hospital sample suggesting a need for increased education concerning patient assessment prior to HIV testing, delivery of results and documentation.

Disclosure of Interest statement: This study was unfunded. The authors do not have any conflicts of interest to disclose.

POSTER NUMBER: 54
PAPER NUMBER: 403

EVALUATING THE IMPACT OF PLHIV SPEAKERS ON FIRST YEAR MEDICAL STUDENTS TO INFORM FUTURE PRACTICE – A QUANTITATIVE AND QUALITATIVE ANALYSIS.

Niggl M R

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Background: PLWHA Victoria Positive Speakers Bureau members have been speaking to first year medical students at a major University for over ten years. Presentations are part of community stakeholders' education sessions about HIV and sexual health.

Written and verbal feedback from university staff, tutors and speakers consistently indicated speakers had an enduring impact on the students. Yearly feedback was collated but not properly analysed. Reports could not fully utilise research methodologies. Further validation and assessment both quantitatively and qualitatively was required on the role of PLHIV speakers in educating future Doctors.

Methods: Two academics with expertise in research, data analysis and reports, PLHIV speakers and health promotion staff provided input in building the evaluation forms and how to make evaluation data readily understood.

Student and tutor evaluation forms were developed. Likert psychometric scales and qualitative questions assessed the impact of the speakers' personal narratives, understanding about HIV, AIDS, STI, personal sexual health and attitudes towards future medical practice.

Data analysis software was used for files, data entry, frequency tables and descriptive statistics.

Results: 207 students and six tutors completed the evaluation. The data showed PLHIV stakeholder presentations performed a crucial role in developing the skills and understanding of medical students about the disease complexity of HIV. Students were able to incorporate textbook studies into reality. Tailored presentations acknowledged student diversity and ethnicity.

Conclusion: This research provided evidence based knowledge on the effectiveness of PLHIV speakers. Quantitative and qualitative methodologies validated the role of enhancing future medical practice and a compelling case for the PLHIV speakers to continue in this university program.

Presentations were regarded as highly informative, dynamic mechanisms informing medical students of HIV positive patients' perceptions and insights into the lived experience of HIV.

PLWHA Victoria is funded by the Victorian Department of Health.

The Positive Speakers Bureau program receives unrestricted educational grants from Abbott Australasia, Merck Sharp & Dohme and Jansenn-Cilag.

No pharmaceutical grants were received in the development of this evaluation study

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV.

POSTER NUMBER: 55
PAPER NUMBER: 512

DIAGNOSIS OF ORAL AND CUTANEOUS KAPOSI'S SARCOMA IN AFRICA: CHALLENGES INVOLVING HISTOLOGY AND MOLECULAR DETECTION

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Introduction: Kaposi's sarcoma (KS), caused by HHV-8, is the most frequent HIV-associated malignancy worldwide and remains a major scourge in Sub-Saharan Africa. KS is endemic in Kenya (~5% of the total malignancies) but is often misdiagnosed based solely on H&E staining and clinical appearance. This study examined oral and non-oral KS biopsies from Kenya and attempted to resolve some misdiagnosed cases by using immunohistochemistry (IHC) and polymerase chain reaction (PCR) for HHV-8.

Methods: 49 KS biopsies (28 oral, 21 cutaneous) previously diagnosed as "KS" were examined by haematoxylin and eosin (H&E) staining and IHC targeting the HHV-8 LANA-1 protein (NCL-HHV8-LNA; Novacastra). Positive controls were sections from embedded BCBL-1 cell lines. Negative controls were from 3 different HHV-8-negative biopsies. Confirmation of HHV-8 IHC staining was sought by PCR targeting ORF73 and ORF26 and HHV-8 subtyping based on sequencing ORFK1.

Results: While most of the cases were correctly diagnosed, 11 oral and 4 cutaneous lesions displayed clinical and histological features of KS but were HHV-8 IHC negative. The differentiation of oral lesions between KS and pyogenic granuloma could only be determined via HHV-8 IHC. While PCR is usually helpful in differentiating HHV-8 disease, all samples were HHV-8 PCR positive of identical sequences, suggesting cross contamination of samples in the laboratory.

Conclusions: HHV-8 IHC is essential for the correct diagnosis of KS in Africa, but due to the high level of contamination PCR is inadvisable.

POSTER NUMBER: 56
PAPER NUMBER: 242

TRANSMITTED DRUG RESISTANCE AMONG RECENTLY HIV INFECTED PATIENTS

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Background: Transmitted drug resistance (TDR) has the potential to reduce the efficacy of antiretroviral therapies (ART) for HIV-positive people in need of life-sustaining treatment. This review investigated the correlation between TDR prevalence among individuals recently HIV-infected and the coverage and duration of ART programs in populations of these newly infected people.

Methods: We performed a systematic review of literature published in English available through the PubMed database using the search keywords 'HIV', 'transmitted/primary' and 'drug resistance'. Publications were selected if they reported the prevalence of TDR among treatment-naive adults who were recently infected and the study sample size was greater than 30. Pearson correlation tests were performed. Number of people harbouring TDR and the sample size in each article were collected. These were pooled for estimating the overall prevalence of TDR.

Results: Sixty-nine articles were analysed. The prevalence of TDR in different populations was significantly positively correlated with the duration of ART program ($r=0.64$, $p<0.001$) and ART coverage ($r=0.60$, $p<0.001$). The TDR prevalence in countries where ART has been widely accessible for over 10 years was significantly higher (12.9%, 95%CI: 12.3-13.5%) than the TDR prevalence in countries with less than 10 years of ART experience (6.4%, 95%CI: 5.5-7.3%). The prevalence of transmitted resistance to nucleoside reverse-transcriptase inhibitors was highest (7.4%, 95%CI: 6.9-7.8%) whereas resistance to non-nucleoside reverse-transcriptase inhibitors and protease inhibitors was under 5% (3.6%, 95%CI: 3.3-4.0% and 3.1%, 95%CI: 2.8-3.4%, respectively).

Conclusions: Significant correlations were found between the TDR prevalence and both ART duration and coverage. High TDR prevalence was observed in countries with long-term ART programs. Systems should be established to monitor the transmission of HIV drug-resistance in countries with over 10 years of ART implementation. There is also a need to procure second- and third-line ART regimens to treat the growing number of HIV-infected people with TDR.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 57
PAPER NUMBER: 248

"FIT AND FIRM": IMPLEMENTATION OF A SUPERVISED WALKING AND STRENGTH EXERCISE GROUP IN PEOPLE LIVING WITH HIV

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Background: Chronic HIV is associated with increased cardiovascular disease (CVD) risk and hyperlipidaemia. A lipid monitoring service (HAART to Heart) was developed to screen people living with HIV (PLHIV) who may benefit from dietary and exercise intervention to improve CVD risk status. In PLHIV, aerobic and resistance exercise is documented to improve body composition, total and HDL cholesterol. The "Fit and Firm" pilot program aimed to encourage regular and increased exercise participation through a supervised walking group (aerobic) and strength group (resistance). This program was designed to be complementary to the 'HAART to Heart lipid monitoring service'.

Methods: Interested PLHIV underwent screening for group exercise participation. This included a physical activity readiness questionnaire (PAR-Q), international physical activity questionnaire (IPAQ), exercise assessment and consultation. A walking and strength group was provided once per week, supervised by an exercise physiologist. The walking group walked in the local area for 60 minutes. The strength group undertook body weight and resistance band exercises, core exercises and stretching for 60 minutes.

Results: Twelve PLHIV were referred, of whom eight are currently participating in the supervised group exercise. Baseline physical activity levels measured from the IPAQ were low to moderate in the eight participants enrolled in this pilot program. Of these participants, 63% are undertaking the walking and strength group (n=5), 25% the walking group only (n=2), and 8% the strength group only (n=1). An evaluation of this program will be presented.

Conclusions: Participation in regular physical activity, such as a walking or strength exercise group may encourage increased physical activity, which may lead to to improved lipid profile and CVD risk status. A prospective trial of the impact of physical activity on lipid profile and CVD risk is required in PLHIV.

Disclosure of interest statement:

The HAART to Heart Lipid Monitoring Service is partially supported by Bristol Myer Squibb.

POSTER NUMBER: 58
PAPER NUMBER: 150

LONGITUDINAL FOLLOW UP OF AGEING HIV-INFECTED MALES: THE PREVALENCE OF METABOLIC SYNDROME, LIPODYSTROPHY AND CARDIOVASCULAR RISK: 12 YEARS ON, WHAT HAS CHANGED?

J.Price, I. Woolley, E. Paul, E. Ridley, I. Nyulasi, J. Hoy

Background: A cohort of 159 HIV-infected males was studied in 1998 to determine the prevalence of lipodystrophy. In 2010 subset of that cohort was sampled to explore the effects of ageing and changes in ART on the prevalence of metabolic syndrome, lipodystrophy and Framingham Risk Score 12 years later.

Methods: Thirty-four men from the original study were recruited to form the longitudinal cohort. Patients were examined in 1998 and 2010 using clinical data, anthropometry, dual energy X-ray absorptiometry, and questionnaire. Lipodystrophy was defined using the National Centre for HIV Epidemiology and Clinical Research definition. Metabolic Syndrome was defined using the National Cholesterol Education Program definition and Framingham Risk Score was calculated.

Results: With an additional 12 years in age, HIV duration and ART duration (38.5 vs 168 months) significantly higher CD4 cell count (427 vs 626 cells/µl), the prevalence of Lipodystrophy significantly declined (85.0% vs 47.0%) and 37% participants demonstrated reversal of lipodystrophy from 1998 to 2010. Despite an increase in weight, % total body fat, increased waist circumference and a diagnosis of diabetes (3% vs 14%) there was a trend to reduced prevalence of metabolic syndrome (47.1% vs 41.2%), whereas mean Framingham Risk Score slightly increased (10.2% vs 11.6%). Serum cholesterol (5.7mmol vs 4.9mmol) and triglycerides (2.4mmol vs 1.8mmol) improved, and rates of smoking (44.1% vs 18.1%) reduced. Use of protease inhibitor regimens (91% vs 56%) and thymidine analogue therapy (88.2% vs 3.0%) significantly declined with a concomitant increase in use of non nucleoside reverse transcriptase inhibitor regimens (23.5% vs 55.9%)

Conclusion: Despite increased age, duration of HIV infection and ART exposure, the prevalence of lipodystrophy and metabolic syndrome decreased whereas mean Framingham Risk Score increased in this longitudinal cohort. Possible explanations include change to metabolically "friendlier" ART, improved lipid and hypertension management and reduction in smoking rates.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 59
PAPER NUMBER: 151

LIPODYSTROPHY, IS IT STILL RELEVANT?

Price J, Woolley I, Paul E, Ridley E, Nyulasi I, Hoy J.

Background: The prevalence of lipodystrophy in Ambulatory Care clinics is unknown. Potent antiretroviral (ART) drugs with improved long term tolerability, the trend to earlier initiation of ART, combined with an aging HIV cohort have influenced the prevalence of HIV lipodystrophy. The aim of this study was to compare the prevalence and predictors of lipodystrophy using the same methodology used in 1998, when last evaluated in the HIV Ambulatory Clinic at Alfred Hospital, Melbourne, Australia.

Methods: One-hundred HIV-infected males underwent dual energy X-ray absorptiometry scanning, fasting lipids and completed a questionnaire in a cross-sectional study. Lipodystrophy was defined according to the Australian National Centre for HIV Epidemiology and Clinical Research definition. 2010 cohort data was compared to original 1998 cohort study. Predictors of lipodystrophy in 2010 were assessed using univariate and multivariate logistic regression.

Results: In 2010, despite a significantly higher mean age (51.8 vs 42.1*), HIV duration (157 vs 81*), ART duration (129 vs 38*) CD4 count (585 vs 304*) and waist circumference (95.5 vs 89.9*) the prevalence of lipodystrophy was significantly lower when compared to 1998; 53% vs 69% (p= 0.02). Current PI use (50% vs 92%*), stavudine (0% vs 53.8%*) and zidovudine (12% vs 26.8%*) use was significantly lower in 2010. Serum cholesterol (5.0 vs 5.6*) and triglycerides (1.7 vs 2.2*) were significantly lower in 2010. Predictors of lipodystrophy in 2010 were duration of HIV infection and level of LDL- cholesterol. Following multivariate analysis only level of LDL- cholesterol (OR: 2.65 CI: 1.4-4.9)* remained significant and tenofovir or abacavir use was associated with reduced risk of Lipodystrophy (OR: 0.096, CI 0.011-0.83)* *p<0.05

Conclusion: Despite ageing, longer HIV duration and ART exposure, prevalence of lipodystrophy over 12 years has significantly declined. In 2010 there is a significant reduction in current use of stavudine, zidovudine and protease inhibitor-based therapy with the availability of 'metabolically friendlier' ART.

POSTER NUMBER: 60
PAPER NUMBER: 312

PHARMACOKINETICS OF PLASMA LAMIVUDINE (3TC) AND ITS ACTIVE INTRACELLULAR ANABOLITE 3TC-TRIPHOSPHATE (3TC-TP) OVER A 24 HOUR DOSING INTERVAL FOLLOWING ADMINISTRATION OF 3TC 300 MG AND 150 MG ONCE DAILY TO HIV-NEGATIVE HEALTHY VOLUNTEERS.

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Background: Dose optimisation data for existing antiretrovirals are limited. To plan for larger scale trials, we determined the bioequivalence of plasma and intracellular concentrations of 3TC and its active metabolite (3TC-TP) following administration of two doses.

Material and Methods: Encore2 was a randomized crossover study comparing steady-state pharmacokinetics of plasma 3TC and intracellular 3TC-TP in peripheral blood mononuclear cells (PBMC). 24 HIV-negative volunteers (13 female) were randomised to receive 300mg then 150mg qd 3TC for 10 days (Arm1; n=13), or vice versa (Arm2; n=11); each phase separated by 10 days washout. Safety and 24hr pharmacokinetics were assessed on days 10 and 30. Plasma 3TC and intracellular 3TC-TP in PBMC were spectroscopically quantified. Pharmacokinetic parameters were calculated by non-compartmental modelling techniques and within-subject drug exposure evaluated by adjusted geometric mean ratios (GMR; 150mg/300mg) and 90% confidence intervals (CI). Pharmacokinetic variables were log transformed for analysis and back transformed for reporting. Regimens were considered bioequivalent if 90%CI for calculated GMR fell within the acceptance range of 0.8-1.25.

Results: All 24 participants completed per protocol. GMR (90% CI) plasma 3TC AUC24 (ng.h/mL), C_{24}, and C_{max} (ng/mL) were 8354 (7609-9172), 60.8 (53.4-69.2) and 1344 (1247-1448); 4773 (4408-5169), 38.1 (34.0-42.7) and 757 (688-833). Bioequivalence in plasma 3TC pharmacokinetic parameters (AUC_{24}, C_{24}, C_{max}) was not demonstrated: GMR (90%CI), 0.57 (0.55-0.60), 0.63 (0.59-0.67) and 0.56 (0.53-0.60). GMR (90%CI) intracellular 3TC-TP AUC_{24} (pmol.h/10^6 cells), C_{24}, and C_{max} (pmol/10^6 cells) were 59.5 (51.8-68.3), 1.49 (1.19-1.86) and 4.1 (3.59-4.69); 44.0 (38.0-51.0), 1.23 (1.0-1.52) and 2.95 (2.47-3.51). Bioequivalence in intracellular 3TC-TP pharmacokinetics (AUC_{24}, C_{24}, C_{max}) was not demonstrated: GMR (90% CI), 0.73 (0.64-0.83), 0.82 (0.68-0.99) and 0.70 (0.61-0.82)]. No serious adverse events related to study medication were recorded.

Conclusions: For key pharmacokinetic parameters, 150mg 3TC was not bioequivalent to the standard regimen (300mg), indicating that saturation of cytosine phosphorylation pathways was not achieved.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 61
PAPER NUMBER: 458

ASSESSING SITE PERFORMANCE IN A MULTINATIONAL CLINICAL TRIAL

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Background: Delayed study start-up can increase costs and time. To guide future decisions on site selection, we examined regional performance in the ALTAIR study.

Methods: ALTAIR was a 96-week, open-label, multinational clinical trial (n=322) of initial antiretroviral therapy. Metrics assessed include time from protocol release to ethics and regulatory submission and approval, time to first randomization, and actual versus estimated recruitment for each geographical region.

Results: 36 sites in 5 geographical regions participated in the study. Time from protocol release to ethics and regulatory submission ranged from median 53 (range, 27-114) days in Australia (10 sites) to median 212 (range, 99-241) days in Europe (7 sites). Time between protocol release and ethics and regulatory approval ranged from median 187 (range, 91-205) days in Australia to median 276 (range, 175-384) days in Europe.

Time between protocol release and first randomization ranged from median 282 (range, 250-313) days in Australia to median 408 (range, 314-475) days in Europe. Time between ethics and regulatory approvals and first randomization ranged from median 95 days in Australia to median 221 days in Asia (5 sites).

Actual recruitment was lower than estimated being 89% in Asia, 77% in Australia, 91% in Europe and 43% in North America; this was due to the smaller number of naïve adults in the latter three regions. Despite contractual and financial delays during start up, recruitment in Latin America (104%) exceeded the estimated number.

Conclusions: Target population availability and time to ethics and regulatory approvals influence recruitment; therefore feasibility assessments are critical to site selection. Time to ethics and regulatory approval may not limit site inclusion, if compensated by rapid recruitment. Identifying potential delays and methods of reducing them can decrease study time and costs.

POSTER NUMBER: 62
PAPER NUMBER: 596

CREATING NEW FORMS OF APPLIED THEATRE FOR HIV AND AIDS EDUCATION IN PAPUA NEW GUINEA

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This paper is part of my PhD research which examines the everyday indigenous performativity and theatricality of Papua New Guineans and harnesses it to create new forms of applied theatre for HIV and AIDS Education in Papua New Guinea. PNG is culturally diverse with more than 864 languages and over one thousand cultural performances. Papua New Guineans express their thoughts and emotions through oral literature and performance, however very little effort is made to capture this indigenous principles and values in current theatre activities in PNG thus this research aims to conduct an audit on PNG performances and harness it to create a new form of applied theatre for HIV and AIDS Education in PNG. This paper discusses the audit process of Kong-gar festival and employs how the elements and genres of this cultural practice could be harnessed to address HIV and AIDS crisis. Kong-gar is a complex pig killing production in the Highlands region of Papua New Guinea (PNG). The discussion includes how elements and structures of Kong-gar are analyzed using 'Process Drama' by O'Toole (1986) and Sechechner's 'Performance Theory' (1988) to determine the performance elements, structures, purposes and the context in which the performances are practiced, designed and staged. The outcome of the audit provides the foundation for the development of a new applied theatre and shows an intercultural technique of drawing specific cultural codes from within PNG performances and blends it with western applied performance techniques to create a new form of applied theatre that is culturally and linguistically appropriate and representative of PNG to address HIV and AIDS crisis.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 63
PAPER NUMBER: 314

DIETITIAN AND EXERCISE PHYSIOLOGIST INVOLVEMENT IN A POINT-OF-CARE LIPID SCREENING SERVICE: THE PATIENT PERSPECTIVE

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Background: The impact of human immunodeficiency virus infection and highly active antiretroviral therapy (HAART) on serum lipids and the risk of cardiovascular disease (CVD) are of increasing concern. Point-of-care (POC) lipid measurement offers 'on the spot' results and counselling whereas utilising hospital laboratories may result in a delay in initiation of treatment and care. "HAART to Heart" is a lipid monitoring screening service that administers POC testing, directly involves patients in their own care and provides individualised dietary and exercise intervention to optimally reduced their CVD risk profile. The aim of this study was to research patient satisfaction of the service.

Methods: A self administered questionnaire was developed based on a validated dietetic outpatient satisfaction survey. Questionnaire included: patient satisfaction with both the dietetic and exercise components of the program and changes in nutrition and exercise knowledge and behaviour.

Results: Patient satisfaction questionnaires were sent to 44 clients who attended the service between April–September 2010 with a 55% response rate (n=24). Patient satisfaction was very high for both the dietetic and exercise component of the program. Only 17% of patients prior to intervention program perceived that they had a large amount of knowledge about the risk factors of CVD, but this increased to 64% after attending the service. The majority of patients reported that they had changed their diet (87%) and exercise (78%) habits.

Conclusions: Overall satisfaction with the service was high. The lipid screening program using POC testing has enabled patients to engage health professionals at the point of receiving their CVD risk results which may have led to improved patient understanding, sense of urgency and compliance. The model has the potential to form a suitable template for similar approach for people living with HIV at risk of CVD to improve health and wellbeing.

POSTER NUMBER: 64
PAPER NUMBER: 294

CHARACTERISTICS OF LOSS TO FOLLOW UP PATIENTS IN THE ERA OF HAART: STUDY AT EDELWEISS CLINIC DR SARDJITO HOSPITAL YOGYAKARTA

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Background: The increasing number of HIV - AIDS in Indonesia is a mayor problem for public health practice. Implementation of antiretroviral treatment in Indonesia has been carried out before '3 by 5' initiative. However number of loss to follow up still high since then, through this study we tried to know patients characteristic for those who tend to failed on their follow up.

Methods: Data taken from patients register and other sources. Data collected include socio-demographic data, clinical data, antiretroviral regimens, and time when patients do not come to visit the clinic to take the drug. Medical records that are not completed will not be used in this study.

Results: From 552 HIV-infected patients, 480 (86.96%) are eligible to have antiretroviral drugs and 467 (84.6%) of it have had ART. From those who had HAART , 162 people (34.68%) were failed to follow-up. 87 (53.7%) patients who loss to follow up were male and 75 (46.3%) were female. The productive age group (25-49 years) was the highest cases of loss to follow up. Loss to follow up was likely happen 24 months after starting therapy(37.2%) , and less likely happen< 2 weeks after starting therapy (7.88%).

Conclusion: We need to build commitment to patients and families to increase patients compliance to take medications consistently.
Keywords: HIV / AIDS, adherence, failure to follow up, antiretroviral therapy.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 65
PAPER NUMBER: 552

HIGHLY ACTIVE ANTIRETROVIRAL THERAPY INDUCED DRUG-DRUG INTERACTIONS IN INDIAN HUMAN IMMUNODEFICIENCY VIRUS POSITIVE PATIENTS

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Objective: The aim of this study was to determine the incidence, pattern and to identify risk factors for possible drug-drug interactions (DDIs) in human immunodeficiency virus positive patients with antiretrovirals (ARVs) in an Indian tertiary care teaching hospital.

Methods: A prospective case control study was performed for monitoring drug-drug interactions to antiretroviral therapy during hospitalization from August 2009 to March 2010. Possible DDIs found were classified according to Tatro. The prescription of each enrolled patient during hospitalization was reviewed and analyzed by a graduate trainee clinical pharmacist for possible drug-drug interactions based on line stockley's drug interactions 9th edition, micromedex on line drug reference, Martindale the complete drug reference. The possible DDIs found were classified according to a clinical significance rating expressed as a number assigned to each DDI based on the onset, severity and documentation. Multivariate logistic regressions were used to identify the risk factors for DDIs.

Results: The data consisted of 118 hospitalized HIV patients with ARV prescriptions. Out of which 175 DDIs were detected involving 77 patients. The overall incidence rate of DDIs was 65.2% and Pharmacokinetic DDIs was the most commonly observed DDIs. 'Minor' and 'moderate' drug-drug interactions accounted for 50.8% and 26.9% respectively. A maximum of six DDIs was reported from a single patient. Most of the patients who developed DDIs were receiving more than nine to eleven drugs at the time of experiencing DDIs. Polypharmacy, tuberculosis and Syphilis were observed as risk factors for DDIs.

Conclusion: The increase in use of newer antiretrovirals in India increases the risk for drug interactions and complicates their management on HIV/AIDS. It is therefore recommended that clinicians must focus to detect potential DDIs at time of prescription of ARVs to ensure better patient care.

Conflict of interest statement

The authors declare that they have no conflict of interests.

POSTER NUMBER: 66
PAPER NUMBER: 518

HIV AND AGEING IN QUEENSLAND: 2011

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Background

An increased focus has been given to the impact of ageing for patients with HIV (PLHIV). Many factors have been suggested to impact upon apparent 'accelerated' ageing in PLHIV including viral, antiretroviral, behavioural and social. Significant changes at the level of individual patient care, clinic care and the wider health care system may be required if the impact of 'accelerated ageing' is significant. It is uncertain how much of the pathology identified in previous studies is due to HIV; to antiviral therapy; to ageing itself or to unmeasured confounding factors. Psychological and psychiatric illness and concerns associated with social isolation also feature in surveys of PLHIV conducted in other locations. Most data is derived from cohorts outside of Australia. Little is known about the impact of ageing for patients with HIV in Australia. Difficulties in adequately matching control groups also contribute to this uncertainty. The Queensland 2010 HIV Clinicians Meeting endorsed a review of this issue in contemporary Queensland.

Method

A working group was formed to examine the impact of ageing for patients with HIV in Queensland following the 2010 HIV Clinicians Meeting. This group was multidisciplinary and represented clinics across the state.

Result

Three studies have been proposed. A survey employing qualitative methods of patients with HIV (and their HIV uninfected peers) and clinicians caring for patients with HIV to describe the perceptions of the impact of ageing; a needs analysis survey of aged care facilities; a quantitative study enumerating rates of co-morbidities and predicted ageing illness compared with the general Australian population. The first two studies have received ethics committee approval. Plans of the three studies were presented at the 2011 Queensland HIV Clinicians Meeting.

Conclusions

Three studies addressing different aspects of the impact of ageing on Queenslanders with HIV have been developed following the formation of a working group endorsed by the Queensland HIV Clinicians Meeting. The results will be available over the course of the next 12 months.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 67
PAPER NUMBER: 300

THE RELATIONSHIP BETWEEN ADHERENCE TO CLASS-SPECIFIC ANTIRETROVIRAL THERAPY AND HIV DRUG RESISTANCE MUTATIONS

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Background: Evidence from various studies show that adherence levels of HIV patients to antiretroviral therapy (ART) influence their risk of developing mutations conferring drug resistance. We study the risk of acquiring drug resistance mutations (DRMs) to class-specific ART based on available data reported in peer-reviewed literature.

Methods: We conducted a systematic review to identify studies that report the number of ART-naïve patients starting therapy who develop DRMs based on duration of treatment and their adherence levels. Patients on ART regimens of the same drug class were pooled into groups to calculate the proportion of patients with DRMs. We defined adherence categories as low (<70%), moderate (70-90%) and high (≥90%). Chi-squared tests were used to detect any significant risks in developing DRMs across regimen categories, estimated adherence categories and treatment duration categories.

Results: We found 18 papers that satisfied our search criteria. Among moderately adherent patients, 38.9% (95%CI: 33.4-44.7) of those treated with NNRTI-based regimens for more than 2 years developed DRMs, and 74% (95%CI: 53.7-88.9) of people treated with single PI-based regimens for less than one year developed DRMs. Among highly adherent patients treated for at most 1 year, a seven-fold risk of developing DRMs was detected for patients in single PI-based therapy, at 21.8%, compared to 3.2% in NNRTI-based regimens (p <0.001).

Conclusions: Our review found that having moderate adherence (70-90%) to NNRTI-based triple therapy for more than 2 years and single PI-based triple therapy imposes a significant risk for developing DRMs.

POSTER NUMBER: 68
PAPER NUMBER: 128

THE 5 YEAR SAFETY AND EFFICACY OF THE ONCE DAILY ANTIRETROVIRAL-NAÏVE PATIENT REGIMEN OF EFAVIRENZ (EFV)/EMTRICITABINE (FTC)/TENOFOVIR DISOPROXIL FUMARATE (TDF)

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Background: The goal of highly active antiretroviral therapy (HAART) is to suppress HIV RNA to undetectable levels over many years and is primarily dependent on adherence, which is aided by using a once daily regimen with good tolerability and low pill burden. In Study 934 the time to discontinuation for the twice daily regimen of EFV qd + zidovudine/lamivudine (AZT/3TC) bid was significantly shorter than for the once daily regimen (EFV+FTC+TDF) (p=0.003). Herein are the 5 year safety and efficacy data for this once daily regimen.

Methods: 160 subjects (89% male, 64% white, mean age 41 yrs) in Study 934 originally randomized to the once daily regimen of EFV+FTC+TDF who completed 144 weeks agreed to switch to the single tablet formulation (EFV/FTC/TDF) and remain on study for an additional 96 weeks for a total of 240 weeks.

Results: At baseline (BL), mean HIV RNA= 5.03 log10 c/mL, mean CD4 count= 243 cells/mm3, and 88% had symptomatic HIV or AIDS. After 240 weeks of follow-up: 87% had HIV RNA <400 c/mL and 84% <50 c/mL (M=F); mean CD4 cell increase from BL= 346 cells/mm3. The mean (range) adherence rate was 97% (83-100%). Seventeen subjects discontinued EFV/FTC/TDF: withdrew consent (6); lost to follow-up (5); adverse events (2: osteoporosis (1) and anal cancer (1)); incarceration (2); non-adherence (1); and relocated (1). No patient discontinued due to renal adverse events. Mean change from BL in estimated glomerular filtration rate (e-GFR) by Cockcroft-Gault was -7 mL/min (Mean BL e-GFR, 129 mL/min).

Conclusion: Through 240 weeks, the once daily HAART regimen of EFV+FTC+TDF (dosed as single tablet regimen, EFV/FTC/TDF, from Week 144-240) demonstrated durable antiretroviral efficacy and immunologic recovery in antiretroviral-naïve patients. The decline in e-GFR was mild and not clinically significant.

DISCLOSURE OF INTEREST STATEMENT:
This study was funded by Gilead Sciences Inc. Foster City, California, USA

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 69
PAPER NUMBER: 331

ENHANCING SUSTAINABILITY BY SUCCESSFULLY ENGAGING MAINSTREAM PROVIDERS AS HIV PREVENTATIVE HEALTH PARTNERS

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Background: The Allied Health and Nursing staff of the HIV Service, John Hunter Hospital, developed a program of exercise and education to highlight the importance of health maintenance for people living with HIV (PLHIV) called Energize Healthywise (EH).

Methods: A pre-program survey indicated local PLHIV choices for exercise and educational content including a preference for the program to be held outside of the hospital setting. Site visits to external agencies conducting similar programs were undertaken to evaluate their lessons learned. We liaised with mainstream providers to develop elements of the program essential for ongoing health maintenance once the formal program was complete. Allied health and nursing staff were responsible for program delivery and the provision of education sessions.

Results: Energize Healthywise successfully engaged the Heart Foundation's *Heartmoves* and a local gym, to provide the exercise component during the program. PLHIV attended Heartmoves classes alongside the general public. For PLHIV deemed to have a serious cardiovascular risk the Cardiac Rehabilitation Nurse conducted cardiac assessments and supervised gentle exercise prior to approval to join the main group. Ten PLHIV initially signed up for the program. All participants who were deemed physically able to undertake exercise attended every Heartmoves exercise session over eight weeks. Each of these participants signed up for a three month membership with the same gym for ongoing exercise after the EH program was completed. Education sessions held at a community PLHIV venue were well attended by all participants including PLHIV not enrolled in EH.

Conclusion: A number of services across Australia have conducted preventative health programs for PLHIV. For ongoing sustainability, our program has been able to successfully engage mainstream external providers whose primary focus is exercise and heart health, to assist the HIV unit staff to facilitate long term health maintenance beyond the structured program.

POSTER NUMBER: 70
PAPER NUMBER: 511

WE SHOULD ENCOURAGE SEX WORKERS' TO USE CONDOM TO PREVENT HIV/AIDS. MR TAPAS SAHA

Nari Mukti Sangha

Issue :

i) Condom promotion, demonstration and distribution.

ii) To extreme technical services to the STD affected sex workers' through clinical support services.

Project :

Nari Mukti Sangha is purely non-political and solely sex workers' organization. Its aim is to establish the social, legal and human rights in the society and also women empowerment. It is involved to reduce STD/HIV/AIDS through awareness development and other intensive support services like STD clinic inside of the brothel.

Arrange awareness session on sex education, Group session, One to one session about safer sex and use of condom.

Result :

After working in this issue, social consciousness of sex workers' will increase rapidly and use of condom will increase. As a result HIV/AIDS will be protecting.

Lessons Learned :

We can protect HIV/AIDS 90%, If we are able to use of condom 100%

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 71
PAPER NUMBER: 421

THE CHARACTERISTICS OF HIV-POSITIVE ADULTS WITH AND WITHOUT DIAGNOSES OF MALIGNANCY ATTENDING THE HIV CLINIC AT ST. VINCENT'S HOSPITAL, SYDNEY, AUSTRALIA.

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Background: HIV-positive adults are recognised to be at increased risk of developing malignancies, compared to the general population. Immunosuppression and other oncogenic mechanisms, such as chronic viral infections and smoking have been identified as major risk factors in the development of such malignancies.

Previous studies in Australia were based on registry linkage and thus lack many individual-level data points on factors such as antiretroviral treatment, co-infections and immune status markers. Here we describe the demographic, immunological, and clinical characteristics of HIV-positive adults diagnosed with malignancy over the period 2000-2009.

Methods: A nested Case-Control study within the HIV cohort attending HIV clinic at St. Vincent's Hospital. Cases were defined as HIV-positive adults with any diagnosis of malignancy, and controls as HIV positive adults without malignancy from the same hospital database attending within the same year. Demographic, immunological, and clinical characteristics data were then collected from patient records.

Results: A total of 287 malignant diagnoses were identified with 574 randomly-selected controls. AIDS-defining and non-AIDS-defining malignancies represented 70.4% and 29.6% respectively. Median age at time of HIV diagnosis was 33 years, and MSM was the most common risk behaviour (84%) with no significant differences between cases and controls. Immunosuppression, expressed as nadir, median or most recent CD4 count, was significantly more prevalent amongst cases than controls (Mann-Whitney U, $Z=-4.9$, $p<0.005$), ($Z=-7.9$, $p<0.005$) and ($Z=-9.5$, $p<0.005$) respectively. Furthermore, median HIV viral load was significantly higher amongst cases (MWU, $Z=-7.9$, $p<0.005$). However, neither CD8 nor smoking were significantly different for cases and controls (Median CD8: $Z=-0.1$, $p=0.9$, Smoking: $X2=4.5$,$df=2$, $p=0.1$).

Conclusions: immunosuppression and unsuppressed HIV replication still represent the most common risk factors for cancer development amongst HIV-positive adults during the established-HAART era.

POSTER NUMBER: 72
PAPER NUMBER: 278

INPATIENT REHABILITATION OF HIV POSITIVE INDIVIDUALS: AN AUDIT OF PROCESS AND OUTCOMES

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The Victorian HIV Consultancy (VHIVC) is a multidisciplinary team with a major role in care planning and co-ordination of individuals with advanced HIV disease including dementia, ageing and other complex care needs. The team has developed a model of care for HIV positive individuals with high level care needs and has presented this model previously. As part of its complex care program the VHIVC team routinely reviews all HIV positive individuals transferred from acute or subacute services of The Alfred to inpatient rehabilitation facilities. In response to increasing numbers of such transfers an audit was undertaken, examining the outcomes of 14 patients who underwent 20 transfers to various metropolitan rehabilitation facilities over the past three years.

The patient group was older (average age 60) with a high likelihood of prior AIDS diagnosis (11/14). Cognitive impairment and psychiatric illness were common. There was a high rate (45%) of unplanned readmissions to either acute or subacute beds at The Alfred; the reasons for this and subsequent outcomes will be examined. The ultimate discharge destination was found to be home (defined as place of residence prior to rehabilitation admission) for 10 of the 14 individuals. The outcomes for the remaining 4 individuals and the challenges in negotiating care for individuals who do not meet aged care and other criteria will be discussed.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 73
PAPER NUMBER: 530

HIV AND PSORIASIS – CLINICAL FEATURES AND TREATMENT STRATEGIES

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Skin conditions including widespread psoriasis can be the presenting feature of HIV infection and HIV testing in these patients should be considered.

Psoriasis is a disorder of the skin, which classically presents with symmetrical erythematous silvery scaled lesions on the extensor surfaces, however other forms such as flexural, scalp, nail, and guttate psoriasis, with or without psoriatic arthritis also occur. Sebo-psoriasis (seborrhoeic dermatitis with psoriasis like features) is particularly common in people with HIV infection, maximally affecting the flexures, anterior chest, paranasal folds, behind the ears, as well as the scalp and beard area

Psoriasis occurs in 1-2% of the population with debate as to whether this is increased in people with HIV. It is known however that severe psoriasis can present for the first time in people with moderately advance HIV, but with very advanced HIV, the psoriasis may paradoxically improve.

Important differential diagnoses, especially for guttate psoriasis include secondary syphilis, but Reiters disease and medication reactions may need to be considered.

Treatment includes general measures such as reducing alcohol intake, weight reduction, and reducing trauma to the skin. Commencement or optimization of HAART regimes, is an important part of the treatment strategy, although cases of exacerbation following commencement of HAART as part of as an immune reconstitution inflammatory syndrome have been reported.

Treatment includes topical therapies such as corticosteroids, daivonex (a vitamin D analog), and topical tar/salicylic acid preparations. Optimising treatment for seborrhoeic dermatitis with anti malassezia therapies can be important. Additional therapies include UVB phototherapy, and acitretin. Other immunosuppressive therapies, including methotrexate, cyclosporine and the newer biologic agents should be avoided if possible, due to the combined immuno-suppressive effects of these agents and the HIV virus.

POSTER NUMBER: 74
PAPER NUMBER: 401

ZERO RATE OF MOTHER-TO-CHILD HIV TRANSMISSION WITH VAGINAL DELIVERY AS THE PREFERRED MODE OF DELIVERY IN THE 'HAART ERA': THE WESTERN AUSTRALIAN EXPERIENCE

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Pregnancies in diagnosed HIV infected women in Western Australia are managed by a multi-disciplinary team, with obstetric care delivered at one hospital (King Edward Memorial Hospital). The cornerstones of therapy remain an individually designed HAART regimen determined by resistance testing profiles; vaginal delivery for all women whose HIV RNA viral load is <1000 copies/ml just prior to delivery (unless obstetric considerations preclude it); abstinence from breast feeding; provision of antiretroviral therapy to the infants for 4-6 weeks.

Of these interventions, the preference for vaginal delivery remains the most controversial.

Data exists for the outcomes of all pregnancies managed by the multi-disciplinary team since 1991. We undertook a retrospective, observational study to explore the impact of our management strategy, particularly the preference for vaginal delivery, on the incidence of mother-to-child transmission in this cohort.

We examined all pregnancies from 1998-2010.The major inclusion criteria was a recorded HIV RNA viral load available within 4 weeks of delivery. We were particularly interested in the mode of delivery.

60 pregnancies were reviewed. There were 70 live births. Of those, there were 56 vaginal deliveries, and 14 caesarean sections.

All babies received antiretroviral therapy, and were tested for HIV by PCR methods on at least 2 occasions. No mother's breast fed their babies.

During the study period, there were no managed pregnancies that resulted in HIV transmission to an infant.

It is encouraging that the findings from this small observational study suggest that it is possible to offer vaginal delivery, in concert with optimal management of HIV infection in pregnant women, and achieve no perinatal transmission of HIV.

No pharmaceutical grants were received for this study.

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 75
PAPER NUMBER: 191

THE FIRST DESCRIBED CASE OF STREPTOBACILLUS MONILIFORMIS SEPTIC ARTHRITIS AS AN INITIAL PRESENTATION OF HIV INFECTION: A REVIEW OF SEPTIC ARTHRITIS IN HIV INFECTED PATIENTS

Authors: Chean R, Stefanski DA, Korman TM, Francis MJ, Woolley IJ

Background:

Rheumatic complaints occur in up to 40% of HIV infected patients. Septic arthritis contributes a small but significant proportion to this of up to 4%. Despite the potential for causing significant mortality and morbidity, septic arthritis in the HIV patient is poorly described. Importantly, it is rarely encountered as a first presenting illness of HIV infection. Whilst synovial fluid analysis and culture, alongside peripheral blood cultures remain the gold standard investigations in septic arthritis, the proportion of culture-negative septic arthritis is not insignificant in both the general and the HIV-infected population. New molecular methods are novel means of investigation that assist in diagnosing culture-negative infections of sterile sites including septic arthritis. As well, the high rates of pet ownership amongst HIV infected patients also brings into the equation of increasingly rare causes of septic arthritis.

Case:

We present a case of a young ex-intravenous drug user, man-who-has-sex-with-man (MSM) who presented with a case of febrile illness associated with monoarticular right knee septic arthritis as a first presenting illness of HIV infection. Importantly, he had rats as pets and was bitten by one of them a month prior to presentation. Initial conventional bacterial blood and synovial cultures did not yield an aetiological diagnosis. The subsequent use of 16s rRNA on knee synovial fluid eventually led to a definitive diagnosis of septic arthritis due to the cause of rat bite fever, *Streptobacillus moniliformis*.

Conclusion:

We will discuss the epidemiology and investigations of septic arthritis with special attention on the HIV population, and the use of new molecular methods of investigation. We will also attempt to bring into focus the potential zoonotic diseases related to pet ownership. Physicians caring for HIV-infected patients need to be vigilant for rare causes of septic arthritis.

POSTER NUMBER: 76
PAPER NUMBER: 138

SWIFT STUDY: SWITCHING FROM LAMIVUDINE/ABACAVIR (3TC/ABC) TO EMTRICITABINE/TENOFOVIR DF (FTC/TDF) IMPROVED FASTING LIPID PARAMETERS WHILE MAINTAINING VIROLOGIC SUPPRESSION

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Background: In prior treatment naïve and experienced studies, use of TDF has been associated with more favorable lipid profile. There are limited data on the impact of switching from fixed-dose 3TC/ABC to FTC/TDF, particularly in older HIV+ subjects.

Methods: Prospective, multicenter, randomized 48 week study to evaluate the safety and efficacy of switching subjects from 3TC/ABC to FTC/TDF. Subjects receiving 3TC/ABC + PI/r with HIV RNA < 200c/mL [3] 3 months were randomized (1:1) to either continue 3TC/ABC or switch to FTC/TDF, with PI/r unchanged. Subjects were stratified by PI/r (LPV/r vs. other) and co-morbidities (CV disease, DM, hyperlipidemias). Fasting lipid profile and 10 year Framingham scores were evaluated though Week 48.

Results: 311 subjects were treated (FTC/TDF 155, 3TC/ABC 156). Baseline characteristics were similar between arms: 85% males, median age 46 years, 72% with comorbidities, and 47% taking lipid-lowering agents. No differences in early discontinuation rates (11%) or percents of subjects with adverse events were observed between arms. Through Week 48, FTC/TDF was non-inferior to 3TC/ABC by TLOVR (86.5% vs 83.3% HIV RNA <200 copies/mL), with lower rate of virologic failure in FTC/TDF vs 3TC/ABC (2% vs 8%; p=0.033). At Week 48, FTC/TDF compared to 3TC/ABC showed greater declines in fasting LDL (median change -0.18 vs 0.05 mmol/L; p=0.007) and TC (-0.54 vs -0.08 mmol/L; p<0.001), with significant declines beginning at Week 12. According to NCEP thresholds; 61.5% on FTC/TDF vs 44.6% on 3TC/ABC had TC<5.2 mmol/L and 55.6% vs 41.0% had TG<1.69 mmol/L. Mean (SD) change in 10 year Framingham scores were -1.2 (4.4) and -0.3 (4.0) for FTC/TDF vs 3TC/ABC (between arms p=0.22; within arms p=0.006 for FTC/TDF and p=0.40 for 3TC/ABC).

Conclusion: In older HIV+ population with comorbidities, switching subjects from 3TC/ABC to FTC/TDF maintained virologic suppression with improved lipid parameters and Framingham scores.

DISCLOSURE OF INTEREST STATEMENT:

This study was funded by Gilead Sciences Inc. Foster City, California, USA

THEME B: MANAGING HIV: CLINICAL MANAGEMENT AND THE LIVED EXPERIENCE OF HIV

POSTER NUMBER: 77
PAPER NUMBER: 129

THE 10 YEAR SAFETY AND EFFICACY OF A TENOFOVIR DISOPROXIL FUMARATE (TDF) –CONTAINING ONCE-DAILY HIGHLY ACTIVE ANTIRETROVIRAL THERAPY (HAART)

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Background: Study 903 was a Phase III randomized double-blind (DB) 3 year study comparing TDF to stavudine (d4T) each in combination with lamivudine (3TC) and efavirenz (EFV) in HIV-1 infected antiretroviral naïve patients. TDF was associated with durable efficacy and safety (better lipid profile, and less lipodystrophy and peripheral neuropathy). A subset of these patients now provides 10 years of longitudinal efficacy and safety data of TDF-containing once-daily HAART.

Methods: Subjects in Argentina, Brazil, and the Dominican Republic who completed the 3 year DB period of study were eligible to roll-over into an open-label (OL) study (Study 903E) of the once-daily HAART regimen, TDF+3TC+EFV. At OL baseline, 86 subjects previously receiving TDF in the DB study were randomized to continue to receive TDF (62% male, 70% white, mean age 33 yrs). At OL baseline, 85 subjects were switched from d4T to TDF (60% male, 64% white, mean age 37 yrs). The results reflect only the period of TDF exposure.

Results: Duration of exposure to TDF was 480 weeks for patients continuing TDF and 336 for those switched to TDF. HIV RNA < 50 (copies/mL) at Week 480 (ITT, Missing = Failure) was 63% and 64% respectively. HIV RNA < 50 (copies/mL) at Week 480 (ITT, Missing = Excluded) was 92% and 96% respectively. Change in mean (SD) CD4, was +545 (237) and +180 (290) cells/mm^3, respectively. Change in mean (SD) in estimated Creatinine Clearance (Cockcroft-Gault equation), was +2.5 (23.4) and -10.7 ml/min (22.6). Median limb fat at year 10 was 10.4 and 7.5 kg, respectively.

Conclusion: Antiretroviral-naïve subjects who received TDF-containing once-daily HAART for up to 10 years demonstrated sustained virologic and immunologic benefit, improved limb fat, stable renal function, and their BMD remained stable after a clinically insignificant decrease that occurred during the first year of TDF therapy.

DISCLOSURE OF INTEREST STATEMENT:

This study was funded by Gilead Sciences Inc. Foster City, California, USA

POSTER NUMBER: 78
PAPER NUMBER: 87

LOSS TO FOLLOW-UP IN HIV-INFECTED PATIENTS UNDER CLINICAL CARE IN THE ASIA-PACIFIC REGION

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Background: Studies of loss to follow-up (LTFU) are important for patient care and the evaluation of HIV treatment programs, especially in resource-limited settings. This study was to examine the characteristics of HIV-infected patients from Asia-Pacific who were LTFU in treatment and care in the TREAT Asia HIV Observational Database (TAHOD).

Methods: Days between the latest clinic visit and 31 March 2009 were used to determine the interval that best classifies LTFU. Predictors of LTFU were assessed by mixed-effects Poisson regression models. Patients who were LTFU were then categorised into true LTFU (no more visits) and temporary LTFU (re-entered later). Mixed-effects logistic regression models were used to compare the patients who were considered true and temporary LTFU.

Results: total of 3626 patients were included in the analysis (male 71%). An interval of 180 days between the latest clinic visit and 31 March 2009 was determined the best-performing LTFU definition (sensitivity 90.6, specificity 92.3). Over 7697 person-years, 1648 episodes of LFTU were recorded (21.4 per 100-person-years, 95% confidence interval, 20.4~22.5). Rates of LFTU were higher in younger patients (p=0.002), patients with HIV viral load ≥ 500 copies/mL or no tests in recent 180 days (p=0.021), patients with shorter history of HIV infection (p=0.048), and patients receiving no, single- or double-drug antiretroviral therapy, or a triple-drug regimen containing protease inhibitor (p<0.001). Approximately 48% patients who were LTFU never came back; they were more likely to have low haemoglobin or without a recent test (p<0.001), have no recent HIV viral load tests (p<0.001), and test negative for hepatitis C infection (p=0.025).

Conclusions: Our data suggests that patients with shorter HIV infection history, poorer response to antiretroviral treatment, infrequent or no clinical monitoring were at higher risk of LTFU. Further studies should measure the effect of LTFU on treatment response, disease progression, and survival.

Disclosure of interest statement

No pharmaceutical grants were received in the development of this study.

The TREAT Asia HIV Observational Database is part of the Asia Pacific HIV Observational Database and is an initiative of TREAT Asia, a program of amfAR, The Foundation for AIDS Research, with support from the National Institute of Allergy and Infectious Diseases (NIAID) of the U.S. National Institutes of Health (NIH) as part of the International Epidemiologic Databases to Evaluate AIDS (IeDEA) (grant no. U01AI069907), and from the Dutch Ministry of Foreign Affairs through a partnership with Stichting Aids Fonds. The Kirby Institute is funded by the Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, The University of New South Wales.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 79
PAPER NUMBER: 397

100 MSM ON NPEP – FACTORS INFLUENCING BEHAVIOUR

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Background

NPEP is widely used by men who have sex with men (MSM) in Victoria following an HIV exposure, however there are still many things not well known about this patient group. Understanding why MSM present for NPEP following one potential exposure and not another, and why some fail to attend for follow up testing after a significant risk exposure is important and may help to improve NPEP service delivery and stimulate ideas for more effective ways of increasing follow up HIV testing rates.

Methods

All MSM who commenced NPEP through the Victorian NPEP Service between May 2009 and June 2010 were asked if they would complete a survey at the conclusion of the 12 week follow-up period. A link to the online survey was sent to participants by email. A paper survey was available to be sent to those without access to the internet. The survey was a combination of structured and open-ended questions.

Results

125 MSM were recruited into the study and 100 MSM completed the survey. 38 participants thought that they may have previously needed NPEP but not taken it. Factors influencing this decision included lack of time, difficulty accessing NPEP, fear of side effects and physician assessment. Only 56 participants indicated that they had an HIV test at week 12. Lack of time, forgetting, thinking that NPEP had prevented HIV infection and finding out their source was negative were influencing factors. The majority of those who did not receive a follow-up reminder would have found an SMS reminder to be of most benefit.

Conclusion

Although those who present for NPEP are generally well informed, there still appears to be a lack of knowledge about risk of HIV transmission, ability to access NPEP and importance of follow up HIV testing. The service will explore increasing the use of SMS reminders to improve rates of follow-up.

POSTER NUMBER: 80
PAPER NUMBER: 430

AIDS IS AROUND US, BUT WE DON'T KNOW IT FOR SURE: VIEW OF PEOPLE IN DENPASAR, BALI, 2010

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Background: The reported case prevalence of HIV and AIDS in Bali is the second highest in Indonesia. Several programs have been put in place that mainly targets the high risk groups, although some actions toward the broader population such as education have been taken. The study aims to explore the awareness and perception of people in Denpasar toward HIV/AIDS and its related programs.

Methods: The study applied qualitative methods; six focus group discussions (FGDs) were conducted including FGD with youth from school and youth from a youth organization (*sekehe teruna*), FGDs included adult male and female groups that were classified by education level. The data were analyzed qualitatively through content analysis.

Result: Most of the respondents were aware that HIV cases are increasing; they found out through media, school, and word of mouth. Respondents with higher education levels and working in the formal sector had greater awareness about HIV and also about programs for HIV prevention compare to those who had lower education. The most common HIV prevention method that had been heard about was condom promotion and education. Women and men from lower education levels said that they were rarely exposed to health education programs about sexually transmitted infections and HIV.

Conclusions: HIV and AIDS is an issue for the community; however, there is still a lack of knowledge about HIV especially among communities that are not working in the formal sector. Health education focusing on HIV should be expanded to reach out beyond the high risk groups and be expanded beyond school or the formal work sector.

Key word: HIV and AIDS, Awareness, HIV Program

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 81
PAPER NUMBER: 429

TYPES OF STI AMONG PATIENTS WHO VISIT A CLINIC AT THE LARGEST TRADITIONAL MARKETIN DENPASAR, BALI

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Background: While the reported case rate of HIV and sexually transmitted infections (STI) among high risk groups in Bali is high, there is little information on case rate among low risk groups or the general population. This study aims to describe the type of STI among patients who visit Rama Sesana Foundation (YRS) Reproductive Health Clinic at the largest traditional market in Denpasar that mainly serves market visitors, workers and vendors.

Methods: This descriptive study analyzed secondary data routinely collected from the YRS clinic from 2005 to 2010. The diagnosis of STI was defined through physical examination and laboratory test. The data were analyzed using Microsoft excel.

Results: The most common STI was Suspected Chlamydia; the prevalence was greater than 10% across each year, except for 2006 which was 8% (517/6302). Prevalence of gonorrhea fluctuated from less than 1% to over than 2%. Trichomoniasis cases prevalence ranged between 1.0% in 2005 to 0.3% in 2008. The least common STI was genital warts with prevalence mostly lower than 0.5 % across the years.

Conclusions: The prevalence of STI among clinic visitors is high, especially suspected Chlamydia. The routinely collected data used for this study would be more accessible and readily used if an appropriate electronic database was established. This would allow ongoing monitoring of STI cases and further analysis of the data to inform local practice and policy. Further exploration on recurrence and risk behavior is essential for better treatment and prevention efforts.

Key word: STI, Chlamydia, Gonorrhea, Reproductive Health Clinic

POSTER NUMBER: 82
PAPER NUMBER: 267

RISK AVERSE TO LIFE AS RISK – UNDERLYING PERSPECTIVES OF SEX AND RISK AMONG GAY MEN IN THE PASH STUDY

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Background: Understanding risk perspectives of different gay men, and why there are often unclear associations between knowledge, experience and behaviour, may assist in enhancing the engagement and targeting of gay men concerning HIV transmission.

Methods: Pleasure and Sexual Health was an online survey of 2306 Australian gay men recruited during mid-2009, including free text components, complemented by 40 in-depth interviews to explore the rationalizations and motivations that underlie these perspectives beliefs pleasure, desire and risk.

Results: Drawing on both the quantitative and qualitative data, it was possible to identify three broad perspectives on how the men responded to sex, pleasure and risk: Risk averse, Risk negotiable, and Life as risk.

When mapped against groups of gay men in different HIV related risk categories, such as those in serodiscordant relationships; men identified as sexually adventurous; or men who occasionally 'slip up' but mostly use condoms, it was found that the perspectives were present across all these groups, but to varying degrees, and their implications may be very different for men in each of these groups. Knowledge and experience appeared to be accommodated into pre-existing risk perspectives.

Conclusion: How different gay men describe their own beliefs about HIV risk may involve qualitatively different kinds of responses to the balance between risk and pleasure: Such beliefs may be more influenced by their own, pre-existing perspectives on pleasure and risk, than their knowledge and experience of HIV alone. This has important implications for the implementation of HIV prevention strategies.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 83 PAPER NUMBER: 521

THE FIELD RESEARCH TRAINING PROGRAM (FRTP): A NEW MODEL FOR SUPPORTING HIV RESEARCH CAPACITY BUILDING IN DEVELOPING COUNTRIES.

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Background: Building research expertise is an import element in strengthening national capacity to respond to HIV epidemics. Conventional models such as short courses and workshops can be of limited long-term value, and international higher degrees may deplete small skilled workforces in developing countries. We report here on the first two years experience with the AusAID funded Field Research Training Program (FRTP), a hybrid model providing curriculum-based training while supporting trainees in current employment.

Methods: Through partnership with in-country research institutions, early career researchers were identified and supported to develop skills to conduct policy relevant research on clinical and public health aspects of HIV, guided by local and international mentors. Over two years they worked towards achieving competencies in proposal development, literature review, ethics submission, data collection and analysis, abstract submission, conference presentation, manuscript writing and engagement with stakeholders. Workshops, symposia and study tours supplemented skills development as needed.

Results: Formal partnerships were established between UNSW and three research institutions (two in Indonesia and one in Cambodia). In total 14 trainees, supported by 5 local mentors were recruited. Twelve had a medical degree. They attended six workshops, six conferences, one symposium and two study tours. All nine trainees graduating in June 2011 completed competency requirements in literature review, research proposal development, ethics submission, data collection and analysis; five presented their work at conferences, and all initiated work on peer review paper publication including topics ranging from HIV prevalence in sex workers to health service analyses to clinical outcomes.

Conclusions: The FRTP is a research training model well adapted for partnerships between institutions in developed and developing countries. Opportunities to complement and integrate with existing public health training programs need further exploration. Broadening the program scope to include other diseases of public health significance and other institutions should also be considered.

POSTER NUMBER: 84 PAPER NUMBER: 527

HIV PREVENTION SERVICE COVERAGE FOR MEN HAVING SEX WITH MEN IN 4 PROVINCES IN VIET NAM

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Backgrounds

HIV sentinel surveillance is conducted annually among 6 key populations in 39 provinces in Vietnam. This aims to determine HIV prevalence and coverage of prevention services among men who have sex with men (MSM).

Methods

Cross-sectional surveys were conducted. Participants were selected based on geographic mapping exercise and through peer educators. To collect key behavioral and programmatic indicators, 23 behavioral questions were added to the serosurveys among MSM in four voluntary provinces including Hanoi, Haiduong, HoChiMinh city, and Angiang in 2010.

Results

1009 MSM provided blood and interviews. Median HIV prevalence among MSM and drug injecting-MSM were 6.0% (range: 0.0%-16.0%) and 11.1% (0.0%-50.0%), respectively. Medians of MSM receiving free condoms and syringes in the last month were 39.8% (30.6%-65.8%) and 36.9% (27.8%-86.2%), respectively. Median of MSM receiving sexually transmitted infections screening in the last 3 months was 13.2% (6.2%-31.6%). HIV testing in the past year and knowing the result was a median of 20.7% (4.4%-39.6%).

Conclusions

HIV prevalence was high among drug injecting-MSM and varying among provinces. Access to HIV prevention services was very low and varied by service and province. Access to HIV prevention efforts needs to be broadened with a focus on drug injecting-MSM.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 85 PAPER NUMBER: 540

ESTIMATING HIV INCIDENCE AMONG FEMALE SEX WORKERS IN 7 PROVINCES IN VIET NAM

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Backgrounds

HIV sentinel surveillance is conducted annually among 6 key populations in Vietnam. This aims to determine HIV prevalence and incidence among young and new female sex workers (FSW).

Methods

Cross-sectional surveys were conducted. Participants were selected based on geographic mapping exercise and through peer educators. To collect key behavioral and programmatic indicators, 18 behavioral questions were added to the serosurveys among FSW in seven voluntary provinces including Hanoi, Haiduong, Thanhhoa, Hue, Danang, HoChiMinh city, and Angiang in 2010. HIV incidence density was calculated as number of HIV-infected persons/person-months of exposure among participants reporting < 3 years risk exposure assumed to be HIV seronegative when they began risk behaviors.

Results

1330 FSWs provided blood and interviews. Median HIV prevalence among FSW less than 20 and 20-25 years old were 0.0% (range: 0.0%-4.5%) and 3.1% (0.0%-10.9%), respectively. Median HIV prevalence of FSWs having ≤ 3 years selling sex was 2.8% (0.0%-9.7%). Median estimated HIV incidence density among injecting-FSW and non-injecting-FSW was 0.1 (0.0-0.8) and 0.1 (0.0-0.4) per 100 person-months at risk, respectively.

Conclusions

Estimated HIV incidence suggests that HIV infection occurs quickly after initiation of selling sex. HIV prevention efforts should increase focus on FSW who are young, new to sex work, and injecting drugs.

POSTER NUMBER: 86 PAPER NUMBER: 431

THE IMPORTANCE OF CONTINUED MONITORING OF HIV AMONG YOUNG MSM IN VICTORIA

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Background: In 2008, we reported that Victorian surveillance data showed the median age at HIV diagnosis among MSM declined significantly from 38.8 years in 2007 to 35.3 years in 2008 and a similar trend occurred among MSM diagnosed with other STIs. These data suggested recent increases in HIV transmission and risk behaviours among younger MSM. We have continued to monitor this trend to the end of 2010.

Methods: We analysed Victorian HIV passive surveillance notification data to describe age at HIV diagnosis among MSM between 2009 and 2010 compared with earlier years. The Kruskal-Wallis equality-of-populations rank test was used to assess differences between years.

Results: The proportion of HIV diagnoses among MSM younger than 35 years has remained stable over the past three years; 49% in 2008 and 48% in both 2009 and 2010 compared with 35% in 2007. The median age of HIV notifications among MSM ranged between 35.3 years in 2008 and 36.1 years in 2010, having declined from 38.8 in 2007.

Between 2009 and 2010, 50% of the total HIV diagnoses among MSM were newly acquired infections. The median age of MSM diagnosed with newly acquired HIV in that time was 33.2 years (range: 31.6 years, 34.8 years) compared to 34.1 years in 2008. In 2006 and 2007 the median age of newly acquired infections among MSM was significantly higher at 36.3 years (p=.034).

Conclusion: The decline in median age at HIV diagnosis seen in 2008 among MSM in Victoria has stabilised over the past two years at a lower median age over the past two years. This shift of the epidemic within the primary at-risk group highlights the importance of continued monitoring of trends and ongoing research to better understand the drivers of these epidemiological changes and inform the development or refinement of public health interventions.

DISCLOSURE OF INTEREST STATEMENT:

All authors have no conflicts of interest relevant to this abstract. The Victorian HIV passive surveillance system is funded by the Victorian Department of Health. No pharmaceutical grants were received in the development of this study.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 87 PAPER NUMBER: 220

DOES ACTIVE FOLLOW–UP INCREASE THE RATE OF RETURN FOLLOW–UP FOR CLIENTS PRESCRIBED NPEP? A PILOT STUDY

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Background

HIV seroconversion can theoretically be prevented after an exposure to HIV through the uptake of Post-Exposure-Prophylaxis (PEP) within 72 hours of a risk event. Follow-up for those taking PEP is important for the following reasons:

- the chance of delayed seroconversion (lengthening the window period from 3/12 to 6/12);
- as an opportunity to apply behavioural counselling to decrease future risk behaviours;
- and, to increase the data for studies on the efficacy of PEP.

Method

An audit of PEP files at Bigge Park Centre in 2010 showed poor follow-up. It was recommended that the follow-up of clients prescribed non-occupational-Post-Exposure-Prophylaxis (nPEP) would be case managed by Social Work. A comparative study (2008/09 nPEP files {n=14} v. 2010/11 nPEP files {n=19}) was conducted following the introduction of case management by Social Work in 2010.

Results

A statistically significant increase was seen in the rate of return follow-up for those being managed by social work. In the intervention group the difference was significant at 4-6 week and at 3 month follow-up. At 4-6 weeks 14/18 attendees followed up as opposed to 3/12 attendees in the pre intervention group, $p<0.001$. At 3 months 12/14 attendees followed up as opposed to 0/11 in the pre intervention group, $p<0.001$.

Conclusion

Active case management by Social Work resulted in an increased follow-up rate. Further evaluation of this strategy is recommended to investigate its potential on a larger scale.

POSTER NUMBER: 88 PAPER NUMBER: 313

EVALUATING THE EFFECTIVENESS OF A HEALTH LITERACY WORKSHOP FOR PEOPLE WITH HIV IN NSW

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Background

This workshop was developed by Positive Life NSW to improve the ability of people with HIV to more effectively utilise the health system. The workshop aimed to improve communication with health professionals, provide an understanding of health care consumer rights and improve navigation of appropriate health services. HIV positive people experiencing a range of more complex health conditions were targeted.

Methods

An external evaluation assessed whether the workshop met its aims. There were four evaluation components. These included:

- intake interviews to collect information on prior understanding of health care consumer rights and services, and learning expectations
- self-rating by participants both pre and post workshops against seven health literacy indicators across the areas of communication, health care rights and navigating health services [and]
- interviews with project participants and facilitators post workshop.

Results

Prior to the workshop some participants reported less confidence in their knowledge of health care consumer rights and hospital services, while others rated highly their knowledge and confidence in communication and planning with health professionals.

Self-efficacy was improved across all seven indicators. Eight participants reported an improvement across at least six indicators and the remaining two reported an improvement across four of the seven indicators.

Conclusion

This workshop found that while people know a lot about HIV and treatments, less is known about consumer rights and complaints mechanisms, hospital services and community health services. Despite familiarity with HIV service provision, participants often reported surprise at the range of health care and supports available to them and how they could be used to maximise their health.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 89 PAPER NUMBER: 301

LOCATING LBGTI FRIENDLY AND COMPETENT HEALTH PROVIDERS

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Background: Health promotion via clinical settings is an important aspect of a combination approach to HIV prevention, but this requires clinicians to be culturally competent and knowledgeable about gay men's health needs. Healthy Communities maintains a Men's Health 1800 Line and is constantly asked to refer callers to a local LGBTI friendly GP. Although more than half of HIV+ tests were conducted by GPs in Queensland, analysis of STI tests ordered through laboratories suggests that anal and pharyngal swabs are rare despite campaigns encouraging gay men to regularly access sexual health checkups.

Methods: Healthy Communities provides resources to support the work of Government Sexual Health Clinics and high gay case load GPs. Regular dialogue ensures issues emerging from consultations are added to enhanced surveillance and research data to ensure prevention campaigns address emerging trends. Access to data about S100 prescribers and practitioners who have undertaken government funded HIV or sexual health in-service training is often not available because of privacy legislation, so word of mouth enables development of a referral directory. Discussion forums are offered to health providers in collaboration with Divisions of General Practice, always including a local GP as a key speaker to enable peer to peer dialogue.

Results: Discussion forums that leave time for discussion, rather than filling up all the time available with PowerPoint slides, are most effective. Client recommendations are an important way to slowly build a directory of LGBTI friendly and competent GPs and other health providers.

Conclusions: Given general practices are particularly difficult to reach gay men will continue to face clinicians whose competence is unknown. Therefore gay men need to be empowered to confidently come out to health providers, and ensure the health provider delivers the essentials for gay men's health.

DISCLOSURE OF INTEREST STATEMENT:

The Healthy Communities clinical liaison function is funded by Queensland Health Communicable Diseases Branch. No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 90 PAPER NUMBER: 539

DOCUMENTING, MONITORING AND LEARNING OF THE COMMUNITY CONVERSATIONS INITIATIVE

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This paper will look at the documenting, monitoring and learning (DM&L) process of the Community Conversations Initiative (CCI), a community engagement program currently in practice in Papua New Guinea.

The DM&L framework is informed by two distinctive challenges of the CCI initiative which set the framework for the DM&L system of CCI.

- How do you document, monitor and learn from a development practice that is responsive, endogenous, dynamic, fluid, organic and flexible?
- How can its effectiveness be assessed or measured?

Further, it will discuss how two communities' in Papua New Guinea document, monitor and learn from the CCI program.

There are three ways of documenting and learning from the CC program. These involve community centred monitoring for change, team-based documentation, monitoring and learning and area coordinators, partners and core team documentation.

The community-centred monitoring of change involves following the decisions communities have taken and also looking at outsiders' perspectives of the changes occurring in those communities.

Team-based documentation, monitoring and learning are the records for each conversation for the existing teams.

The final process is where area coordinators, partners and core team, using the copies of what was collected by communities reflect on what is happening in the field; the endogenous process that guides the work.

Documents collected from these three components assess the effectiveness and impact of the work.

This paper will expand on each of the DM & L components within the context of the two communities.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 91
PAPER NUMBER: 469

MEN WHO HAVE SEX WITH MEN (MSM) WHO INJECT DRUGS: ARE THEY AT HIGHER RISK OF SEXUALLY TRANSMISSIBLE INFECTIONS (STIS)?

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Background: MSM who are IDU have a higher prevalence of HIV than non injecting MSM in Australia. Less is known about the prevalence of STIs in this population. In MSM attending an urban sexual health clinic we describe the risk behaviours and prevalence of STIs in MSM IDU when compared with MSM who have not injected

Method: In this cross sectional study of MSM who attended the Sydney Sexual Health Centre (SSHC) during the period 1998-2008, current MSM IDU (injected within the last 12 months) were compared with those who had never injected across demographic, behavioural and clinical variables. Available data from the first visit attendance of all MSM were extracted from the SSHC database and analysed using a Chi-square test.

Results: 10,154 MSM attended in the time period of whom 344 (3%) were current IDU. When analysed by age group, MSM who injected were significantly older than MSM who had never injected, <25 years 9% vs 22%, 25-39 years 20% vs 26% , 30-39 years 42% vs 32%, >40 years 29% vs 19% respectively $p<0.001$. When compared with MSM who had never injected, a lower proportion of men reported using condoms consistently in the past three months (26% vs 40%, $p<0.01$), a higher proportion were current or past sex workers (25.9% vs 3.2%, $p<0.01$), a higher proportion presented with genital symptoms (40.1% vs 33.0% $p<0.01$), and STI prevalence (gonorrhoea, chlamydia, syphilis) at first visit was higher but not significant (14.2% vs 11.6%, $p=0.133$). Of the current MSM IDUs, 21.5% reported sharing a needle or syringe.

Conclusion: MSM who inject drugs are at high risk of STIs and HIV. Targeted STI screening strategies and access to this high risk population need to be enhanced.

THEME C

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 92
PAPER NUMBER: 507

PARTNERS OF PARTNERS: THE IMPORTANCE OF SEXUAL NETWORK STRUCTURE FOR THE TRANSMISSION OF HIV AND OTHER STIS.

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Background

HIV and other STIs are behaviour-based infections; transmission through a population occurs as a function of complex sexual networking between people, with 'risk' dependent on an individual's personal behaviour, as well as those of his/her partners, the partners of those partners, and so on.

Methods

This paper applies social network analysis to structured interview data to: i) map the sexual networks of a sample of men who report bisexual behaviour in Vientiane, Lao PDR; and ii) identify key individuals and risk behaviours that may facilitate or block HIV/STI transmission. The first wave of 10 participants (seeds) comprised men who reported sex with both men and women during the previous six months. The second wave comprised sexual partners of seeds, and the third wave sexual partners of wave two participants.

Results

A total of 299 people were recruited. A diagrammatic representation of the sexual networks is provided (Figure 1).

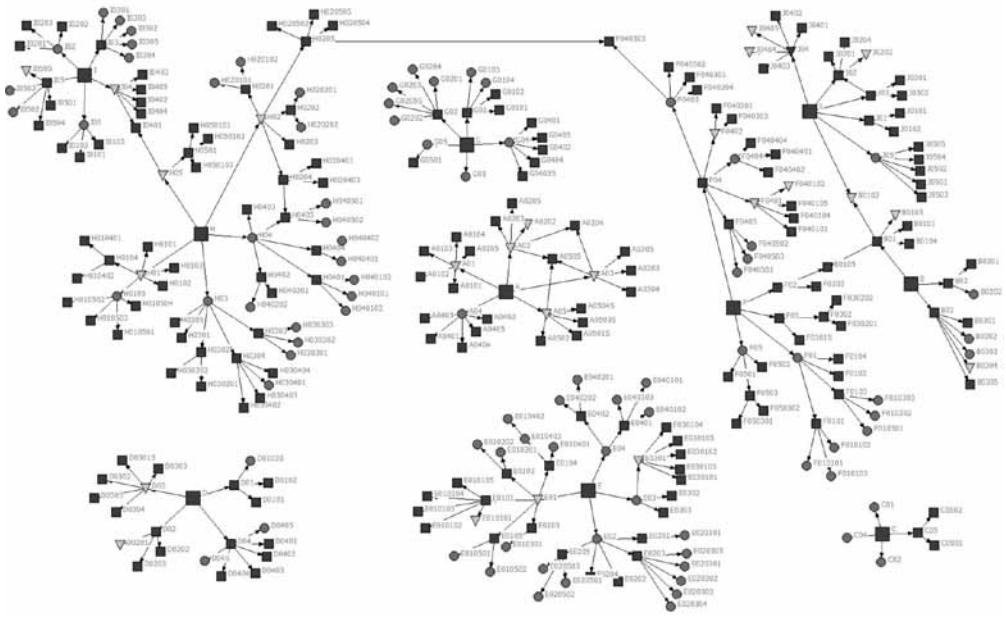
The median out-degree for the networks (i.e., number of partners each individual referred to the study) was three (range 0-6). In-degree refers to the number of people who nominated/referred each participant; only 10 individuals (3%) were referred by two or more people.

The sample comprised six discrete networks (components), ranging in size from seven individuals to 176 individuals. The largest component was of particular interest (especially given the low in-degree) and demonstrates the importance of network structure for HIV/STI transmission. We will examine the influence of a range of factors (e.g., condom use, gender of partner) as potential mechanisms by which HIV/STIs could be transmitted.

Conclusion

'Risk' is a whole-of-network issue and relies on the degree and structure of sexual mixing within the network. An improved understanding of the sexual practices of men who report bisexual sex in Lao PDR will help inform targeted HIV/STI prevention programming in this setting.

Figure 1: Sexual networks of men who report bisexual behaviour in Lao PDR (squares represent men, circles women, triangles transgender/kathoey; larger squares 'seeds').



THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 93
PAPER NUMBER: 543

IN THE FIELD: COMMUNITY CONVERSATIONS

Kauli J and Reid E ANU Visiting Fellow.

Models for HIV prevention work in PNG are framed in the context of targeted interventions and often lack the inclusion of community voices. How can we stem the HIV epidemic if interventions aimed at supporting behavioral change are one way communication models that fail to hear the voice of many?

Mary from Kilometre 5, Kiunga, Western Province, stood up during a Community Conversation (CC) and lambasted her community for their lack of compassion and understanding. Her husband who is employed by Ok Tedi Mining Ltd came home every pay week, usually after midnight and beat her up for refusing to have sex with him. Mary knew her husband was not faithful and her refusal to have sex meant that her beatings continued. It also meant that her husband would not support her and their son financially. There are many women like Mary in many communities in PNG, where the voice of men is privileged over women. On the day CC took place at Kilometer 5, members of the community realized the impact of their silence and lack of support towards Mary and her son.

Community Conversations affords the opportunity to work with communities as a whole encouraging communities to look at forces that drive the HIV epidemic and find ways to apprehend the epidemic together. This paper will look at the distinguishing characteristics and the capacity building approach of community conversations, particularly the processes of social change.

Further, it will discuss the implementation structure that sets the framework for sustainable ownership of the CC. It will use two case studies as exemplars to illustrate the discernable aspects of CC.

POSTER NUMBER: 94
PAPER NUMBER: 133

VULNERABILITY TO SEXUAL VIOLENCE AND EXPLOITATION AMONG ENTERTAINMENT CENTER EMPLOYEES IN HUNAN PROVINCE, CHINA

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Background: China has seen a proliferation of entertainment centers that are frequented by business people after hours for relaxation. The employees at these centers are often young, female rural-urban migrants who may be vulnerable to exploitation and abuse.

Methods: Data were collected using a self-administered survey among 293 male and female employees in two entertainment centers in Changsha City, Hunan Province, China. We used logistic regression to examine predictors of negative and potentially exploitative experiences (partner violence, rape, and transactional sex). Predictors examined included gender, age, ever had a same-sex partner, migration variables (migrant, from a rural area, number of cities/towns lived, months living in Changsha), and employment characteristics (months working in this entertainment center, type of job held).

Results: Two-thirds of the employees were female, the median age was 23 years, and 62% were migrants. Overall, 11.2% had ever had a same-sex partner. In the multivariate regression models, having had a same-sex partner was associated with higher odds of ever having experienced partner violence (OR=8.7, p<0.001), partner violence in the past 3 months (OR=9.0, p<0.001), ever having transactional sex (OR=6.01, p<0.001) and transactional sex in the past 3 months (OR=5.2, p=0.001). In addition, each month working at the current entertainment center was associated with 1.03 times higher odds of ever having experienced partner violence (p=0.039), and 1.03 times higher odds of ever having had transactional sex (p=0.007) and of having had transactional sex in the past 3 months (OR=1.03, p=0.005). Workers from rural areas had lower odds of ever having been raped (OR=0.4, p=0.047), but not of having been raped in the past 3 months.

Conclusion: Having had a same-sex partner and longer time working in the current center, but not gender, age or migrant status, were associated with partner violence and sex work.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 95
PAPER NUMBER: 79

KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING EMERGENCY CONTRACEPTIVE PILLS AMONG FEMALE UNDERGRADUATE STUDENTS OF MAKERERE UNIVERSITY-UGANDA.

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Background

Unsafe abortion remains one of the leading causes of the high maternal mortality experienced in Uganda. The highest proportion of these clandestine abortions is done by young women, especially university students. As a method of mitigating this problem, the WHO and affiliate bodies have encouraged the use of modern contraceptive services including emergency contraception. The objective of this study was to determine knowledge, attitudes and practices regarding emergency contraceptive pills (ECPs) among female undergraduate students of Makerere University, Kampala, Uganda.

Methods

A cross-sectional study was conducted among 424 female undergraduate students residing in Makerere University. Simple random sampling was used to select the participants. The selected students had to be female, aged18 years and above and residents. Data was collected through self-administered questionnaires and confidentiality enhanced by use of self-adhesive envelopes. Knowledge was measured using multiple choice questions. Attitudes were measured using the Likert scale. Practices were measured using factors associated with past sexual experiences. Data entry and analysis was done using EPI-DATA and SPSS software respectively.

Results

This study revealed that 81% of the students were aware of ECPs. However, only 52.1% had accurate knowledge about the timing. 29% believed that ECPs are a form of abortion. 23.8% of the population was sexually active.

Conclusions

The Ministry of Health-Uganda and affiliate youth programmes should initiate strategies to bridge the gaps regarding ECPs found here in so as to improve their correct use. In addition, educating the youth about emergency contraceptive pills will ensure that the social network, which is the largest source of information about the method, is well equipped to disseminate accurate information. Presenting the results of this study will be significant in prompting initiation of similar studies in universities worldwide where they have not been done and strategies that will address the gaps found there in.

DISCLOSURE OF INTEREST STATEMENT

Makerere University is the oldest tertiary institution in Uganda and remains one of the leading higher institutions of learning in Africa. No grants were received from any organizations for the development of this study.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 96 PAPER NUMBER: 188

COMPARISON OF OPIOID SUBSTITUTION THERAPY AND INJECTING DRUG USERS' BEHAVIOR IN 3 PROVINCES OF INDONESIA, 2009 AND 2010

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Opioid substitution treatment (OST) is an effective treatment for heroin dependence and reducing HIV transmission in injecting drug users (IDUs). HIV Cooperation Program for Indonesia (HCPI) supports OST and needle syringe programmes (NSP).

All clients of HCPI-supported NGOs, Health Centres (HCs) and hospitals were invited to complete behavioral survey during 3 weeks in early 2009 and early 2010.

2330 IDU clients completed the survey in 2010 compared to 2014 in 2009 in 3 provinces. 1090 participants in 2010 and 841 in 2009 were using OST with 71% and 67% methadone, 25% and 28% buprenorphine, and, 4% and 3% buprenorphine-naloxone in 2010 and 2009, respectively.

Those using methadone who injected at some stage while on OST increased from 46% to 53% from 2009-10. There was a decrease in those receiving buprenorphine (48% to 41%) in 2010 compared to 2009, which was probably related to reduced supply of buprenorphine.

Jakarta had the lowest proportion of MMT participants who reported injecting drugs (26%) compared to Bali (65%) and West Java (73%) in 2010.

West Java had the highest proportion of clients who used a sterile needle last time they injected, 93% on methadone and 100% on buprenorphine compared to Bali (91%, 83%) and Jakarta (79%, 59%) in 2010. Clients who injected every day on buprenorphine increased from 63% to 89% but those on methadone decreased from 67% to 56% from 2009-10.

Of those who used methadone and injected, 97% injected heroin. There has been a gradual decrease in the proportion of those who received methadone and injected. The two main reasons given were doses were not high enough and the desire to inject.

These findings reflect the quality of the services delivering OST. HCs that provide methadone in Jakarta receive quality supervision from supporting hospitals and support from NGOs working in the field.

POSTER NUMBER: 97 PAPER NUMBER: 173

FURTHER USE OF HEPATITIS B PREVALENCE STUDY IN THE HIV RESPONSE: THE WAY FORWARD

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Issue:

While the use of HAART has improved the lives of PLWH, associated illnesses by HBV co- infections have become relevant in determining their mortality and morbidity. In order to determine if HBV/HIV co- infection is a problem in Fiji, it is important to ascertain the prevalence and epidemiology of HBV.

Project:

A cross sectional retrospective review of the Hepatitis B laboratory registers at the CWMH, Fiji would be performed to determine the laboratory based prevalence and epidemiology of HBV infection. Results from all specimens sent to the CWMH serology laboratory for HBsAg testing from January 1, 2003 to December 31, 2009 would be extracted according to age; gender and ethnicity. It is assumed that upon completion of this study these findings would be used for HIV response.

Results:

The prevalence of HBV was 5.2% at the end of 2009. The age group with the highest prevalence was 15- 34 years. More females were infected with HBV than males and Fijians had higher HBV infection when compared to Indo-Fijians and other ethnic group.

Conclusion:

These findings are significant in creating more targeted awareness on knowledge, attitude, behaviour and prevention for HBV and HIV simultaneously since their mode of transmission is similar. It is assumed that these findings will also decrease HBV/HIV co-infection therefore reducing the burden of HBV infection on PLWH, health services and the government.

In addition to strengthening HIV awareness, this study can provide needed information for understanding the complex interaction of HBV and HIV, and for projecting the future burden of HBV to the HIV epidemic, for clinical management of HBV in the setting of co-infection with HIV, and for optimizing the benefits while mitigating the potential deleterious consequences.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 98
PAPER NUMBER: 387

TRUST AND RISK: 'HOW WELL DO I KNOW HIM?'

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Background: Familiarity with sex partners has been associated with knowledge of HIV serostatus and likelihood to engage in unprotected anal intercourse with casual partners (UAIC) among gay men. We investigated the association of familiarity with casual partners and disclosure of HIV serostatus, by comparing men's occasions of UAIC and protected anal intercourse with casual partners (PAIC).

Methods: Pleasure and Sexual Health was an online survey of 2306 Australian gay men recruited during 2009.

Results: In both univariate and multivariate analysis, compared with occasions when they engaged in PAIC, on occasions when men engaged in UAIC they were more likely to report having previously met their partners (PAIC 45.9% ;UAIC 54.9%), knowing them very well (PAIC 7.9%; UAIC 19.7%), and having previously had sex with them (PAIC 32.2%; UAIC 44.8%) (McNemar P <0.001). Men were also more likely to disclose their HIV serostatus to their casual partners on occasions of UAIC. In multivariate analysis, when men engaged in UAIC they were also more confident they knew their partner's HIV serostatus and trusted them more.

Conclusion: When men engage in UAIC without some prior familiarity, disclosure of HIV serostatus, or confidence and trust in their partners, they are probably at greater risk than on occasions when they engage in UAIC with partners with whom they do have these qualities. However, for some men, their trust in knowing specific details about their partners may not always be well-informed or reliable. This is challenging for HIV prevention work. Some men at high-risk may require specific tools to assist them in discussing and communicating HIV serostatus with casual partners, and opportunities to reflect on their understandings of familiarity with and trust in their casual partners, so they can better assess the degree of risk involved and their need to negotiate condom use with those partners.

DISCLOSURE OF INTEREST STATEMENT:

The Kirby Institute and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 99
PAPER NUMBER: 132

DO MIGRANTS PARTICIPATE IN MORE SEXUAL RISK BEHAVIOUR THAN NON-MIGRANTS WORKING IN HIGH-END ENTERTAINMENT CENTERS IN CHINA?

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Background: Large-scale internal migration in China could become an important mechanism for the spread of HIV/STIs.

Methods: We tested whether migration factors are associated with HIV/STI risk behavior and outcomes among 293 female and male employees working in two high-end entertainment centers in Changsha, Hunan Province, China. Data were collected using a self-administered, cross-sectional survey. We used multivariate logistic regression to identify migration-related predictors of risk behavior, adjusting for participant gender, age and marital status.

Results: Migrants were less likely than those originally from Changsha to report sex work in the past 3 months (OR=0.2, p=0.036), to have had sex with someone they consider a main partner in the past month (OR=0.1, p=0.001), and to have had an STI in the past year (OR=0.1, p=0.015). Those originally from rural areas had a higher odds of ever having had vaginal sex (OR=2.4, p=0.028), and having had sex with someone considered to be a main partner in the past month (OR=3.43, p=0.007). In addition, among those not originally from Changsha, each month living in Changsha was associated with 1.02 times higher odds of ever having had vaginal sex (p=0.037), and 1.03 times higher odds of always using a condom with a casual partner that was of borderline significance (p=0.052). None of the other sexual risk behaviors or outcomes were associated with migration-related factors, and the other migration-related independent variables examined were not associated with any of the outcomes.

Conclusion: Our findings do not support the hypothesis that migrants living far from home participate in higher risk behaviour than locals. In fact, migrants had lower odds of sex work, sex with main partner, and STIs. We did find rural/urban differences in sexual behavior which may explain why some studies have found Chinese migrants to participate in more risk behavior compared to local residents.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 100
PAPER NUMBER: 238

EARLY INDICATORS OF PARTICIPANT COMPLIANCE AND RETENTION IN A LONGITUDINAL STUDY OF ANAL CANCER IN GAY MEN

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Background: Longitudinal studies by their nature require long-term commitment to study procedures by participants to ensure the optimal collection of data. Study procedures often involve a degree of discomfort, even pain, and some emotional stress. In an anal cancer screening study, we examine participant responses at early interim time points as indicators of long-term compliance with study procedures and retention, both crucial when investigating the natural history of anal diseases in individuals over time.

Method: The Study for the Prevention of Anal Cancer (SPANC) is a prospective cohort study, aiming to recruit over 500 gay men in Sydney, Australia. Men undergo multiple procedures including anal swabs and anoscopies. During the study period, participants complete online surveys for assessment of well-being and to comment on their experience in the study. We examine the participants' open-ended responses and their willingness to remain enrolled in the study as measured by the completion of required interim study procedures.

Results: Results are early and preliminary. Participants have made 153 free-format responses (two men have consistently made no response at any time point). In general, men are supportive of the study, though responses range from positive (supportive of the study) to negative (critical of their clinical experience). Two-week survey completion is 86% (57 from a possible 66) and 3-month survey completion is 93% (28/30). All participants due for follow-up visits have rebooked. This indicates that the study is running at a high completion and retention rate despite some vigorous critical feedback.

Conclusion: In participant feedback, researchers have a valuable and accessible tool that can chart overall satisfaction and trends in compliance and retention. Creating a research environment where participants can critique study procedures and experiences in real- time - where they feel they have 'a voice' - may influence the completion of study procedures and the attainment of long-term participation.

POSTER NUMBER: 101
PAPER NUMBER: 464

DIFFERENCES IN TRENDS IN NEWLY DIAGNOSED HIV INFECTION IN AUSTRALIA BY REGION OF BIRTH, 2002 – 2010

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Background

There are differences in the pattern of HIV infection between countries. We describe demographic factors and trends in people with newly diagnosed HIV infection in Australia by region of birth.

Methods

Information on country of birth, date of HIV diagnosis in Australia, age, sex, and HIV exposure type was extracted from the National HIV Registry. Country of birth was categorised into ten regions using the Standard Australian Classification of Countries for Social Statistics (ABS). The age standardised rate of newly diagnosed HIV infection per capita resident population in Australia was calculated.

Results

There were 7,707 new diagnoses of HIV infection reported to the National HIV Registry between 2002 and 2009. Country of birth reporting improved over this period with 10.5% of case not reported in 2002 and 5.2% in 2009. The majority of notifications (58%) were in people born in Australia followed by those born in Asia (10%), Europe (9%) and Sub-Saharan Africa (7%). In 2006-2009, the age standardised rate of HIV diagnosis was highest in people born in Sub-Saharan Africa at 51.7 per 100,000 people living in Australia, which is a substantial increase from 20.6 in 2002-2005. There were also increases in people born in Oceania, 5.0 per 100,000 in 2002-2005 to 10.1 in 2006-2009, and Asia, 4.4 per 100,000 in 2002-2005 to 10.4 in 2006-2009. People born in Sub-Saharan African, Asian and Middle East/North African regions were significantly younger, less likely to be male and more likely to report heterosexual exposure than people born in Australia. For the majority of regions, we found people born outside Australia were significantly more likely to have a CD4 cell count less than 200/µl at diagnosis.

Conclusions

We found significant differences in the demographic patterns and trends of HIV infection in people born outside Australia, particularly for people born in the Middle East, Africa and Asia.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 102
PAPER NUMBER: 200

THE EVALUATION OF A COMMUNICATION STRATEGY TO INCREASE AWARENESS AND APPROPRIATE USE OF NON-OCCUPATIONAL POST EXPOSURE PROPHYLAXIS (NPEP) FOR HIV PREVENTION

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Background

In May 2005 the WA Health Department (WA Health) with relevant stakeholders developed a communication strategy to promote the use of NPEP (non-occupational post exposure prophylaxis) for HIV prevention in accordance with WA Health guidelines and to increase awareness about NPEP among men who have sex with men. WA Health conducted an evaluation of the communication strategy in 2011.

Study design

A program logic diagram for the communication strategy was developed to identify areas for evaluation. Data from the WA NPEP database and Perth Gay Community Periodic Surveys for the May 2008 to December 2010 period were compared with results from a similar evaluation of the strategy in 2009.

Results

Preliminary results from the 2011 evaluation showed that the proportion of NPEP clients prescribed treatment in accordance with WA guidelines remained high in the May 2008 to December 2010 period (84.8%), in comparison to the May 2005 to April 2008 period (89.2%). The proportion of clients tested for HIV four weeks after receiving NPEP increased from 55.1% (May 2005 – April 2008) to 71.5% (May 2008 – December 2010), and the proportion tested for HIV at three months after treatment increased from 33.8% (May 2005 to April 2008) to 57.0% (May 2008 – December 2010). NPEP awareness among gay men in the Perth Gay Community Periodic Survey decreased from 54.9% in 2008 to 39.9% in 2010.

Conclusion

The prescription of NPEP according to WA Health guidelines remained high in the May 2008 to December 2010 period. While follow-up testing of NPEP clients remained low between May 2005 and April 2008, these numbers improved in the May 2008 to December 2010 period. Awareness of NPEP among gay men decreased in 2010, indicating the need for ongoing activities to raise awareness within this target group.

Disclosure of Interest

No interests to disclose

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 103
PAPER NUMBER: 408

"LISTENING TO CONSUMERS & PROVIDERS" BARRIERS AND FACILITATORS OF COMMUNITY-BASED HIV TESTING SERVICES FOR GAY MEN: A SYSTEMMATIC REVIEW

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Background: With a recent focus on increasing the frequency of HIV testing among men who have sex with men (MSM) in Australia, it may be useful to consider alternative models of testing. Community-based HIV testing services utilising rapid testing have been established in many countries, with the goal of increasing testing opportunities for populations at risk. To inform potential Australian models, we conducted a systematic review of the acceptability of community based HIV testing models targeting MSM from the provider and consumer perspective.

Methods: We searched Medline, EMBASE and Cochrane databases from 1980 to October 2010. Studies were included if they described acceptability of community based HIV testing services targeting MSM, including outreach settings, collected by any formal study design.

Results: We identified 25 papers that were included in the review. Twenty one studies examined consumer facilitators; key factors reported were testing convenience (location, operating hours and type of service), availability of rapid testing, acceptability/comfort with settings and client friendly policies/services (such as gay friendly services or the use of peer workers). Sixteen studies described consumer barriers, with the key barriers being readiness to receive results on the same day or in the community-based environment. From the provider perspective (six studies), client friendly protocols, service promotion, offering additional clinical services, and effective protocols for follow up and referral were identified as key factors enhancing service acceptability. In the same studies providers reported key barriers as difficulties in follow up, testing in outreach settings, cost, providing adequate staff training, managing workload and developing and maintaining referral pathways.

Conclusion: The experiences of the providers and consumers of community-based HIV testing services collated in this review will help other organisations address potential barriers and facilitators to the implementation of community-based HIV testing services.

Keywords:

1. HIV
2. gay men
3. community-based testing
4. HIV testing outcomes
5. service delivery models

Disclosure of Interest

Alisa Pedrana receives funding from the Australia Government through a National Health and Medical Research Council (NH&MRC) Public Health Postgraduate Scholarship and the Sidney Myer Health Scholarship. Margaret Hellard receives funding from the NH&MRC as a senior research fellow. Rebecca Guy receives funding from the NH&MRC as a post doctoral fellow.

Competing interests

No competing interests to report.

Funding

This piece of research was funded by the ACON – AIDS Council of New South Wales.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 104
PAPER NUMBER: 523

THE GMALE SURVEY: ASSESSING THE EFFECTIVENESS OF SOCIAL MARKETING CAMPAIGNS IN INCREASING HIV/STI TESTING AMONG GAY MEN IN AUSTRALIA

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Introduction: After plateauing over recent years, annual HIV diagnosis in Victoria fell from 262 in 2009 to 230 in 2010, including a decline among men who have sex with men (MSM). These trends have coincided with several HIV prevention social-marketing campaigns run by the Victorian AIDS Council/Gay Men's Health Centre (VAC/GMHC). We evaluated these campaigns by assessing knowledge, health seeking and risk behaviours, campaign recognition, and community dialogue and trends in HIV/STI testing.

Methods: Using a rolling recruitment method, we surveyed an online cohort of MSM at four time points over 30 months (2008-2011) and assessed trends in the aforementioned outcomes using proportion tests. We also assessed trends in HIV/STI testing in four high MSM caseload clinics using time-series regression.

Results: Since July 2008, we have recruited over 600 MSM into our cohort with increasing numbers completing surveys over time, (n=74 at S1; n=171 at S2; n=245 at S3: n=390 at S4). At S4, over 85% could recall at least one of the HIV prevention campaigns and between S3 and S4 (~18 months); there were sustained or improved effects in campaign message recall (31% v 49%, p<0.001) and some health seeking behaviours, including visiting a campaign specific website (22% v 24%, p=0.57). However, declines were reported in the frequency of other health seeking behaviours and community dialogue around sexual health. Sentinel surveillance data from clinics revealed an average increase of 15 tests per quarter (p<0.01) across Jan 2007-Jun 2009 among HIV negative MSM for HIV, syphilis and chlamydia testing.

Conclusion: After almost three years of follow-up, the VAC/GMHC social marketing campaigns continue to show improvements in the health seeking behaviours of men in the cohort, alongside increases in HIV and STI testing at sentinel sites. These outcomes may have helped stabilise HIV notifications in Victoria.

Disclosure of Interest

Alisa Pedrana receives funding from the Australia Government through a National Health and Medical Research Council (NH&MRC) Public Health Postgraduate Scholarship and the Sidney Myer Health Scholarship. Margaret Hellard receives funding from the NH&MRC as a senior research fellow. Rebecca Guy receives funding from the NH&MRC as a post doctoral fellow.

Competing interests

No competing interests to report.

Funding

This piece of research was funded by the ACON – AIDS Council of New South Wales.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 105 PAPER NUMBER: 153

ADVERSE EFFECTS OF ANAL CANCER SCREENING STRATEGIES IN HOMOSEXUAL MEN

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Background: Anal cytology, high resolution anoscopy (HRA), and digital anal examination (DAE) have been proposed as screening tools for anal cancer. We aim to determine the psychological morbidity and other adverse effects associated with DAE, anal Pap tests and HRA in a community-based cohort of homosexual Australian men.

Methods: The Study for the Prevention of Anal Cancer (SPANC) is a prospective cohort study, aiming to recruit over 500 homosexual men in Sydney, Australia. All participants undergo DAE, anal Pap test, HRA and behavioural questionnaires at baseline and follow-up. Psychological and adverse affects questionnaires are completed at 2 weeks and 3 months post-HRA. Participants will be followed up every 6 months for 36 months.

Results: By May 2011, 77 men were enrolled (39.0% HIV positive). No serious adverse events have occurred. Moderate pain was more commonly associated with the HRA (32.8%), than the anal swab (15.5%) or the DAE (5.2%). After HRA, 56.9% reported a little or some bleeding while 5 (8.6%) men reported a lot of bleeding. Bleeding lasted a few days in 52.6% of men and a few weeks in 2 men (5.3%). There was no change in the proportion of participants reporting psychological distress over time. Increased psychological distress was not significantly associated with a diagnosis of high grade intra-epithelial neoplasia (HGAIN) (p=0.270) but men diagnosed with HGAIN were significantly more likely to worry about developing anal cancer compared to men who were not diagnosed with HGAIN (p=0.022).

Conclusions: Preliminary study results demonstrate that moderate pain and bleeding were common after HRA. Thus far, psychological distress was not significantly related to a diagnosis of HGAIN. Men with HGAIN did however have elevated anal cancer worry. The moderate adverse effects and psychological impact associated with HRA may affect its utility and acceptability as a screening tool.

POSTER NUMBER: 106 PAPER NUMBER: 321

ACTING ON DESIRE: THE ROLE OF ERECTILE DYSFUNCTION MEDICATION

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Background: Use of erectile dysfunction medication (EDM) has been associated with increased risk of HIV infection among gay men. We investigated the use of EDM and the practice of risky sex among Australian gay men.

Methods: Pleasure and Sexual Health was an online survey of 2306 Australian gay men recruited during mid-2009.

Results: 26.3% of men reported any unprotected anal intercourse with casual partners (UAIC) in the previous six months. Among these men who had engaged in UAIC, about one in eight reported using EDM on the last occasion they engaged in UAIC, and a similar proportion used EDM on the last occasion they had used a condom. EDM use was, however, associated with engaging in group sex and use of other drugs, particularly crystal methamphetamine (p<0.001). Men who used EDM were more socially involved with other gay men and more strongly identified with sexually adventurous subcultures.

Conclusion: While use of EDM may be associated with HIV transmission risk, use of these medications is not directly associated with, or causative of, UAIC. Men who use EDM often do so in the context of 'intensive sex partying' and EDM appears to be used as a tool to enable more sustained and extended sexual play in those contexts. The observed relationship between use of EDM and HIV infection among gay men may be due to the role that EDM plays in the context of intensive sex partying for some men.

DISCLOSURE OF INTEREST STATEMENT:

The Kirby Institute and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 107 PAPER NUMBER: 158

MEDIA COMMUNICATION IN HIV/AIDS AND STI: YOUNG PEOPLE PERSPECTIVES

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Background:

Although recent developments of antiretroviral drugs for treating HIV/AIDS appear promising, prevention of infection is the only safeguard; and the key factor to preventing infection, be it of HIV or any other sexually transmitted disease, is increasing awareness. Little is known about what types of media young people in Australia commonly use to access information about HIV/AIDS and STIs, how readily this information is available, and what factors influence their choices and preference of media and/or methods of communication and utilisation. Thus the main aim of this research was to explore how or why young people decide to use or access a particular method of communication or media to get information about HIV/AIDS and STIs, what their preferred method/medium of communication is, what factors determine these preferences, and what information they need to know about HIV/AIDS and STI.

Method:

A survey was used to collect quantitative data from young people as consumers of HIV/AIDS and STI information.

Results:

The results confirmed that electronic media, especially the Internet, play an important role in the area of education and communication of young people about HIV/AIDS and STIs. While electronic media, including television and the Internet, are popular, very accessible, and considered by young people to be both effective and interesting media for obtaining information about HIV/AIDS and STIs, the use of these media for campaigns directed at them is limited. Young people's primary information needs concern prevention and transmission and, particularly among women, the signs and symptoms of the diseases.

Conclusion:

The findings have significant implications for policy: Health education planners and policy makers need to pay more attention to the types of media employed and the kinds of information disseminated in relation to educating young people about HIV/AIDS and STIs.

POSTER NUMBER: 108 PAPER NUMBER: 137

POSITIVE PEER SUPPORT PRACTICE: FERINING OLD MODELS WHILE DEVELOPING NEW ONES

Hédimo SANTANA, Positive Life NSW

Craig COOPER, NAPWA

In the last two years, Positive Life NSW and ACON initiated a process of reviewing their combined peer support groups and programs for people with HIV in NSW. The process included workshops with: staff, clients and key stakeholders; focus-group discussions; an online survey; and analysis of the data which supported the Report by Dr Graham Brown - Positive Peer Support: Meaning and Experiences.

The Report, available online on PL's website, recommended critically reviewing the current peer support programs while developing new models of peer support to satisfy a range of needs and cover a variety of experiences of living with HIV in the second decade of the new millennium.

This presentation will detail the process of implementing some of the report's recommendations and discuss some of the proposed new models and programs of positive peer support. Additionally, it will provide practical outcome measurement (evaluation) tools, as well as innovative peer based community development / health promotion strategies.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 109 PAPER NUMBER: 557

ANALYSIS OF THE PROPOSED TRIAL OF A NEEDLE AND SYRINGE PROGRAM AT THE CORRECTIONAL FACILITY IN CANBERRA

Storey M (ANU) & Dugdale P (ANU)

Background: This presentation analyses a trial Needle & Syringe Program (NSP) that has been proposed at Canberra's prison, the Alexander Maconochie Centre (AMC).

Method: We detail key areas which may influence the success of the trial. We have reviewed information on community NSPs in Australia, as well as overseas experiences with prison based NSPs. We outline potential models for operation, including running a medically supervised injecting centre. We consider methods that maximise learnings from a trial and obstacles hindering the implementation of a trial.

Results: According to a study conducted by the Burnet Institute for Medical Research, 32.4% of inmates had injected drugs inside the AMC. Overseas studies of prison based NSPs have been conducted and generally demonstrate positive outcomes with few, if any, negative consequences. Despite this, strong opposition from prison officers presents a serious obstacle to the success of any trial. We outline the experience of the Medically Supervised Injecting Centre in Sydney and consider ways to diminish risk. Drawing on previous recommendations from the report: *Independent Review of Operations at the AMC* (lead by Keith Hamburger), we conclude that the trial NSP could be successful if supported by Corrective Services Officers.

Conclusion: We conclude with some reflections on policy and study design matters relating to the trial. The introduction of Australia's first prison based NSP is an important step in the fight against HIV/AIDS and Hepatitis. A trial is feasible with support of prison officers and may best be implemented at two Australian prisons simultaneously.

POSTER NUMBER: 110 PAPER NUMBER: 506

PATIENTS' PATHWAYS TO HIV DIAGNOSIS: FACTORS RELATED TO DELAYED PRESENTATION TO HIV CARE

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Background. Late HIV clinical presentations (HIV stage 3 or 4) are in fact a big problems as it reduces the survival of the patients. Many hospitals in Indonesia are facing this population of patients. We try to explore reasons or determinants on why these patients presented at HIV stage 3 or 4 and or at immediately in need of ARV. Furthermore we explored their care seeking behaviours prior to diagnosis.

Methods. In-depth interviews were conducted in three major hospitals in Semarang (4), Solo (3), and Jogjakarta (5 patients). All 12 patients were recruited on the basis of consecutive sampling and eligibility of patients and or their family. Questions were raised on knowledge of HIV prior to diagnosis, health care before the current hospitalization, financial factors, and stigma and whether these factors hinder or facilitate HIV testing.

Results. Three interviews were conducted with the family due to patient conditions. All HIV testing were performed after physician's advice in the current hospital. Knowledge on HIV varies from 'never heard' to 'yes, we know' but all of these were not relevant for their HIV testing. Financial conditions did not hamper HIV testing as some have social insurance and or have relatives supporting them. Stigma did not influence them to conduct HIV testing but rather it makes them afraid to tell others about their status. Only one patient was immediately diagnosed at first encounter to health care provider. Others went through several health care providers i.e. private practitioner, community health center, private hospitals before they were offered to do HIV testing.

Conclusion. This study raised concern about providers' knowledge on HIV related conditions and its management as almost all patients were not offered for HIV testing despite their long history of illness. And this may cause delayed presentation of patient to HIV care services.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 111
PAPER NUMBER: 246

ELUCIDATING THE ROLE OF INTERLEUKIN-3 (IL-3) IN HIV-1 PRIME-BOOST IMMUNIZATION.

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Background: The cytokines, interleukin-3 (IL-3) and granulocyte-macrophage colony-stimulating factor (GM-CSF) are mainly produced by activated T cells during immune response to infection. Our group has observed that IL-3 can be detected after systemic HIV-1 prime-boost immunization. Hence, in this study, we have further evaluated the role of IL-3/GM-CSF cytokines in CD8+ T cell mediated immune response following HIV-1 prime-boost immunization.

Methods: BALB/c mice were immunized using 1) purely systemic (intramuscular (i.m.)/intramuscular (i.m.)), 2) purely mucosal (intranasal (i.n.)/intranasal (i.n.)) and combined mucosal/systemic (i.n./i.m.) immunization regimes. Following immunizations, intracellular cytokine staining and FACs analysis, and Enzyme Linked Immunosorbent assay (ELISA) was performed to evaluate HIV-specific CD8+ T cells expressing IL-3. p values were calculated using two-tailed student's t-test.

Results: Data indicate that, following heterologous HIV-1 poxvirus prime-boost immunization, IL-3 expression by HIV-specific $CD8^+$ effector T cells was vaccine delivery route dependent (i.m./i.m. ≥ i.n./i.m. > i.n./i.n.) (i.n./i.m - i.n./i.n. *p = 0.01). The kinetics of IL-3/GM-CSF cytokine expression by HIV-specific $CD8^+$ T cells was time-dependent and peak expression was found at 20 hrs of *in-vitro* peptide stimulation similar to IFN-γ. Importantly, as compared to the control vaccine FPV-HIV/VV-HIV, a novel IL-13 inhibitor vaccine FPV-HIV IL-13Rα2/VV-HIV IL-13Rα2 vaccine that was previously shown to generate high avidity $CD8^+$ T cells, also elicited greatly enhanced $CD8^+$ $IL\text{-}3^+$ and $CD8^+$ $GM\text{-}CSF^+$ T cells at memory stage of immune response, **p = 0.007 (memory stage > effector stage > acute stage).

Conclusion: Current flow cytometry and ELISA data indicate that following HIV-1 prime-boost immunization, the expression of IL-3 was vaccine route dependent. Furthermore, expression of IL-3 and GM-CSF by HIV-specific CD8+ T cells play an important role in memory CD8+ T cell immunity. We believe that IL-3/GM-CSF cytokines could be used as a potential bio-marker to measure memory CD8+ T cell immunity.

POSTER NUMBER: 112
PAPER NUMBER: 412

VASECTOMY AS A PROXY: EXTRAPOLATING HEALTH SYSTEM LESSONS TO MALE CIRCUMCISION AS AN HIV PREVENTION STRATEGY IN PAPUA NEW GUINEA.

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[5] Maternal Health Improvement Project, National Department of Health, Port Moresby, Papua New Guinea.

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Background: Male circumcision (MC) has been shown to reduce the risk of HIV acquisition among heterosexual men. MC may have a role in Papua New Guinea (PNG), where it will be vital to consider not only the acceptability and potential epidemiological impact of a future MC program, but also the potential impact of implementation on an already vulnerable health system. This research investigates health systems lessons learned from a parallel non-scalpel vasectomy (NSV) program, and their implications for a future MC program in PNG.

Methods: Twelve in-depth interviews were conducted with health workers and key government officials involved in NSV programs in PNG. Documentary, organizational and policy analysis of HIV and vasectomy services was conducted and triangulated with the interviews. All interviews were digitally recorded and later transcribed. Thematic analysis was conducted on the data.

Results: The NSV program has been on the agenda of government family planning programs in PNG for over a decade and during this time a variety of health care workers have been trained. However, obstacles in funding pathways, inconsistent support by provincial governments, difficulties with staff retention and erratic delivery of training programs have resulted in mixed success of the national program. CHWs were described to be most likely to remain actively involved in NSV programs in PNG post training. Key motivators for sustained CHW involvement included feelings of pride and accomplishment in their work and new skills; a sense of local community responsibility and a desire to serve the people of PNG.

Conclusion: Points of vulnerability exist within the NSV program in the delivery and maintenance of services, and in staff support-supervision and training. However, outside the constructs of the health program, CHWs showed that belief in the responsibility of their role and a deeper connection to the community strengthened and sustained service delivery. With evidence from other research that health workers at all levels are already indirectly or directly involved in non-standard variants of penile cutting in PNG, this complex of individual-level relationships, incentives, meaning and attitudes evident within the vasectomy service is likely to have significant implications for the delivery of future MC programs in PNG.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 113
PAPER NUMBER: 595

FACTORS ASSOCIATED WITH SURVIVAL AFTER ANTIRETROVIRAL TREATMENT AMONG HIV INFECTED CHILDREN IN PHNOM PENH, CAMBODIA.

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Background:

Combined Antiretroviral Treatment (cART) has decreased mortality and improved survival among children with HIV infection. The purpose of this study was to describe baseline characteristics and identify factors related to child survival after 12 months of cART at a major paediatric hospital in Cambodia.

Methods:

All children initiating cART from November 2003 to November 2010 at the National Pediatric Hospital and aged up to 15 years old were enrolled. A retrospective cohort design was used to analyze baseline characteristics, survival rate and factors related to survival after 12 months of cART. The Kaplan Meier method was used to estimate the probability of survival and Cox proportional hazard model was used to define risk factors for mortality.

Results:

During the study 786 children began treatment. Mean age (years) was 6.1(95%CI 5.8-6.3). There were 51(6.49%) children aged under 1 year. Only 320(40.71%) had living parents. At baseline, 150(19.08%) children had Z score <2SD and 389(49.49%) were in WHO clinical stage 3-4. Mean CD4% was 8.7(95%CI 8.3-9.2). The majority of children (78.0%) started a nevirapine-based regimen. Mean follow-up was 3.1 years and overall mortality rate was 7.3%. Having a deceased mother was associated with a 2.7 fold increase in risk of child death (p = 0.06). Children with WHO clinical stage 4 were 14 times more likely to die than those in stage 1. Children with Z score <2SD were 4 times more likely to die compared to children with Z score above 2SD (p<0.00); CD4% was also predictive of mortality.

Conclusions:

Death of mother, WHO stage 4 and CD4% at baseline were predictive of mortality on univariate analysis. Child's age and cART regimen were not independently associated with survival. Early identification of HIV infected parents and their children will be the key to improving HIV infected child survival.

POSTER NUMBER: 114
PAPER NUMBER: 315

DIFFERENCES IN REPORTED LEVELS OF RISKY SEXUAL BEHAVIOURS BETWEEN HOMOSEXUAL, HETEROSEXUAL AND BISEXUAL MEN IN LAO PDR

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Background: Men who report bisexual sexual contact may constitute a bridge between high-risk and low-risk populations for transmission of HIV and STIs in Asia. This study explores the sexual networks of males who report bisexual behaviour in Lao PDR to inform our understanding of HIV transmission between heterosexual, homosexual and bisexual networks in this setting.

Methods: Using respondent driven sampling and social network methodology we recruited a sexual network of male, female and transgender ("kathoey") participants in Lao PDR from June–October 2010. Participants completed a sexual behavioural questionnaire and referred up to five sexual partners. Bisexual behaviour was defined among male participants as sexual contact with women and men and/or kathoey. A derived variable for total number of lifetime partners was calculated by combining the reported total number of female, male and kathoey partners. We calculated the median number of partners and consistency of condom use, defined as 'always' and 'almost always' responses on a Likert-type scale.

Results: A total of 299 people were recruited (84 female, 189 male and 25 kathoey participants). Of the 189 male participants, 63 (33.3%) reported bisexual behaviour. The median total number of partners reported by male participants was higher for those who reported bisexual behaviour (median=13) compared to participants who reported heterosexual behaviour (median=6) and homosexual behaviour (median=6). Condom consistency was highest among participants who reported exclusively heterosexual behaviour (27%) compared to participants who reported exclusively homosexual behaviour (14%) or bisexual behaviour (19%).

Conclusion: This research provides evidence that homosexual and heterosexual sexual networks are linked via men who report bisexual behaviour, and demonstrates that these men engage in higher-risk behaviours than men reporting heterosexual behaviour. The results suggest that HIV prevention programming among homosexual and bisexual men will have a flow-on effect on the epidemic among the heterosexual population.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 115
PAPER NUMBER: 318

TRAINING MIDWIVES ON BASIC HIV TO INCREASE REFERRAL, CARE, SUPPORT AND TREATMENT FOR PEOPLE LIVING WITH HIV

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Background:

There is limited knowledge related to HIV among health workers staff including midwives in Bali. Care Support and Treatment (CST) working group of Bali Provincial AIDS Commission with support from HIV Cooperation Program for Indonesia (HCPI) and Burnet Institute in Indonesia (BII) developed and evaluated a basic HIV training for midwives to help them using framework 'Could it be HIV' so that early identification and referral could be made for voluntary counseling and testing (VCT) and further CST for people living with HIV. This paper describes the development of the training and evaluation results.

Methods:

The training was based on 'Could it be HIV' framework. We conducted a training where participating midwives questions at baseline (A), directly after (B) and a refresher meeting 8 months (C) after the training to assess to what extent they have implemented knowledge they have during the training. They completed evaluation forms at B and C.

Results:

The 22 participating midwives were positive about the course and the practical concept of 'Could it be HIV'. Also, after the training all participants reported have referred patients to HIV and PMTCT services, and all reported developing more positive attitude toward people with HIV.

Conclusion:

These positive results show us that using concept of could it be HIV is effective improving awareness of midwives regarding possible HIV related 'signs' which contributing to early identification and early care and support and treatment. It also contributes on reducing stigmatized attitude toward people living with HIV.

It would be worth to provide similar trainings using similar approach for midwives and other health workers e.g. general practitioners and nurses, and to conduct collaboration with Provincial Health Office to provide on-going support, monitoring and evaluation for trained midwives.

POSTER NUMBER: 116
PAPER NUMBER: 538

USING VCT DATA FOR ESTIMATING HIV PREVALENCE AMONG FEMALE SEX WORKERS IN BALI: LESSONS LEARNT

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Background :

The utility VCT data for estimating HIV prevalence among particular groups has been explored in Africa, and has proven that the result on HIV trend has significant similarities with that revealed from other surveillance data. In Bali, despite of the fact that among the 8000 official estimation of Female Sex Workers (FSWs) population in Bali and there are more than 2000 VCT sessions conducted each year for FSWs, the use of VCT data for estimating HIV prevalence among FSWs has been lacking. This study aimed at exploring the use of VCT data for estimating HIV prevalence among FSWs; in particular those who seek HIV test for the first time

Methods:

VCT database form the largest and the longest run NGO serving FSWs in Bali was explored. As information on whether those who come for VCT was old or new was only available from 2006, thus this study was limited from data available from 2006-2010, and only limited to those who seek HIV test for the first time.

Result:

There were 3722 FSWs who seek HIV test for the first time in this clinic since 2006, with 290 of them were HIV positive. For direct FSWs, HIV prevalence was 7.2%; 9.1%; 11.5%; 7.8% in 2007, 2008, 2009, and 2010. For indirect FSWs, the trend was 6.8%; 11.8%; 5.2%; 3%; and 4% respectively since 2006.

Conclusion:

In general, HIV prevalence from VCT data was lower compared with those from serosurvey data. Limitation of using VCT data might include selection bias and lack of possibility to compare the characteristics of those who come to the VCT clinic and those who do not due to that such information is not available from those who did not seek VCT service. However, given the large number of FSWs who seek HIV test in this clinic, the use of VCT data for estimating HIV prevalence among FSWs in Bali is noteworthy.

THEME C: PREVENTING HIV: EPIDEMIOLOGY, PREVENTION, BEHAVIOURAL PREVENTION AND BIOMEDICAL PREVENTION IN AUSTRALIA AND THE REGION

POSTER NUMBER: 117
PAPER NUMBER: 230

AUSTRALIAN GAY MEN WHO HAVE USED NON-OCCUPATIONAL POST-EXPOSURE PROPHYLAXIS OF HIV (PEP) AND ARE IN NEED FOR EFFECTIVE HIV PREVENTION METHODS

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Background: Non-occupational post-exposure prophylaxis (PEP) after high risk exposure to HIV is the standard of care in developed countries. Gay men who request non-occupational PEP constitute a population group in need of effective prevention strategies. They may be likely to seek pre-exposure prophylaxis (PrEP) should this become available. Here we explored trends and predictors of PEP use among gay men in Eastern Australia states.

Methods: We used 2001-2010 data from Gay Community Periodic Surveys in three Eastern Australian states and assessed PEP awareness and use in the six months before each survey. Among HIV-uninfected men, we analysed sociodemographic and behavioural predictors of PEP use and HIV/STI testing practices. Analytical methods included chi-square test for trend and multivariate log-binomial estimation of associations.

Results: In 2010, 65% of respondents were aware that PEP was available, and the use of PEP in the previous six months doubled over the last decade to 4%. Awareness was associated with being in a regular relationship with a HIV-serodiscordant partner, higher number of sex partners, engaging in anal intercourse with casual partners and regularly testing for HIV/STI. . There were two distinctive groups of PEP users: men in a regular relationship with HIV-serodiscordant partners and men with a high number of casual partners and having unprotected anal intercourse with them. Noteworthy, fewer than 8% of men who engaged in high risk sexual practices reported PEP use.

Conclusion: Our findings highlight the profiles of men who are currently using PEP and are in need of effective HIV prevention strategies: men in HIV-serodiscordant relationships and men having high numbers of casual partners and unprotected anal intercourse with them. Presently, better skills in risk self-assessment in these groups and targeted HIV education and health promotion may prevent some seroconversions through the appropriate use of PEP.

NOTES

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 118 PAPER NUMBER: 183

PEADIATRIC HIV IN RABIAMUL HIV CLINIC, WESTERN HIGHLANDS OF PAPUA NEW GUINEA (PNG)

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Background:

Rebiamul HIV Clinic was established in 2006, with 5 registered patients. Over the last 5 years the number of HIV patients has increased to 1300 as of March 2011, with an average of 30 new HIV diagnoses every month. To cater for the increasing number of HIV patients a new clinic was built for HIV treatment care and support, which started operating in January 2010.

Methods:

The new HIV clinic consists of the HIV/AIDS Co-coordinator, two nursing Officers two nurses and a receptionist. Services provided by the team are clinical based programmes including:

- ART and opportunistic Infections
- Physical, psychosocial and spiritual support
- Prevention of parent to child transmission
- Pediatric treatment
- Follow up and outreach
- Post exposure prophylaxis
- Orphanage

Results:

- Increasing number of HIV patients due to:
- Location of the clinic
- The working environment and staff attitudes
- Quality services
- Patient's confidentiality
- Timely drug administration

Conclusion:

- Challenges identified include:
- Work pressures
- Staff shortages
- Lack of quality time with patients
- Lack of Medical Officer

POSTER NUMBER:119 PAPER NUMBER: 179

SEXUAL BEHAVIOUR AND HIV RISK IN MEN WHO HAVE SEX WITH MEN AND TRANSGENDER PEOPLE IN FIJI

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Background: Men who have sex with men (MSM) including transgender people (TG) are considered a high-risk population in the Fiji Islands. There is extremely little information regarding MSM and TG in Fiji, and HIV prevention programs in this population are limited.

Method: A community-based cross-sectional study was implemented with 212 MSM and TG in two locations in Fiji, involving an interviewer-administered questionnaire (response rate: 89.6%). The interviewers were trained MSM and TG community members.

Results: The study sample was diverse in terms of age, ethnicity and sexual/gender identity. Four important groups were identified: heterosexual-identified men (32.4%), bisexuals (14.8%), gays (19.5%) and TG (33.3%). Sexuality and gender identity were understood and expressed in complex ways. In the previous six months, 21.6% consistently used condoms for anal sex with all MSM/TG partners, 57.7% sometimes used condoms, and 20.7% never used them. Condom use was lower when respondents had sex with heterosexual-identified partners. Those who had unprotected anal intercourse in the previous six months: were older, perceived themselves as more 'feminine', had lower HIV knowledge, and felt less safe expressing their sexuality and/or gender in Fiji. The results indicated that there are distinct yet overlapping social and sexual networks of MSM /TG in Fiji with different behaviours and understandings of identity and community.

Conclusion: Sexual risk behaviour among MSM and TG in Fiji is common. These data are the first to be collected with MSM and TG in Fiji in over a decade, and indicate types of HIV prevention programs that are likely to engage members of this population. Programs should target and be tailored to specific subgroups of MSM and TG.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 120
PAPER NUMBER: 182

MAPPING OF THE SYDNEY GAY COMMUNITY: PRELIMINARY FINDINGS ABOUT THE STRUCTURE AND SIZE OF GAY COMMUNITY NETWORKS AND GROUPS

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Background: Research has explored gay men's sexual behaviours and attitudes to HIV/STIs, but little is known how the structure of the gay community affects the ways how gay men network with other men, communicate, and engage with health promotion services.

Method: We developed a listing of gay community organisations, groups and venues in metropolitan Sydney, and asked a representative from each to participate in a survey on behalf of the group. The survey collected information about the type of group, its activities and purpose, characteristics of members, internal and external communications, services provided and/or used and the engagement of members in HIV prevention and health promotion. Group representatives accessed an online questionnaire, except the managers of gay commercial venues were interviewed by two study recruiters. We present preliminary analysis of data collected.

Results: We received information about groups, organisations and businesses located in Metropolitan Sydney. Most groups were formally organised and were based on volunteer work. They significantly differed in the size and age of group membership. Most members/clients were between 36 and 55 years old, not highly attached to the gay "scene" but fairly involved in the gay community and often in many gay subcultures. Within-group communication was primarily through meetings and e-lists, whereas communication with broader community was via websites and advertising. The interviews revealed that group members/clients were knowledgeable about HIV but not always engaged with sexual health promotion.

Conclusion: Sydney's gay community is diverse with respect to the size, structure and functioning of its various parts. Most groups are supportive of HIV prevention but vary with respect to the degree of involvement in health promotion. The study identified the means of communication within and across the groups which can be used to improve access to groups and their engagement in health promotion.

POSTER NUMBER: 121
PAPER NUMBER: 433

IS SOCIAL MEDIA THE HOLY GRAIL TO RE-ENGAGE GAY MEN WITH SAFE SEX MESSAGING?

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[1] ACON Health

[2] Victorian AIDS Council

Background

30 years into the HIV epidemic, engaging gay men with safe sex messages is becoming extremely challenging. Research shows they pay less and less attention to these messages - in particular when delivered through traditional media. Health promoters are therefore urged to leverage all the possibilities the digital world and social media have to offer. But does it really work?

Methods

For ACON's last condom reinforcement social marketing campaign, we tested several social media options to assess the different levels of engagement such as how much traffic was generated to the dedicated website, how many pages gay men read, or how many minutes they stayed on the website.The tested platforms were: dating sites (Manhunt, Gaydar), Facebook and Grindr (smart phone application).

Results

While these social media platforms attracted significant traffic, we observed that ***quantity*** and ***quality*** of engagement are not necessarily aligned as shown in these two examples:

The traffic generated by Facebook was lower than the dating sites but gay men tended to stay four times longer and engaged with the interactive features of the site.

Grindr generated ten times more traffic than any other platforms but the quality of engagement proved to be very poor.

Conclusions

Incorporating social media modalities into health promotion campaigns is crucial in reaching gay men. However health promoters need to clearly prioritise their objectives in order to optimise Results: quantity (exposure) versus quality (engagement). Additional research is needed in order to better understand the differences in behaviours on different social media platforms.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 122
PAPER NUMBER: 400

WEB 2.0, SOCIAL MEDIA AND SAFE SEX: TALKING TO OR TALKING WITH GAY MEN?

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[2]Victorian AIDS Council

Background

Research is clear about the fact that a rapidly increasing proportion of gay men's connection and engagement is via online environments and health promotion needs to adapt accordingly. However, many online campaigns are simply a digital translation of posters or press ads. Campaigns still tend to talk ***to*** gay men with little interaction.

Methods

In addition to the traditional print component of our last condom reinforcement campaign *Wherever Sex Happens… Slip It On*, we encouraged gay men to participate in the campaign during the annual Sydney Gay and Lesbian Mardi Gras Festival. While promoting our safe sex message on most gay websites, interactive web banners asked the viewer where sex had happened for them. The viewer could then write the location or the event on the dedicated website to share with others. The best entries were also used to support the 2011 Mardi Gras ***Say Something*** theme and were posted every day for ten days on the Mardi Gras Facebook page. These posts seamlessly linked the *Wherever Sex Happens… Slip It On safe sex* messages with the overall *Say Something* theme and were also used for the ACON Mardi Gras float.

Results

- The interactive web banners generated 30% more entries in two weeks compared to traditional banners.
- Peaks in traffic were clearly identified when new updates were posted and shared on Facebook.
- Each new post generated many comments from Facebook friends.
- The level of engagement with the website was high as people stayed twice as long compared to comparable websites.

Conclusions

Web 2.0 provides a whole world of possibilities to interact with gay men, from passive web browsing to active sharing.

It is still a learning curve for HIV educators but the tools are available for creatively re-engaging a 'heard it all' before audience.

POSTER NUMBER: 123
PAPER NUMBER: 444

RANDOM ACTS OF KINDNESS: A WIN-WIN APPROACH FOR COMMERCIAL ACTORS AND THE HIV SECTOR

Calmette Y, Sutherland R

ACON Health

Background

Raising funds for HIV in many developed countries is becoming more challenging. HIV is not a major public health priority for many governments and the HIV sector struggles to sustain a strong fundraising profile in a highly competitive market.

The various commercial stakeholders in the gay milieu (bars, SOPVs, clubs, parties, gay media) have traditionally been key actors in the fight against HIV but there has been much less focus on other commercial actors. We tested a different approach.

Methods

The objectives of ACON's campaign were to give condoms an image makeover and to make them visible – everywhere. However this strategy was constrained by the limited media budget. We then decided to co-opt the emotional power & cultural influence of brands while building on a very clear and uncomplicated slogan: *Slip It On* combined with Andy Warhol's pop art style. The brands we selected are powerfully connected to the NSW gay community. We utilised their marketing power to promote our safe sex messages on their products, websites and advertising campaigns.

Results

The *Slip It On* campaign evaluations demonstrated that:

- 94% of the audience recalled the campaign
- 74% rated the creative approach as innovative, engaging and very different from usual safe sex messages.
- 79% of gay men expressed support for the commercial brands that partnered with us.

The *Slip It On* logo is now very well established in the NSW gay community.

Conclusion

For brands, 'random acts of kindness' can be an innovative marketing strategy. Public demonstrations of empathy and commitment with campaign aims and objectives can have a positive effect on consumers.

For the HIV sector, this represents a new, untapped opportunity to greatly increase reach, relevance and appeal at minimal cost.

THEME D: HIV IN POPULATIONS

POSTER NUMBER:124 PAPER NUMBER: 437

EDUCATIONAL TREKS IN NEPAL

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It is estimated 70000 people are infected with Human Immunodeficiency Virus (HIV) in Nepal. This presentation will discuss the outcomes of three 2 day workshops held for HIV + people and peer support workers. The workshops were developed and facilitated by two nurses (HIV specialist and viral hepatitis specialist) and a social worker, in collaboration with a Nepalese employee of the HIV Non Government Organisation (NGO) Nara Kiran Plus.

Methods: Workshops were held in various locations in Nepal: Pokhara, Chitwan and Kathmandu. Two of the workshops were residential with participants and facilitators living together. Educational sessions included HIV, Sexually Transmissible Infections (STI) and Hepatitis C Virus (HCV) information, stages of change and motivational interviewing.

Results: Most of the 62 participants were HIV positive with 59 working as peer support workers from HIV agencies or anti violence NGOs.

They reported challenges living with HIV included stigma and discrimination

(by society, health care workers in hospital and for HIV + children), poverty, the mental pressure of being positive and judgmental access to medications.

Most relevant clinical information evaluated were HCV information and taking care of your liver, STIs and HIV, medication issues, parent to child transmission and stages of change.

Areas of advocacy were identified by the groups, discussing strategies on how to reduce discrimination: by health care providers, for children at school and for pregnant women; to improve single women's access to antiretrovirals and to reduce men's shame regarding transmission.

Challenges for facilitators were language, limited information about backgrounds of participants prior to workshop; changing curriculum and travelling time.

Conclusion: The aims of the workshops were to empower individuals and peer support workers with the skills to enhance HIV advocacy and improve clinical knowledge. The workshops were well evaluated with a request for more in rural Nepal.

POSTER NUMBER: 125 PAPER NUMBER: 389

OUTREACH CLINICS: UNCOVERING UNDETECTED HIV AND STIS IN THE COMMUNITY

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[4] AIDS Action Council of the ACT

[5] Sexual Health and Family Planning ACT

Background:

Staff from the listed organisations collaborate to provide outreach clinics incorporating sexual health promotion, education and screening for individuals at higher risk for sexually transmissible infections (STI) and blood borne viruses (BBV).

Methods: Data collected during clinical consultations in 4 venue types (sex-on-premises, brothels, youth centres and an AIDS organisation) between 2005 and 2010 were analysed to determine rates of STI and BBV.

Results: Sixty clinics were conducted in 11 individual venues, providing education and screening services to 456 people (men who have sex with men (MSM), sex workers and at-risk youth and people living with HIV (PLWHIV). Individuals averaged 2.5 visits (range 1-20) over the period. Of the 1163 occasions of service 68%, 22%, 9% and 1% were provided to MSM, sex workers, at-risk youth and PLWHIV respectively. Screening was provided on 650 occasions.

Among MSM, 2 new cases of HIV were identified from 365 tests, 17/375 (4.5%; 95% CI 2.7 - 7.2) were positive for chlamydia with 16 of these identified on rectal screening and one by urine test alone; 6/357 (1.7%; 95% CI 0.6 - 3.6) new cases of syphilis were detected. Among sex workers 11/57 (19.3%; CI 10.0 - 31.9) tested positive for hepatitis C, 7 for the first time, and 3/140 (2.1%; 95% CI 0.4 - 6.1) tested positive for chlamydia. Among at-risk youth, 5/59 (8.5%; 95% CI 2.8 - 18.7) tested positive for chlamydia and 1/40 (2.5%, 95% CI 0.06-13.1) and 3/17 (17.6%; 95% CI 3.8 - 43.4) tested positive for hepatitis B and hepatitis C respectively. No positive tests were found for PLWHIV.

Conclusions: This interagency collaboration found cases of STI and BBV (in particular 2 new cases of HIV and 7 new cases of hepatitis C) which may otherwise have gone undetected. Rectal screening of MSM for chlamydia should be encouraged.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 126
PAPER NUMBER: 560

"HIV - WHAT'S THAT?" DISASTER IN THE MAKING AS PAKISTANI IDUS ROUTINELY SHARE SYRINGES (AND HIV) ON THE STREETS OF BAHAWALPUR

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UNAIDS estimates there are 96,000 HIV cases in Pakistan, but only 5,000 have been reported. Pakistan is a low-prevalence country (0.1%), but HIV among IDUs doubled from 10% to 21% between 2005 and 2008. Drug users inject morphine tablets and liquid diazepam. Syringes cost 10 US cents, but are costly for IDUs who share and re-use these. Our Society provided a NSP, Condoms distributions and medical care for IDUs in Bahawalpur, Pakistan. Most had poor family relationships.

Between March 2008 and June 2010, we surveyed 100 male IDU clients. Their mean age was 34 yrs. (40%) were illiterate, but (95%) were sexually actived. (89%) used drugs on the street and (43%) were homeless. (69%) had been to prison and (49%) had donated blood.

Reported harms included alarming levels of current syringe sharing (96%) and experience of overdose (93%). IDUs were ignorant of HIV (15% knew about it), that syringe sharing was linked to HIV (7%) and that condoms even existed (15%). None had an HIV test, but most (78%) were willing to be tested. Users were keen to quit drugs (83%), but few had detoxified (16%), the only treatment available.

Pakistani users suffer significant harms from injecting, with low awareness of HIV and engagement in treatment. We have observed behavior change in IDUs, but need ongoing research. Pakistan has passed the take off point for an HIV epidemic to occur. More funding is urgently needed for NSP, HIV education, Safe sex promotion and drug treatment to reduce these harms and thwart the impending epidemic of HIV transmission.

POSTER NUMBER: 127
PAPER NUMBER: 189

ATTITUDE OF EDUCATORS TOWARDS SEXUALITY AND HIV AND AIDS EDUCATION IN MTHATHA, SOUTH AFRICA

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Background: This study investigated the attitudes of educators towards sexuality and HIV/AIDS education. The objectives were threefold: first, to determine the attitudes of educators towards the inclusion of sexuality education (SE) into the curriculum, second, to investigate whether the attitudes of educators had an impact on their teaching of SE and finally to determine if there are gender-related differences in the attitudes of educators towards the inclusion of SE in the curriculum.

Methods: A purposive sampling method was used and 56 (27 female and 29 male) educators were selected from schools in Mthatha, South Africa. All the necessary ethical protocols were followed. A questionnaire was used to collect data allowing for both qualitative and quantitative data to be gathered. Data gathered from the close-ended questions was analysed according to a frequency distribution table, while the data from the open-ended questions was examined for recurring themes.

Results: The results revealed that educators held mixed feelings and inconsistent opinions on certain issues, but were generally supportive of teaching SE and related aspects in schools. The attitudes of educators towards the inclusion of SE in the curriculum are positive and this has a positive impact on their teaching of the subject. Females educators seem to be of the opinion that the content would be of a suitable quality when the programme was introduced whilst male educators provided a critique based on their past experiences, when previous programmes did not live up to expectations, due to various factors: expensive, ineffective and did not contain relevant topics.

Conclusions: The study found that educators felt that they were not adequately trained so in-service training on SE should be held regularly to ensure relevance. Another recommendation is that SE should be an examinable subject so as to ensure that SE is taught in all schools.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 128
PAPER NUMBER: 650

MEN'S HEALTH – MEN'S CLINIC

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Background: From 2007-9 a team from Caritas Australia researched socio-cultural factors contributing to sexual health in the Simbu Province and Southern Highland Province in PNG. One of the findings was a need for gender specific health services. Men noted that women have their clinic (ante natal), so why could they not have a clinic for men? Another issue found in the research was that relatively few men were accessing STI services.

Methods: The STI co-ordinator of PASHIP in Simbu arranged a meeting with community leaders to discuss the issue of gender specific health services. As a result the Catholic Health Services based at Mingende Rural Hospital started a weekly men's clinic. The clinic is integrated with existing health services. Information about the clinic was diseminated by community representatives, church groups, and women who attended maternal & child health clinics. The Caritas PASHIP team at Mingende Hospital monitored the clinic services. Clinical data is provided to the National Department of Health.

Results: Since the launching of the men's clinic in April 2009, 1125 men have attended (till July 2011). The clinic sees 5-15 new male clients weekly. Apart from sexual health services, these men benefit from a broad range of services including health education, treatment for common medical conditions, and referrals to a doctor. The monitoring team has noted that treatment seeking behaviour has improved. This is particularly the case with partners of female STI patients. Also men are becoming more open in discussing sexual issues with their wives or partners.

Conclusions: The Men's Clinic at Mingende is an effective strategy for improving men's health, particularly sexual health. Also it is contributing to a more healthy sexual life with couples. The Men's Clinic is a new intervention in PNG focusing on both social and clinical dimensions of men's health.

DISCLOSURE OF INTEREST STATEMENT:

Church Health Service Simbu is a partner with the National Department of Health, PNG. The Caritas Australia STI Management Program is supported by Caritas Australia and funded by AusAID.

POSTER NUMBER: 129
PAPER NUMBER: 208

EXPERIENCES OF PEOPLE ON TEMPORARY VISAS WHO ARE DIAGNOSED WITH HIV IN WESTERN AUSTRALIA

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Background: HIV testing is not mandatory for award of a 457 business or student visa. Skilled workers and highly sought after international students often come from HIV prevalent regions and from high risk 'age' and heterosexual transmission categories. Diagnosis with HIV is commonly made when people fall ill or apply for permanent residency. We sought (1) to understand the impact of HIV on visa holders and the broader implications that temporary resident status has for them and their families; and (2) identify points of difference between those holding temporary visas and those subsequently granted residency.

Methods: Data was gathered from semi-structured interviews with 22 participants collected between April 2010 and May 2011. Interviews were recorded, transcribed and imported to NVIVO software for thematic analysis.

Results: Twelve men and ten women were interviewed, ranging in age from 23 to 42 years (mean 33.4±SD 6.0). Ten lived in the metropolitan area, two were students, six were 'fly in fly out' workers, five lived in regional WA and one was a 'traveller'. Fourteen were ineligible for Medicare, three were NZ citizens—and therefore eligible; five had become permanent residents. Of the sixteen married people, nine had hopes to increase the size of their families and—in temporary visa holders—seven were in sero-discordant relationships. Participants applying for visa continuations and permanent residency cite confusion and complexity around applications, complicated by 'visa discordancy' within couples and the belief that their HIV status will prejudice their applications.

Conclusions: In common with others who have been diagnosed with HIV, distress and fears around disclosure are experienced by temporary visa holders. However, the threat of non-renewal of visas; and the likely failure of applications for permanent residency should the 'health waiver' not be applied result in additional stress on individuals who perceive themselves to be fit, healthy and able to work.

Disclosure: This study was not supported by a pharmaceutical grant. The presenting author, a PhD student, is the recipient of an Australian Postgraduate Award and the study is funded by the Nurses Memorial Trust of Western Australia.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 130
PAPER NUMBER: 486

SEX WORKERS WORKING TOWARDS LAW REFORM IN PAPUA NEW GUINEA

Joseph S, Friends Frangipani Papua New Guinea (PNG)

Background

Friends Frangipani (FF) is the national sex workers association of Papua New Guinea (PNG). Sex work is criminalized in PNG and sex workers are subjected to stigma and discrimination, poor treatment and violence. However the laws are currently under review. Friends Frangipani are advocating for sex workers rights and working towards decriminalization as part of the national response to HIV.

Methods

- FF are members of the Community Development Minister's Reference Group on Decriminalization
- We have a voice/face in the National Dialogue on HIV and the LAW (June 2011)
- We will be facilitating discussion groups as part of the national dialogue
- Working with other affected communities (MSM/TG/PLHIV) we will represent a united voice
- Presentation at international forums/dialogues.

Results

Through our advocacy:

- FF members are more aware of human rights and legal issues
- Marginalized communities are more mobilized
- Our families and communities are more aware of our issues
- Some NGHO stakeholders are supportive
- FF is becoming internationally recognized
- Individual politicians are becoming supportive.

There have been many challenges and barriers to participation in law reform:

- We experience some difficulty participating in meetings
- Not friendly attitude from some groups (e.g. national women's groups)
- Not being given space to talk/being underestimated
- Language barriers/education levels
- Not being informed/invited to meetings
- Weak implementation of the GIPA principles.

Conclusion

- We will wait to see how the review of laws will be received
- Strong opposition from churches – saying we are practicing immorality
- It will take time to change people's thinking
- We are optimistic that the government will respond to this as a public health issue.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 131
PAPER NUMBER: 528

"I WAS CUT UNDER THE PLANTATION PALMS": TECHNIQUES AND LOCATIONS OF PENILE CUTTING IN PAPUA NEW GUINEA

MacLaren D[1], Tommbe R[2], Redman-MacLaren M[1], Mafile'o T[1], Manineng C[3] Browne K[4] and McBride WJH [1] on behalf of the

'Acceptability of Male Circumcision for HIV Prevention in PNG' study.

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Background: Papua New Guinea is a diverse country with a population of 6.8 million people speaking more than 800 languages. PNG has more than 90% of all reported cases of HIV in Oceania. There are a plethora of penile cutting styles, penile cutting techniques and penile cutting locations in Papua New Guinea.

Methods: Structured questionnaires, interviews and focus group discussions were utilised to enquire about locations and techniques of male circumcision, penile cutting and/or penile modification. This occurred across four locations where people from across the country gather to study and/or work (two university campuses in large urban centres, a remote mountain gold mine and coastal oil palm plantation). The questionnaire included specific questions for men about where penile cutting occurred and what techniques were used to cut the foreskin.

Results: 57% of the 864 male study participants reported having some form of penile cut. The majority have some form of longitudinal cut of the foreskin performed outside the medical system. Many men describe having their foreskin cut in or near a village by a male relative, friend or village expert and often linked to initiation ceremonies. Men who had attended boarding school or university reported having their foreskin cut while at school or university. Tools used include bamboo, razor blades, scalpel blades and large craft needles with strips of rubber tyre or fishing line. Many young men sourced scalpel blades, pain relief and antibiotic medication from medical clinics (either directly or via friends or relatives) and presented these to foreskin cutters.

Conclusion: Any potential male circumcision for HIV Prevention programs in Papua New Guinea need to take into account the range of traditional and contemporary penile cutting practices.

DISCLOSURE OF INTEREST STATEMENT:

This study was funded by NHMRC Grant No: 601003. No pharmaceutical grants were received in the development of this study.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 132
PAPER NUMBER: 354

SOCIAL AND CLINICAL FACTORS PREDICTING VIROLOGICAL RESPONSE IN THE PUBLIC HEALTH MODEL OF HIV CARE IN TAMIL NADU, INDIA

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Background: India is rapidly scaling up free antiretroviral therapy (ART) under a public health model of care. Studies identifying individuals at high risk for poor virological outcomes are limited.

Methods: From October 2009 consecutive adults initiating ART per national guidelines (all non-nucleoside reverse transcriptase inhibitor based regimens) were identified. Theyunderwent HIV viral load testing 12 months post-initiation, together with a survey for barriers and facilitators to adherence and other sociodemographic and clinical factors. Uni- and multivariate logistic regression was performed to identify factors predicting HIV viral load <200 copies/mL. Clinical data was extracted from clinic records and HIV viral load testing was performed using Artus HIV-1 RT-PCR (Qiagen).

Results: Of 230 patients at baseline 65% were male, 41% were classified WHO Stage IV, 27% had tuberculosis, 16% had other AIDS-defining illnesses, and median CD4 was 141. After 12 months, 77% (n=177) were on ART, 10% died (median 108 days after ART initiation), 8% transferred out and 5% were lost to follow-up. One or more ART substitutions occurred in 27% patients, and no patients switched to protease-inhibitor based second line therapy. At 12 months, median rise in CD4 was 253 cells/microL, 81% of patients (on treatment analysis; 70% modified-intention to treat analysis) had HIV viral load <200 copies/mL. The table shows social and clinical factors predictive of a viral load <200 copies/mL. Patients who did not report being busy, had clinic transport times ≤3 hours and reported no use of alcohol were more likely to have a viral load <200 copies/mL in a multivariate model.

Social and clinical factors predicting HIV viral load <200 copies/mL (n=174)

Factor of interest	Univariate Model Odds Ratio Estimate	p-value	Multivariate Model Odds Ratio Estimate	p-value
Busy doing other things as barrier (< Often or Often)	2.9	0.009	2.8	0.015
Transport time (≤ 3 or > 3 hours)	2.6	0.03	3.0	0.016
Transport time is a barrier to attendance	2.2	0.01	-	
Transport cost (≤ 100 or > 100 Rs)	1.8	0.15	-	
Clinic wait time (≤ 30 or > 30 minutes)	2.6	0.04	-	
Bothered by diarrhea last 30 days (No or Yes)	2.5	0.22	-	
Bothered by body change last 30 days (No or Yes)	3.5	0.08	-	
Bothered by weight loss last 30 days (No or Yes)	0.1	0.04	-	
Alcohol intake last 30 days (None vs any intake)	4.5	0.02	4.4	0.03
Bothered by feeling down and depressed last 30 days (A lot or less than a lot)	3.3	0.03	-	
Assisted people around you in last 12 months (No times or Any times)	1.8	0.13	-	

Conclusions: Patients who report busy schedules, longer transport times or alcohol use were more likely to experience virological failure after 12 months ART. These factors may serve as potential targets for programmatic or individual intervention to improve outcomes for individuals starting ART in this setting.

DISCLOSURE OF INTEREST STATEMENT:

No pharmaceutical grants were received in the development of this study. HIV viral load testing was supported by intramural funding.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 133
PAPER NUMBER: 489

SEX WORKER ORGANISATIONS PARTNERSHIPS FOR CAPACITY DEVELOPMENT EVALUATION FINDINGS

McMahon M, Scarlet Alliance, Australian Sex Workers Association

Background

The effective inclusion of sex workers within the HIV response is imperative and includes activities to support and strengthen sex workers organisational capacity, leadership and advocacy.

Scarlet Alliance works in capacity development partnerships in the Asia and Pacific region. These include partnerships with Friends Frangipani in Papua New Guinea, and with $carlet Timor Collective and FTH, the NGO providing services to sex workers in Timor Leste.

Methods

The capacity building approach is unique, involving a mentoring partnership between our peer sex worker organisations. This approach varies dramatically from provision of technical advice or short term training. The approach is a long term commitment to ensuring the sustainable development of a peer sex worker organisation with the capacity to govern, consult and represent sex workers and work within the unique set of barriers that affect sex worker organisations. The approach brings with it a network of support as sex workers are linked into national, regional and international sex worker networks.

Results

Evaluation has documented the value of the approach and outcomes. Scarlet Alliance adopts an approach which includes "learning by doing", such that capacity is built and held by the individuals, the community and thus the organisation on an accumulative experiential basis, and retained within the guiding documents, policies, records and systems. Rather than developing a dependency relationship, the organisation knows its capacity and genuine potential at any time, as a function of this lived experience and retained infrastructure.

Conclusions

Evaluation shows sex workers within the partnerships have gained a stronger voice in the national HIV response, and within regional and international forums. Within these approaches, neither organisation loses sight of the goal to stand alone strongly as an independent organisation in the future, and capacity is consolidated through practical experience.

POSTER NUMBER: 134
PAPER NUMBER: 280

EVALUATION OF A NEW MODEL OF CARE FOR HIV POSITIVE WOMEN DURING PREGNANCY IN VICTORIA: WHAT HAVE WE LEARNED?

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The state of Victoria has seen an increase in the number of pregnant women with HIV infection. While many of these women know their HIV diagnosis prior to pregnancy, others are diagnosed through antenatal screening; conception was achieved by a range of means including assisted reproduction. Recently, the Victorian HIV Consultancy, in collaboration with two major maternity and paediatric centres which provide care for HIV positive women and their infants, developed an innovative nurse-led model of integrated multidisciplinary care for HIV positive pregnant women and their families.

This paper will focus on the first 18-months experience of this new program, examining the outcomes and lessons learned and how these will inform ongoing development. It will consider the methods of conception used and the implications for health education with heterosexual couples; antiretroviral regimes used and their tolerance; maternal CD4 and viral loads throughout pregnancy; the cultural diversity of the woman and the issues this raises for care; the outcomes of the pregnancies and methods of birthing; the infant outcomes and follow up. Emphasis will be placed on the unique challenges this diverse group of women and their families provide to health care workers.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 135
PAPER NUMBER: 146

THE TERM 'MSM' DEMEANS US ALL

Garrett Prestage[1,2], Colin Batrouney, Ben Bavinton, Jack Bradley, Chris Clementson, Craig Cooper, Grant Davies, Ian Down, Gary Dowsett, Ross Duffin, Jeffrey Grierson, Andrew Grulich, Geoff Honnor, Michael Hurley, Phillip Keen, Mike Kennedy, Paul Kidd, Rob Lake, Anthony Lyons, Daniel Madeddu, Kevin Marriott, Paul Martin, Graham Norton, Nic Parkhill, Lance Schema, Michael Scott, Stephen Scott, Sean Slavin, Anthony Smith, Dave Templeton, James Ward

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Background: The term 'men who have sex with men' (MSM) is widely used in Australia and internationally.

Methods: Use of the term MSM in surveillance, research and policy was reviewed.

Results: In most Australian studies of homosexually active men (with recruitment usually confined to gay community sources), about 90% identified as gay, with most others identifying as bisexual. Usually, only about 5% reported recent sex with women. There is no evidence to support a case that non-gay homosexually active men are at increased risk of HIV compared with gay men, or that they comprise more than a small number of HIV diagnoses, in Australia or similar countries. Use of the term MSM in developing countries has often concealed: Localized forms of overt sexuality; nascent gay communities and men who identify as gay; and locally concentrated epidemics. In Western countries, particularly the United States, it often reduces men to individualized behaviours rather than persons with real relationships, within communities and cultures. Despite the fact that men targeted for HIV research and prevention are overwhelmingly gay-identified and recruited through gay communities, they are increasingly described only as MSM.

Conclusion: Gay men have been disproportionately affected by HIV and have often led the response to HIV, in Australia and internationally. The term MSM strips gay communities of visibility and relevance, failing to acknowledge gay men's social relations through identity, culture and history, and reducing them to a mere behavioural category. It conceals the extent to which they have been affected by HIV and their contribution to the response against HIV, and risks distorting prevention efforts. It reduces the importance of gay communities and associated human rights agendas. The emphasis on the term 'MSM' implies that all homosexually active men are equally at risk, diminishing the importance of the risk to gay men.

DISCLOSURE OF INTEREST STATEMENT:

The Kirby Institute and The Australian Research Centre in Sex, Health and Society (ARCSHS) receive funding from the Australian Government Department of Health and Ageing. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales. ARCSHS is affiliated with La Trobe University. No pharmaceutical grants were received in the development of this study.

POSTER NUMBER: 136
PAPER NUMBER: 194

THAI HIV/AIDS PREVENTION CAMPAIGN - LOST IN TRANSLATION

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Background: The Thai community has been identified as one of the priority culturally and linguistically diverse (CALD) populations for HIV/AIDS awareness campaign in South Eastern Sydney (SES). They are more likely to receive a late HIV diagnosis, have poorer knowledge of HIV and related services and show apprehension in receiving test results.

The HARP Unit together with the Thai Welfare Association (TWA) formed a partnership to develop a culturally appropriate HIV/AIDS campaign targeting Thai communities, particularly young people and pregnant women.

Methods: We involved sixteen Thai women in the formulation and conceptualisation of the campaign messages and images. We produced four posters with four different designs and messages targeting different sections of the Thai community.

The messages were developed in Thai and translated into English for reviews. The messages in English were edited and shortened complying with poster design development guidelines. The messages were then translated back into Thai.

We carried out process and impact evaluation of the campaign to assess the campaign development process, short-term effects and the recall of the campaign's messages. We sent out resource feedback forms to relevant organisations and conducted focus group discussions with the Thai community.

Results: The resource feedback forms revealed that the campaign was useful, attractive, and appropriate while the focus group discussions revealed the significance in involving the Thai communities in the conceptualisation of the messages and images. They also revealed that as a result of the translation processes, some of the key messages were not easily understood by some members of the Thai community.

Conclusion: The Thai HIV/AIDS Prevention Campaign has demonstrated success in generating some interest in HIV/AIDS prevention in the Thai community. Ongoing consultations with the community are paramount particularly focussing on how the final messages are understood by the community.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 137
PAPER NUMBER: 42

DRUG USERS AND WOMEN SEX WORKERS CHILDREN: REVIEW OF VULNERABILITY, RESILIENCE AND MODEL FAMILY CARE-CENTERED.

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Background: Injection drug users and female sex workers are two of the populations most at risk of HIV in countries with concentrated epidemics. Many adults who fall into these categories are also parents, but little is known about the vulnerabilities faced by their children, children their source of resilience, or programs providing services to these families are often fragile. This review synthesizes evidence from different sources described the vulnerability and resilience of children of female sex workers and drug users, and documents several models of care that have been put in place to help them.

REVIEW: Research on the situation of children of sex workers is very limited. Children of drug users and sex workers could face a unique risk, stigma and discrimination, but both vulnerability and resilience of children involved in the literature of drug use with physical and mental health of parents and family context. Family-based interventions have been implemented in the context of middle and low income, but they tend to be small, little by little and struggling to meet demand, they are not well documented, and most have not been formally evaluated. We present descriptive data in the beginning of an organization working with pregnant women and new drug users in Bogor and from an organization that provides services to sex workers and their families in Bogor – Indonesia.

Conclusions: Because drug use parents' or sex work is often illegal and hidden, to identify their children can be difficult and can increase children's vulnerability and marginalization. Researchers and service providers, therefore, need to proceed cautiously when trying to reach this population, but the documentation and evaluation of current programs should be prioritized.

POSTER NUMBER: 138
POSTER NUMBER: 531

THE NEXT GENERATION: A SUPPORT GROUP FOR YOUNG PEOPLE LIVING WITH HIV

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Background: Young people living with HIV often experience isolation from other young people living with HIV and many do not access traditional HIV peer support programs. Through our direct practice with young people living with HIV we identified youth specific support groups as a gap in the service area, and inspired by our clients and similar work done internationally the Victorian HIV Mental Health Service (VHMHS) and The Alfred HIV Service Social Work Team (HIV Social Work Team) jointly established a pilot support group for young people aged between 18 – 25yrs.

Methods: VHMHS consultant psychiatrist and the social work team met on a fortnightly basis to develop structure and content for the support group and to identify and recruit young people to participate in the group.

Results: A six week group program was held every Tuesday evening (February/March 2011) for 1.5 hours in The Alfred Social Work Department. The group was attended by five young people and they participated in feedback/evaluation of the group program.

Conclusions: A youth specific support group provided an effective forum for young people living with HIV to meet and share their experiences of living with HIV.

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 139
POSTER NUMBER: 409

UPTAKE OF INTERVENTIONS FOR PREVENTING MATERNAL HIV TRANSMISSION IN DISTRICTS LINKING HIV AND REPRODUCTIVE HEALTH SERVICE IN CAMBODIA

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Background

In order to improve the uptake of antenatal HIV testing and interventions to prevent maternal HIV transmission, Cambodia established a program of service linkage between HIV and reproductive health programs in 2008. The program was first initiated in five districts in two provinces. We report here on the outcome of this pilot program.

Method

A retrospective cohort study design was used. Participants were all pregnant women with HIV infection in the five districts, who presented at antenatal clinics between April 2008 and September 2010. Program data from the five districts were used to assess whether or not the women and their exposed infants, completed each of six interventions aimed at reducing the risk of maternal transmission: (1) maternal antiretroviral therapy during pregnancy, (2) delivery in a health facility, (3) antiretroviral treatment of the infant, (4) cotrimoxazole treatment of the infant, (5) first DNA-PCR test and (6) second DNA-PCR test of the infant.

Result

A total 119 pregnant women with HIV infection were detected and followed-up. They gave birth to 83 infants, of whom 51 were eligible to all six interventions. 74.5% (38/51) of the infants completed all interventions, while 25.5% (13/51) missed at least one. Of the women in the cohort, 13.4% (16/119) had an elective abortion, 6.7% (8/119) died, and 8.4% (10/119) were lost to follow-up or relocated. Of the infants, 8.4% (7/83) died and 6.5% (3/46) had HIV infection.

Conclusion:

The majority of women and infants received all interventions. High maternal and infant death rates are causes for concern and indicate a need for continuing improvement in linked HIV and reproductive health service delivery.

POSTER NUMBER: 140
POSTER NUMBER: 141

BUILDING CAPACITY FOR HIV MAINSTREAMING IN THE LOW EPIDEMIC SETTING IN EAST NUSA TENGGARA, INDONESIA

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Background

Strategic HIV mainstreaming in non-health projects is relatively new in low epidemic settings, where it makes no sense to integrate HIV with everything else, but also makes no sense to spend resources on HIV stand-alone projects. With the support from AusAID funded Australia-Nusa Tenggara Assistance for Regional Autonomy (ANTARA) Program focusing on poverty reduction, Burnet Indonesia collaborating with Oxfam Australia saw an opportunity to piloting HIV mainstreaming intervention in East Nusa Tenggara Province.

Methods

Initial assessment showed that limited HIV knowledge and high level of stigma and discrimination exist amongst local partners and rural community. Focus of this project is to raise HIV awareness among local partners in reducing stigma and discrimination and to encourage further dissemination of accurate HIV information to their beneficiaries. A series of workshops, mentoring visits and learning forum were conducted to assist ANTARA partners to mainstream HIV into their livelihood or community development programs.

Results

The most tangible observed outcome is a major reduction in stigma and discrimination towards people living with HIV amongst the participants of workshops. Three priority partners were able to develop a strategic HIV mainstreaming action plan based on the local and organizational contexts, eg identified entry points to disseminate HIV information beyond their internal staff to their beneficiaries. Three best practices of HIV mainstreaming activities were identified and shared in learning forum.

Conclusion

Strategic mainstreaming of HIV commenced with awareness raising with ANTARA's own civil society partners followed by development of strategies to mainstream HIV internally and externally in ways which were focused on this improved understanding of local contexts, challenges and opportunities. Expansion of the strategies to mainstream HIV was limited because HIV mainstreaming had been introduced when ANTARA project was about to end. Further discussions about lessons learnt in similar contexts can provide insights for future programming

THEME D: HIV IN POPULATIONS

POSTER NUMBER: 141
POSTER NUMBER: 330

KNOWLEDGE, ATTITUDE AND PERCEPTION TOWARDS HIV/AIDS AMONG DRUG USERS IN QUETTA/PAKISTAN

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Keyword

Ethnicity, Socio-economic impact, HIV vulnerability, group at risk

Background

The prevalence of HIV/AIDS among the Drug users across the Quetta city is rising day by day. We evaluate the knowledge, attitude and perception towards HIV/AIDS from Drug users. They are from indigenous Dari (Hazaras), the Pasthons, Panjabi and Afghan migrants. The study allows for comparison and defines groups at risk. A report says there are more than 29,000/- addicts, IDUs including Afghan refugees living across city areas.

Method

CAAF has carried out an info-based questioner on HIV/AIDS, STDs, condom use to access knowledge, attitude, perception and risk taking activities. Personal interview, survey has been carried out to see the awareness level among IDUs from different communities. 800 IDUs, PLDs were interviewed during four month volunteer project.

CAAF is a rehabilitation organization working on drug addiction providing detoxification, treatment services to Drug addicts and IDUs.

Results

56% belong to Pasthon tribe, while 20% were from Dari ethnic community, 16 % Afghan refugees and 8% Panjabi.

Concerning basic information about HIV, STDs, condom use, the Dari community was significantly advantaged. The Punjabis were comparatively better informed. The Pasthon and Afghan refugees were particular less informed about HIV/AIDS because of socio-economic, literacy level and tribal background.

Conclusion

HIV/AIDS, STDs needs to be sensitized by local NGOs for grass root communities. More community based interventions have to be initiated to provide awareness to IDUs. The Drug users need sustainable awareness program for their knowledge building and understanding. Islamic institutions can play a positive role in this regard since it's an Islamic and tribal society.

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Australasian HIV/AIDS Conference 2011

23rd Annual Conference of the
Australasian Society for HIV Medicine
Canberra | 26-28 September 2011

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KEY DEADLINES

Abstracts 08.06.2012
Scholarship 29.06.2012
Early Bird 10.08.2012
Accommodation 07.09.2012
Final Registration 04.10.2012

SUPPORTERS

Supported by: Australian Government Department of Health and Ageing
Collaborating Research Centres: Australian Centre in HIV and Hepatitis Virology Research (ACH^2), Australian Research Centre in Sex, Health and Society (ARCSHS), The Kirby Institute, National Centre in HIV Social Research (NCHSR)

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