



Drug-related Hospital Admissions in HIV-infected and Uninfected Gay and Bisexual Men

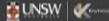
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Drug-related Hospital Admissions in HIV+ve/ HIV-ve Gay and Bisexual Men



No disclosures of interest

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Background

Trends in drug use in gay and bisexual men

- Use of a range of drugs (especially stimulants) is higher among GBM than among the general population
- Prevalence of injecting drug use low compared to other drug use but...
- High prevalence of polydrug use

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Background

Implications of drug use in gay and bisexual men

- Research has focused on HIV transmission and acquisition
- Physical and mental harms of drug abuse likely present in gay men abusing drugs
- Inherent difficulties in distinguishing between recreational drug use and abuse

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Objective

1. Enumerate drug-related hospital admissions in HIV-negative and –positive GBM and compared with rates in the general population
2. Examine risk factors for drug-related hospital admissions, including self-reported drug use

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Methods

- Linkage study: probabilistic linkage of two cohorts with their respective hospital admissions and death notifications
 - i. Health in Men: HIV-negative GBM cohort; Sydney, NSW; 2001-2007
 - ii. Positive Health: HIV-positive GBM cohort; Sydney, NSW; 1998-2007
- Interviewed face-to-face annually
- Frequency of drug use in previous six months for recreational purposes
- Drug-related hospital admissions defined as an admission with a primary or secondary drug-related diagnosis
 - i. Mental or behavioural disorders due to drug use
 - ii. Drug poisoning
 - iii. Toxic effect of gases

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Methods

- **Standardised Incidence Ratios (SIRs)** – compared rates of drug-related hospitalisation in cohorts against general population (adjusted for age)
- **Random-effects Poisson Methods** – assessed relationship between risk factors (incl. self-reported drug use) and drug-related hospital admissions
- Self-reported drug use included as a **patient-level** and **observation-level** variable
 - Patient-level:** nonuser, inconsistent users, consistent low users, consistent high users
 - Observation-level:** categorised on basis of most recent self-reported drug use in a particular year, time-updated

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Results

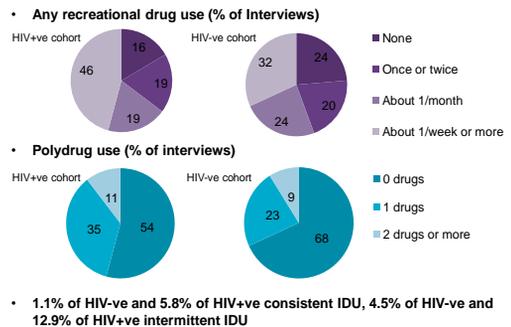
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Baseline Characteristics

	HIV-ve cohort (n=1325)	HIV+ve cohort (n=557)
Age (years), median (IQR)	35.3 (29.6-42.0)	40.9 (36.0-46.7)
Ethnicity: Anglo-Australian/ Anglo-Celtic	985 (74.3)	424 (76.1)
Education: Tertiary	975 (73.6)	334 (60.0)
Employment: Unemployed or Receiving Pension/Disability		
Pension	83 (6.3)	216 (38.8)
Income: <500 per week/ <26,000 per year	266 (20.1)	267 (47.9)
Sexual Identity		
Gay, queer or homosexual	1088 (95.2)	443 (92.1)
Bisexual	42 (3.7)	17 (3.5)
Hepatitis C: Positive	52 (3.9)	69 (12.4)
Daily Smoker: Yes	420 (31.7)	292 (52.42)
Average number of drinks when drinking: >9	62 (4.7)	31 (5.6)
Year diagnosed HIV Positive:		
1980-1996		427 (76.7)
1996-2006		118 (21.2)
Antiretroviral Therapy History		
currently taking		413 (74.2)

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Prevalence of drug use (%) in cohorts



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Comparison of drug-related hospitalisation

	HIV-ve (n=1,325)	HIV+ve (n=557)
Total Follow-up Time, years	7101	3243
Mean Follow-up Time, years	5.4	5.8
Number of Drug-related Discharges	76	83
Number of Participants With a Drug-related Discharge, N(%)	37 (2.8)	48 (8.6)
Rate p. 100PyS (95%CI)	1.07 (0.85-1.34)	2.56 (2.06 - 3.17)
HIV+ve compared with the HIV-ve Cohort:		
IRR (95%CI)	Reference	3.02 (1.67-5.46)
Compared with General Australian Male Population:		
SIR (95%CI)	4.75 (3.30-6.91)	3.51 (1.92-5.88)

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Risk factors for drug-related hospitalisation: self-reported drug use

Risk Factor	Category	IRR	95% CI	P-value
Observation Level, Time-updated Drug Use				
# of drugs used weekly	0	1		
	1	1.86	1.01 - 3.46	
	2+	2.17	1.07 - 4.38	0.005
Injecting drug use	No	1		
	Yes	2.43	1.17-5.04	0.001
Use of cannabis	No	1		
	Low use	1.95	1.01 - 3.77	
	High use	2.58	1.29 - 5.16	0.033
Patient Level Drug Use				
Use of meth/amphetamines	Nonusers	1		
	Inconsistent users	1.61	0.81-3.19	
	Consistently low users	1.43	0.56-3.66	
	Consistently high users	3.24	1.07-9.83	0.063
Use of heroin or other opiates	Nonusers	1		
	Inconsistent users	5.21	1.29- 21.00	
	Consistent users	14.7	0.38-573.0	0.079
Injecting drug use	Nonusers	1		
	Inconsistent users	3.94	1.61- 9.66	
	Consistent users	4.43	1.04 - 18.76	0.003

Risk factors for drug-related hospitalisation: other

- Associated with increased risk of drug-related hospitalisation:
 - i. Unemployment
 - ii. Hepatitis C positivity
 - iii. Previously sought counselling for mental health
 - iv. High or moderate score on Kessler 6 Scale (Psychological Distress)
 - v. Daily smoker
 - vi. High level of alcohol use
 - vii. Serodiscordant relationship
 - viii. Having 6-10 sexual partners in previous 6 months
- Associated with decreased risk of drug-related hospitalisation:
 - i. > 55 years
 - ii. Earning >500\$AUD per week
 - iii. Self-reporting excellent health

Conclusions

Conclusions

Limitations

- Generalisability
- Drug use may have varied over time

Conclusions

Take home messages

- Higher drug-related morbidity in gay and bisexual men
- Greatest at-risk groups for drug-related harm:
 - i. High frequency drug users, injecting drug users
 - ii. Meth/amphetamine and cannabis users
 - iii. Comorbid mental health issues
 - iv. Poor socioeconomic indicators
 - v. High risk sexual activity

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