**ENHANCING ACCESS TO HEPATITIS C TREATMENT FOR PEOPLE WHO USE DRUGS**

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**Aim of Abstract:** Although the burden of hepatitis C virus (HCV) infection among people who inject drugs (PWID) continues to grow, HCV treatment uptake has been low. However, the availability of simple, tolerable interferon-free direct-acting antiviral (DAA) therapies for HCV infection is one of the most exciting advances in clinical medicine in recent decades. The availability of new DAA therapies has the potential to substantially impact disease burden and strive towards the elimination of HCV in some settings. This session will discuss epidemiological definitions and estimates of PWID populations important for improving access to therapy, interferon-free DAA HCV therapy outcomes among PWID populations, strategies to overcome barriers to the delivery of DAA HCV therapy in drug and alcohol treatment settings, and strategies to strive towards elimination of HCV among PWID populations.

**PRESENTATION 1 – EPIDEMIOLOGICAL DEFINITIONS AND ESTIMATES OF POPULATIONS OF PWID WITH HCV INFECTION**

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**Introduction:** There is considerable interest in determining the impact that increased uptake of treatment for hepatitis C virus (HCV) infection will have on prevalence and burden of disease. An understanding of the size of the most affected population, people who inject drugs (PWID), is essential for such exercises, along with parameters such as HCV prevalence and incidence, and duration of injecting. This presentation will discuss approaches to estimating these parameters, with examples from ongoing work estimating PWID in Australia.

**Approach:** We review methods for estimating populations of PWID and HCV infection within this population. Indicator data used to estimate PWID will be presented.

**Key Findings:** In estimating HCV infection among people who inject drugs, it is necessary to consider both “current” injectors, and people with a history of injecting drug use who have ceased injecting (“former” injectors). Indirect prevalence estimation methods are preferred for this task. In developing estimates, there is considerable uncertainty around the size of population of former injectors. This then translates to uncertainty in estimates of HCV infection. Indicator data used to estimate injecting parameters in NSW and Australia includes hospital admissions, drug treatment registrations and drug-related mortality.

**Discussion and Conclusions:** Estimation of PWID (including “former” injectors) is critical for improving access to HCV treatment; however, there is often considerable uncertainty around important population parameters. A better understanding of injecting drug use epidemiology, including the relative proportions of current and former injectors, is needed. This will inform the development of appropriately targeted HCV treatment strategies.

**PRESENTATION 2 – INTERFERON-FREE HCV THERAPY FOR PEOPLE WHO INJECT DRUGS**

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**Introduction / Issues:** The morbidity and mortality due to hepatitis C virus (HCV) infection among people who inject drugs (PWID) continues to increase, but treatment uptake has been low. In Australia, as of March 1st, 2016, new highly effective, simple, and tolerable interferon-free direct-acting antiviral (DAA) HCV therapies have been approved and have the potential to substantially increase treatment uptake among PWID.

**Method / Approach:** This presentation will review definitions for populations of PWID. Data on HCV treatment outcomes and reinfection following DAA therapies among people receiving opioid substitution therapy (OST) and people with current injecting drug use will be reviewed.

**Key Findings:** Data from Phase III clinical trials has demonstrated responses of 92-96% following DAA-based therapy among people receiving OST, with no impact of drug use prior to or during therapy. Drug-drug interactions between commonly used HCV DAA therapies and OST will be reviewed. Information will be highlighted from several ongoing studies evaluating DAA therapy among people with current injecting drug use. Specific issues related to HCV reinfection will be discussed, including the need for further evaluation among people with current injecting drug use.

**Discussion and Conclusions:** Interferon-free HCV DAA therapies among people receiving opioid substitution therapy are safe and effective. However, there is still a lack of data of HCV treatment outcomes among people with current injecting drug use. The availability of new DAA HCV therapies provides an opportunity for expanding HCV treatment among populations of PWID and address the growing burden of HCV infection in Australia.

**PRESENTATION 3 – OVERCOMING BARRIERS TO INTERFERON-FREE HCV THERAPY DELIVERY IN DRUG AND ALCOHOL TREATMENT SETTINGS**

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**Introduction / Issues:** Uptake of HCV treatment among people who inject drugs remains low. Opioid substitution clinics are ideal treatment settings to provide HCV treatment, due to high HCV prevalence in this population, patients typically being enrolled in treatment for medium – long term episodes of care and the potential for appropriate HCV clinical care as services often comprise multidisciplinary clinical teams.

**Method / Approach:** This paper will discuss known barriers and facilitators to providing HCV treatment within opioid substitution treatment settings including resources required, staffing and patient education and support inducing the use of peer workers to facilitate treatment uptake. Managing concurrent drug use by patients during treatment will be addressed. Discussion of the capacity for HCV treatment in other drug and alcohol settings will also be considered.

**Key Findings:** Interferon-based treatment can be successfully provided in opiate substitution treatment settings. Data from the Enhancing Treatment of Hepatitis C in the Opioid Substitution Settings (ETHOS) study will also be discussed.

**Discussion and Conclusions:** Providing HCV treatment using direct acting antiviral (DAA) therapies is less complicated/requires less intensive monitoring than interferon-based treatment. Opioid substitution treatment settings provide an important platform to scale up of DAA HCV therapy.

**Implications for Practice or Policy:** This paper will elaborate on barriers and facilitators to HCV uptake.

**PRESENTATION 4 – TREATMENT AS PREVENTION FOR HCV INFECTION: STRIVING FOR ELIMINATION OF HCV AMONG PEOPLE WHO INJECT DRUGS**

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**Introduction / Issues:** The advent of highly effective direct-acting antiviral (DAA) treatment, with >90% cure rates, improved tolerability and a comparably short duration of therapy (up to 12 weeks) in the majority of patients has increased optimism about achieving HCV elimination, with WHO likely to set 2030 elimination targets this year. The recent PBS listing means that all Australian's can access HCV treatment, regardless of disease stage or how they became infected, meaning Australia is well placed to achieve HCV elimination as a public health threat in the next 10 years.

**Method / Approach:** This paper will discuss strategies to enhance HCV testing, care and treatment in community settings with the aim to increase the number of people who inject drugs (PWID) (and other key populations) accessing HCV treatment and reducing ongoing HCV transmission.

**Key Findings:** In Australia, PWID are the group at greatest risk of HCV infection with HCV prevalence around 50%. To successfully eliminate HCV we need to adopt a treatment as prevention approach that aims to signficantly increase the number of PWID accessing treatment. Currently the majority of treatment globally occurs in tertiary hospital settings. Increasing evidence suggests that moving treatment out of tertiary hospital settings and into the communty improves treatment capacity, treatment access for vulnerable populations and decreases the cost of care.

**Discussion and Conclusions:** The ultimate aim is to reduce HCV related deaths and reduce new HCV infections, paving the way to meet the WHO 2030 elimination targets.

**Discussion Section**
This session will consist of a 15 minute panel discussion focused on future priorities in this area. This will include a question and answer period to enable interaction with the audience.

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