Populating the Hepatitis C Testing, Care and Treatment Cascade among People Who Inject Drugs in Australia

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The majority of new and existing hepatitis C virus (HCV) infections occur among people who inject drugs (PWID)

An estimated 10 million PWID exposed to the virus globally\(^1\)

Interferon-based treatment uptake historically low among PWID

- ~2% of PWID treated annually in Australia in all years to 2015\(^2\)

Universally accessible HCV direct-acting antiviral (DAA) therapies were made available on the Pharmaceutical Benefits Scheme in Australia on 1st March 2016

- Efficacious, fewer side effects, affordable

Potential to markedly improve treatment access and uptake among PWID and require a mechanism to monitor whether this is the case

- ‘Cascade of care’ framework adapted to monitor HCV testing, care and treatment among PWID in Australia.

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Cascade of HCV testing, treatment and care among PWID

Aims

1) Develop a methodology to monitor changes in testing, care and treatment uptake among active PWID

2) To establish baseline estimates of the HCV cascade of care among PWID prior to introduction of DAAs

3) Investigate opportunities for improving linkages to care among active PWID in Australia.
Methods

- Utilize behavioural and serological data from the 2015 Australian NSP survey to generate % and 95% confidence intervals (CI) for each stage in the HCV cascade of care
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Respondents were asked to provide information about their:

- self-reported hepatitis C status
- history of HCV testing (including confirmatory RNA/PCR testing)
- specialist HCV care (including assessment using fibroscan)
- History of HCV treatment

Serological testing of capillary dried blood spots:

- Antibodies to HCV (Monolisa Plus anti-HCV EIA version 2; Bio-Rad, Marnesla-Coquette, France)
- HCV RNA (Abbott RealTimeTM Illinois, United States).

Extrapolation of results using Australian PWID population size estimates.

Source: ANSPS 2015
Results

At the end of 2015, among an estimated 107,400 PWID$^3$ who injected in the previous 12 months:

- 89% (n=95,472, range: 94,018-96,821) had received HCV antibody testing
- 57% (n=61,334, range: 58,995-63,645) had been exposed to HCV

In 2015, 19% of ANSPS respondents had spontaneously cleared the virus (HCV antibody positive and HCV RNA negative serological results with no self-reported history of HCV treatment).
Results

At the end of 2015, among an estimated 49,890 (range: 48,092-52,054) PWID with chronic infection:

• 47% (n=23,490, range: 21,263-35,733) had confirmatory testing

• 31% (n=15,359, range: 13,346-17,487) had received specialist HCV assessment (majority assessed using fibroscan)

• 9% (n=4,216, range: 3,073-5,613) had been treated with antiviral therapies

• After adjusting for treatment success of 55% in the interferon-based treatment era and allowing for some re-infection, it is estimated that 48,284 PWID were living with chronic HCV infection in Australia at the end of 2015.
Cascade of HCV testing, treatment and care among PWID

Discussion

Active PWID in Australia: 107,400
Screened for HCV Ab: 95,472
Exposed to HCV: 61,334
Chronically infected: 11,444
Confirmatory testing: 26,400
Specialist assessment: 34,531
Treated: 45,674
Cured: 48,284
Discussion

Cascade of HCV testing, treatment and care among PWID

Opportunities:
1. Increase the proportion of non-exposed PWID via increased coverage of NSP & OST
2. Increase the proportion of chronically infected PWID receiving confirmatory testing
3. Increase assessment, treatment and cure among those chronically infected
4. Decrease the pool of chronic infection among PWID
Conclusion

• High uptake of HCV antibody testing among active PWID
• Strategies are required to enhance confirmatory HCV testing
• Unrestricted access to DAAs has the potential to markedly improve the HCV care cascade among active PWID
• Between March and June 2016 an estimated 15,493 people had initiated DAA therapy and it is likely that more people will have initiated DDA therapies by the end of 2016 than the total treated in the interferon era
• However, the proportion of those treated who are active PWID is uncertain:
  ➢ strategies to ensure linkage to care and access and uptake of HCV treatment among this sub-population
  ➢ Utilize ANSPS to monitor HCV treatment uptake among PWID
  ➢ Conduct HCV antibody and RNA testing of ANSPS DBS to monitor the pool of chronic infection among PWID
  ➢ Update the HCV testing, care and treatment cascade among PWID in 2017
• Ensure that primary prevention strategies (NSP and OST) are maintained or enhanced.
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