

The importance of injecting networks

Significant and ongoing Burnet Institute research has provided important insights into the social networks of people who inject drugs and how these affect patterns of hepatitis C transmission and inform treatment and prevention measures.

THE ISSUE

Chronic hepatitis C infection is associated with significant levels of morbidity and mortality. People who inject drugs (PWID) are at very high risk of being infected with hepatitis C1 and hence are an important group to target for prevention and treatment.

WHAT OUR WORK FOUND

Four hundred and thirteen PWID in Melbourne, Australia were followed for over four years to learn what increased their risk of contracting hepatitis C infection, and how relationships between PWIDs – ‘the injecting networks’ – affect transmission patterns and treatment options.

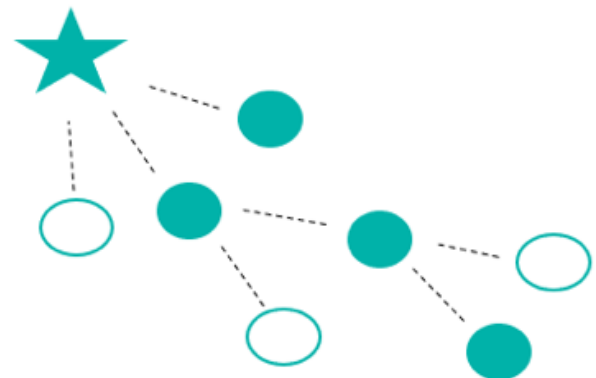
- ▶ Mathematical models showed that individuals are at greater risk of infection if they are frequent injectors and if they have more network partners.
- ▶ These models also found that spontaneous clearance of hepatitis C infection (occurring in ~25% of those infected) protects their associated injecting network from hepatitis C infection.
- ▶ One of our models showed that the ‘bring your friends’ strategy – involving effective treatment of PWID and their specific contacts - can reduce new infections and reinfections through a ‘treatment as prevention’ effect.
- ▶ The ‘bring your friends’ approach is being tested in a community-based study of PWID entitled the Hepatitis C Treatment and Prevention (TAP) study

CONCLUSION

Injecting networks are an important factor in hepatitis C transmission and should inform treatment as prevention strategies.

References

1. Nelson P et al. *Lancet* 2011; 378: 571-583



- ★ **Treat infected case**
- **Treat infected friend**
- **Uninfected friend**

A graphical illustration of the ‘treat your friends’ strategy

Policy Implications

- ▶ A networks-based approach to hepatitis C treatment in PWID is likely to assist in achieving hepatitis C elimination in this group.
- ▶ A treatment strategy such as ‘bring your friends’ capitalises on existing relationships amongst PWID and is a practical way to implement a network-based treatment approach.
- ▶ Results from the TAP study will provide real-life evidence of the effectiveness of a treatment as prevention approach to treating hepatitis C in PWID and in reducing ongoing hepatitis C transmission.

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Full publication: Hellard M, McBryde E, Sacks-Davis R, Rolls D, Higgs P, Aitken C, Thompson A, Doyle J, Pattison P, Robins G. Hepatitis C transmission and treatment as prevention – the role of the injecting network. *International Journal of Drug Policy* 2015; 26: 958–962. doi: 10.1016/j.drugpo.2015.05.006



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