The benefits of a hepatitis C vaccine

Even a partially effective hepatitis C vaccine could effectively complement existing treatments to reduce the prevalence of hepatitis C amongst people who inject drugs.

THE ISSUE

In many countries, the prevalence of hepatitis C amongst people who inject drugs (PWID) is estimated to be greater than 50%. Whilst direct-acting antiviral (DAA) therapy for hepatitis C will make a major contribution to reducing disease prevalence to help achieve the WHO 2030 elimination targets, a hepatitis C vaccine would reduce prevalence through prevention and reduce the overall costs of hepatitis C elimination efforts.

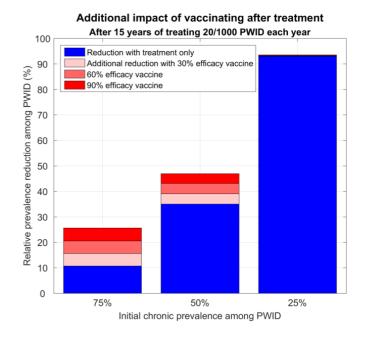
WHAT OUR WORK FOUND

The researchers used a mathematical model to determine the impact of a hepatitis C vaccine with varying degrees of efficacy, and to estimate how much additional impact could be achieved if PWID were vaccinated after treatment.

- In settings with high hepatitis C prevalence among PWID, such as Australia, Indonesia, the UK and the USA, modelling showed the availability of a lowefficacy vaccine provides significant benefit beyond treatment alone.
- A vaccine means fewer treatments are needed to achieve prevalence reduction targets, which is likely to reduce costs.
- Vaccination following successful treatment is a useful strategy to target specific risk groups.
- The benefits of a low-efficacy vaccine are greater in settings with higher hepatitis C prevalence.

CONCLUSION

The availability of a hepatitis C vaccine, even if less than 80% effective, could greatly reduce the prevalence of hepatitis C amongst PWID when given in conjunction with DAA treatment.



Policy Implications

- A hepatitis C vaccine does not have to provide perfect protection to significantly boost elimination efforts, so its development is worth pursuing.
- Administering hepatitis C vaccination following successful treatment would be a practical and effective strategy for targeting risk groups.

For complete details, contact Dr Nick Scott (nick.scott@burnet.edu.au).

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