Small cash incentives dramatically improve hepatitis B vaccination rates among injecting drug users
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Small financial incentives, totalling as little as £30, can dramatically increase the likelihood of people who inject drugs completing a course of hepatitis B virus (HBV) vaccination, according to new research published in The Lancet.

Researchers in the UK found that people undergoing treatment for heroin addiction who received a maximum total of £30 supermarket vouchers in equal or graduated instalments in return for full compliance with a regimen of three HBV vaccine injections were at least 12 times as likely to complete the course within 28 days compared to those not receiving a financial incentive (45% for equal payment instalments and 49% for graduated payment instalments vs 9% for no payment incentive).

The study was led by Professor John Strang from the National Addiction Centre at King's College London, working in close collaboration with senior colleagues at Imperial College London and University College London (UCL), in the UK.

"That monetary incentives increase compliance is unremarkable, but the size of the increase we observed was striking", says Professor Strang. "Injecting drug users are at high risk of infection and transmission of hepatitis B. This is a potentially life-saving vaccine, and increasing its uptake among this group has important benefits to public health, as well as to the individual."

HBV affects about 22% of injecting drug users in the UK, and much higher proportions in other countries. Medication can slow the spread of HBV, but there is no completely effective cure. It is estimated that 15-25% of people with untreated chronic HBV die of liver disease. A highly effective vaccine exists, but the rate of vaccination uptake is poor. Financial incentive-based public health strategies for treating addiction have gained popularity in the USA in recent years, but such incentive schemes are less common in the UK.

The new study enrolled 210 people receiving opioid substitution therapy from 12 National Health Service drug treatment services across the UK. Services were randomly assigned to different voucher schedules, so that patients received either HBV vaccination without incentive (treatment as usual), fixed value contingency management (£10 voucher at each of three vaccinations), or escalating value contingency management (£5 voucher at first vaccination visit, £10 voucher at second visit, and £15 voucher at third visit).

The researchers compared the effectiveness of these three approaches in achieving completion of vaccination. In the treatment as usual group, only six (9%) of 67 participants completed all scheduled vaccinations, compared with 35 (45%) of 78 participants in the fixed reward group, and 32 (49%) of 65 participants in the escalating reward group.

Additionally, the authors noted that most participants (at least 80%) receiving financial incentives attended appointments on time, ensuring a more efficient use of resources.

According to Professor Strang, "Our research finds that offering financial incentives improves people's completion of HBV vaccination, and can be achieved in routine clinical practice. However, even with these improvements, only about half the participants completed the vaccination schedule in the contingency management groups: more work is needed to refine the reward scheme to increase further the uptake and completion of vaccination."

Writing in a linked Comment, A Thomas McLellan,
Director of the Treatment Research Institute in Philadelphia, USA, says, "Health care policy makers might be wise to consider traditional market forces when designing and delivering prevention strategies. The findings from Weaver and colleagues' study suggest that contingent financial incentives might be as or more important in the disease prevention marketplace as they are in commercial markets."

**More information:**
www.thelancet.com/journals/lan ... (14)60196-3/abstract

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