

GUIDANCE ON PREVENTION OF VIRAL HEPATITIS B AND C AMONG PEOPLE WHO INJECT DRUGS

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The “silent epidemic” of viral hepatitis affects a large part of the world's population without due attention from the health sector. Now, however, co-infection with HIV and viral hepatitis is increasingly recognized as a considerable public health problem.

It is estimated that 240 million people are chronically infected with hepatitis B (HBV) and 170 million are chronically infected with hepatitis C (HCV). These numbers far exceed the number of people living with HIV, estimated at 34 million.

People who inject drugs (PWID) are a key population affected by HBV and HCV. There are approximately 16 million people who inject drugs in 148 countries (1). In 2011 it was estimated that 1,2 million people who inject drugs are infected with HBV and 10 million people who inject drugs are infected with HCV(2).

Around the world, the prevalence of HBV among people who inject drugs correlates with the prevalence in the general population. The highest prevalence rates of HBV among the general population and people who inject drugs are found in Asia. On average, HCV prevalence among people who inject drugs is higher than 50% in most countries of the world, between 60% and 80% in 25 countries, and above 80% in a further 12 countries (2). The largest populations of injecting drug users live in China (HCV prevalence estimated at 67% of people who inject drugs), the Russian Federation (73%) and the United States (72%).

The global response to viral hepatitis B and C has been poor. For people who inject drugs, HBV and HCV are most commonly transmitted by sharing contaminated injecting equipment. Despite the recommendation to implement needle and syringe programmes as a key public health measure (3), many countries with injecting drug use do not provide these programmes, and coverage levels are generally not sufficient in countries that do provide sterile injecting equipment. It is estimated that globally only 22 syringes are provided per year per person who injects drugs (4).

Although the HBV vaccine is inexpensive, safe and effective, vaccination rates for HBV among people who inject drugs are lower than in the general population. There is a need to improve HBV vaccination rates in people who inject drugs. There is currently no vaccine for HCV; hence, there is an urgent need to identify additional measures to prevent transmission of HCV in this population.

This *Guidance on prevention of viral hepatitis B and C among people who inject drugs* is the first step in the provision of comprehensive guidance on viral hepatitis surveillance, prevention and treatment by the World Health Organization. These recommendations are based on systematic reviews of scientific evidence, community values and preferences and implementation issues. Although the focus of this guidance is on low- and middle-income countries, this guidance applies equally to high-income settings.

The *WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (3)* presents a comprehensive package of interventions for HIV prevention, treatment and care for people who inject drugs. This document has helped to achieve global consensus with high-level political bodies, the United Nations, donor agencies and civil society organizations on adopting a public health response that best addresses HIV in countries facing epidemics of injecting drug use. The nine interventions of this package (see above) are also relevant to the prevention of viral hepatitis, in particular the first two, needle and syringe programmes and opioid substitution therapy.

THE NINE INTERVENTIONS IN THE COMPREHENSIVE PACKAGE

- 1 needle and syringe programmes
- 2 opioid substitution therapy and other drug dependence treatment
- 3 HIV testing and counselling
- 4 antiretroviral therapy
- 5 prevention and treatment of sexually transmitted infections
- 6 condom programmes for people who inject drugs and their sexual partners
- 7 targeted information, education and communication for people who inject drugs and their sexual partners
- 8 vaccination, diagnosis and treatment of viral hepatitis
- 9 prevention, diagnosis and treatment of tuberculosis.

SUMMARY OF RECOMMENDATIONS

RECOMMENDATION 1

It is suggested to offer people who inject drugs the rapid hepatitis B vaccination regimen.¹

RECOMMENDATION 2

It is suggested to offer people who inject drugs incentives to increase uptake and completion of the hepatitis B vaccine schedule.²

RECOMMENDATION 3

It is suggested that needle and syringe programs also provide low dead-space syringes for distribution to people who inject drugs.³

RECOMMENDATION 4

Psychosocial interventions are not suggested for people who inject drugs to reduce the incidence of viral hepatitis.

RECOMMENDATION 5

It is suggested to offer peer interventions to people who inject drugs to reduce the incidence of viral hepatitis

¹ A higher dose HBV vaccine should be used with the rapid regimen; standard and rapid regimens should be offered to PWID, with first priority given to delivery of the first dose and then to completion of three doses.

² This recommendation is conditional on local acceptability and resource availability; vaccinations should be provided at a location and time convenient for PWID.

³ Syringe programmes should offer all types of syringes appropriate for local needs.

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THERAPY

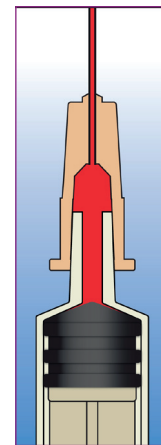
HEPATITIS B VACCINATION

HBV vaccination is inexpensive, safe and effective. The standard schedule for HBV vaccination is at 0, 1, and 6 months, while the rapid schedule is at 1, 7, and 21 days. By 2008, 177 countries had incorporated HBV vaccination into their national schedule of childhood immunizations. An estimated 69% of the 2008 birth cohort received three doses of the vaccine. The implication of this high immunization rate is that HBV vaccination for people who inject drugs and other high-risk groups is a time-limited challenge, as new cohorts of people who inject drugs increasingly will have been immunized at birth. Nevertheless, in many parts of the world HBV vaccination rates among people who inject drugs are low, for a variety of reasons including cost, access and the unsettled lives of many people who inject drugs. Systematic reviews examined HBV vaccine completion and uptake when the rapid HBV vaccine schedule is offered and, separately, when incentives are offered. Evidence showed that both the rapid schedule as well as providing incentives to people who inject drugs helped increase uptake and completion of HBV vaccination. Vaccinations should be provided at a location and time convenient for people who inject drugs.

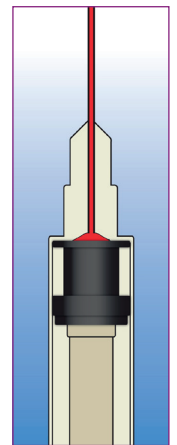
LOW DEAD-SPACE SYRINGES

Low dead-space syringes (LDSS) are designed to reduce the amount of blood remaining in the syringe after completely pushing down the syringe plunger. LDSS commonly have a non-detachable needle joined directly to the syringe barrel. The amount of blood remaining in a LDSS after pushing down the syringe plunger and rinsing the syringe is up to 100-fold less than that remaining in an ordinary syringe with high dead space. Studies have shown that this difference in dead space reduces the survival of HCV and HIV in blood remaining in syringes. The implication is a potential reduction in risk of transmission of HCV and HIV when syringe-sharing takes place. The evidence for the effectiveness of LDSS in reducing HCV transmission among people who inject drugs was reviewed. Given the limited literature available, HIV transmission was interpreted as a proxy for HCV transmission. The evidence indicated that providing LDSS leads to a reduction in the transmission of HIV and HCV and that needle and syringe programmes should also provide LDSS in addition to all types of syringes appropriate for local needs.

EXAMPLES OF LOW AND HIGH DEAD-SPACE SYRINGES



Standard high dead space needle and syringe



Low dead space syringe with permanently attached needle

PSYCHOSOCIAL INTERVENTIONS

Psychosocial interventions, also known as behavioural interventions, aim to change behaviour through the exchange of information, typically lead by a clinician or educator. They include, but are not limited to, brief interventions, motivational interviewing, cognitive behavioural therapy, contingency management, behavioural therapy and self-help groups. Psychosocial interventions are used as therapy in a number of health disciplines, including the treatment of substance use disorders. Based on the results of systematic reviews, psychosocial interventions cannot be suggested as a core intervention because no evidence was found that they reduce rates of viral hepatitis transmission.

PEER INTERVENTIONS

Peer interventions—initiatives that include peers in service delivery, also termed peer-based or peer-driven interventions—are often an aspect of outreach initiatives. Peer interventions for people who inject drugs are common in many parts of the world where there is injecting drug use. The evidence of the effectiveness of peer interventions to reduce HBV and HCV transmission as well as to change injecting and sexual risk behaviour was reviewed. In contrast to other psychosocial interventions, delivered by health workers, evidence showed that interventions delivered by peers were effective in reducing transmission of viral hepatitis.

PRINCIPLES AND IMPLEMENTATION

- The principles for this guidance, and for working with people who inject drugs, are the protection of human rights, access to health care, access to justice, acceptability of services, health literacy and integrated service provision. Interventions must be acceptable and appropriate for people who inject drugs. Consultation and cooperation with drug user groups is important when designing and implementing services.
- This guidance should be implemented in phases, consistent with the level of resources available. Consideration should be given to building awareness of this guidance among health-care workers and people who inject drugs. For the implementation of these guidelines, the local context of health systems, prevention services and community involvement should be considered.

NEXT STEPS

This guidance will be updated in future in accordance with WHO policy. In addition, WHO is currently developing guidance on viral hepatitis surveillance, guidance on hepatitis C treatment and guidance on the management of HIV in the context of co-infection with viral hepatitis and HIV.

Multisectoral engagement is needed to increase the uptake of viral hepatitis prevention and treatment initiatives by people who inject drugs. There is a high prevalence of disease co-morbidity among people who inject drugs. The need for coordination between HBV and HCV intervention programmes, on one hand, and, on the other, HIV, TB, mental health and drug dependence treatment services as well as harm reduction services for people who inject drugs cannot be overemphasized.

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