HOW TO PREVENT INFECTIONS AMONG INJECTING DRUG USERS

A new report suggests that recent changes in drug-taking behaviour have contributed to an increase in bacterial infections. Nerys Hairon finds out more

Around one-third of injecting drug users have reported having an abscess, sore or open wound at sites of injection, according to a new report (Health Protection Agency et al, 2008). The HPA (2008) says recent changes in drug-taking, such as the increase in people taking crack-cocaine, have contributed to an increase in bacterial infections among drug users. Such infections may cost the NHS as much as £47m a year.

Bacterial infections among this group range from localised site infections through to invasive disease, and include: *Staphylococcus aureus* (including community-associated MRSA); severe group A streptococci; wound botulism and tetanus. Severity can vary from minor skin infections to life-threatening bacteraemia.

The report makes several practical recommendations to prevent the spread of infections among injecting drug users (IDUs) and reduce the harm caused by these infections (see box, p22).

BACKGROUND
People who inject drugs are vulnerable to a wide range of infections, including those caused by viruses such as HIV and hepatitis B and C and bacteria such as *Clostridium botulinum* and group A streptococci.

The extent of injecting drug use in the UK remains uncertain. According to the HPA et al (2008) a recent national estimate undertaken for England suggested there were around 140,000 injectors of heroin or crack-cocaine. However, other studies have suggested that the number of IDUs in England may be higher. Two studies have indicated that the number of current injectors in Scotland may have reduced from around 25,000 in 2000 to 19,000 in 2003. There are no recent published studies for Wales or Northern Ireland.

The Department of Health and National Treatment Agency for Substance Misuse (2007) launched an action plan for reducing drug-related harm in England last year. This includes infections as one of its focuses. A range of clinical guidelines also focus on supporting people with drug misuse problems. The DH et al (2007) updated its guidance on drug misuse and dependence, while NICE has also published two clinical guidelines on psychosocial interventions and opioid detoxification (NICE, 2007a; 2007b).

INJECTING SITE INFECTIONS
The HPA et al (2008) reports that symptoms of a possible injecting site infection appear to be common among IDUs, as 34% of survey participants in 2007 said they had had either an abscess, sore or open wound during the previous year. The reporting of such a symptom was associated with having been homeless in the last year.

Symptoms of possible injecting site infections were found to be linked to a number of factors among current IDUs. Those who used the following injection sites during the last four weeks reported higher levels of symptoms: hands; groin; legs; and feet. Higher levels of symptoms were also found among those who had injected crack-cocaine or cocaine in the last four weeks.

The report concludes injecting into the groin and the injection of crack-cocaine, which are associated with higher levels of infection, have become more common.

TYPES OF INFECTION
*Staphylococcus aureus* infections:
*S. aureus* is a common pathogen among IDUs, causing infections that vary in severity from minor skin and soft tissue infections to
Potential sources for tetanus infection in IDUs are confined to the area close to the site of injury or injection. However, symptoms can range from mild trismus, neck stiffness and/or abdominal rigidity to generalised tetanus. Potential sources for tetanus infection in IDUs are contaminated drugs, injectin equipment and skin. Before 2003, tetanus had rarely been reported in IDUs in the UK. The situation changed in 2003, when an outbreak of tetanus developed among this group, with 25 cases reported in 2003–2004. Many cases were unimmunised or partially immunised and most had tetanus antibody levels below the protective threshold. This led to vaccination guidance for IDUs being updated to ensure their tetanus immunisation status is checked and that the use of human tetanus immunoglobulin is considered for IDUs. Figures for the three-year period 2005–2007 indicate tetanus continues to affect IDUs but at lower levels than in 2003–2004.

OTHER ISSUES
The report also includes information on a range of other issues (see www.hpa.org.uk). Encouraging results were noted in terms of an increase in uptake of hepatitis B vaccine, rising from 25% a decade ago to 66% in 2007. However, transmission continues and one in six IDUs are thought to be infected.

CONCLUSIONS
The continuing occurrence of clostridial infections is a concern. The report recommends that staff remain alert to the possibility of these infections in IDUs.Injecting-related MRSA and severe GAS infections are continuing to occur, which could be linked to the increased use of crack-cocaine.

Associations between cocaine and crack-cocaine use and higher levels of infection and risky injecting practices are also a concern. Further investigation into the links between crack-cocaine use and risk are necessary.

Services to reduce injecting-related harms and support for those who want to stop injecting should continue to be developed in line with guidance.

The HPA et al (2008) recommend that when commissioning community-based services to reduce harm from problem drug use, trusts should give priority to preventing the spread of infections among IDUs and reducing the harm that these infections cause.

One recommendation focuses on ensuring that all services working with IDUs provide the following:
- Information and practical advice on safer injecting practices, avoiding injecting site infections, prevention of bloodborne virus transmission and the safe disposal of used equipment;
- Onsite hepatitis B vaccination services, with follow-up strategies for those who have started the vaccination course in line with national service specifications;
- Easy access to health checks, treatment for injection site infections, and diagnostic tests for hepatitis C and HIV;
- Interventions to encourage behaviour change away from the sharing of injecting equipment and to decrease or stop injecting;
- Interventions that support entry into drug treatment, particularly to sustained quality substitute opioid treatment for heroin users, which has been shown to be protective against infections.