

## **ANTHRAX AND HEROIN USERS: WHAT WORKERS NEED TO KNOW**

### **Background**

Heroin users in the UK are facing a potentially deadly risk from an outbreak of anthrax. . The outbreak among heroin users, first identified in Glasgow in December 2009, has spread to several other areas in Scotland and there are now anthrax cases in England. A case was also reported in Germany in December.

A substantial number of those heroin users who have been identified with anthrax have died from their infection.

The source of the outbreak is thought to be heroin that has become contaminated with anthrax spores – whether during production or at a later stage.

For up to date information on the numbers of people and areas affected in Scotland, see <http://www.hps.scot.nhs.uk/anthrax/index.aspx>

Information on anthrax in England can be found at:

[www.hpa.org.uk/anthrax](http://www.hpa.org.uk/anthrax)

### **Anthrax can be cured if treatment is started at an early stage.**

This guide aims to provide staff working with heroin users in specialist and non-specialist settings with key information on:

- *how heroin users can become infected*
- *signs and symptoms of anthrax infection in heroin users*
- *what workers can do to help*

This guide has been adapted from a document produced by the Scottish Drugs Forum in association with Health Protection Scotland.

## **What is anthrax?**

Anthrax is a bacterium that produces spores that can infect the body. It also produces harmful toxins that damage the body and can lead to death.

The infection of drug users with contaminated heroin is most likely to be acquired through:

- heroin injection, with the spores entering the skin or entering the tissues under the skin (such as fat or muscle) or
- heroin smoking or inhalation, with the spores entering the lungs..

## **Who is anthrax affecting?**

Information from the current outbreak is still emerging so it is difficult to say definitely who is particularly at risk. However, we do have some information:

- All confirmed cases in the UK have a history of recent heroin use.
- Some have deliberately injected into veins or muscle – and others have accidentally injected into muscle or the fatty tissue just beneath the skin.
- Some have smoked or inhaled their heroin.
- Some have been homeless, others were in settled accommodation.
- Some have been using heroin on top of their methadone treatment.
- Ages range from late 20s to mid 50s.
- More men have been affected than women

Because the picture is very mixed so far, public health experts say that **all** forms of heroin use carry a risk of infection if the heroin is contaminated with anthrax spores. No heroin can be considered safe.

## **Can you spot the contaminated heroin?**

No. The spores are too small to be seen by the human eye.

Heroin powder normally varies in colour, texture and how well it dissolves – depending on the batch and how much it's been cut.

Some – but not all – of the anthrax survivors reckon the heroin they used was darker in appearance, but that may not be the case every time. This is not a reliable guide to which heroin is more dangerous.

Contaminated heroin cannot be identified by appearance and therefore all heroin has to be considered potentially dangerous.

## **Recognition of anthrax**

As anthrax can be cured with early treatment, it is important that workers are aware what to look for.

### ***Signs and symptoms of anthrax infection***

Early identification of anthrax can be difficult, especially among heroin users whose general health may be poor anyway.

How someone actually reacts to infection depends, in part, on whether the infection came through the skin or from having breathed in spores.

So, look out for anyone who uses heroin and is feeling poorly – especially if they have a wound, redness or excessive swelling around an injecting site.

Other early presentations can be similar to other illnesses for example, with ‘flu-like symptoms, or feeling nauseated.

Having difficulty breathing is seen particularly in those cases of anthrax caught through inhalation or smoking.

### ***What to look out for specifically***

Infection at the injection site has been the most common presentation in this outbreak. Other presentations of anthrax have also been seen.

#### **Anthrax infection at an injecting site:**

- redness and excessive swelling at the site or an area close to it
- locally – tenderness/pain/discharge of fluid/pus from wounds
- alongside the localised problems, a raised temperature and feeling unwell and weak, with generalised aches and pains and headache.

#### **Anthrax infection in the skin (classical cutaneous/skin anthrax):**

- usually occurs 2- 7 days after infection
- usually begins as a raised/swollen itchy red bump, similar to an insect bite
- within 1-2 days, developing into a clear blister/abscess and then an ulcer which may be painless. It may also be black in the centre
- feeling ‘flu-like, with fever, headache and/or nausea.

#### **Anthrax infection through inhaling/smoking (inhalation anthrax):**

- flu-like illness (fever, headache, muscle aches, cough)
- breathlessness and chest pains
- rapid deterioration of consciousness – lapsing into a coma.

## **Anthrax can be cured with early treatment**

### ***What to do if someone has symptoms***

If a heroin user shows any of the above symptoms, you should **actively assist** them to be seen urgently by their nearest hospital Accident and Emergency department or GP.

Things you can do include:

- Helping them find their way to hospital or GP surgery
- Accompanying them to hospital or surgery
- Arranging for someone else – family or friend – to be there with them.

### ***Are there risks to workers and family?***

Any risks to workers and family are so low as to be absolutely minimal.

There are no documented cases of infection spreading from one person to another as a result of any form of intimate physical or sexual contact.

However, there is a potential risk from touching skin lesions, especially where skin is broken.

As with many skin infections, it's best to:

- avoid skin contact with leaking or dried out wounds or abscesses
- keep wounds covered with dressings or plasters
- wipe up anything that has leaked from a wound onto a surface with ordinary domestic bleach-based disinfectant at a suitable dilution.

### ***How services can minimise anthrax risks***

- Offer quick access to individually-tailored and effective drugs treatment
- Continue to advise users not to share needles, syringe, filters and other “works”
- Advise users not to reuse injecting equipment. As reuse of equipment, particularly filters, has been associated with getting bacterial infections.
- Encourage injecting users to limit citric or other acids to dissolve drugs – tissue damage caused by the acid can allow infection to set in more easily
- Look at whether dosage levels for people on substitute medication are adequate to reduce the risk of “topping up” with street heroin.