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Scottish Drugs
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ANTHRAX AND HEROIN USERS: WHAT WORKERS NEED TO KNOW

Produced by Scottish Drugs Forum

in association with Health Protection Scotland

A national resource of
expertise on drug issues

www.sdf.org.uk

www.scottishdrugservices.com

www.naloxone.org.uk

About this guide

HEROIN users in Scotland face a potentially deadly risk from anthrax infection.

In 2009/10 an outbreak of anthrax among heroin users in Scotland infected 47 people, of whom 14 died.

Contaminated heroin or cutting agent – possibly contaminated during the production or handling stage – was thought to have been the source of the outbreak.

Because the quality and safety of heroin cannot be monitored or controlled, we most likely will continue to see sporadic cases and outbreaks of illness and death associated with the use of, or contamination of, drugs.

These events are likely to occur without warning.

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.

***All forms of heroin use carry a risk of infection
No heroin can be considered free of contamination***

What is anthrax?

Anthrax is a bacterium which creates spores that can infect the body, produce lethal poisons and lead to death.

The infection among heroin users is most likely to be acquired through:

- spores entering the skin or tissues under the skin (such as fat or muscle), via injecting contaminated heroin into the body
- breathing in spores while smoking or snorting contaminated heroin (inhalation).

Who contacted anthrax in the 2009-10 outbreak?

All confirmed cases had a history of recent heroin use.

Some had deliberately injected into veins or to muscle - or accidentally injected into muscle or the fatty tissue just beneath the skin.

Some reported only smoking heroin.

Some were homeless, others were in settled accommodation.

Some – not all – were on methadone treatment.

Ages ranged from late 20s to mid 50s.

More men were affected than women.

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.

Contaminated heroin cannot be identified by appearance or in terms of how well it dissolves and therefore all heroin has to be considered potentially dangerous.

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 reacts also depends on whether the spores entered through the skin (via injection) or through the lungs (via smoking).

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

But other early symptoms can be similar to other illnesses like the 'flu, or feeling nauseous or even having difficulty breathing.

What to look out for

Someone may be infected with anthrax if he or she shows any of the following:

Anthrax infection at an injecting site (below the skin – in subcutaneous fat or muscle tissue):

- infection (redness and swelling) of the injection site or an area close to it
- tenderness/pain/discharging of fluid or pus from wounds
- may be accompanied by a raised temperature and feeling generally unwell and weak, with aches and pains including headache.

Infection at the injection site was the most common presentation in the 2009-10 outbreak.

Normal presentations of anthrax may also include symptoms as detailed below:

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

- usually occurs 2-7 days after exposure
- 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
- person-to-person spread of cutaneous anthrax is extremely rare.

Anthrax infection through inhaling (inhalation anthrax):

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

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?

The risk to non-heroin using individuals appears to be 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.

- healthcare advice should be taken on the best way to heal a wound
- small wounds can be covered with a water proof dressing
- wounds should be dressed and should not leak through the dressing
- care should be taken to avoid contact with the wound or any wound discharge by wearing single use gloves to dress wounds or to clean up any spillages
- afterwards, remove gloves and wash hands with soap and water.

How services can minimise anthrax risks

- Offer quick access to individually-tailored and effective treatment for drug problems
- Continue to advise users not to share needles, syringe, filters and other “works”
- Advise users of the importance of filters
- Advise users of the importance of using new filters each time they inject. Filters must be discarded after each use
- Encourage injecting users to limit citric acid – 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.

Further information and useful links

Health Protection Scotland

www.hps.scot.nhs.uk/giz/

[anthraxoutbreakdecember2009december2010.aspx](http://www.hps.scot.nhs.uk/giz/anthraxoutbreakdecember2009december2010.aspx)

Directory of Scottish Drug Services

www.scottishdrugservicesdirectory.com

Scottish Drugs Forum

www.sdf.org.uk

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Find drug services in your area:

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Hepatitis Scotland:

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