



ANTHRAX

Information for Heroin Users

Issue 1 – August 2012

Background:

On the 17th June 2012, a heroin injector presented to a Berlin Hospital with symptoms of cutaneous anthrax i.e. infection at the injection site. Symptoms were black eschar (black dry scab), massive swelling, erythema (redness) and thrombosis.

Diagnosis was confirmed at the Robert Koch Institute by PCR, and serology showed that this was an anthrax infection due to the injection of an anthrax-contaminated batch of heroin.

Subsequent deaths of injecting heroin users have occurred in Denmark, Germany, France and Scotland during June/July 2012. These more recent cases follow the crisis in Scotland during 2009/10 where an outbreak of anthrax infected 47 people of whom 14 died.

The spores found in the heroin responsible for the recent cases in Germany were shown to be indistinguishable from those found in the 2009/10 cases in Scotland. This suggests that the same batch of heroin could be responsible.

It is believed that the origins of the outbreak lie in the contamination of the heroin or its additives during the manufacturing process in the source country, or possibly during transit.

Due to the lack of quality control on street heroin, which is one of the results of global prohibition, identifying and removing the contaminated heroin from circulation is almost impossible.

Outbreaks are likely to continue with illness and death caused by the contaminated heroin. These outbreaks will occur without warning, due to the lack of any identifiable traits or markings visible with the infected heroin.

We want to provide this basic information not only to injecting and smoking heroin users, but also to professionals who may be in contact with them, and people who are able to talk with the drug using communities.

What is Anthrax?

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

Treatment:

Anthrax can be cured if anti-biotic treatment is started at the earliest stage.

Can you filter out the anthrax spores?

We do not know how many spores would be in one hit, but there is evidence involving animal studies that it doesn't take many spores to kill a sheep. This indicates that even small amounts of the anthrax bacteria can cause infection, illness and death.

You could try using a .22 micron wheel filter, but this is not guaranteed to remove the anthrax spores. The small number of spores left will still create illness.

Key messages:

Always use new needles/syringes if at all possible. Create safe space and share nothing!

If you are using a wheel filter, wet the filter first (sterile, or boiled and cooled) this stops a lot of the drug being absorbed by the filter.

The risk however is not removed and may not even be reduced.

The *Sterifit* filter isn't fine enough to remove anthrax spores.



Sterifit filter

Boiling the mix as a hit will not kill anthrax. There is a possibility that anthrax spores might be killed if boiled for 5 minutes, but this is impossible with the volume of liquid used in a hit.

Infection among heroin users is most likely to be acquired through:

Injection:

Spores entering the bloodstream, skin or tissues under the skin (such as fat or muscle) via injection of contaminated heroin.

Inhalation - Smoking/chasing/snorting:

Breathing in spores while smoking or snorting contaminated heroin.

Who contracted anthrax in the 2009-10 outbreak?

All confirmed cases had a history of recent heroin use. Some had deliberately injected into veins or 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, but this does not mean that men are more susceptible to anthrax than women, or that women are safer.

Can you identify the contaminated heroin?

No. The anthrax spores are too small to be seen with the human eye. The mixture in the cooker/spoon or foil will look exactly the same as an uncontaminated mix.

Signs and symptoms

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 bloodstream (via injection or sniffing) or through the lungs (via smoking / chasing / snorting).

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:



Cutaneous lesions with anthrax
(photo <http://www.nja.com.au>)

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/discharge of fluid or pus from wounds.
- A raised temperature and feeling generally unwell and weak, with aches and pains including headache.

Infection at the injection site was the most common symptom in the 2009-10 outbreak. Normal presentations of anthrax may also include the following symptoms:

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

- Usually occurs 2-12 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 that 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. This might be confused for an overdose, but unlike an OD, it will not be reversed by naloxone.

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 family, friends or medical staff?

- 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.
- 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 waterproof dressing.
- Wounds should be dressed and 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.

Useful links:

Scottish Drugs Forum (SDP)

www.sdf.org.uk

The International Network of People who Use Drugs

www.inpud.net

The Australian Injecting and Illicit Drug Users League

www.aivl.org.au

Health protection Agency, UK

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1317135273668>

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The International Network of People who Use Drugs

www.inpud.net

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