

BOTULISM

INFECTIONS IN PEOPLE WHO USE DRUGS
WHAT WORKERS NEED TO KNOW



Left untreated
botulism will get
progressively worse
and can lead to death.



SCOTTISH
DRUGS FORUM



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WOUND BOTULISM AND DRUG USE: WHAT WORKERS NEED TO KNOW

All unregulated drugs carry a risk of infection, and none can be considered free from possible contamination.

There are sporadic cases and outbreaks of illness and death among people who use drugs due to infections associated with the use, or contamination of drugs. This is the inevitable consequence of the unregulated supply of drugs which are not monitored or controlled to ensure quality and safety.

Infections occur without warning and so it is necessary to raise awareness, maintain vigilance and make early interventions to prevent outbreaks and address cases of infection to prevent harms including deaths.

Wound botulism is life threatening and is one of the infections to which people who inject drugs are at risk.

In the past, in the United Kingdom, cases of wound botulism in people who inject drugs were typically associated with injecting heroin use; however elsewhere there have been links with injecting both amphetamine and cocaine use.

The information in this resource should be shared with people who inject drugs and all staff working with people who inject drugs to promote discussion and information sharing with people who inject drugs.

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WHAT IS BOTULISM?

Botulism occurs as a result of infection with the bacteria *Clostridium Botulinum*. This bacterium is commonly found in soil, dust, river and sea sediments.

The bacteria itself is not harmful however given favourable conditions, such as a lack of oxygen, it produces highly poisonous toxins (botulinum toxins) which can be fatal if not treated quickly.

There are different types of botulism including food borne, wound and infant botulism. The type of botulism we are concerned about in this resource is wound botulism.

Wound botulism is the most commonly reported type of botulism infection in the UK.

Clostridium botulinum can and does end up in batches of drugs via contamination at some point in the manufacturing stage, during transportation, when adulterants are added or, possibly, during the preparation of the drug for consumption.

Since 2000 there have been over 150 reported cases of wound botulism among people who inject drugs in the UK.

The mortality rate of wound botulism in the UK is around 5 – 10%.

Early treatment greatly improves the prospect of a full recovery.

People with botulism will appear to have muscular weakness or paralysis (flacid paralysis). This is caused by the botulinum toxins binding to nerves and blocking the release of acetylcholine, which is the chemical messenger which is released by nerves and instructs muscles to contract.

BOTULISM AND DRUG USE

Botulism cannot be passed on directly from person to person. For people who use drugs, the risk comes from the drug itself, including processes undertaken in manufacture, transportation, storage or preparation.

There is no way for someone to tell whether the drug they use is contaminated with *Clostridium botulinum* as it is far too small to see and does not affect the appearance or feel of the drug.

All people who use drugs should presume that the drugs they use may be contaminated and act accordingly, taking the advice given in this leaflet if any complications arise.

Wound botulism may develop in people who use drugs which are contaminated with *Clostridium botulinum*.

The risk is increased if drugs are injected intramuscularly (also known as 'muscle popping') where the substance is directly injected into muscle or subcutaneously (also known as skin popping') where the substance is injected into the fatty layers of tissue underneath the skin. This can happen accidentally through a "missed hit" (where the injection is not completed in a vein) or as a result of a person being unable to complete injections into veins due to poor venous access or injecting technique.

In these cases, infection occurs as these forms of injecting offer a better environment for the bacteria to produce toxins due to the lack of oxygen in these areas of the body.

Improving injecting technique can help to make this less likely. If a person is experiencing difficulty in accessing a vein for injection, advice can be sought from the local harm reduction service (which may be within your local substance use treatment service) who will be able to offer further advice around different ways to use drugs.

IF THERE HAVE BEEN ALERTS AROUND RECENT CASES OF INFECTION OR CONTAMINATED DRUGS, PARTICULAR CARE SHOULD BE TAKEN.

RISK REDUCTION ADVICE



ADVICE AND WORKER INTERVENTIONS TO REDUCE RISK OF INFECTION



- > Make sure drug is injected directly into a vein.
(Advise on injecting technique)
- > Smoke drugs as an alternative to injecting
(Provide advice and foil, if appropriate)
- > If possible, stop use all together
(Support to look at their treatment options and medication and dose in medication assisted treatment)

SIGNS AND SYMPTOMS

OF BOTULISM INFECTION

Botulism infection can result in paralysis or partial paralysis of parts of the body. This can be in a wide range of areas of the body and so there are a wide range of possible symptoms.

These include:

- Inflammation (redness or swelling) at the injection site
- Blurred or double vision
- Drooping or falling of the upper or lower eyelid
- Slurred speech, difficulty speaking
- Difficulty with tongue and lip movements
- Difficulty swallowing
- Extreme weakness
- Paralysis affecting the legs, the arms or muscles that control breathing

*Not all symptoms may be present

WORKERS AND PEOPLE WHO INJECT DRUGS SHOULD BE AWARE OF THESE SYMPTOMS.

WHAT TO DO IF SOMEONE HAS SYMPTOMS

LEFT UNTREATED BOTULISM WILL GET PROGRESSIVELY WORSE.

If someone experiences any of the symptoms mentioned above they should be actively supported to seek urgent medical attention from the Accident and Emergency department of the nearest hospital.

Botulism cannot be passed on directly from person to person.

IF A PERSON IS NOT TREATED QUICKLY BOTULISM CAN LEAD TO DEATH.

People presenting may need support in their engagement at Accident and Emergency. Ideally workers should:

- Accompany the person to Accident and Emergency
or, where this is not possible
- Arrange that a friend or family member attend Accident and Emergency with the person

EARLY TREATMENT IS IMPORTANT.

Botulism is not a common disease and can be difficult to identify and diagnose. As such it may go undiagnosed by medical staff or diagnosed late which can potentially lead to a more severe clinical intervention for the person.

It may be useful to take a copy of this leaflet to hospital with you and to tell medical staff of your concern- that the person injects drugs; is at raised risk of wound botulism and appear to have symptoms.

GENERAL ADVICE YOU CAN OFFER TO SUPPORT A PERSON WHO INJECTS DRUGS:

- Support a person to look at their treatment options including medication assisted treatment
- Support and advise the person on how to adopt better and safer injecting practices, discussing their injecting techniques so that they can inject directly into a vein.
- Support and advice around alternative routes of administration such as smoking or snorting drugs.
- Support access to sterile injecting equipment and safer smoking equipment. If your service does not supply this equipment, ensure that you know where your nearest harm reduction or injecting equipment provider is located.

GENERAL ADVICE YOU CAN OFFER TO SUPPORT A PERSON TO INJECT DRUGS MORE SAFELY:

- Washing hands and injecting site prior to every injection
- How to prepare a clean environment for preparing drugs
- Accessing a clean, warm and safe environment to use drugs, where possible
- Using injecting equipment and all associated equipment once, then discarding safely in sharps containers
- The importance of not reusing or sharing any injecting related equipment
- The need to using a new filter to trap some contaminants in substances
- Using only a small amount of acidifier (citric acid/vit C) and knowing which drugs it is not required for

USEFUL CONTACTS & INFORMATION



Public Health Scotland

www.publichealthscotland.scot

Guidelines for management of Bacterial Infection among people who use drugs:

<https://www.publichealthscotland.scot/publications/guidelines-for-the-public-health-management-of-tetanus-botulism-or-anthrax-among-people-who-use-drugs/guidelines-for-the-public-health-management-of-tetanus-botulism-or-anthrax-among-people-who-use-drugs/>

Directory of Scottish Drug Services

www.scottishdrugservicesdirectory.com

Find your nearest injecting equipment provider

www.needleexchange.scot

Scottish Drugs Forum

www.sdf.org.uk

ANY OTHER NOTES:

