

WHAT WORKERS NEED TO KNOW

Infections in people who use drugs:
Staphylococcus aureus (STAPH) &
Group A Streptococcus (GAS)



There has been an increase in serious skin and blood poisoning infections among people who use drugs in Scotland.



**SCOTTISH
DRUGS FORUM**

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WHAT WORKERS NEED TO KNOW

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STAPHYLOCOCCUS AUREUS

ALSO KNOW AS: S. AUREUS OR “STAPH”

STREPTOCOCCUS PYOGENES

ALSO KNOWN AS: GROUP A STREPTOCOCCUS OR GAS

Bacterial infections are common, can add risk and cause harm to people who use drugs.

Staphylococcus aureus (also known as: S. aureus or “staph”) and Streptococcus pyogenes (also known as: Group A streptococcus or GAS) are bacteria of specific concern in people who inject drugs.

This booklet gives information on these common bacteria, the harms they may cause and what can be done to reduce risk and harm.

WHAT IS STREPTOCOCCUS BACTERIA?

There are several Streptococcus bacteria and infections can vary in severity from mild throat infections to life threatening infections. The Streptococcal bacteria associated with people who use drugs is known as Group A Streptococcus (GAS) also known as Streptococcus pyogenes. People can carry these bacteria in the nose, throat, skin, anal and genital areas and have no symptoms of illness. GAS can be passed on from person to person.

GAS infections can be broadly classified into two groups: minor and invasive infection. GAS can cause extremely severe infections such as necrotising fasciitis (commonly referred to as flesh-eating disease).

WHAT ARE STAPHYLOCOCCUS BACTERIA?

There are many types of Staphylococcus bacteria the most common being Staphylococcus aureus (*S. aureus*). *S. aureus* is part of the body's natural bacterial flora. It can be found in the nose or on people's skin, groin or anal area. Most of the time *S. aureus* does not cause any problems.

S. aureus infections are caused when bacteria gets into a break or cut in the skin (such as a break caused by injecting drug use, touching broken skin with unclean hands etc.) and can be passed on from person to person. *S. aureus* infections can be broadly classified into two groups: skin and soft tissue infection and invasive infection.

HOW A PERSON WHO USES DRUGS BECOMES INFECTED WITH S. AUREUS AND/OR GAS

PERSON TO PERSON

The most common way for an individual to become infected by either *S. aureus* or GAS is person to person. They can be spread in droplets in the coughs or sneezes of someone with an infection or through contact with infected wounds or sores on the skin.

INJECTING DRUG USE

People who are injecting substances, especially stimulants such as cocaine, crack cocaine or ethylphenidate, may report a higher frequency of injecting per day, as well as poor technique when under the influence (for example a higher incidence of sharing injecting equipment, “missed hits” and not correctly filtering the solution prior to injecting). These factors can contribute to the possibility of people’s own bacteria (*S. aureus* and GAS) entering the body via wounds associated with injecting.

CONTAMINATED SUBSTANCES

The background of the entire page is a dark, textured image showing a microscopic view of numerous spherical bacteria, likely S. aureus, with a granular surface. The bacteria are scattered across the frame, with some appearing more prominent than others. The overall color palette is dark with pinkish-purple highlights.

In some cases, the substance being used could be contaminated with *S. aureus* and/ or GAS and if this is the case an individual would be susceptible to infection by using the substance especially by injecting drugs (intravenous, intramuscular, subcutaneous), snorting and rectal drug use. (Smoking and oral use of any drug carries less of a risk of invasive infection compared to other methods of drug use). It is important to mention *S. aureus* and/ or GAS is not visible to the eye therefore a person would not be able to tell if their drug is contaminated.

SHARING OF DRUG PARAPHERNALIA

It is also possible to become infected with GAS and *S. aureus* by sharing injecting equipment, spoons, filters, snorters (for inhaling drugs up the nose) and pipes (for smoking drugs) due to unwashed hands contaminating these objects. Sharing injecting equipment also increases the risk of contracting a blood borne virus, for example, hepatitis C and HIV.

RISK REDUCTION ADVICE



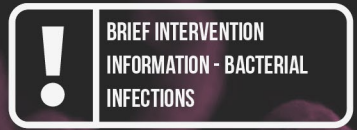
S. AUREUS AND GAS

- Wash hands and maintain good personal hygiene
- Consider alternative way of using drugs or ways of reducing the frequency of injecting such as oral use e.g. wrapping in cigarette paper & swallowing (called bombing), smoking or snorting or via the rectal method.
- If injecting, wash hands and injection site thoroughly prior to use. New injecting equipment and paraphernalia, including water for injection ampoules, should be used for every injection.
- Filter substances prior to injecting and use only a small amount of any acidifier.

- If injecting stimulant substances such as cocaine or ethylphenidate, consider if you need to use an acidifier such as vit c or citric acid at all, as this is not required unless converting crack or freebase cocaine to injectable forms
- Ensure the substance is injected directly into a vein (intra muscular and subcutaneous injection are associated with a greater amount of tissue damage which in turn helps bacterial infection to develop)
- If possible, stop use altogether (support a person to look at their treatment options)
- If the person feels unwell, or has any of the symptoms of GAS infection they should seek medical advice quickly

SIGNS AND SYMPTOMS

OF *S. AUREUS* AND GAS INFECTION



The symptoms of *S. aureus* and GAS can vary depending on the type of infection.

(Please note that not all these symptoms need to be present.)

STAFF AND PEOPLE WHO USE DRUGS SHOULD BE AWARE OF THESE SYMPTOMS.

- Heat, swelling, redness, aches and pain around wound, joint or muscles
- Pus and/ or unpleasant smell from site of wound
- Wound that will not heal
- Abscess
- Cellulitis – red, painful, hot, swollen, tender, blistered skin
- Fever, chills
- Fast heartbeat
- Dizziness, confusion, disorientation

- Shortness of breath, fast breathing, difficulty breathing
- Symptoms of chest infection, such as a productive cough
- Pain in chest
- Headache
- Unexplained 'bruising' or rash
- Sore throat, difficulty swallowing
- Sore ear(s)
- Vomiting, nausea and diarrhoea

WHAT TO DO IF SOMEONE HAS SYMPTOMS

If a person who uses drugs has any of the symptoms mentioned above they should seek medical attention. This can be via their general practitioner, calling NHS 24 on 111, with nursing staff at Drug & Alcohol services, Wound clinics or if symptoms are severe people should be encouraged to attend Accident & Emergency (with support where possible).

EARLY IDENTIFICATION AND TREATMENT IS VITAL.



Untreated infections related to S.aureus and GAS can become progressively worse and can lead to death.



IN AN EMERGENCY ALWAYS CALL 999 OR ATTEND A&E.



TREATMENT OF INFECTION



S. aureus/ GAS can be treated with antibiotics; however, the more severe the infection the more intensive the treatment becomes. The majority of people who had been injecting drugs and have *S. aureus*/ GAS infection were admitted to hospital due to the severity of their symptoms.

Where possible, clinicians should swab any wounds for microbiology as typing may inform treatment.

DRUG TREATMENT AND RECOVERY



If a person wants to stop using drugs and finds, they cannot; treatment should be considered. Encourage and support people to contact their local drug treatment service, GP or recovery hub for more information.

RISK TO STAFF



BRIEF INTERVENTION
INFORMATION - BACTERIAL
INFECTIONS



S. AUREUS AND GAS

Due to both bacteria being easily spread person to person it is essential staff practice good hygiene.

Staff working with a person who has an infection caused by *S. aureus*, GAS or both can reduce their chances of infection by:

- Washing hands regularly
- Keeping any cuts clean and covered
- Practicing good personal hygiene

Should a staff member come into contact with someone who has a *S. aureus*/ GAS infection - for example, by touching an infected site or being exposed to the pus that it produces, they should wash their hands thoroughly using warm water and soap, or alcohol hand gel if soap and water is not available.

For all procedures involving close contact with an affected person, appropriate PPE should be worn and disposed of according to services guidelines.

The spread of bacteria is usually prevented if a person with the bacterial infection has been receiving antibiotics for 24 hours or longer.

FURTHER INFORMATION AND USEFUL LINKS



SCOTTISH DRUGS FORUM

www.sdf.org.uk

DIRECTORY OF SCOTTISH DRUG SERVICES

www.scottishdrugservices.com

SCOTTISH NEEDLE EXCHANGE DIRECTORY

www.needleexchange.scot

PUBLIC HEALTH SCOTLAND

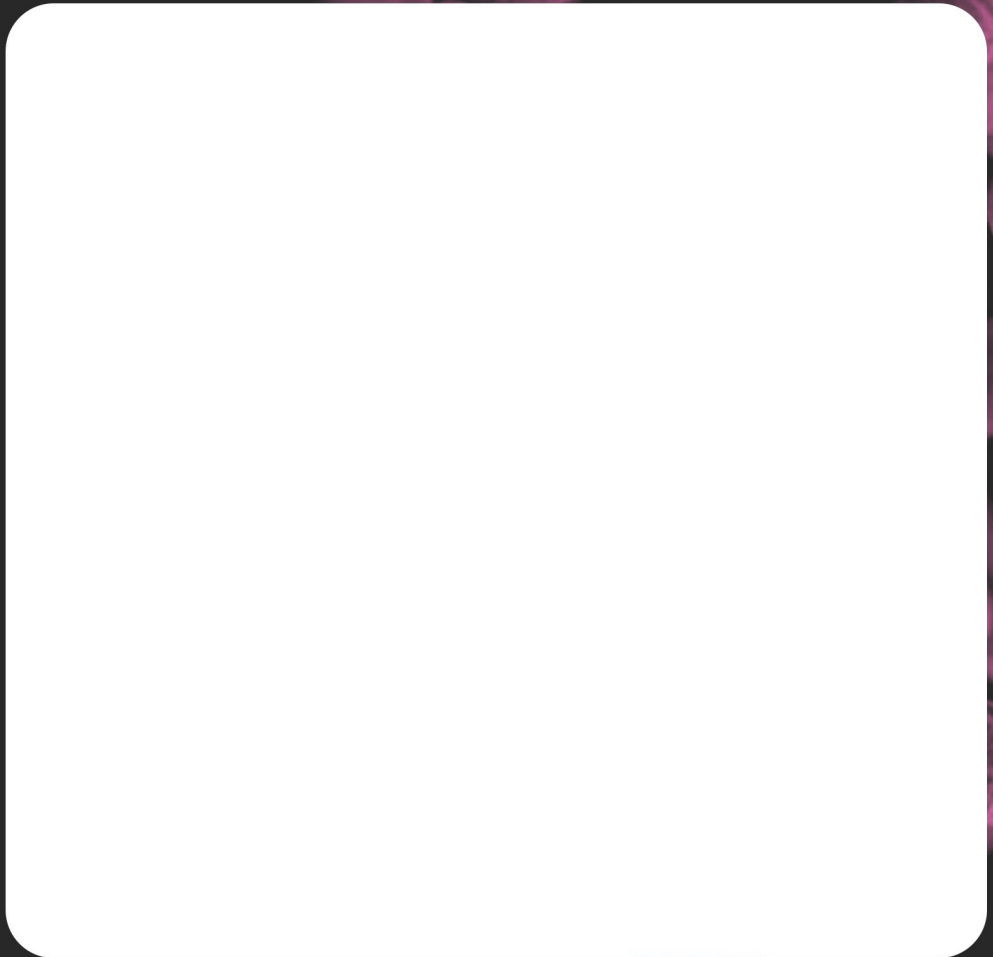
www.publichealthscotland.scot

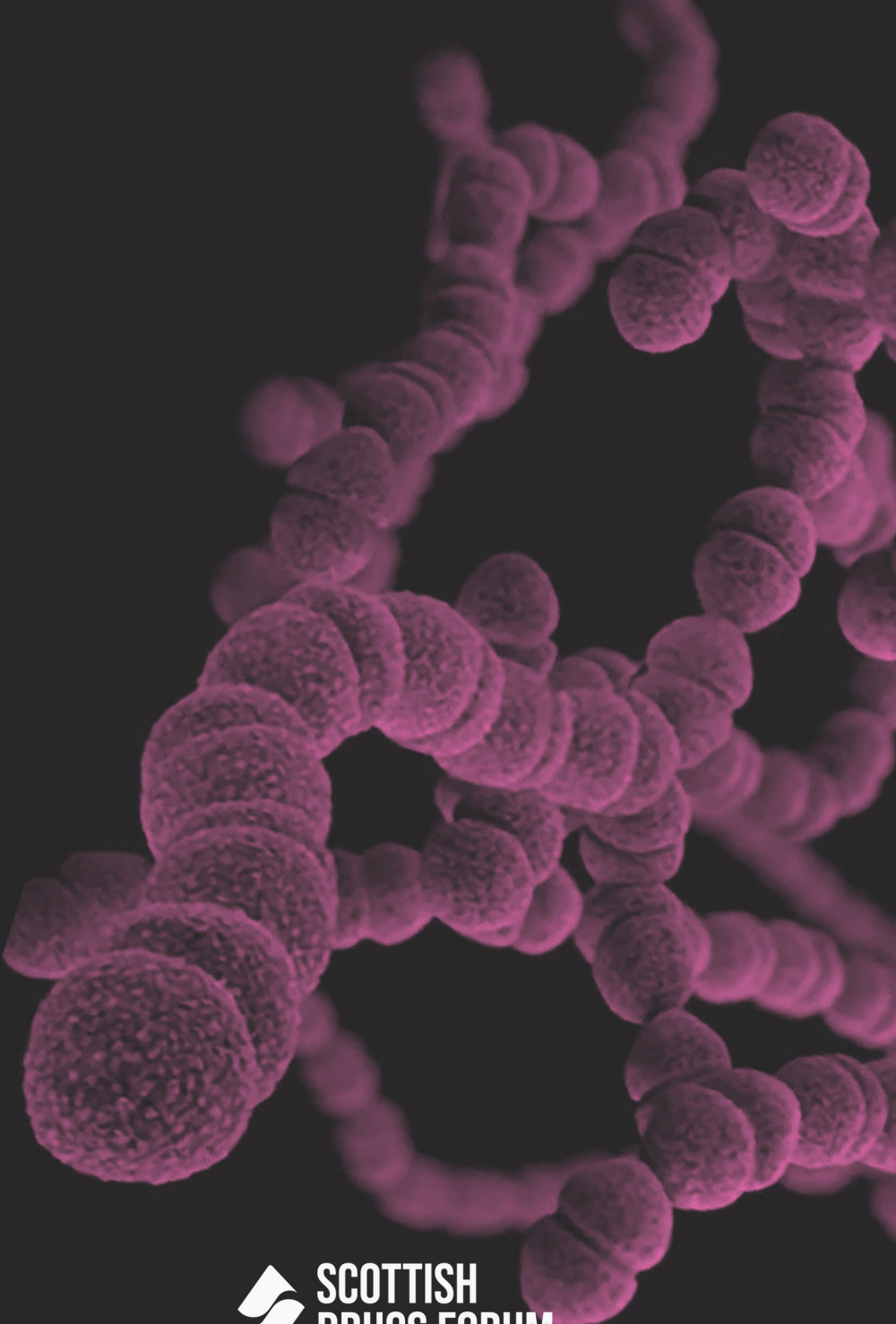
OTHER

[www.nhs.uk/conditions/ Staphylococcal-infections](http://www.nhs.uk/conditions/Staphylococcal-infections)

Staph infection - NHS (www.nhs.uk)

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