Strep A & Scarlet Fever

SELF CARE FORUM FACT SHEET NO. 23

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What is Strep A infection & what is Scarlet Fever?

Scarlet fever, which is sometimes called scarlatina, is an infection caused by Streptococcus pyogenes or **'Group A Streptococci' bacteria (Strep A).**

This is often abbreviated to 'GAS', the term used throughout this fact sheet

- GAS often presents as sore throat, it can also cause the skin infection, impetigo, (see symptoms to the right).
- GAS is highly infectious spreading easily & quickly.
- Prompt treatment is important to minimise the spread.
- It is a 'notifiable' infection, meaning that it must be reported so that effective monitoring and protection can be put in place to reduce the risk of it spreading.
- In rare cases GAS bacteria can spread & get into the bloodstream & cause invasive disease such as septicaemia, called '**i**nvasive **G**roup **A S**treptococci infection', abbreviated to 'iGAS'.

How common is GAS infection & who is most likely to catch it?

- GAS infections are relatively rare, although in England there are on average 30,000 cases per year with the main peaks occurring in the winter and spring.
- GAS usually affects children, but it can affect any one at any age.
- Older people and those with other underlying health conditions are most likely to have more serious disease as a result of infection.
- Previous viral illness, with chickenpox or influenza, can increase the risk of GAS and the more serious 'invasive (iGAS) disease'. Outbreaks of scarlet fever and chicken pox can occur in schools, nurseries and other childhood settings.

An increased number of cases of GAS infections was noted in 2022. This is most likely due to higher numbers of the usual bacteria circulating in the population, along with social mixing after the COVID-19 pandemic.

How is infection spread?

- GAS can be transmitted by close contact with an infected person's mucus or saliva, which might be on cups, plates, pens, toys or surfaces, such as tables which have been used or touched by them.
- It can also be caught by breathing infected airborne droplets produced when an infected person's coughs or sneezes or even when they are breathing normally.
- Infection can also be spread from people who don't have any symptoms of disease.

What can I expect when someone is infected?

How long does it take to show symptoms after being infected?

Symptoms can develop as quickly as 24 hours & up to 7 days after being infected. In general, it takes between 2 to 5 days for symptoms to show: this is called the incubation period.

What are the symptoms of Strep A & Scarlet Fever infection?

Symptoms and their severity can vary considerably from person to person.

- **Initial symptoms:** sore or red throat, headache, fever, nausea and vomiting.
- **Rash:** small, raised bumps, which feel rough like sandpaper to touch, is very characteristic of GAS. The rash generally develops over 48 hours. The skin looks red which is sometimes difficult to see on dark or black skin.
- **Flushed cheeks and face,** which may look more like sun burn on darker skin, & pale around the mouth.
- **Swollen red tongue:** the tongue may initially have a white coating which peels away leaving the tongue looking red & swollen (known as 'strawberry tongue').
- **Difficulty in swallowing**: enlarged glands in the neck (lymph nodes) that are tender to touch.
- **Irritability,** tiredness & generally feeling unwell.
- As people recover they may get **skin peeling** from the tips of fingers & toes &, less often over the trunk & limbs.

Impetigo can also be caused by GAS infection & other bacteria. It looks like sores or blisters on the skin which tend to burst quickly & leave crusty, golden-brown patches. They can be painful and itchy & can spread to other parts of the body.

What should I do if I suspect Strep A or Scarlet Fever?

- There are many viruses & bacteria which can cause sore throats & most, including GAS, are usually mild & will clear up without treatment.
- If you or your child is showing symptoms as described you need to consult your general practice or pharmacist. Diagnosis is normally made from the symptoms alone but may be confirmed from a throat swab which will show the presence of the GAS bacteria. In some cases a blood test may be required to confirm infection.
- If there are other cases in a school or nursery the local health protection team will advise the GP on any further treatment. In nurseries this may include giving those in contact varicella or chickenpox vaccine.
- Antibiotics are not given routinely to people in contact with GAS infection or to those who are not showing symptoms.

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Treatment & Antibiotics

If a diagnosis of GAS is made, a course of antibiotics will be prescribed

- You do not need antibiotics unless you have a GAS infection & you have symptoms.
- The symptoms will generally subside very quickly after starting the course, it is important to complete the full course. Speak to a member of your community pharmacy team for symptom relief.
- Antibiotics reduce the time one is infectious & able to pass on the disease.
- If scarlet fever is not treated the symptoms can persist for 2 – 3 weeks & people will remain infectious. Most people will no longer be infectious after 24 hours from starting the antibiotics.
- To minimise the spread of infection, you should keep away from school or work for at least 24 hours after starting the antibiotics.
- Those who decline treatment with antibiotics will need to stay away from school or work until their symptoms have gone.

What can I do to help now & in the future?

Minimise the spread of infection in schools & workplaces

Children & adults can continue to attend school or work as normal unless they are feeling unwell & have a high temperature.

Good infection prevention & control

Infection is spread through contact with an infected person or any contaminated objects.

The following measures are essential to reduce the risk of infection to yourself & protect those around you. It is important to teach children - the e-bug resources are useful for this (see link in Where to find out more).

- **Ventilation**: avoid being in confined spaces ensuring good air circulation & having windows open where possible.
- **Respiratory hygiene**: you should cover nose & mouth with a tissue when coughing and sneezing & throw the tissue away in a waste bin, & clean your hands. If there is no tissue, cough or sneeze into the inner elbow (upper sleeve), rather than into the hand.
- **Avoid touching** your eyes, mouth & nose with contaminated hands, this risks re-infection.
- Make sure hands are thoroughly cleaned after contact with coughs or sneezes or any potentially contaminated objects & materials.
- **Hand hygiene**, hand washing or use of alcohol gel. Wash hands before & after eating, after going to the toilet or after touching any infected areas such as skin rash, after coughing or touching the face.
- **General cleaning** of plates cups and toys etc & careful handling of soiled household linens such as bedding and towels will reduce the risk of cross-infection

Get prompt treatment and complete the course.

- If you or your child is showing symptoms as described you need to consult your GP practice or pharmacist & get antibiotics as soon as possible.
- It is very important that the full course of antibiotics is taken to reduce the risk of reinfection or of different strains of GAS developing.

COVID-19 (coronavirus) & Influenza - a reminder

COVID-19 infection & influenza infections are still common. Some of the symptoms of group A streptococcal infection can be similar, so you may also need to consider whether COVID-19 infection is a possibility. Also ensure you have the COVID-19 & or the Influenza vaccines if you are eligible.

When to seek help

For most people GAS infection does not cause complications but they can occur in the early stages of infection:

- Local infections; ear infection, throat abscess, inflammation of the sinuses (sinusitis), skin or soft tissue infection (cellulitis).
- Invasive disease; pneumonia, joint inflammation (arthritis), septicaemia, meningitis

Late effects of Scarlet fever

- Very rarely people can develop complications at a later stage such as: bone or joint problems, liver damage, kidney damage and heart damage.
- It is important therefore to keep an eye out for any symptoms which might suggest these complications in the first few weeks after the main infection has cleared up.
- **For any persistent severe symptoms:** joint pain, palpitations breathlessness, seek medical help immediately.

Invasive Group A streptococcal disease (iGAS)

- Early signs and symptoms of iGAS disease include: High fever, severe muscle aches, localised muscle tenderness, increasing pain, swelling & redness at site of wound & unexplained diarrhoea or vomiting.
- People need to seek urgent help and advice if these symptoms occur & household contacts who are also at risk of infection should also say they have been exposed to GAS infection.

Where to find out more

E-bug: Teaching children about hygiene: https://www.e-bug.eu/

UKHSA: Scarlet fever: symptoms, diagnosis and treatment - GOV.UK (www.gov.uk)

NHS: Is my child too ill for school? - NHS (www.nhs.uk)

UKHSA: Preventing and controlling infections - GOV.UK (www.gov.uk)

NHS: Impetigo - NHS (www.nhs.uk)

UKHSA: Guidelines for the public health management of scarlet fever outbreaks in schools, nurseries and other childcare settings.

If you are concerned about coronavirus, please visit:

NHS England: https://www.nhs.uk/conditions/coronavirus-covid-19/

Northern Ireland: NIDirect: https://www.nidirect.gov.uk/campaigns/coronavirus-covid-19

NHS Inform for Scotland: https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19

NHS Wales 111: https://111.wales.nhs.uk/encyclopaedia/c/article/coronavirus(covid19)/

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