

Patient Information Post-operative Sepsis



What is sepsis?

Sepsis is a rare but serious complication of an infection. It is an inflammatory response to an infection which can cause severe damage to the body's tissues and organs. This can become life threatening if not recognised and treated in a timely manner.

What is post-operative sepsis?

Post-operative sepsis is a rare complication of surgery, where sepsis has occurred shortly after an operation. In severe cases it can be life threatening, causing multi-organ failure.

Post-operative sepsis is a very rare condition and affects up to 1% of patients who have had routine operations.

Patients who require emergency surgery have an increased risk of 5 to 10%.



What causes post-operative sepsis?

There are many causes of post-operative sepsis:

- A condition that has caused a hole in the bowel can result in normal 'friendly' bacteria to spill out into the abdominal cavity. Surgeons can wash the areas with sterile fluids, however, the bacteria may still be present and multiply. This can cause a severe infection which may result in sepsis.
- Following surgery the body can produce fluid which can collect in areas such as the abdominal cavity. This warm fluid is an ideal environment for bacteria to grow and spread.
- An infection of another area, unrelated to the recent surgery, can develop. For example, a chest infection may develop, possibly due to reduced mobility and reduction in the ability of normal chest expansion.
- If a person has been ill for a period of time before having surgery their general health may not be in a good state. This may mean that their recovery may be affected, for example, post-operative wounds may not heal well and as a result are more vulnerable to becoming infected.
- Some people admitted for emergency surgery may have harmful bacteria present on their body, such as MRSA. This bacteria is often harmless until the person becomes ill and then it can cause harm.
- Major operations may mean people require extra monitoring and access via tubes. Although these are inserted using a sterile technique, they do increase the risk of infection as they have broken the skin, which acts as a protective barrier.
- If a person has a reduced immune system they are at greater risk of sepsis and precautions are often put in place following surgery.

How can post-operative sepsis be recognised?

Early symptoms may include:

- high temperature (fever) or low body temperature
- chills and shivering
- a fast heartbeat
- fast breathing

Some symptoms that may indicate sepsis or septic shock:

- feeling dizzy or faint
- a change in mental state, such as confusion
- nausea and vomiting
- slurred speech
- severe muscle pain
- severe breathlessness
- less urine production than normal, for example, not urinating for a day
- feeling cold, clammy and pale or mottled skin
- loss of consciousness

What causes the symptoms of sepsis?

Usually, your immune system keeps an infection limited to one place. This is known as a localised infection.

Your body produces white blood cells, which travel to the site of the infection to destroy the germs causing infection.

A series of biological processes occur, such as tissue swelling, which helps fight the infection and prevents it spreading. This process is known as inflammation.

If your immune system is weak or an infection is particularly severe, it can quickly spread through the blood into other parts of the body. This causes the immune system to go into overdrive, and the inflammation affects the entire body.

This can cause more problems than the initial infection, as widespread inflammation damages tissue and interferes with blood flow.

The interruption in blood flow leads to a dangerous drop in blood pressure, which stops oxygen reaching your organs and tissues.

How is sepsis treated?

Almost all people with sepsis and septic shock require admission to hospital. Some people may require admission to an intensive care unit (ICU).

Due to problems with vital organs, people with sepsis are likely to be very ill. However, sepsis is treatable if it is identified and treated quickly, and in most cases leads to a full recovery with no lasting problems.

Treatment usually involves three treatments and three tests, known as the "**sepsis six**":

- 1. Giving antibiotics intravenously (into the vein).
- 2. Giving fluids intravenously.
- 3. Giving oxygen if levels are low.
- 4. Taking blood cultures to identify the type of bacteria causing the infection.
- 5. Taking blood samples to assess the severity of the sepsis.
- 6. Monitor urine output to assess how well the kidneys are functioning.

What to do if you think you may have post-operative sepsis:

Sepsis is a medical emergency.

Seek medical advice urgently from NHS 111 if you have possible early signs of sepsis as mentioned.

If sepsis is suspected, you'll usually be referred to hospital for further tests and treatment.

If you think you or someone in your care has any of the mentioned symptoms of sepsis, go straight to your nearest A&E or call 999.



Useful contact details

If you have any questions, or concerns about information you have read in this leaflet, please contact our **sepsis nurses** by telephoning the Switchboard on the number below, and ask for **Bleep 1673**.

Switchboard, Lister Hospital NHS 111

23 01438 314333

Dial 111

Further information

NHS Choices - www.nhs.uk

The UK Sepsis Trust (UKST) - www.sepsistrust.org

NICE National Institute for Health and Care Excellence - www.nice.org.uk

References

Information in this leaflet has been adapted from the Sepsis Trust, with permission.

Photography: East and North Hertfordshire Trust Clinical Photography Department

www.enherts-tr.nhs.uk

You can request this information in a different format or another language.



Date of publication: March 2017

Author: Rebecca Hemmings, Eriberto Farinella, Anne Hunt and Gina Creasey

Reference: Version: 01

Review Date: March 2020

© East and North Hertfordshire NHS Trust