Monitoring surgical wounds for infection

Information for patients

This leaflet explains surgical wound infection and the national programme for monitoring infections acquired in hospitals.
What are surgical wound infections?

Most surgical wounds heal up rapidly without complications. A minority of surgical wounds are complicated by infection. This occurs when germs (micro-organisms such as bacteria) enter the incision (cut) that the surgeon makes through your skin in order to carry out the operation.

Many germs live in and on our bodies and also in our environment. Most are harmless or even useful. Our bodies have natural defences against the germs that can cause harm. Our skin normally prevents germs from entering our bodies, but any break in the skin (whether due to injury or surgical incision) can allow them to enter and cause an infection.

When do these infections develop?

A surgical wound infection can develop at any time from two to three days after surgery until the wound has healed (usually two to three weeks after the operation). Very occasionally, an infection can occur several months after an operation.

Surgical wound infections are uncommon (see table). Most surgical wound infections are limited to the skin, but can occasionally spread to deeper tissues. Infections are more likely to occur after surgery on parts of the body that harbour lots of germs, such as the gut.

Rates of surgical infection in different types of operations

<table>
<thead>
<tr>
<th>Type of operation</th>
<th>Average number of infected wounds in every 100* operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee joint replacement</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Hip joint replacement</td>
<td>1</td>
</tr>
<tr>
<td>Abdominal hysterectomy</td>
<td>2</td>
</tr>
<tr>
<td>Vascular surgery</td>
<td>2</td>
</tr>
<tr>
<td>Coronary artery bypass graft</td>
<td>5</td>
</tr>
<tr>
<td>Large bowel (gut) surgery</td>
<td>9</td>
</tr>
</tbody>
</table>

*detected while patients are in hospital or at readmission following the operation

How will my wound be monitored?

During your stay in hospital, the nurse who changes your wound dressings will check for any signs of infection. If you are concerned about your wound, tell the nurse who is looking after you.

Don’t be tempted to remove your dressing, or touch your wound or wound drain. You could accidentally transfer germs from your fingers to your wound.

Infection can develop after you leave hospital. Some redness and swelling are to be expected after surgery, however you may have an infection if you develop one or more of the following symptoms:

- the skin around your wound gets red or sore and you do not think that it is part of the normal wound healing process, or it feels hot and swollen
- your wound has a green or yellow coloured discharge (pus)
- you feel generally unwell or feverish, or you have a temperature

If you have a problem with your wound, contact your GP unless you have been told to contact the hospital. About one month after your operation the hospital may send you a questionnaire or telephone you to ask if you have problems with your wound. Many patients leave hospital shortly after their operation and hospital staff need to find out about wound infections that occur after patients leave hospital, not just those that develop while patients are in hospital.

What happens if I develop symptoms?

If the nurse, midwife or doctor suspects that you have a surgical wound infection, they may take a sample from the surface of your wound with a swab and send it to the laboratory for tests. Your nurse or doctor may prescribe treatment with antibiotics.
What information do you pass on?

The hospital passes information about your operation to Public Health England (PHE), which is co-ordinating the national programme for monitoring surgical site infection. The information is related to the risk of developing surgical wound infection. The risk depends on many factors, and includes the following:

- your age and sex
- your general medical condition before the operation
- type of operation
- how long the operation lasted

PHE treats all patient information as strictly confidential. No data which could be used to identify individuals are published.

What happens to the information?

PHE collects information from over 300 NHS and private hospitals in England that are taking part in the national programme. The information is used to calculate rates of surgical wound infection for different types of operations. Hospitals can then compare their rates to national rates and decide where they may need to make improvements to ensure their patients are given the highest possible standard of care.

Where can I get further information?

PHE is an organisation that is dedicated to protecting people’s health. It provides impartial and authoritative information on health protection issues to the public, to professionals and to government.

Further information regarding surgical site infection, including the latest report on surgical site infections, is available via the Health Protection Agency website, www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SurgicalSiteInfection/
Please note, the functions of the Health Protection Agency transferred to PHE on 1 April 2013.

You can find out more about surgical wound infections in the Guideline on the Prevention and Treatment of Surgical Site Infection published by the National Institute for Health and Care Excellence. This can be found online at www.nice.org.uk.

The NHS Choices website www.nhs.uk has information about your local hospital.

Produced by the PHE’s Healthcare Associated Infection and Antimicrobial Resistance Department for patients whose surgery is being monitored under PHE’s Surgical Site Infection surveillance scheme.

If you have any further questions, please contact:

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. To view this licence, visit OGL or email psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Any enquiries regarding this publication should be sent to us at ssi.data@phe.gov.uk

You can download this publication from www.gov.uk/phe