



Understanding the guidelines - information for patients, carers and the public

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This information explains how patients, carers and the public can help to reduce the risk of patients developing infections while in hospital. It is based on guidance the Department of Health (DH) has given to the NHS on preventing patients from developing infections as a result of the care they receive. These infections are called healthcare-associated infections or HCAs.

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The guidance is called *National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England*, or epic2. It advises healthcare workers (such as doctors and nurses) how they can minimise any risk of infection to their patients.

Although this booklet explains how you can help reduce the risk of infection, your doctors and nurses will follow exactly the same procedures. If you have any concerns about the precautions taken by a doctor or nurse please discuss this with them. Professional healthcare workers will not mind being asked, and if necessary reminded, to follow the advice given here.

Although this information in this booklet has been written mainly for patients, it may also be useful for carers, family members and for people with an interest in infection prevention or healthcare in general. There is also a glossary at the end explaining some of the technical words used.

Clinical guidelines

Clinical guidelines are developed to improve the care and treatment given by the NHS. The recommendations in DH guidelines are prepared by groups of health professionals and scientists. These groups look at the evidence available on the best way of treating or managing a condition or problem and make recommendations based on this evidence. However, every patient's situation is unique and these recommendations are not a substitute for a health professional's clinical judgement.

What the recommendations cover

The recommendations in epic2 how everyone giving or receiving care in a hospital can help to avoid infections being spread. They cover:

- Ways to avoid infection, including hospital environmental hygiene, hand hygiene, using personal protective equipment and the safe use and disposal of any sharp instrument that could cause injury;
- Ways of avoiding and controlling infection for people who need a short-term urinary catheter or central venous catheter.

This article does not describe specific infections or how they are diagnosed or treated. If you want to find out more about infections ask your nurse, doctor or other healthcare worker.

How the guidelines are used in the NHS

In general, healthcare workers in the NHS are expected to follow DH clinical guidelines. But there will be times when the recommendations won't be suitable for some patients because of their specific conditions, general health, wishes or a combination of these. If you think the treatment or care you receive does not follow the guidance described here, discuss your concerns with your doctor, nurse or other healthcare worker.

About infection control

Infections are caused by germs such as bacteria, fungi or viruses, entering the body. They may stay in one area of the body, like a boil, or they can spread throughout the body, like flu. Many infections can be easily dealt with, but sometimes they can cause serious problems. The recommendations in this information are about preventing infections that are associated with healthcare - for example, ways of preventing germs being spread on the hands of a healthcare worker.

The advice is for anyone giving or receiving care in a hospital. This includes patients, nurses, doctors, and others involved in caring for people. If you have questions after reading this information, talk to a nurse, doctor or other healthcare worker.

About hospital environmental hygiene

Good hospital environmental hygiene is an important part of any hospital's strategy for preventing the spread of infections. Hospital hygiene includes a wide range of routine activities that help to prevent healthcare-associated infection in hospitals. They include: cleaning, laundry, safe collection and disposal of waste, and kitchen and food hygiene.

Maintaining a clean hospital

All hospital staff have a responsibility for maintaining a safe care environment for patients, visitors and staff. They should regularly monitor the hospital environment, ensuring it is clean and free from dust and dirt. In areas where there is an increased risk of infection, hospital staff may increase levels of cleaning and use of bleach and/or detergents. They will also ensure that clinical equipment is cleaned properly before and after use.

About hand hygiene

Good hand hygiene is the single most important way of reducing the spread of healthcare-associated infection.

When should you wash your hands?

- If your hands look dirty;
- Before and after any activity that could have dirtied your hands, even if they look clean - such as after going to the toilet, and before and after preparing food.

When and how will staff clean their hands?

Healthcare workers will disinfect their hands immediately before each and every episode of direct patient contact and after any activity or contact that could contaminate their hands. While staff will often use alcohol-based hand gels and rubs to disinfect their hands, alcohol is not a cleaning agent and will only be used when their hands are not visibly dirty. When hands look dirty they will wash them thoroughly with liquid soap and water.

If a healthcare worker is caring for more than one patient, they will wash their hands with soap and water in between looking after each person. They will also wash their hands before and after using gloves.

Hand and wrist preparation

Good hand and wrist preparation increases the effectiveness of hand hygiene. Staff will keep their nails short, clean and free of nail polish, avoid wearing wrist watches and jewellery - especially rings with ridges or stones, and ensure that any cuts and scratches are covered with a waterproof dressing. They won't wear artificial nails and will remove any wrist or hand jewellery and roll up long sleeves before washing their hands and wrists

Promoting good hand hygiene

To help promote good hand hygiene, healthcare workers will ensure that alcohol-based hand gels and rubs are always available in any area where patients receive care.

About personal protective equipment

Hospital staff may need to use personal protective equipment (PPE) to protect them from hazardous substances, and to reduce the risk of infection passing between them and the person they are caring for. Examples include gloves, aprons, facemasks and eye protection.

Gloves

Hospital staff will sometimes need to use special protective gloves to act as an additional barrier against the spread of infection, but they will still wash their hands with soap and water before and after using them. They will put on gloves before any contact with the inside of your body (including the inside of the mouth) or with a wound, or if they're carrying out an activity that might lead to contact with blood or body fluids or with sharp or dirty instruments.

Each pair of gloves will only be used once and staff will change gloves between patients, and between different activities or procedures for the same patient. They will then carefully dispose of their gloves before thoroughly washing their hands with soap and water.

Aprons

Hospital staff may wear disposable plastic aprons if there is a risk of body fluids or blood splashing onto their clothes. These aprons will be worn for one procedure or episode of patient care only. Staff will then carefully dispose of the apron before thoroughly washing their hands with soap and water.

Facemasks and eye protection

Hospital staff may wear facemasks and eye protection if there is a risk of blood, body fluids, or hazardous substances splashing into their face or eyes. They may also use special respiratory protective equipment when caring for patients with respiratory infections transmitted by airborne germs.

About sharps

'Sharps' is a term used to refer to any sharp instrument that might cut, graze or prick the user, such as a scalpel, needle and lancet.

The safe use and disposal of sharps

- All hospital staff will be aware of their responsibility to safely use and dispose of sharps;
- Sharps will be handled as little as possible and not handed from one person to another;
- Sharps will be discarded in special sharps containers immediately after use. These containers will be secure and kept in a safe place, off the floor and out of reach of children;
- Needles will not be recapped, bent, broken or taken apart before or after use.

About short-term urinary catheters

You may be given a urinary catheter if you cannot pass water (urinate). There are several reasons why this could be the case - for example, because of an injury or operation, or because your bladder is not working properly. An indwelling catheter is one that's in place all the time. A short-term indwelling is one that is left in place for 28 days or less.

Usually, a catheter is inserted through the urethra (the tube where urine normally comes out). Sometimes it may be inserted into the bladder through a specially made hole in the side of the abdomen (this type of catheter is called a 'suprapubic catheter'). A small balloon keeps the catheter in place inside the bladder.

When you become able to pass urine without your catheter it will be removed as soon as possible. It is very common to get an infection when you are using a urinary catheter. Bacteria can enter the urethra from the drainage bag, or at the point where the catheter enters your body. However, as well as ensuring that you maintain good personal hygiene, there are a number of things you and your healthcare workers can do to reduce and prevent infection.

Urinary catheterisation is a skilled procedure. Any member of hospital staff involved in inserting a catheter will have been trained in how to carry out the procedure using the correct technique.

Handling the catheter

- Healthcare workers will wash their hands thoroughly before and after they touch your catheter or drainage bag.
- The place where the catheter enters your body will be washed daily with soap and water, then dried.

Managing the drainage system

- Healthcare workers will make sure that your drainage bag or catheter valve is connected to the catheter at all times, except when they are changing the bag. This 'closed system' reduces your risk of infection.
- Healthcare workers will keep your drainage bag lower than your bladder to allow urine to drain. However, they should ensure that the bag does not touch the floor when you are in bed or resting, because this can increase the infection risk. A stand should be used.
- Your drainage bag will be emptied regularly - for example, when it is full, you feel uncomfortable, or when it pulls on the catheter.
- Healthcare workers will regularly check your drainage bag to ensure it is draining correctly and changed when necessary. They will also regularly check for signs and symptoms of urinary tract infections, and inform you and your relatives how you can help to prevent them.

About central venous catheters

A central venous catheter (CVC) is a tube that is put into a major vein, normally in the chest or neck (a vein is a blood vessel that carries blood to the heart). There are many reasons why people need a CVC. For example, they may need blood products, liquid drugs, food or other fluids delivered slowly into their bloodstream. Some people may need a CVC for a long period or even for life.

Because CVCs are put into major veins, serious infections can happen very quickly. This means it is important that people with CVCs, their carers and healthcare workers follow these guidelines to prevent infection.

If appropriate, before you leave hospital, you and your carer/s will have in-depth training in managing your CVC safely at home. You will be given ongoing support and help after you return home so that you continue to feel confident about following these instructions.

Healthcare workers caring for a patient with a CVC will have had special training in avoiding infection.

Important points about central venous catheters

- Make sure you follow the instructions given by your healthcare worker at all times.
- Anyone caring for you must wash their hands thoroughly before and after touching your CVC.
- Sterile gloves will be worn by anyone touching the CVC insertion site or changing your dressing.
- The dressing on your insertion site will be changed every seven days or sooner if necessary, for example if it becomes wet, dirty or loose.
- Cream, ointment or solution should never be used on the insertion site, unless it has been prescribed for you by a healthcare professional.
- Healthcare workers will clean your catheter and its entry points as required, before and after it is used, with the necessary solutions.
- Healthcare workers will change your administration set as necessary.

Tell your healthcare worker right away if you think you may have an infection (common signs are swelling at the insertion site, feeling unwell and having a temperature), or if anything looks or feels different. Even if you are unsure, tell your healthcare worker. It is important to act quickly.
Further information

The DH guideline (a guide for professionals), *National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England*, and the full guideline (which contains all the details of the guideline recommendations and how they were developed) are both available from the EPIC website, www.epic.tvu.ac.uk.

NHS Direct has information on the issues covered in this booklet. See the NHS Direct Online website, www.nhsdirect.nhs.uk, or phone NHS Direct on 0845 4647.

Glossary:

Administration set: All the tubing necessary to deliver fluids or feeds into a person

Alcohol-based hand gel and rub: A liquid that is used to rub over the hands to kill germs that can cause infection, and which dries quickly

Bacteria: Microscopic germs that can cause infection

Bladder: A hollow, muscular organ in the body that holds urine

Catheter: A thin tube used to put liquids into the body or drain them away

Central venous catheter (CVC): A tube that is put into a major vein, normally in the chest or neck (a vein is a blood vessel that carries blood to the heart)

Fungi: Microscopic germs (different from bacteria or viruses) that can cause infection, especially in people who are weak and debilitated

Germ: A very small form of life capable of causing disease

Hand gel: See 'Alcohol-based hand gel and rub'

Hand rub: See 'Alcohol-based hand gel and rub'

Healthcare-associated infection (HCAI): An infection that develops as a result of a person receiving, or providing, a healthcare intervention

Indwelling urethral/urinary catheter: A catheter inserted into the bladder through the urethra that remains in place for a period of time

Lancet: A small pointed two-edged blade (usually used to obtain blood samples)

Personal protective equipment (PPE): All equipment and clothing designed to protect people from hazardous substances and reduce the risk of infection passing between healthcare workers and the people they are caring for.

Sharps: Any sharp instrument that could cause injury, including scalpels, needles and lancets

Short-term indwelling (urinary) catheter: A catheter left in place for 28 days or less

Single-use: For use on one occasion only

Sterile: Germ free, for example sterile gloves, sterile catheter

Suprapubic catheter: A catheter that is inserted into the bladder through a hole made in the abdomen

Urethra: The natural tube in the body that carries urine from the bladder to the outside

Urinary catheter: A thin flexible tube used to drain urine from the bladder

Viruses: Germs even smaller than bacteria that can cause infection (they are responsible for many common infections, such as colds, chickenpox and measles)