

Who is at risk of infection in hospital?

An infection picked up in hospital or any healthcare setting such as GP clinic, nursing home is called a healthcare-associated infection. On any day, around 5% or one-in-twenty patients in Irish hospitals may have a healthcare-associated infection.

Any patient can get a healthcare-associated infection. However, certain patients may be at an increased risk because their immune system has been weakened by:

- Diabetes
- Cancer
- Organ transplantation
- Medications, such as chemotherapy to treat cancer and steroids
- Surgery
- A stay in an intensive care unit

What causes healthcare-associated infection?

Bacteria and viruses are the commonest types of 'bugs' or germs that cause infection.

Bacteria cause most healthcare-associated infections and most are easily treated with common antibiotics. Sometimes, bacteria can become resistant to common antibiotics, so they no longer work as treatments.

Examples of antibiotic resistant bacteria include; meticillin resistant *Staphylococcus aureus* (MRSA), carbapenemase-producing *Enterobacteriales* (CPE) and vancomycin resistant enterococci (VRE). These are sometimes also called 'super bugs' and they can also cause healthcare-associated infections, which can be more difficult to treat, because the usual antibiotics may not work.



A patient can pick up antibiotic resistant bacteria in hospital and carry them in their body without any sign of infection. This is known as being a 'carrier' or a person who is 'colonised' with the bacteria. Patients who carry antibiotic resistant bacteria do not need to be treated with antibiotics. It is common in hospitals to test certain patients to see if they are carrying antibiotic resistant bacteria (e.g., MRSA, CPE).

C. difficile is a bacteria that can cause diarrhoea. It can cause *C. difficile* infection (*C. diff*), which can be a healthcare-associated infection, because it can be triggered by use of antibiotics. Antibiotics are often needed in hospitals to treat other types of infections, so *C. difficile* infection can occur in patients in hospital who have been exposed to antibiotics for other reasons

Sometimes healthcare-associated infections can also be caused by common viruses, such as influenza, SARS-CoV-2, the cause of COVID-19 or norovirus.

What can we do to prevent spread of antibiotic resistant bacteria?

It is not possible to know for sure everyone who carries antibiotic resistant bacteria, as not everyone attending hospital will be tested.

The most important measure is to make sure that everyone has clean hands:

- Staff who come into contact with you should have cleaned their hands before touching you and you should feel free to ask any staff member whether they have done this, particularly if you haven't seen them do so



- It is important that you also have clean hands: you should always wash your hands after using the toilet, after coughing or sneezing, before meals or handling food and if hands are visibly dirty
- It is important that your visitors have clean hands and that they have cleaned their hands before visiting you

If hospital staff know that a patient is carrying antibiotic resistant bacteria, they can take extra precautions to prevent it being spread to other patients, which may involve staff wearing aprons or gowns and gloves when caring for a patient, to stop bacteria getting onto their uniform and by asking the patient to stay in a single room with an *en suite* toilet.



It is also very important to make sure that the hospital is kept clean, through regular cleaning of surfaces, furniture and equipment.

What can we do to prevent healthcare-associated infections?

It is not possible to prevent every healthcare-associated infection, but some simple measures can help to reduce the risk:

- Hand hygiene: clean hands for staff, patients and visitors
- Keeping the hospital and equipment clean
- Careful use of patient devices, such as IV drips and bladder catheters
- Careful attention to surgical wounds
- Keeping antibiotic use to a minimum

COVID-19

- Since the COVID-19 pandemic reached Ireland, hospital staff now wear surgical facemasks while they are caring for patients in wards and clinic areas. The purpose of the face mask is to reduce the risk of infection spreading from a person who might not yet have developed symptoms of COVID or might be unaware they had an infection. For this reason, patients coming to the hospital for appointments are also asked to wear a face covering to reduce the risk of infection spreading
- All patients admitted to Beaumont Hospital will have a test for COVID-19 either just before a planned admission (e.g., for surgery or certain procedures) or soon after arrival at the hospital. All patients are being tested, because people with COVID-19 infection can spread infection to others before they become aware of having symptoms and some people with COVID-19 may have no or very minimal symptoms.

How do I know if I am carrying antibiotic resistant bacteria?

Depending on the ward where you are going to be staying or if your doctor or nurse feels you have a condition that may have weakened your immune system or might place you at a higher risk of a healthcare-associated infection, you may need to be tested for certain types of antibiotic resistant bacteria. The test usually involves a swab (which looks like a cotton bud) being sent to the microbiology laboratory.

Because different bacteria are normally found in different parts of the body, your nurse will advise where the swab needs to be taken from:

1. **Checking for MRSA** – Swabs are usually taken from your nasal passage and your groin and if there are any areas of broken skin or wounds
2. **Checking for CPE** – A swab is usually taken from the back passage (bum area)
3. **Checking for VRE** – A swab is usually taken from the back passage (bum area)

The test may be done after you arrive on the ward. On certain wards, the test is repeated on a weekly basis while you stay on the ward.

Why is it helpful to know if I am carrying antibiotic resistant bacteria?

- If your test result comes back to show that you are carrying an antibiotic resistant bacteria or ‘super bug’, your doctor or nurse will give you more information and an information leaflet that you can read and take home. You can always ask questions if you need any more information
- Most patients who carry antibiotic resistant bacteria do not have any signs of infection and do not need any antibiotic treatment
- It is useful to know if you are carrying an antibiotic resistant bacteria or ‘super bug’ for the following reasons:
 - If you were to go on to develop an infection at a later date, your doctor will be able to choose the best antibiotic treatment
 - Hospital staff can take extra precautions when caring for you, such as wearing gloves, aprons or gowns and you may also need to be looked after in a single room to prevent antibiotic resistant bacteria being spread to other patients who might be at risk of developing infection

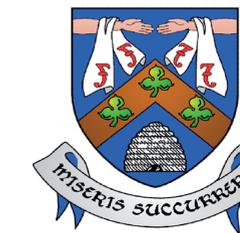
- If you know that you have had a positive test result for antibiotic resistant bacteria in the past, you should tell a member of staff whenever you come back to a hospital or clinic or other healthcare setting, such as GP or dentist

What can I do to protect myself from antibiotic resistant bacteria and healthcare-associated infections?

- Keeping your hands clean is the best way to prevent infection.
- You can wash your hands with soap and water.
- If you can’t get to a sink to wash your hands, ask hospital staff to help you to clean your hands (e.g. basin of water and soap/wipes/alcohol hand rub)
- Avoid touching your wound or the area around your IV drip or bladder catheter. Let staff know if the area around your IV drip gets sore or red or if the bandage falls off
- If you have diarrhoea and are on an antibiotic or have recently been on one, tell your doctor or nurse
- With regard to preventing the spread of COVID-19, additional measures include social distancing, avoiding touching your face, coughing or sneezing into a tissue or the crook of your elbow if a tissue is not to hand, disposing of your tissue in the bin immediately after use and cleaning your hands afterwards

If you think the hospital premises are not as clean as they should be, please tell a member of staff, so any problem can be put right

If you think a staff member has forgotten to clean their hands before touching you, it is always okay to remind them



BEAUMONT HOSPITAL

PATIENT INFORMATION LEAFLET

Be infection aware

Reducing the risk of getting an infection in hospital

Date Issued: April 2019/July2020
Version 2
Review Date: April 2023
Author(s): IP&C
Approved by: IP&C

