

Lab test



during your stay in a healthcare facility. This is to check if you are carrying certain types of superbugs, which can include vancomycin resistant enterococci (VRE) or CPE (carbapenemase-producing Enterobacterales).

A swab from a patient's back passage (bum) is the quickest and easiest way to check for VRE or CPE, as it is usually detected in the bowel. With your permission, a nurse will take the swab. It can feel a little uncomfortable while the swab is being taken, but it is not painful. The sample is then sent to a lab.

Stool sample

Sometimes, it may not be possible to take a rectal swab. If this is the case, a doctor or nurse will take a sample from your poo (faeces). If you are experiencing diarrhoea, a sample of poo may be sent to test for *Clostridioides difficile* (C. diff), or norovirus (winter vomiting bug). If there is a suspicion that you may have food poisoning, your sample will be tested for *Campylobacter* or *Salmonella*, which are germs that can commonly cause food poisoning. *Cryptosporidium* is another type of bacteria which can be detected if you have gastroenteritis. When the sample is gathered, it is then sent to a lab for testing. It can be important to find out if a type of bacteria is causing you to have diarrhoea so that you can get the best treatment, including antibiotics if you need them.

Urine sample

A urine sample may be taken if you are experiencing symptoms of a bladder infection. Sometimes bacteria can get into the bladder and may cause a bladder infection (cystitis) or a kidney infection (pyelonephritis) even in people who are generally in good health. Some superbugs, for



example ESBL, (short for extended-spectrum beta lactamase producer) can cause bladder or kidney infections. ESBLs can live harmlessly in the bowel and do not cause infection. This is called colonisation. You can carry the bug in the gut or bowel without it causing an infection.

Blood culture

If you develop a high temperature or become unwell, the doctor may take samples of your blood to send to the lab. This is called a blood culture and is different from routine blood tests. It is done to see if you have a 'bloodstream infection' – an infection in your blood. This can be caused by bacteria, yeast and other microorganisms. It is important to know if you have a bloodstream infection to make sure you get the right treatment and to help doctors know which antibiotics or medicines will work best to treat this type of infection.

Further information

If you have any questions about having any of the above swabs or tests, or if you have questions about hospital infections or superbugs, please ask your doctor in charge of your care or nurse. There are specific information leaflets available on all of these.

Also, you can get information on hand hygiene, infection control and managing any superbugs at home on www.hse.ie/hcai and www.hse.ie/handhygiene.



Join the Superbug resistance.



Information for patients about Lab test

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Laboratory test

This leaflet provides information on tests carried out in a microbiology laboratory (lab for short). A lab carries out tests on samples of, for example, urine (pee), sputum (spit), faeces (poo) that are taken from patients. When samples are sent to a lab, you will get the result back in a few days. The test results help to identify causes of infection by potentially harmful bacteria, viruses or fungi (for example, mould and yeast).

Sometimes, when you are receiving care in a healthcare setting, you may have some tests taken to check if you have an infection. These might be done if you have symptoms such as a high temperature, aches and pains, or pain or swelling or increased redness around a wound.

If you have an infection, these tests will help your doctor to give you the best course of treatment, such as antibiotics, if you need them.

Multi drug resistant organisms (MDRO) – a superbug

Healthcare workers will also need to know whether you have a ‘multidrug resistant organism’ (MDRO), which are more commonly called superbugs. In this leaflet, we will refer to an MDRO as a superbug. The healthcare worker taking the sample from you will explain it to you and get your approval before collecting the sample. These tests may be done even when you have no symptoms.

For most people most of the time, superbugs live harmlessly on the skin or in the body. This is called “carriage or colonisation”. You can be harmlessly carrying a superbug before you arrive in hospital. You might pick up a superbug in a healthcare setting through contact with other patients, or from contact with healthcare staff and equipment.

Sometimes the superbug can get into the bladder, kidney, lung or blood and may cause a serious infection. This usually happens in patients who are very vulnerable, for example, when they need intensive care or when they are having chemotherapy. If you get an infection caused by a superbug, you will get particular treatment as the bug can be resistant to common treatments. If you get a serious infection with a superbug, doctors need to know as soon as possible so that you get the right treatment straight away.

How will I know if I have one of these multidrug resistant organisms?

The only way to know if a person is carrying a superbug is to take a sample and test it in the lab. When we test for superbugs, we ask you if we can take a ‘swab’ – like a long cotton bud. The swab is then sent to the lab for testing.

Many patients are routinely tested for superbugs when they come into hospital. Sometimes you may have a sample of pee, poo or a swab from a wound that may show that you have a superbug. If you test positive, a doctor or nurse will tell you about the result. They will explain what this means and will give you information that you can read and take home with you.

Nasal swab

You may be asked to have a swab taken from the inside of your nose. This is generally to check if you are carrying MRSA (methicillin-resistant staphylococcus aureus). This is a type of antibiotic-resistant bacteria. The nurse will rub the swab up your nostril. This test will not hurt but might tickle a little, or feel slightly uncomfortable.

Tests for respiratory viruses

A similar but narrower swab is used to check for other types of respiratory viruses, for example, influenza (flu), respiratory syncytial virus (RSV) or COVID-19, these swabs need a sample from deeper inside your nose. This may feel uncomfortable and cause you to cough or sneeze. This discomfort will only last for seconds while the swab is being taken.



Sputum

Sputum is the mucus that settles in the lower airways of your lungs when you have an infection or a chronic illness. This is also called phlegm (sounds like ‘flem’). You may need to have your sputum tested if your healthcare worker thinks that you have a lung infection (otherwise known as a respiratory tract infection). The sputum you produce when you have a lung infection will be tested to help identify the bugs that caused your infection, and also to guide what treatment is needed. The most common way to give a sample of sputum is for you to cough a sample into a sterile specimen container which your healthcare worker will give you. Ideally, this sample should be collected in the morning.

Skin swab

If you are being tested for MRSA – for example, before certain types of surgery or in specific units in healthcare settings – you may also have swabs taken from other skin areas. This involves rubbing a swab on your skin – for example, your groin or sometimes from a wound, if you have one.

If you have a wound that looks like it is infected or is slow to heal, the nurse may decide to take a swab from the wound. It is important to know if you are carrying a superbug, as it can help your doctors to choose the best treatment for you if you develop an infection.

Rectal swab

Many hospitals routinely check patients for superbugs. This is often done around the time of admission, and can be done at other times