

Extended spectrum beta lactamase (ESBL)

Patient information sheet

What is ESBL?

Extended spectrum beta lactamase (ESBL) are a family of bacteria (bugs) that usually live harmlessly in the bowels (gut) of humans and animals. Beta-lactamases are enzymes that are produced by some bacteria that may make them resistant to certain types of antibiotics. ESBL usually lives in the bowel with no known knowledge to the individual. However, if the bacteria is in the bladder or the bloodstream, they can cause infection.

How are ESBL spread?

ESBL can pass from one individual to another through direct contact of contaminated hands, environment and equipment. The risk of transmission is higher if the individual has diarrhoea.

How can the spread be prevented?

There are several ways in which the spread of ESBL can be prevented:

- All staff, patients and visitors should pay particular attention to their hand hygiene.
- You will be nursed in your single room which has access to your own toilet facilities.
- If you have diarrhoea you should, aim to stay in your room where you have access to your own toilet or commode. ESBL does not cause diarrhoea, but it may be spread more easily if you are suffering from diarrhoea.

- Restricting the use of antibiotics to those patients who really need them will also help to limit the prevalence of ESBL.

Who is at risk of being infected with ESBL?

Everyone is at risk of getting an ESBL bacteria. However, infections caused by ESBL are more likely to occur in hospital patients, especially those:

- Whose immune system is impaired
- Who have been treated previously with certain antibiotics
- Who have had a prolonged hospital stay
- Who are or have been in specialist units (eg intensive care).
- Individuals may have ESBL already when they are admitted to hospital although in these cases the source of ESBL is usually unknown.

What types of infection do ESBL cause?

Most people with ESBL will not get an infection with it. If an infection occurs, the most common types of infection are found in:

- Wounds
- Urinary tract
- The bloodstream
- Respiratory tract

Author ID: Clinical nurse specialist infection control
Department: Infection control
Printed: April 2025
Review date: April 2027
Version: 1
Leaflet number: PI 274



Large print copies and alternative language versions of this leaflet can be made available on request.

Royal Papworth Hospital NHS Foundation Trust
Papworth Road, Cambridge
Biomedical Campus,
Cambridge CB2 0AY
Tel: 01223 638000
www.royalpapworth.nhs.uk

© 2025 Royal Papworth Hospital NHS Foundation Trust

A member of Cambridge University Health Partners

View a digital version of this leaflet by scanning the QR code



How is ESBL diagnosed?

ESBL is found by taking samples or swabs from body sites such as the rectum, urine, sputum, wounds and blood samples. These are then tested in a microbiology laboratory.

Can ESBL infection be treated?

Although ESBL bacteria are resistant to several commonly used antibiotics there are antibiotics available to treat infections caused by ESBL.

Treatment can usually be given at home however, in some instances where more severe infections are present, treatment in hospital may be required.

Some individuals may carry ESBL in the bowel without having an active infection. This is known as colonisation and does not usually require treatment.

Is it possible to get rid of ESBL in the bowel?

ESBL may be cleared from the bowel as you recover, but this is not always the case. It may stay in the bowel for some time without causing further problems. Antibiotics should be taken as prescribed by your doctor and only, when necessary, in order to prevent the growth of resistant bacteria like ESBL.

What about visitors?

- It is quite safe for friends and family to visit but they must clean their hands before and after visiting. Visitors are encouraged to use the alcohol-based hand gel. If you are

experiencing symptoms of diarrhoea, you should advise your visitors to wash their hands with the soap and water provided as this is more effective than just using hand gel alone.

- We ask visitors not to sit on the patients' beds, but to use the chairs available.
- Visitors should also use the public toilet facilities and not the bathrooms that patients use.
- If visitors are seeing more than one patient, they should visit you last.

Will having ESBL delay discharge?

Having ESBL should not delay any planned discharge home. You can go home before the ESBL has cleared. This does not usually pose a risk to family and friends. There is no need to restrict visitors or your activities.

Good hygiene practices should continue at home, including hand washing after going to the toilet, before and after handling food and before eating. Household cleaning can be carried out as normal and laundry can be washed in the usual way.

Where can I find more information?

If you would like any further information please speak to a member of staff on your ward, who can contact our infection prevention and control team for you.

Author ID: Clinical nurse specialist infection control
 Department: Infection control
 Printed: April 2025
 Review date: April 2027
 Version: 1
 Leaflet number: PI 274



Large print copies and alternative language versions of this leaflet can be made available on request.

Royal Papworth Hospital NHS Foundation Trust
 Papworth Road, Cambridge
 Biomedical Campus,
 Cambridge CB2 0AY
 Tel: 01223 638000
www.royalpapworth.nhs.uk

© 2025 Royal Papworth Hospital NHS Foundation Trust

A member of Cambridge University Health Partners

View a digital version of this leaflet by scanning the QR code

