

# Extended Spectrum Beta Lactamases (ESBL)

Information and advice for patients

## Infection Prevention and Control

### What are ESBLs?

Extended Spectrum Beta Lactamases (ESBL) are bugs (bacteria) that live in the bowel and that cannot be treated by commonly used antibiotics.

### Can ESBLs be harmful?

For most patients, ESBLs live harmlessly in the bowel and do not cause infection. However, sometimes ESBLs can cause infection in patients, for example when they need intensive care or while receiving chemotherapy. Antibiotics are needed to treat ESBL infection. ESBLs can cause infections, such as kidney, wound or in severe cases, blood infections, kidney infections, wound infections. If a patient is prone to infection and the infection is caused by ESBLs, it can be more difficult to treat, because many of the commonly used antibiotics will not work against ESBLs. Doctors need to know as soon as possible if a patient is carrying ESBLs so that the most effective antibiotics can be chosen to treat the infection.

### How do people get ESBLs?

Patients who have already taken lots of antibiotics are more at risk of picking up ESBLs. The reason for this is that the bugs are more exposed to antibiotics, and are therefore more likely to develop 'resistance' to that antibiotic, so that the antibiotic no longer works.

ESBLs can be carried by patients, healthcare staff or visitors, either harmlessly or if they have an ESBL infection. ESBLs can spread between patients through direct contact with each other or by touching items or surfaces that the person with ESBLs may have touched, such as bed rails, toilets or equipment. As patients in hospital are much more vulnerable to infection than patients in their own homes, special precautions are required to prevent the spread of ESBLs between patients in hospital.

### What are the special precautions for patients with ESBLs?

Special precautions have been designed to prevent ESBLs spreading between patients on the ward. If you have a positive test result for ESBLs, a careful check will be carried out to decide if you need to be cared for in an isolation room with your own toilet or commode. If ESBLs are picked up in a wound swab or from urine taken from a urinary catheter or if you have diarrhoea, you may be cared for in an isolation room.

ESBLs do not cause diarrhoea but because they live in the bowel, they could spread more easily if you are suffering with diarrhoea. Staff will wear gloves and aprons before coming into contact with you, to protect their hands and clothes from ESBLs. Patients, staff and visitors must pay special attention to hand hygiene. All staff must clean their hands before and after any contact with every patient, regardless of whether or not they have ESBLs. If visitors are helping

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out with your physical care, nursing staff will advise if extra precautions are required, such as wearing gloves and aprons.

### How can I help?

If you go to the doctor, another clinic, hospital or nursing home, let them know you have tested positive for ESBL. They can then take special precautions to stop the infection spreading to other patients who may be more prone.

### What happens when I'm ready to leave hospital?

You can go home as soon as your doctor says you are ready, even if you have the infection as carrying ESBLs will not affect your discharge. If you are going to another hospital or nursing home, your nurse or doctor will let them know about your positive ESBL result so that they can prevent it spreading to other patients.

### What happens when I go home?

There is no need to take special precautions at home. People in the community are usually fit and healthy so they are less likely than hospital patients to pick up ESBLs. Clothes, bed linen and dishes can be washed as usual. It is always very important to wash your hands carefully after using the toilet and before preparing meals or eating to stop bugs spreading to other people. Clean hands protect you and others from lots of infections, not just ESBLs.

### Will I get rid of ESBLs?

Your body may clear ESBLs from the bowel as you recover, but this is not always the case, they may remain in the bowel for some time. Taking antibiotics can encourage the infection to grow in the bowel again, so they should only be taken for a very good reason. Antibiotics are available to treat ESBL infection but they will not clear ESBLs from the bowel.

### Contact details

If you have any questions or concerns please speak to the doctor looking after you, your GP or the hospital. You can contact the Infection Prevention and Control team on 0121 554 3801 (ask for Infection Prevention and Control Service).

Or alternatively, please write to us at:

#### Infection Prevention and Control Team

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### Further information

More information can be found on the website of UK Health Security Agency <https://www.gov.uk/government/organisations/uk-health-security-agency>

For more information about our hospitals and services please see our website [www.swbh.nhs.uk](http://www.swbh.nhs.uk), follow us on Twitter @SWBHnhs and like us on Facebook [www.facebook.com/SWBHnhs](https://www.facebook.com/SWBHnhs).

### Sources used for the information in this leaflet

Public Health England (2014). Extended-spectrum beta-lactamases (ESBLs): guidance, data, analysis. [Online] Available at: <https://www.gov.uk/government/collections/extended-spectrum-beta-lactamases-esbls-guidance-data-analysis> (Accessed 30 January 2023).

UK Health Security Agency. GOV.UK. [Online]. Available at: <https://www.gov.uk/government/organisations/uk-health-security-agency> (Accessed 14 February 2023)

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