ESBL-producing bacteria

We have written this factsheet to give you more information about ESBL-producing bacteria. It explains what ESBL-producing bacteria are, how they are treated, and how to prevent them from spreading during your stay in hospital and at home. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of your healthcare team.

What are ESBL-producing bacteria?

ESBL stands for extended-spectrum beta-lactamase. A beta-lactamase is an enzyme that breaks down certain types of antibiotics and stops them from working properly.

Bacteria that produce beta-lactamase are called ESBL-producing bacteria. These bacteria usually live harmlessly in your gut and do not cause infections (this is known as 'colonisation'). However, sometimes these bacteria cause infection if they get into an area of your body where they are not normally found, such as your urinary tract. Urinary tract infections are the most diagnosed infection, but infection in the lungs (chest), wounds and in the blood can also occur.

Infections caused by ESBL-producing bacteria can be more difficult to treat because the enzymes make the bacteria more resistant to frequently used antibiotics. This antibiotic resistance means there are fewer effective antibiotics we can use to treat the infection.

How are ESBL-producing bacteria spread?

As with other bacteria, ESBL-producing bacteria can be spread from person-to-person on unwashed hands, on equipment that is contaminated and has not been sufficiently cleaned, or can be picked up from the environment. This can happen both in the community and in hospital.

Who is at risk?

You are more likely to become infected with ESBL-producing bacteria if:

- you have a weakened immune system
- you have been previously treated with antibiotics for long periods of time
- you have had a prolonged stay in hospital
- you have a urinary catheter or intravenous cannula (a small tube inserted into a vein)
- you have any broken skin

What are the symptoms?

There are generally no symptoms related to ESBL-producing bacteria. If you do experience any symptoms, these will differ depending on which part of your body is affected.

How will I be treated?

If you do have an infection, it can be treated. We will prescribe you appropriate antibiotics if required. If you are carrying the ESBL-producing bacteria without any signs of infection (colonisation), you will not usually need any treatment.

Regardless of whether you are carrying the ESBL-producing bacteria or not, you will be able to leave hospital as soon as your condition allows.

How will I be managed in hospital?

If we find that you have an ESBL **resistant** to an antibiotic called Gentamicin, we will take additional precautions to reduce the risk of it spreading to other people.

We will:

- move you to a single occupancy room (isolation) for the duration of your hospital stay
- place a sign on the entrance door to your room to inform staff and visitors of any additional precautions
- provide you with your own commode (a chair with a hidden toilet) to use (if your isolation room is not en-suite)
- wear a plastic apron and gloves, and sometimes a mask and goggles, if we provide any close care
- clean the room daily with a chlorine-based disinfectant (personal items should be kept to a minimum and stored in the drawers or cupboard provided to keep surfaces clear)
- clean any equipment that we take into your room with chlorine after each use and we may leave other equipment in your room for the duration of your hospital stay

When you are in isolation you should:

- not leave your room (unless we ask you to come for an investigation)
- not visit ward or hospital communal areas (including the cafeteria and the shops on C level)
- not visit other patients' bed areas or have contact with other patients
- not touch any wounds or medical devices (for example urinary catheters or intravenous cannulas)
- always wash your hands thoroughly with soap and water before meals and after going to the toilet (ask us for help if needed)

We will manage an ESBL **sensitive** to Gentamicin slightly differently. If we find you have this type of ESBL, you can remain in a bay with other patients (unless you are in intensive care, high dependency care or on an oncology ward).

Can I have visitors?

Family and friends are welcome to visit you in hospital. To prevent the spread of ESBL-producing bacteria, visitors must:

- clean their hands with alcohol gel hand rub or soap and water on entering and exiting your room
- not sit or lie on your bed
- not assist or visit other patients
- not use patient toilets
- wear gloves and an apron (if helping with personal care)

What will happen when I go home?

The chance of you spreading ESBL-producing bacteria to others at home is very small. You can carry on with your usual day-to-day activities (including visiting others or having visitors). You should maintain good personal hygiene, including washing your hands after going to the toilet, and before and after touching your wound or touching your catheter (if present).

Contact your GP if you have a wound that becomes red, swollen or starts to ooze.

We recommend that:

- everyone who helps you with your personal hygiene or toileting should wash their hands afterwards
- you clean your hands after using the toilet, and before food preparation and eating (this will protect you and others from lots of infections, not just ESBL)
- you do not share personal items that touch your skin, such as towels

You can continue to wash your clothes and bedding as normal with the rest of your household laundry.

Will ESBL-producing bacteria go away?

ESBL-producing bacteria will usually clear on its own after a short amount of time. However, some people may carry it for longer without it causing any infections.

Further information

If you have any questions or concerns, please speak to a member of the nursing or medical team caring for you.

Useful links

www.gov.uk/government/publications/extended-spectrum-beta-lactamases-esbls-treatment-prevention-surveillance

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

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