

MRGNB, including ESBL and CPE

Information for service users in the community

What are MRGNB (Multi-resistant Gram-negative bacteria)?

Gram-negative bacteria (germs) are often found living naturally in the bowel (gut) and are part of our 'good bacteria' (normal flora). MRGNB is a term which covers several types of bacteria such as *E. coli*, *Klebsiella* and *Pseudomonas*.

In some people, these MRGNB bacteria have become resistant to antibiotics. They do this by producing an enzyme (substance), such as ESBL (Extended-Spectrum Beta-Lactamase) and CPE (carbapenemase-producing Enterobacteriaceae), which prevent certain antibiotics from working. This means that some of the commonly used antibiotics will not be effective for treating an infection caused by MRGNB and, therefore, may be more difficult to treat.

How have I got MRGNB and how are they spread?

As these bacteria are present in the bowel, they can be passed to others if hands are not washed after using the toilet. They can also be present on surfaces and equipment used in healthcare settings where they can be transferred to hands and then into the mouth during eating. They can also be spread from one part of your body to another, e.g. from your bowel to your bladder.

Do MRGNB always cause infection?

No, people can have MRGNB without it causing illness; this is called 'colonisation'. People who are colonised are often referred to as a 'carrier' of MRGNB.

What infections do MRGNB cause?

Most commonly MRGNB are detected in the urine, however, they may also be found in other sites such as sputum and wounds. They can cause infections such as a urinary tract infection (UTI), wound, chest infection, blood poisoning (septicaemia) or pneumonia.

What treatment is required?

The majority of people with MRGNB are colonised and do not require treatment. If you have symptoms of an infection, antibiotic treatment will be prescribed by your GP. As MRGNB are resistant to many of the commonly used antibiotics this may be more difficult to treat, but there are usually other antibiotic treatments available.

How can the spread of MRGNB be prevented?

- Hand hygiene is the most important way of preventing the spread of bacteria. Hands should be washed with liquid soap and warm running water, especially after using the toilet and before preparing or eating food.
- Moist hand wipes or an alcohol handrub can be used.
- If you have a wound, always wash your hands before and after touching or changing the dressing.
- If you have a chest infection, use tissues to cover your mouth when you cough and dispose of them in a waste bin. Wash hands or use a hand wipe after coughing, sneezing or disposing of tissues.
- Clothing, towels and bed linen should be washed as normal in a washing machine at the highest temperature stated on the washing label.
- Regular household cleaning, e.g. weekly, with detergent and water or detergent wipes, is sufficient.
- If you develop symptoms of diarrhoea, clean the toilet and surfaces, e.g. handwash basin, taps, at least daily with household bleach (generally 1 part bleach to 10 parts water) until you have been free from diarrhoea for 48 hours.

If in the future you attend a hospital as an in-patient or out-patient, you should inform the hospital that you have had MRGNB.

Will the MRGNB always be present?

Since most people do not have any symptoms of MRGNB and do not require treatment, it is difficult to say if the bacteria are still present after a period of time.

Are visitors at risk?

- It is important to remember that MRGNB is not a problem for people who are healthy, including pregnant women and children.
- There is no problem with physical contact, such as touching, hugging or kissing.
- There is no restriction on socialising outside your home and you should be able to resume your normal activities.
- All visiting healthcare staff know how important handwashing is, but it is OK for you to ask if they have washed their hands.

Where can I get further information?

Further information can be obtained from your GP, local Community Infection Prevention and Control or UK Health Security Agency Team.