What is CRE?

Enterobacteriaceae is a type of bacteria that lives normally in our gastro-intestinal tract. A well-known Enterobacteriaceae is Escherichia coli or E. coli. Carbapenems are a group of antibiotics that will usually be effective against these bacteria. However, certain bacteria have become difficult to treat because these antibiotics are no longer effective. The bacteria have become resistant to the antibiotics. These bacteria are called Carbapenem Resistant Enterobacteriaceae (CRE).

Where is the CRE?

The bacteria are usually 'COLONISED' in patients and are often found in the gastro-intestinal tract. However, if CRE has the opportunity to be transferred to wounds or urine it can cause local infection, or even a systemic infection of the blood such as septicemia.

What is colonisation?

Many bacteria can live on or in the body without causing disease or illness. This is called 'Colonisation'. People can be colonised for very long periods of time, sometimes years, which is why when patient's return to hospital, special infection control contact precautions are taken.

Can CRE be treated?

Many people can carry CRE in their bowel without getting an infection. These people are said to be colonised and they do not need to have antibiotics. These people are likely to stay colonised for life. If the CRE are causing infection, there are still some antibiotics that can be used. CRE that have become resistant to all antibiotics are rare.

What is infection?

When bacteria cause disease or illness this is called infection. When the infection is caused by CRE, your doctor will consider commencing treatment; if appropriate. People who carry CRE are at risk of getting a CRE infection if they have an operation or need treatment involving ventilators, catheters or intravenous drips. If you have taken antibiotics for long periods of time you may also be at a higher risk of developing a CRE infection



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People caring for people.

CRE (Carbapenem Resistant Enterobacteriaceae)



Who is at risk from CRE infections?

Healthy people generally do not get CRE infections. CRE infections are more likely to occur in people who:

- Have had a long term stay in hospital such as Intensive Care
- Patients who have received an organ transplant
- Mechanically ventilated patients
- Patients with wounds or indwelling devices

Currently, people most at risk for getting CRE infections appear to be those who have been in a hospital in an overseas country. People who get CRE often have serious medical conditions that have resulted in them receiving multiple antibiotics, complex surgery, staying in an intensive care unit or insertion of foreign material e.g. urinary catheters. CRE can cause infections when they enter the body through medical devices such as urinary catheters, ventilators or intravenous catheters. It is not spread by coughing or sneezing.

How can CRE be spread?

CRE is spread through contact with the bacteria. This may be from direct contact with a colonized or infected person or by indirect contact with a contaminated surface such as bed linen, shared towels or toilets. To prevent the spread of CRE to the other sick patients in the hospital the nursing staff will care for you using infection control contact precautions and strict hand hygiene.

How can the spread of CRE be prevented?

Early detection of people who carry CRE is essential to stop any spread. This is why we screen for CRE in Ramsay Health Care hospitals. If someone has a history of being in a hospital or residential care facility overseas in the last 12 months, a specimen to screen for CRE (either a stool sample or a rectal swab) will be taken from them when they are admitted to hospital.

What happens if I have a CRE?

If CRE is found in a specimen taken from you, your healthcare team will continue to provide the same level of care. However, some extra precautions will be taken:

- you will be moved to a single room
- everyone, including your visitors and you, will need to wash their hands or use an alcohol-based hand rub before entering or leaving your room
- a sign will be placed on your door to remind others of the precautions they need to follow e.g. to wear a gown and gloves when providing care
- an alert will be placed against your name in the hospital computer system that can be seen the next time you are admitted into the same Ramsay Health Care facility.. This alerts staff at the time of future admissions that extra precautions are required
- as there is no method for this information to be shared with public and private health care facilities or residential care facilities, it is important you advise these health providers that you have acquired a CRE.

How will my care change whilst in hospital?

You will be managed using infection control contact precautions until you are discharged. A sign is placed outside your door to alert hospital staff for the need to use protective infection control contact precautions. This sign also alerts visitors of the need to speak with nursing staff prior to entering your room. The hospital staff will wear protective clothing such as gloves and an apron or gown when they enter your room. These items are disposed of in a separate waste bin as the staff member leaves your room.

Good hand hygiene practices

Hand Hygiene is the most effective way to prevent ALL infections, including the flu and the common cold. Encourage your family and friends to maintain good hand hygiene practices every day. Hand Washing Alternative -Alcohol based hand rub / gel. During your stay in hospital you may have seen the staff using an alcohol-based hand rub, as an alternative to soap and water. Alcohol-based hand rubs or gels can be used for hand hygiene as long as your hands are not visibly soiled / dirty.

Can i still have visitors?

Yes – you can still have visitors. It is however important to know that CRE can affect people who have some long-term health problems. Encourage your visitors to perform hand hygiene before and after they enter your room. They can use both soap and water at the wall sink in your room, or the alcohol hand rub provided inside your room. They may also be asked to wear a gown and gloves. In addition to this, visitors please:

- Don't sit or lie on the patient's bed.
- Don't use patient's bathroom
- Don't visit if you have flu like symptoms, diarrhoea, vomiting, boils, open wounds or weeping lesions.
- Don't visit any other patients in other parts of the hospital.

What happens when i go home?

When you return home it is important for you, your family and your friends to continue the good hand hygiene practices that you have been taught in hospital.

- Use your own towels and face cloths. Do not share these items with other people.
- Avoid sharing grooming items such as nail scissors, tweezers, razors and toothbrushes.
- Cover any wounds whenever possible.
- Clothing, towels, eating utensils and dishes can be washed as normal.
- It is important that you always tell your doctor, nurse, paramedic, or other health care provider that you have CRE. This will help to prevent the future spread of CRE.

Where can i get further information?

You can talk to your doctor or the nursing staff. If you wish to speak with the Infection Control Department ask your nurse to contact us.

References

Australian Commission on Safety and Quality in Health Care, CRE Patient Fact Sheet, November 2013.

Government of Western Australia, Department of Health, Infection Prevention and Control of Carbapenem-resistant Enterobacteriaceae (CRE) in Western Australian Healthcare Facilities, October 2017.

Victoria State Health & Human services, CPE Information for patients and their visitors, 2017.