

Carbapenemase Producing Enterobacteriaceae (CPE)

Information leaflet for staff

What is Carbapenemase Producing Enterobacteriaceae?

CPE is the name given to a group of bacteria that have become resistant to antibiotics, including those called carbapenems. CPE infections are much more difficult to manage as there are limited treatment options.

What are Enterobacteriaceae?

Enterobacteriaceae are a family of bacteria that occur naturally in the gastro-intestinal tract (bowel). These bacteria can spread outside the gastro-intestinal tract and cause serious infections such as bacteraemia (bacteria in the blood), pneumonia, urinary tract and wound infections.

What are Carbapenems?

Carbapenems are a powerful group of broad spectrum antibiotics (imipenem, meropenem, doripenem, ertapenem) which in many cases are the last effective defence against multi-resistant bacterial infections.

Who is at risk?

Infections caused by CPE most commonly occur in people who have:

- chronic medical conditions
- recent or prolonged stays in healthcare settings (including hospitals outside of the UK)
- invasive medical devices such as ventilators or intravenous catheters
- history of taking certain antibiotics for long periods of time
- healthy people do not usually get infections caused by CPE

About CPE

- the majority of people who acquire CPE are colonised rather than infected
- colonisation is when there is bacteria present on or in the body but those bacteria are not causing any harm, there is a risk that these bacteria can be transferred from one person to another as a result of cross infection
- the primary site of colonisation is the lower gastro-intestinal tract

- the duration of colonisation is unknown but can be very long-term, therefore it is not always necessary to isolate residents in Care Homes who are known to be colonised with antibiotic-resistant bacteria
- CPE is not a reason for a person to be refused health or social care
- good hand hygiene and the use of standard precautions will help minimise the spread of these organisms

Does colonisation with CPE need to be treated?

CPE may live in the gut without causing problems (referred to as colonisation) and does not always need treatment. However, if they cause an infection then treatment is required. There is insufficient evidence to suggest that routine treatment for colonisation would be effective therefore treatment is not routinely recommended.

How can CPE be eradicated from the body?

There is no treatment to eradicate CPE, sometimes the body will clear these organisms as part of its natural process but if this does not happen they are unlikely to cause the patient any harm unless they cause infection. Infection control standard precautions must be routinely applied to reduce the potential risk of cross infection.

Transmission

CPE can be passed from one person to another on the hands of health and care staff or through contact with contaminated surfaces or equipment.

How can the spread of CPE be prevented?

- hand hygiene in accordance with the WHO's '5 moments for hand hygiene'
- patients/residents should be encouraged to wash their hands particularly after going to the toilet
- appropriate use of Personal Protective Equipment (PPE)
- enhanced environmental cleaning and disinfecting in care homes focusing on surfaces in close proximity to resident & frequent touch points
- people receiving care in their own homes do not need to take any additional precautions
- single use medical devices/equipment where appropriate
- dedicated equipment where feasible and thorough cleaning of all reusable medical devices
- prudent use of antibiotics

If you require further information please contact the Infection Prevention and Control Service on **0151 604 7750**.