

## Say No to Infection Carbapenemase-producing Enterobacterales (CPE) Fact Sheet for Domiciliary Care



### What are Carbapenemase – producing Entrobacterales (CPE)?

**CPE's** are a group of bacteria that live harmlessly in the gut of humans and animals. They include bacteria such as *E.coli*, *Klebsiella* and *Enterobacter*. However, these organisms are also, some of the most common causes of infections, including urinary tract infections, intra-abdominal and bloodstream infections.

**Carbapenems** are a valuable group of antibiotics that are normally reserved to treat serious life-threatening infection including some multidrug-resistant bacterial infections in hospitals.

They include meropenem, ertapenem and imipenem. Resistance to some or all carbapenems is a natural characteristic of some bacteria. Others can produce enzymes (carbapenemases) that can destroy carbapenem antibiotics, making them resistant.

The identification of a CPE is also important because the resistant gene contained within these bacteria can move from one group of bacteria e.g., *E. coli* to another e.g., *Klebsiella*.

### Controlling the spread of CPE

Uncontrolled spread of CPE's will lead to an increasing risk to public health. Screening regimes are now in operation in hospitals to detect its presence.

**Community screening is not recommended at this point in time.**

Screening often identifies those patients that are colonised (living with it in their guts). Screening is carried out by hospitals to identify vulnerable patients who may go on to get severe infections leading to an increased length of stay, increased risk of morbidity, and mortality, compared to bacteria that are not resistant.

Screening regimes will depend on local epidemiology, type of patients and location. Hospitals will be following national guidance.

### CPE screening, who is screened and why?

**For who to screen and why please refer to page 12 in the below national document.**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1107705/Framework\\_of\\_actions\\_to\\_contain\\_CPE.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1107705/Framework_of_actions_to_contain_CPE.pdf)

**Routine screening for primary care settings or on admission to a care or residential home is not recommended.**

A positive CPE status/result should be recorded on the discharge summary and or patient transfer documents if the patient has been screened during their admission. This information should continue to be communicated for any future transfers to other healthcare & social care facilities or admission to hospital, including out-patient appointments.

#### How CPE is identified

The hospital staff will take the following samples as part of a CPE screen:

- A rectal swab, making sure faecal material and/or discolouration is visible on the swab (a stool specimen if rectal swab is not feasible or acceptable)
- And a wound swab or urine sample (if catheterised)

**NB: Staff screening is not recommended.**

#### Outbreaks of CPE's

Occasionally outbreaks caused by CPE's have been identified in hospitals. When this is identified, close contacts will also be screened for a number of weeks whilst they are in hospital. There is no need to continue this screening once the patient is discharged.

Information regarding patient's potential exposure to CPE may be included on inter hospital or intra hospital transfer documents and or discharge summary to alert relevant healthcare providers (including GPs). If this information is documented, please contact the C&W ICB IPCT via the email address below.

**Potential outbreaks in care settings will be managed in accordance with outbreak policies and in conjunction with UKHSA and public health local authorities. Inform C&W ICB IPCT team via outbreak email address: [cwicb.cw.ipc@nhs.net](mailto:cwicb.cw.ipc@nhs.net)**

#### Minimising the transmission of CPE

Standard infection control precautions and transmission-based precautions (SICPs and TBPs), should be taken by all domiciliary staff, including:

- Strict hand hygiene is essential on arriving and leaving the service users home, before and after direct contact with a service user or their surroundings, using either liquid soap and warm running water or alcohol hand rub.
- Gloves.
- Aprons.

- Long sleeved gowns can be worn where any part of the uniform (work wear) is not adequately protected by an apron for example turning the resident, or where there is a risk of extensive splashing of blood and or other body fluids for example excessive wound exudate, diarrhoea, faecal incontinence.
- PPE should be disposed of after each procedure and hands cleaned after disposing of each item of personal protective equipment (PPE), e.g., pair of gloves, apron, long sleeved gown.
- Where there is a presence of wound drainage, diarrhoea or faecal (bowel movement) incontinence, there is increased potential for environmental contamination and subsequent risk of transmission.
- Long sleeved fluid repellent gowns should be worn if there is a risk of extensive splashing of body fluids to the uniform, e.g., dealing with an ileostomy.
- Service users should be encouraged to wash hands with soap and water or use skin wipes after using the toilet and before eating and drinking.
- For service users with profuse diarrhoea, enhanced cleaning of the toilet used by the service user should be undertaken.
- Service users in their own home can socialise in and outside of their home without restrictions.
- To prevent contamination of hands, the sink and surrounding environment, staff should not rinse soiled linen and clothing by hand.
- Soiled clothing or linen should be washed as soon as possible, separately from other items, on a pre-wash cycle in the service user's or communal washing machine followed by a wash cycle on the highest temperature advised on the label.
- Non-soiled clothing or linen should be washed as soon as possible, separately from other items, in the service user's or communal washing machine at the highest temperature advised on the label.
- Waste should be securely bagged and tied, using a suitable plastic tie or secure knot, and disposed of as household waste.
- Effective hand hygiene using soap and water when handling companion animal faeces, before handling food for companion animals and maintaining a clean environment can minimise the risk of transmission.
- Before leaving the service user's home, staff and visitors should wash their hands with liquid soap and warm running water, drying them thoroughly using paper towels. The use of kitchen roll is acceptable. Alternatively, alcohol hand rub can be used if there is no access to hand washing facilities, hands should be washed with soap and water as soon there is access to hand washing facilities.

## Personal Protective Equipment (PPE)

### PPE for all staff contacts

- Gloves
- Aprons
- Long sleeved gowns can be worn where any part of the uniform (work wear) is not adequately protected by an apron for example turning a service user, or where there is a risk of extensive

splashing of blood and or other body fluids for example excessive wound exudate, diarrhoea, faecal incontinence

### **PPE for visitors**

- Visitors who are carrying out direct care should adhere to the above guidance; otherwise strict hand hygiene will be sufficient.

### **Environmental and care equipment cleaning**

- All staff should know and understand the importance of thorough cleaning.
- A clean environment and clean care equipment reduces the risk of spreading infection.
- Where there is a presence of active infection, wound drainage, diarrhoea or faecal (bowel movement), toilets, baths, showers, and medical equipment, such as commodes, walking frames, wheelchairs, should be decontaminated with detergent and warm water, followed by disinfection with a chlorine-based disinfectant at 1,000 parts per million (ppm), e.g., household bleach, until the infection or diarrhoea has resolved.
- To ensure efficacy, disinfectant solutions must be made up to the manufacturer's instructions, i.e., measure the product and water accurately.
- Separate cloths for cleaning kitchens and toilets/bathrooms should be used.
- Cloths used for cleaning care equipment contaminated with blood or body fluids, e.g., commodes, commode pans, or when the service user has an identified infection, should be disposed of after use.
- Staff should wash their hands before putting on and after removing each item of PPE, e.g., pair of gloves, apron.

### **Admission of CPE residents to the care setting**

Non-acute settings should not refuse admission or readmission of service users on the grounds that they are colonised or infected with CPE.

A risk assessment should be undertaken to identify the risks with each service user.

[Please click on the link for the CPE Risk Assessment](#)

### **Future Antibiotic prescribing**

Controlling the use of antibiotics is essential to prevent bacteria becoming resistant to antibiotics.

Treatment options for this group of residents must involve infection specialists including medical, nursing and pharmacy.

## Communication

The National CPE Framework states that the patients screening results should be included on the discharge summary. Failure to provide this information by the discharging ward to the community provider contravenes the above and would be classed as a reportable clinical incident.

If the service user needs to go into either hospital or another care facility (either emergency or planned), or out-patient appointment ensure that the organisation is informed that they have CPE, including the ambulance service.