The Royal Wolverhampton
NHS Trust

Carbapenemase-Producing Enterobacterales (CPE)

Infection Prevention

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- **Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available**
- **If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111**
- **Keep the environment clean and tidy**
- **Let's work together to keep infections out of our hospitals and care homes.**

Introduction

This leaflet explains how we test for, treat and prevent the spread of bacteria (germs) called *carbapenemase-producing Enterobacterales* (CPE). It also explains how you can help to prevent their spread in hospital.

What are *carbapenemase-producing Enterbacterales* CPE?

Enterobacterales are a large family of bacteria that usually live harmlessly in your gut. This is called colonisation. Someone who is colonised is called a carrier. You would not know you were a carrier unless you were tested.

Carbapenemase-producing Enterobacterales (CPE) are a strain of Enterobacterales, which have developed a resistance to a powerful group of antibiotics called carbapenems. Carbapenems are an important group of antibiotics, which are given directly into the bloodstream via a vein. These antibiotics are relied upon in healthcare to treat difficult infections where treatment with other antibiotics has failed.

Why does carbapenem resistance matter?

Doctors rely on carbapenem antibiotics to successfully treat complicated infections when other antibiotics may have not worked. The spread of these resistant bacteria can cause problems to vulnerable patients in hospitals or other settings because there are so few antibiotics available to treat the infections they cause

Is CPE harmful?

Most of the time CPE does not cause any problems, and no treatment is needed as these bacteria live harmlessly in the gut. However, if these bacteria get into the wrong place such as a wound, bladder or the bloodstream, they can cause infection, particularly in patients with a low immune system.

This can be a problem because this bacteria:

- Can be spread to and cause infection in vulnerable patients
- Are almost totally resistant to some of the strongest antibiotics that we use in hospitals, which makes CPE infection very difficult to treat.

It is therefore important to prevent the spread of CPE in healthcare to ensure that antibiotics continue to be available to treat infections in the future and to keep our vulnerable patients safe.

It is important to note that these bacteria do not cause infections in healthy people in close contact with the patient, such as staff and visitors, but they can be spread by them. For this reason, infection prevention and control measures will be put in place, as detailed below.

Who is most at risk of getting a CPE infection?

People whose ability to fight infections is low. This includes (but is not limited to) people:

- With cancer
- Having dialysis and those with indwelling lines
- Being treated in an intensive care unit, including those with tracheostomies
- Who have had transplants
- With chronic wounds
- With enterostomies

How will I know if I have CPE?

A risk assessment will be completed by the nursing or medical team at the time of your admission to identify if you are at risk of carrying CPE.

A CPE screen will be requested if:

- You are transferred to the UK from a hospital abroad or have been an inpatient in a hospital abroad in the last 12 months
- You are transferred from another hospital, or you have been an inpatient in a hospital within the UK in the last 12 months
- If you have been abroad in the last 12 months
- We know or suspect you have been in contact with someone with CPE
- You are being transferred to a ward with vulnerable patients within the Trust e.g. ICCU

How will I be screened for CPE?

If a CPE screen is required following the risk assessment a sample from the rectum (the end part of your gut) will be required. After obtaining consent a member of your nursing team will gently insert a swab (very similar to a long cotton bud) a small distance inside your rectum (bottom), staining the swab with a small amount of faeces (poo). We may also test other relevant sites such as wounds and/or lines or devices if applicable. These samples are then sent to the microbiology laboratory for testing and the results will normally be given to you within 2-3 days by your care team.

Your privacy and dignity will be maintained and always respected when samples are being taken

On occasion, if you were a contact of a known CPE positive patient, further rectal screening may be required in line with local trust policy and national CPE guidance.

If you are identified as a high risk for CPE, you may be accommodated in a single room with dedicated toilet facilities (ensuite or commode), if available, until the results are known.

What does it mean if the result is positive?

If your rectal screen is positive, it means you are a carrier or colonised with CPE. This does not normally cause problems in people who are fit and healthy and you may not suffer any ill effects. If you are showing no signs of infection, no treatment is needed. If you have an infection caused by CPE, you will require antibiotic therapy which will be given on advice from a consultant microbiologist.

If you do get an infection, it is very helpful for your doctor to know that you are carrying CPE. This means that they can identify the best antibiotic to treat your infection quickly.

The nursing or medical team will be able to discuss your positive CPE result with you in detail.

How did I pick up CPE?

These bacteria can be found, living harmlessly, in the gut of humans so it can be difficult to say when or where you picked it up. There is however a greater chance of picking them up if you have been a patient in a hospital abroad or in a UK hospital that has had patients carrying the bacteria, or if you have been in contact with a carrier elsewhere

What does it mean if I am classed as a CPE Contact?

Occasionally it is not known immediately if a patient is infected with CPE bacteria. Consequently, they may not be isolated in a single room straight away. A CPE screen will be offered if you have shared the same bay in a ward with a patient found to have a positive CPE screen. This screen is offered to you as there may be a slight chance that you may have picked up the CPE bacteria that they are carrying.

How can CPE be prevented from spreading?

CPE can be spread:

- From person to person, on the hands and skin of staff, students, patients and visitors, by touching someone who is infected or colonised
- By touching room surfaces and objects such as equipment, shared electrical and medical devices, surfaces around patients (e.g. bedside tables, chairs), commodes and toilets that have CPE on them.

CPE is not spread through the air by coughing or sneezing.

If you are identified as positive you will be accommodated in a single room with your own toilet facilities (ensuite or commode) for the rest of your hospital stay or treatment, as this will help to prevent the spread of the bacteria.

You will also be managed as CPE colonised for subsequent inpatient encounters, according to our trust policy, and will require a single room on each admission.

The most important thing you can do to prevent infection is to wash your hands well with soap and water after going to the toilet and before and after you eat. You can also use an alcohol-gel hand rub if your hands are visibly clean.

It is essential that you avoid touching any of your medical devices such as urinary catheters or intravenous drips. This will help reduce the risk of you developing an infection caused by CPE.

Health care staff will adhere to strict hand hygiene ensuring hands are washed with soap and water and/or alcohol handrub before and after direct contact with patients or their environment.

You will notice that health care staff will wear gloves and aprons when they have contact with you or your environment and will wear a long-sleeved gown when providing direct, close personal care to prevent the risk of transmission to other patients.

Visitors will be asked to wash their hands on entering and leaving your room. They will be asked to wear a long sleeve gown and gloves only if they are assisting with your personal care. Visitors should avoid sitting on your bed and use the chairs provided in the ward. Visitors must not use patient bathroom facilities.

What about when I go home?

You may still be a carrier of CPE when you go home and quite often this will go away with time. No special measures or treatment are required at home. You should carry on as normal, maintaining good hand hygiene by washing your hands well with soap and water, especially after going to the toilet. If a relative or friend is helping to care for you at home, it is essential that they wash their hands with soap and water before and after they give any care to you. Bed linen, clothes and other laundry items can be washed as normal.

If you have any concerns, you may wish to contact your GP for advice.

Do I need to tell anyone I have CPE?

Before going home, you will be provided with a letter and a card advising that you have been identified as a carrier of CPE or have had an infection caused by CPE. This will be useful for the future, and it is important that you keep it safe and make healthcare staff aware of it. Should you or a member of your household be admitted to hospital you should let hospital staff know that you are, or have been, a carrier of CPE and show them the letter or card provided so appropriate action can be taken.

How long will I be colonised with CPE bacteria?

There is no definitive answer as to how long a person may carry the bacteria. The length of time could be anything from a few days to indefinitely. Treatment with certain antibiotics for unrelated infections may affect the length of carriage. We will manage you as CPE colonised on any subsequent inpatient encounters, according to our Trust policy. Effective hand hygiene and good infection prevention and control practices will minimise the transmission of CPE.

Where can I find more information?

If you would like any further information please speak to a member of the nursing or medical staff, who may also contact the specialist infection prevention team for you. More information is available on the UKHSA website.

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。

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