

Reference Number: FOI202425/292
From: Other
Date: 11 October 2024
Subject: Patients identified with carbapenemase-producing Enterobacterales (CPE)

I would like to request information regarding how patients identified with carbapenemase-producing Enterobacterales (CPE) are communicated with. I am requesting some figures and also copies of documents, which I would like to receive electronically. I have set the request out in more detail below.

Q1 I would like to request copies of the following documents
Trust Policy(s) that include the procedure for contacting positive CPE results to patients and healthcare professionals.

A1 [Please see attached - Carbapenemase Producing Enterobacteria policy](#)

Q2 I would like to request copies of the following documents:
All versions of patient information materials relating to CPE carriage and/or CPE infection.

A2 [See attached - CPE patient information leaflet 2023](#)

Q3 Total number of patients identified with CPE in the period 1/4/2023 to 31/3/24 (financial year 23/24)

A3 [24](#)
[Please note - the majority of these were identified prior to, or on admission.](#)

Q4 The total number of patients provided with information relating to CPE in the period 1/4/2023 to 31/3/24 (financial year 23/24)

A4 [14](#)
[Please note -for patients who were known to be positive from another Trust prior to transfer to LHCH, they would have provided information and so we would not document this](#)

Q5 Has a patient/public group been involved in developing or reviewing the CPE materials?

A5 [Information not held – the CPE patient information leaflet is a national patient information leaflet.](#)

Q6 Total number of beds in the Trust.

A6 [156 General & Acute](#)
[30 Critical Care](#)

Q7 Total number of hospital admissions in the period 1/4/23 to 31/3/24 (financial year 23/24)

A7 13,912

Carbapenemase Producing Enterbacteriaceae – Management and Control

Policy

For completion by Author			
Author(s) Name and Title:	Nicola Best		
Scope:	Trust Wide	Classification:	Clinical
Version Number:	3.0	Review Date:	31/10/2024
Replaces:	2.0		
To be read in conjunction with the following documents:	Infection Prevention and Control Standard Precautions Major Outbreak Policy Isolation Policy		
Document for public display:	Yes		
Executive Lead	Dr Raph Perry		

For completion by Approving Committee			
Equality Impact Analysis Completed:		Yes	
Endorsement Completed:	Yes	Record of Changes	Yes
Authorised by:	Infection Prevention Committee	Authorisation date:	18/10/2022

For completion by Document Control					
Unique ID No:	TI01(18)	Issue Status:	Approved	Issue Date:	13/06/2023
After this document is withdrawn from use it must be kept in archive for the lifetime of the Trust, plus 6 years.					
Archive:	Document Control		Date Added to Archive:		
Officer responsible for Archive:		IG and Document Control Facilitator			

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Document Statement

Enterobacteriaceae are a large family of bacteria that usually live harmlessly in the gut of all humans and animals. However, these organisms are also some of the most common causes of opportunistic urinary tract infections, intra-abdominal and bloodstream infections. They include species such as *Escherichia coli*, *Klebsiella* spp. and *Enterobacter* spp.

Carbapenems are a valuable family of antibiotics normally reserved for serious infections caused by drug-resistant Gram-negative bacteria (including Enterobacteriaceae). Carbapenemases are enzymes that destroy carbapenem antibiotics and are produced by some Enterobacteriaceae conferring resistance. There are different types of carbapenemases, of which KPC, OXA-48, NDM and VIM enzymes are currently the most common. Increasing gut colonisation with these resistant organisms will inevitably lead to an increase in difficult to treat infections.

There has been an increase nationally in the incidence of CPE (CPE). Adherence to standard precautions such as correct hand hygiene practice, correct use of protective clothing, the appropriate decontamination of equipment and the appropriate handling of linen and waste is necessary to reduce the spread of CPE and all micro-organisms within the Trust.

This policy identifies additional measures to limit the spread of these organisms within the hospital.

1. Roles and Responsibilities

The Infection Prevention Committee is responsible for development and approval of this policy.

The Infection Prevention Team (IPT) are responsible for updating this policy and have a responsibility to ensure that staff receive training on this policy. They are also responsible for collecting all surveillance data and for investigations and notifications to relevant managers if there is any transmission. The IPT will ensure that relevant patients are “flagged” on the electronic patient record.

Ward/departmental managers have a responsibility to ensure that staff working in their area are aware of this policy and the isolation policy, and that appropriate and sufficient equipment is available to ensure compliance.

The Hygiene Service Department are responsible for ensuring that high standards of environmental cleanliness are maintained and monitored and that isolation rooms are deep cleaned according to Trust policy.

The Capacity Management team are responsible for collecting relevant information on patients being transferred into the Trust and liaising with the ward staff and infection prevention team regarding the appropriate placement of patients.

All Liverpool Heart & Chest Hospital NHS Foundation Trust staff have a responsibility to ensure that they comply with this policy, that they use equipment provided appropriately and that they report any concerns or seek further advice as necessary from their manager or the Infection prevention team.

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2. Controlled Document Standards

Staff will be expected to adhere to the standards in the National Infection Prevention and Control manual (NHS England 2022)

3. Procedure

3.1 Surveillance and reporting

Information on all isolates of will be collected via the ICNET surveillance system and reported through the governance structures as part of the regular surveillance reports. The infection prevention nurses, or microbiologist will inform the relevant wards of any new isolates that are suspected or confirmed CPE and ensure that the appropriate actions are undertaken.

3.2 Screening

Patients will be screened for CPE in the following circumstances (with the exception of day cases):

- Previously identified positive patients
- Direct transfers from all hospitals
- Direct transfers from abroad
- Patients who have been hospitalised within the previous 12 months
- Identified contacts of a positive case (i.e., any current inpatient contacts who shared an open ward/bay with a non-isolated case)

Screening will be performed, if necessary, in the pre-op assessment clinics and for direct transfers patients will be screened on admission. When possible, the transferring Trust will be asked to screen the patient and provide results to LHCH prior to transfer.

Patients will be screened for CPE by obtaining a rectal swab or stool sample

Newly identified patients positive for CPE should also have samples taken from wounds and urine, (if catheterised.)

The laboratory request form should state “CPE”.

On the EPR system:

- Enter order
- Laboratory
- Microbiology
- CPE

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Additional screening on a particular ward/area may also be requested by the infection prevention team in response to a specific incident.

Screening will also be performed on all patients within the intensive care unit weekly.

The laboratory request form should state ROS (Resistant organism screen).

As well as CPE, this screen will identify different bacteria from the bowel that are highly antibiotic resistant, such as VRE (Vancomycin Resistant Enterococcus), MRSA (Methicillin Resistant Staphylococcus aureus), and ESBL (Extended Spectrum Beta Lactamase) producers.

On the EPR system: 3421rwq`MNBVCXZ\X

- Enter order
- Laboratory
- Microbiology
- Resistant organism screen

3.3 Isolation precautions

Patients who are identified as positive during their admission or have been previously identified as positive will be nursed in a sideroom with ensuite facilities, with contact isolation precautions. The patient will remain in isolation throughout their hospital stay or until advised otherwise by the infection prevention team. Precautions will be instituted as per the Trust Isolation Policy and will be monitored by the infection prevention nurses.

Transfers from other hospitals to inpatient ward areas, will be isolated following assessment by the capacity team, in conjunction with the infection prevention team where necessary. Known contacts of patients with CPE or patients transferred from wards with an outbreak or increased prevalence will be allocated a sideroom on admission.

Transfers from other hospitals to critical care will be allocated a sideroom until a negative screen is obtained.

Positive patients who require surgery will be assigned last in the operating list and will have a notification placed on the operation list

3.4 Outpatients

Previously identified positive patients should be treated at the end of the clinic list with optimal environmental cleaning.

3.5 Identification of positive or contact patients

An alert stating “CPE” will be placed on the patient header in the electronic patient record by the infection prevention nurses.

When contacts of a confirmed case have been identified an alert stating “Contact of CPE” will be placed on the electronic patient record, so that these patients can be identified if readmitted.

3.6 Treatment

Decolonisation treatment will not be routinely recommended.

Treatment options for patients with infections should be discussed with a microbiologist.

3.7 Communications with other healthcare providers

If a patient with CPE is due to be transferred to another healthcare provider, the receiving ward/department must be informed of the patient’s status as soon as possible. When a newly diagnosed patient is discharged a letter will be sent to their GP to inform them of the results.

If patients have been identified as contacts of a positive patient and are either due to be, or have been transferred to, another healthcare provider the receiving ward/unit will be informed by the infection prevention team, the capacity management team or the discharge co-ordinator.

3.8 Patient information

Patient information leaflets are available from the IPT.

A patient information leaflet is available for patients who require screening and also for patients who have been identified as having a positive isolate.

3.9 Outbreaks and clusters

Contacts of positive cases should be identified and screened for CPE. The number of contacts to be screened will be determined by the IPT on an individual basis dependant upon proximity to the index case, duration of exposure and shared staff.

An enhanced period of screening may be recommended in an affected ward/unit for a 4 week period or longer if additional cases detected.

If a major outbreak is identified, which may affect the capacity and functioning of a ward (s) a major outbreak group may be convened as advised by the IPT.

4. Policy Implementation Plan

The infection prevention committee is responsible for implementing this policy.

The policy will be publicised via the governance meetings and the ward managers’ meetings.

Staff will be made aware of this policy during their induction to the Trust and in the annual mandatory training update.

5. Monitoring of Compliance

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The infection prevention team will provide surveillance reports at each Infection Prevention Committee meeting.

An audit of this policy will be performed at least annually by the infection prevention team.

An audit of compliance with screening will be performed every 6 months.

If an outbreak occurs, a report detailing the results of any investigations and actions taken will be compiled and submitted to the IPC and the relevant Governance Committee.

6. References

Framework of actions to contain carbapenemase -producing Enterobacterales (September 2022).
UK Health and Security Agency.

7. Endorsed By:

Name of Lead Clinician / Manager or Committee Chair	Position of Endorser or Name of Endorsing Committee	Date
Director of Infection Prevention and Control	Infection Prevention Committee	18/10/2022

8. Record of Changes

Section No	Version No	Date of Change	Description of Amendment	Description of Deletion	Description of Addition	Reason
3.8	1.2	July 20	Changed name of division	Support Services	Clinical Services	Update Trust Structure
3.2	3	Oct 22	Change of screening and lab requests			New national guidelines
References	3	Oct 22	Update references			New guidelines

Carbapenemase producing enterobacterales (CPE) Patient Information Leaflet

What does carbapenemase-producing Enterobacterales (CPE) mean?

Enterobacterales are bacteria that usually live harmlessly in the gut of humans. This is called 'colonisation' (a person is said to be a 'carrier'). However, if the bacteria get into the wrong place, such as the bladder or bloodstream they can cause infection. Carbapenems are one of the most powerful types of antibiotics. Carbapenemases are enzymes, made by some strains of these bacteria, which allow them to destroy carbapenem antibiotics and so the bacteria are said to be resistant to the antibiotics.

Why does carbapenem resistance matter?

Doctors have relied on carbapenem antibiotics to successfully treat certain complicated infections when other antibiotics have failed to do so. In a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause problems.

Does carriage of CPE need to be treated?

If a person is a carrier of CPE, there will be no symptoms and they do not need to be treated.

However, if the bacteria have caused an infection then antibiotics will be required.

How did I 'pick up' CPE?

This bacteria can be found, living harmlessly, in the gut of humans and so it can be difficult to say when or where you picked it up. However, there is an increased chance of picking up these bacteria 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.

How will I be cared for whilst in hospital?

You will be accommodated in a single room with toilet facilities whilst in hospital. You may be asked to provide a number of samples, depending on your length of stay, to check if you are still carrying the bacteria. The samples might include a number of swabs from certain areas, such as, a

rectal swab ie a sample taken by inserting a swab briefly just inside your rectum (bottom), and / or a faecal sample. You will normally be informed of the results within two to three days.

How can the spread of CPE be prevented?

Accommodating you in a single room helps to prevent spread of the bacteria. Healthcare workers should wash their hands regularly. They will use gloves and aprons when caring for you. The most important measure for you to take is to wash your hands well with soap and water, especially after going to the toilet. You should avoid touching medical devices (if you have any) such as your urinary catheter tube and your intravenous drip, particularly at the point where it is inserted into the body or skin. Visitors will be asked to wash their hands on entering and leaving the room and may be asked to wear an apron.

What about when I go home?

Whilst there is a chance that you may still be a carrier when you go home quite often this will go away with time. No special measures or treatment are required. You should carry on as normal, maintaining good hand hygiene, especially after using the toilet or preparing food.

CPE can be removed from surfaces using normal household disinfectants and disposable cloths.

Clothes, bedding and linen can be washed as normal using your usual detergent product at the hottest temperature recommended for the fabric.

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

Telling others.

Before you leave hospital, ask the doctor or nurse to give you a letter or card advising that you have had an infection or been / are colonised with CPE. This will be useful for the future and it is important that you make health care staff aware of it. Should you be admitted to hospital, you should let the hospital staff know that you are, or have been a carrier and show them the letter / card.

If you would like any further information you can speak to a member of Infection Prevention and Control Team (ext 1326/1057).

The UK Health security Agency website is another source of information:

<https://www.gov.uk/government/organisations/uk-health-security-agency>