

FOI REF: 24/716

Eastbourne District General Hospital

14th November 2024

BN21 2UD

Kings Drive Eastbourne East Sussex

Tel: 0300 131 4500 Website: www.esht.nhs.uk

FREEDOM OF INFORMATION ACT

I am responding to your request for information under the Freedom of Information Act. The answers to your specific questions are as follows:

1. Trust Policy(s) that include the procedure for contacting positive CPE results to patients and healthcare professionals.

Please see attached document '01531'.

Please note that it is East Sussex Healthcare NHS Trust's (ESHT) FOI policy to only provide the names of staff that are grade 8a or above, therefore staff that are below that grade have been redacted from the attached policy.

2. All versions of patient information materials relating to CPE carriage and/or CPE infection.

Please see attached document '1100 Patient Leaflet'.

Please see note on Q1.

3. In addition, please can you provide the following information. I have provided a table below for ease.

Clarification was sought with regard to CPE coding and confirmation was received that you require the following:

 Infection Prevention (IPC) programmes will undertake surveillance for resistant bacteria, and CPE is one of these organisms. IPC should have a policy for this, and this "may" include instructions/procedures for notifying the patient/carer/GP when they have been newly identified with CPE. As a provider of acute services I would imagine you have policies and procedures relevant to the screening and identification of people carrying CPE (and would identify others with active infection through normal microbiology testing).

- Your IPC team should be able to provide relevant policies and patient information (leaflets and letters) relating to CPE.
- The IPC team should also be able to easily identify patients identified with CPE through their usual systems.
- The IPC team may have data on how many people were provided with information, or who were written to.

Information Requested	Response
Total number of patients identified with CPE in the period 1/4/2023 to 31/3/24 (financial year 23/24)	7 patients for the period 1/4/2023 to 31/03/2024 (6 were part of hospital investigations , 1 GP investigation)
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)	IPC would alert the electronic patient record with a positive CPE result but only follow up with information if the result related to a person who was an inpatient. This is because CPE status is mainly of IPC significance when in hospital. In a non-hospital setting, CPE status would need to be taken into account by a GP or other healthcare provider prescribing treatment. From our database for 2023/24, possibly 12 patients were inpatients at the time of diagnosis so IPC would either inform the patient or request for the ward to do so.
Has a patient/public group been involved in developing or reviewing the CPE materials?	The leaflet has been through a ratification group which has patient representatives.
Total number of beds in the Trust.	Total Beds: 884 (Bedstock table 28/10/24. Including 25 escalation beds).
Total number of hospital admissions in the period 1/4/23 to 31/3/24 (financial year 23/24)	Total number of admissions for the period requested is 113047, for all sites within ESHT.

If I can be of any further assistance, please do not hesitate to contact me.

Should you be dissatisfied with the Trust's response to your request, you have the right to request an internal review. Please write to the Freedom of Information Department (<u>esh-tr.foi@nhs.net</u>), quoting the above reference, within 40 working days. The Trust is not obliged to accept an internal review after this date.

Should you still be dissatisfied with your FOI request, you have the right of complaint to the Information Commissioner at the following address:

The Information Commissioner's Office Wycliffe House Water Lane Wilmslow Cheshire SK9 5AF

Telephone: 0303 123 1113

Yours sincerely

Freedom of Information Department esh-tr.foi@nhs.net



Policy for the Control of Carbapenemaseproducing Enterobacterales (CPE)

Document ID Number	1531
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Ratified by:	Trust Infection Prevention and Control Group
Date ratified:	October 2023
Name of author and title:	Dr John Koroneos, Consultant Microbiologist
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Date current version was completed	October 2023
Name of responsible committee/individual:	Trust Infection Prevention and Control Group
Division/Speciality:	Corporate Nursing and Governance
Date issued:	October 2023
Review date:	October 2026
Target audience:	All ESHT Staff
Compliance with CQC Fundamental Standard	Safe Care and Treatment (Regulation 12)
Compliance with any other external requirements (e.g., Information Governance)	https://www.gov.uk/government/publications/the- health-and-social-care-act-2008-code-of- practice-on-the-prevention-and-control-of- infections-and-related-guidance
Associated Documents:	Hand Hygiene Policy for Healthcare Workers Decontamination of Non-Invasive Reusable Healthcare Equipment Policy Guidance for Staff Responsible for Care after Death in Adults (formerly Last Offices) Infection Outbreak Policy including Major Outbreak National Infection Prevention and Control Manual for England

Did you print this yourself?

Please be advised the Trust discourages retention of hard copies of the procedural document and can only guarantee that the procedural document on the Trust website is the most up to date version

Version Control Table

Version number and issue number	Date	Author	Reason for Change	Description of Changes Made
1.0	May 2014	Dr Roger Springbett &	New policy	
2.0	October 2023	Dr John Koroneos & Lisa Redmond	Update	Changes throughout as recent taxonomy changes have included the family Enterobacteriaceae and new framework published in Sept 2022. Changes to screening as outlined in the new framework, removing the need for serial screening. Addition of risk assessment tool and IPC in paediatric settings.

Consultation Table

This document has been developed in consultation with the groups and/or individuals in this table:

Name of Individual or	Title	Date
group		
Trust Infection Prevention		May 2023
and Control Group		
Nicky Creasey	Assurance Manager, Health & Safety	November 2015
Patient documentation and policy ratification group		November 2015
Trust Infection Control		November 2015
Group		
	Assurance Team Manager	July 2015

This information may be made available in alternative languages and formats, such as large print, upon request. Please contact the document author to discuss.

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1. Introduction

Recent taxonomy changes have included the family Enterobacteriaceae within the order Enterobacterales. Enterobacterales 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). They include meropenem, ertapenem, imipenem and doripenem. Carbapenemases are enzymes that destroy carbapenem antibiotics, conferring resistance. They are made by a small but growing number of Enterobacterales strains. There are different types of carbapenemases, of which Klebsiella pneumoniae Carbapenemase (KPC), OXA-48, New Delhi Metallo-beta-Lactamase (NDM) and VIM enzymes are currently the most common.

Most people will be unaware that they are a carrier and, in general, the chance of developing an infection from the bacteria is low. However, immunocompromised individuals and those that receive complex care in the community with frequent hospital admissions will be more vulnerable. These individuals are a greater risk of colonisation and of suffering more serious consequences should they develop an infection. Colonised individuals with devices in situ may be at the greater risk of developing an infection.

CPEs can be transmitted between patients either through contact with each other or by contact of contaminated items or surfaces in the immediate environment of a patient with CPE.

This policy focuses on Carbapenemase-producing Enterobacterales (which is often referred to as CPE) rather than all Carbapenamase-producing organisms (CPO) such as Pseudomonas and Acinetobacter. It should be noted that CPE is sometimes also referred to as Carbapenem resistant Enterobacterales (CRE).

2. Rationale

This policy has been written for the management of colonisation or infection due to CPE to prevent or reduce their spread into (and within) healthcare settings. In the UK, since 2009 there has been a rapid increase in the incidence of infection and colonisation by multi-drug resistant carbapenemase-producing organisms. A number of clusters and outbreaks have been reported in England, some of which have been contained, providing evidence that, when the appropriate control measures are implemented, these clusters and outbreaks can be managed effectively.

A patient safety alert issued on the 6^{th of} March 2014 advised Trusts that unless decisive action is taken then there is high risk that the problem could become more widespread. In September 2022, the Framework of actions to contain carbapenemase-producing Enterobacterales was issued. This policy has been adapted from this publication.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_da ta/file/1107705/Framework_of_actions_to_contain_CPE.pdf

Importance of controlling CPE

Unless action is taken and lessons are learnt from experiences elsewhere in the world, rapid spread of CPE will pose an increasing threat to public health and medical treatment pathways in the UK.

An understanding of local epidemiology and context is key, as public health actions will differ depending on:

- the prevalence of CPE in patients being admitted to healthcare settings
- prior outbreaks within the region
- the patient population mix including number of overseas patients or repatriations of patients from hospitals abroad
- individual risk assessments of areas where transmission is most likely to occur
- Healthcare providers who have considerable experience of CPE outbreaks may develop contextualised screening strategies reflecting their local epidemiology.

3. Scope

This policy covers infection prevention and control management issues for all Trust staff (acute and non-acute) that include:

- Employees.
- Volunteers.
- Agency / locum / bank staff.
- Contractors whilst working on the Trust premises.

This document refers to CPE alone; although some interventions may be common to other carbapenem-resistant Gram-negative bacteria such as carbapenem-resistant Pseudomonas spp. and Acinetobacter spp., these are not included within the document given the differences in epidemiology, microbiology, transmission, and environmental persistence.

4. Definitions

Acute care setting	A healthcare setting, usually a hospital, which provides short-term treatment or care for an illness, urgent medical condition, injury or surgical procedure.
Carbapenemases	Enzymes (such as KPC, OXA-48, NDM and VIM) produced by some bacteria which cause destruction of the carbapenem antibiotics, resulting in resistance.
Close contact	A person living in the same house; sharing the same sleeping space (room or hospital bay); or a sexual partner.
Colonisation	The presence of micro-organisms living harmlessly on the skin or within the bowel and causing no signs or symptoms of infection
Enterobacterales	A group of bacteria that usually live harmlessly in the gut of humans (and animals). They include <i>Escherichia coli</i> (E. coli), <i>Klebsiella, Enterobacter</i>
Community-acquired infection	An infection that <i>is not</i> related to a healthcare intervention in a hospital
Healthcare-associated infection	An infection that occurs following or during a healthcare intervention undertaken either in the

	community (including the patient's home) or in a healthcare setting
Hospital-acquired infection	An infection that occurs following or during a healthcare intervention in a hospital
Infection	The presence of micro-organisms in the body causing adverse signs or symptoms
Laboratory confirmed CPE case - for the purposes of this guidance	Recent laboratory confirmation of CPE infection / colonisation during this admission episode or confirmed at a transferring healthcare facility (UK facility only)
Suspected CPE case	A patient who in the last 12 months has been: (a) an inpatient in a hospital aboard or (b) an inpatient in a UK hospital which has a problem with the spread of CPE or (c) Is previously positive
Non-acute care setting	Usually applies to healthcare settings that provide non-acute care, such as in care homes and mental health trusts, also rehabilitation and palliative care services including hospices
Rectal swab	A rectal swab is a specimen taken by <i>gently</i> inserting a swab inside the rectum 3-4cms beyond the anal sphincter, rotating <i>gently</i> and removing. Sodium chloride 0.9% can be used to moisten the swab prior to insertion. The swab should have visible faecal material to enable organism detection in the laboratory. A rectal swab <i>should not</i> be mistaken for a perineal swab.
Medical Tourism	The process of travelling outside of the country of residence for the purpose of receiving medical care.

5. Accountabilities

5.1 Corporate

The Trust Board must ensure that adequate resources are made available to effectively manage patients with CPE. There must be effective leadership at corporate and clinical level developing a supportive environment for the Infection Prevention and Control Team (IPCT) to implement the policy.

5.2 All Healthcare Staff

Must be familiar with and adhere to this policy including:

• Be alert to the increased risk of infection or colonisation with patient transfers / admissions from high-risk areas abroad and within the UK.

- Identify suspected or known cases through risk assessment and admission screening.
- Where possible ensure patients with CPE are isolated based on risk assessment (Appendix D).
- Inform the IPC team of suspected or known cases.
- Inform and discuss with patients and their families as appropriate their CPE status and provide relevant information.
- Provide effective communication regarding the patients CPE status on transfer or discharge of patients to other healthcare facilities and promote good infection prevention and control practice and challenge poor practice.
- CPE can be passed from person to person after touching contaminated surfaces such as bed rails, toilets or devices. Hand hygiene and decontamination of equipment and patient environment is essential, all staff should refer to relevant Trust policies.

5.3 Medical Staff

- Request advice for treatment of CPE from the Consultant Microbiologist and document this advice.
- Attend incident management and root cause analysis meetings related to patients positive for CPE within their care when investigation is required.
- Identify, advise and document if patients with CPE are colonised or infected.
- Support and promote a culture of good infection prevention and control practice and ensure compliance with infection prevention and control practice.
- Comply with appropriate prescribing of antibiotics in accordance with the Trusts antimicrobial policy.
- Advise on and/or attend root cause analysis investigations and incidents related to CPE.

5.4 Matrons and Clinical Service / Unit Manager

- Support and promote a clean environment within their Clinical Unit and wider Trust.
- Support and promote compliance with this policy and management of patients with suspected or known CPE.
- Attend incident investigations and root cause analysis meetings related to patients positive for CPE or possible outbreaks.
- Ensure nursing staff complete the CPE risk assessment and screening in accordance with the policy.

5.5 Consultant Microbiologist

- Inform medical teams and the Infection Prevention & Control team of CPE positive results and advise on treatment management and further investigations.
- Challenge inappropriate antibiotic prescribing.
- Review laboratory procedures to support screening, detection and referral to the Reference Laboratory as required.
- Advise and / or attend root cause analysis investigations and incidents related to CPE.

5.6 Infection Prevention and Control Team

- Ensure patients with CPE are isolated based on the risk assessment.
- Acting as a source for best practices for clinical / non-clinical staff.
- Maintaining active alert organism surveillance for CPE.
- Investigate potential healthcare acquired CPE and implement measures to prevent further spread.
- Detecting potential outbreaks and be part of the Outbreak Control Team.
- Ensuring that the policy is updated in a timely manner in accordance with the clinical governance framework and in response to changing need or national guidance.
- Provide CPE advice and training to clinical staff.
- Instigate and advise on root cause analysis investigations as required.

5.7 Microbiology Laboratory

• Provide effective test method to detect CPE from screening specimens and provide reports in a timely fashion.

6. Process

6.1 Early recognition of individuals who may be colonised / have an infection.

KEY MESSAGE:

A risk assessment (Appendix B) must be carried out on every patient as part of the routine acute admission screen to identify suspected case of colonisation or infection with CPE.

Assess each patient on admission, readmission *OR* on transfer from another healthcare facility.

Suspected case is defined as: A patient who in the last 12 months has been (a) an inpatient in a hospital abroad or

(b) an inpatient in a UK hospital or multiple attendance at an ESHT hospital or (c) Is previously positive

NOTE: If the patient is a recent laboratory confirmed case of CPE infection/colonisation (i.e., during this admission episode or confirmed at a transferring healthcare facility [UK facility only]) bypass this step, isolate the patient immediately and treat as a positive case Has the patient in the last 12 months:

• Been an inpatient in any hospital, both in the UK or abroad?

NOTE: There is no current information available on which UK hospitals have a problem with CPE therefore all UK hospitals will be considered a risk until advised otherwise.

OR

• Previously been colonised or had an infection with CPE or close contact (see definitions) with a person who has, if known?

OR

• Had multiple hospital treatments e.g., are on dialysis or have had cancer chemotherapy

OR

• Known epidemiological link to a known carrier (this may include household and care home contacts or known CPE.

OR

• They are admitted into augmented care or high-risk units.

If one or more of the above applies, then the patient is considered to meet the criteria for being a suspected case of CPE colonisation or infection. The following precautions must be applied immediately:

- High risk patients must be isolated in a side room preferably with en-suite facilities (inform site manager if side room unavailable) see Section 6.1.1 for isolation risk.
- Instigation of *strict standard precautions* to prevent possible spread.
- Screening to assess current status for colonisation or infection.
- Assessment for appropriate treatment (applies to infection only)
- Inform the Infection Prevention and Control Team

See Appendix C - Acute Trust flow chart of Infection Prevention and Control measures to contain CPE.

The table below is a list of countries which are known to have a high prevalence of CPE.

NOTE: This is not an exhaustive list and admission to any hospital abroad should be considered when making a risk assessment. Lack of data from a country not included in this list may reflect lack of reporting / detection rather than lack of a carbapenemase problem (which may additionally contribute to an under-estimation of its prevalence).

Counties with a known high prevalence of CPE		
Bangladesh	North Africa (all)	
The Balkans	Malta	
China	Middle East (all)	
Cyprus	Pakistan	
Greece	Southeast Asia	
India	South/Central	
Ireland	America	
Israel	Turkey	
Italy	Taiwan	
Japan	USA	
UK regions / areas where problems have been noted in some hospitals		

IMPORTANT: Healthcare providers have a 'duty of care' to proactively communicate any problems they are experiencing with CPE.

Elective admissions are to be risk assessed as part of the pre-assessment process following the same criteria as above.

6.1.1 Early isolation of suspected and laboratory-confirmed cases

KEY MESSAGE:

If you have a high risk suspected case or laboratory confirmed case, they must be isolated immediately to prevent spread within the Trust.

The availability of side rooms that can be used for isolation often exceeds demand. When a side room is not readily available the level of risk will be determined depending on where the patient is being admitted and their relevant history. These risk factors as detailed below will be considered when prioritising the need for isolation. See Appendix D for a risk assessment tool for isolating CPE positive patients.

High risk/suspected patients are defined as:

Admission to augmented care area, ITU, CCU, neonatal unit (SCBU), haematology, oncology and paediatrics:

- A known or recently laboratory confirmed CPE case (these patients will not need re screening but will need isolating with full Infection Control precautions).
- A direct patient transfer from any UK hospital.
- A direct patient transfer from any hospital abroad.
- A medical tourist from a hospital abroad.
- A patient that has a history of hospitalisation in the last 12 months in the UK (Excluding admission to ESHT) or abroad.
- had multiple hospital treatments for example are dialysis dependent or recent chemotherapy.
- An identified contact of a CPE positive case (colonised or infection).

Admission to acute general wards:

- A known or recently laboratory confirmed CPE case (these patients will not need rescreening but will need isolating with full Infection Control precautions)
- A medical tourist from abroad.
- A direct patient transfer from any hospital abroad.
- A direct patient transfer from any UK hospital

All high risk/suspected patients will require a CPE screen, and *must* be admitted into an isolation room, preferably with en-suite facilities.

KEY MESSAGE:

Where isolation is not achievable due to limited side room availability and service demand, please refer to site management team and / or Infection Prevention and Control Team to further risk assess and advice and refer to risk assessment in Appendix B.

Patients meeting the above definition must commence screening even if isolation is not immediately achieved. Strict adherence to infection control precautions must be maintained at all times.

Medium and Low risk patients admitted to acute general wards:

- An identified contact of a CPE positive case.
- A patient that has a history of hospitalisation in the last 12 months in the UK (Excluding admission to ESHT) or abroad.
 A patient who has had multiple recent hospital attendances for chemotherapy or is dialysis dependent.

All the above medium and low risk patients with suspected CPE that are admitted to acute wards will require a CPE screen (please refer to section 6.1.2 for the screening process).

Where possible isolate in a side room with en-suite facilities (or dedicated) commode if possible until the first screen result demonstrates negative. If it is not possible to continue isolation then:

Discuss with the Infection Prevention and Control Team and either cohort the patient or if not possible to cohort, nurse in a bay with strict emphasis on maintaining compliance with standard precautions and optimal environmental cleaning (without fail).

Medium and Low risk outpatients and day cases:

- Medium and low risk patients are also defined as any day case or outpatient clinic patients. These patients do not require screening or isolating but standard infection control measures still apply.
- In the case of admission of a day case or outpatient patient to follow the pathway for **Medium and Low risk patients admitted to acute general wards**, described above.

For patients who are known or suspected CPE who are attending outpatients and day please inform Infection Prevention and Control for advice.

If the patient already has laboratory-confirmed infection or colonisation with CPE *or* meets the criteria for a suspected case then:

- Advise the patient (and relatives if appropriate) of the positive result or your suspicions (whichever applies) and your management plan
- Immediately place the patient into a single room with en-suite facilities and send screening samples (See section 6.1.2 for screening procedure)

- Apply strict standard precautions in all settings (See section 6.1.5 for infection prevention and control precautions)
- All suspected (including previously positive) patients should be isolated until screening results are known.

If the patient is **POSITIVE** on screening for CPE or is a laboratory-confirmed case (colonisation or infection):

- They should remain in isolation for the duration of their hospital stay.
- Strict standard precautions must be practiced (whether the patient has infection or colonisation) including good hand hygiene.
- Where any part of a staff uniform, not protected by an ordinary apron, is expected to come into contact with the patient, a long-sleeved disposable gown should be used e.g., when assisting movement for a dependent patient.
- Use of personal protective equipment (PPE) in line with standard precautions.
- Environmental cleaning and decontamination, with an enhanced focus on frequent cleaning of hand contact areas (See section 6.1.6 for cleaning and decontamination)
- Infection Prevention and Control Team to provide information leaflet and patients positive for CPE card (Appendix E), I am colonised / have an infection, Appendix F, Patient card)

Elective admissions: Those patients who meet the criteria of a 'suspected' case are to provide one screen prior to admission. If **NEGATIVE**, there is no requirement to isolate. (if no sample has been obtained then the patient should be isolated and screened on admission).

If a **POSITIVE** sample is obtained, then the patient must be isolated in accordance with the policy. If the patient is a known **POSITIVE** past or present, then they must be isolated on admission and inform the Infection Prevention and Control Team for advice.

6.1.2 Early detection – screening through faecal sampling of suspected cases and contacts

KEY MESSAGE:

The screening through faecal sampling of cases and contacts will direct the management, allow the early instigation of infection prevention and control measures and help assess whether spread has occurred

If the patient meets the criteria for a suspected case of infection or colonisation with CPE:

SCREEN THE PATIENT (CASE):

- Immediately arrange for the patient to be screened provide explanation and information leaflet. Appendix G, I may be a carrier (or have an infection), information leaflet).
- Gain informed consent, if the patient declines the screening document in medical notes and inform the Infection Prevention & Control Team.

• Ensure that samples are clearly labelled as CPE screen and clinical details are completed on ICE (Integrated Clinical Environment) system.

WHAT SAMPLES TO TAKE:

• Take a rectal swab (NOTE: this is the best sample type to achieve speedy results; to ensure detection of the organism there must be visible faecal material on the swab).

OR

• Collect a stool sample *AND* send to laboratory as soon as possible marking request form: 'Possible CPE colonisation or infection' (or 'exposure' if a contact – see below).

ALSO

• a wound swab and or a urine sample (if catheterised)

NOTE: Gloves and aprons to be worn when obtaining the CPE screen followed by hand washing.

SCREENING OF CONTACTS:

- Screening of patient contacts of a positive case SHOULD be undertaken if the case had spent more than 3 hours (or remained) in an open ward to bay with other patients before (or despite) having a positive result for CPE.
- Provide explanation and contact information leaflet (Appendix H), Contact with CPE leaflet)
- The Infection Prevention and Control team will lead on the patient contact investigation using the case / contact template (Appendix I)
- Screening of patients in the same setting is NOT normally required if the case was identified on admission and isolated immediately.
- Screening of household contacts and healthcare staff is NOT required there is no compelling evidence to suggest that screening the household or healthcare staff to check for colonisation will provide additional benefit in controlling spread in the healthcare setting. The main focus should remain on promotion of strict standard precautions throughout, especially hand hygiene.
- For screening of children: faecal samples are to be obtained instead of rectal swabs.

6.1.3 Acting on results of samples

KEY MESSAGE:

If positive manage as a positive case.

Record the result clearly in the patient notes and electronic record.

Should any sample test **POSITIVE** – manage patient as positive case (below)

If **POSITIVE** (either from a screening sample OR from a routine clinical sample from this admission episode) the patient should remain in isolation, preferably for the duration of their hospital stay – see section 6.1.7 for discharge advice.

Note: Healthcare providers may wish to treat patients that have been previously identified as CPE positive as persistently colonised regardless of screening, though the evidence base for this is limited and is likely to change as knowledge evolves.

Ensure:

- Patient, and family (as appropriate), have been informed of positive result and factsheet provided by a member of the Infection Prevention and Control Team or ward staff (Appendix E, I am colonised / have an infection, Appendix F, Patient card).
- Patient's notes (paper and electronic) are documented with positive result.
- The patient should be advised to practice good hand hygiene especially after using the toilet.
- Information about positive result is included on all transfer / admission documents (if moved to another healthcare setting or referred for community care).
- Alert to be put on electronic records such as Oasis and Esearcher by the Infection Prevention and Control Secretaries detailing CPE status.
- All positive results are reported by the Infection Prevention and Control Team to the UK Health Security Agency (UKHSA) via the Enhance Surveillance system.
- The Infection Prevention and Control Team will undertake a rapid risk assessment or if necessary, a root cause analysis on all CPE significant infections.
- For specific advice on containing CPE in a paediatric setting, please see Appendix J.

NOTE: Careful risk assessment is required should it be deemed necessary to consider removing a previously positive or a colonised patient from isolation. A patient with an infection should not be removed from isolation.

Experience from other areas in the UK / abroad has shown that, on some occasions, an apparently cleared carbapenemase-producer can re-grow to a detectable level in the gut flora. A previously positive individual with subsequent negative screening results can revert to a positive state, especially after a course of antibiotics.

Should a patient who is colonised or has an infection require a diagnostic test or procedure which cannot be undertaken in the patient's room, the procedure should be planned to facilitate decontamination of the room and equipment after use. (See section 6.1.6 for environmental cleaning and decontamination)

OUTPATIENTS DEPARTMENTS: Known positive outpatients should be planned to attend at a time that allows decontamination of the equipment and environment after use.

FOR CONTACTS - If screening is indicated:

- It is not necessary to isolate contacts whilst awaiting screening results cohort such contacts if possible and / or reiterate strict hand hygiene for staff and patients.
- Screen all patients contacts in the bay (or ward, if patient has occupied more than one bay) on a weekly basis that remain in hospital for up to 4 weeks after the last case was detected.
- Restrict screening to patient contacts remaining in hospital.

However, should any contact screen positive, manage as positive case (see above) AND the Infection Prevention and Control Team will investigate and initiate outbreak management procedures in discussion with our local UKHSA team.

STAFF CONTACTS:

- Currently there is no evidence to support the screening of staff.
- There is no risk to pregnant staff as the placenta is an effective barrier in preventing bacteria such as CPE from crossing from the mother to the baby.
- Adherence to standard precautions in the workplace and effective hand hygiene at all times the key measures to prevent the spread of infection.

6.1.4 Effective treatment

KEY MESSAGE:

Treatment of the patient with an infection caused by CPE should be under the advice of the <u>Consultant Microbiologist.</u>

Patients with CPE infection or colonisation do not require decolonisation.

Firstly, establish whether the patient has an infection or is colonised with CPE as confirmed on laboratory testing. If the patient has an infection, please contact the Consultant Microbiologist for advice.

If the patient is colonised:

- No antibiotic treatment is required for colonisation.
- Decolonisation is *NOT* advised for the following reasons:
 - $\circ~$ Skin decolonisation not advised as these bacteria generally colonise the gut rather than the skin.
 - Gut decolonisation (by prescribing antibiotics) not advised as although antibiotics may provide some benefit, there is concern that their use would contribute to increasing resistance in the longer term.
- Advise patient of the need for good hand hygiene, especially if they develop loose stools or diarrhoea (for any reason).
- The length of time that someone may carry the bacteria can be anything from a few days to indefinitely.

If the patient develops an infection:

- Ensure treatment is started promptly under the guidance of the Consultant Microbiologist.
- Treatment should be guided by susceptibility results.

6.1.5 Early instigation of effective infection prevention and control (IP&C) measures

KEY MESSAGE:

All staff must fully understand isolation procedures and adhere to standard infection control precautions without fail.

Regardless of when the suspected or confirmed case is identified, be it on admission or later, all relevant staff should be made aware and the Infection Prevention and Control Team will undertake an additional risk assessment to investigate the likely source.

Isolation:

Laboratory confirmed or suspected cases must be isolated immediately with en-suite facilities where possible (Refer to Section 6.1.1)

Hand Hygiene: (refer to ESHT Hand Hygiene policy)

Hands must be decontaminated:

- Immediately before each episode of direct patient contact or care, including clean/aseptic procedures.
- Immediately after each episode or direct patient contact or care.
- Immediately after contact with body fluids, mucous membranes and non-intact skin.
- Immediately after any other activities or contact with objects and equipment in the immediate patient environment that may result in the hands becoming contaminated i.e., the patient bed, table or locker.
- Immediately after removal of gloves.

Hands must be washed with soap and water when:

- Hands are visibly soiled or potentially contaminated with body fluids.
- When caring for patients with vomiting or diarrhoeal illness.

Personal protective equipment: (refer to ESHT, Standard (Universal precautions policy)

- Use of personal protective equipment (PPE) in line with standard precautions.
- Where any part of a staff uniform, not protected by an ordinary apron, is expected to come into contact with the patient, a long-sleeved disposable gown should be used e.g., when assisting movement for a dependent patient.

Laundry Management

- All linen from a known or suspected patients positive for CPE is to be classified as infected and placed into the red bags.
- If there is a likelihood of leakage linen should be double bagged.

Waste Management

• All waste generates from a known or suspected patients positive for CPE must be classified as infected waste and disposed of in the orange waste bags. Faecal waste would generally be considered the highest risk waste generated from patients with CPE.

Patient equipment and medical devices:

Scrupulous infection prevention and control practice are emphasised as being particularly important when using and caring for devices / equipment such as:

- Intravenous / peripheral line
- Central venous catheter line
- Urinary catheter
- Ventilators
- Renal dialysis equipment
- Enteral feeding equipment
- Colostomy or ileostomy
- Any re-usable diagnostic equipment.

NOTE: Loose stools or diarrhoea (for any reason) increase the risk of spread of the bacteria from the gut, therefore:

- Strict infection prevention and control measures must be observed at all times.
- For patients where effective hand hygiene is in doubt, additional assistance is required.

Visitors:

Family members and visitors may visit as normal without any additional restrictions. Those undertaking hands on care of patients are required to wear the appropriate personal protective equipment including gloves and aprons. All visitors must adhere to strict hand hygiene before and after entering isolation rooms. Visitors should not use patient toilet facilities.

Death:

Body bags are not routinely required for patients with CPE. The standard precautions that need to be taken in death are the same as in life.

6.1.6 Cleaning and Decontamination

KEY MESSAGE:

CPE can be eliminated from the environment by the application of a scrupulous cleaning routine.

ROUTINE CLEANING:

- Adherence to high standards of cleaning must be maintained and audited.
- The room must be cleaned daily with chlorine-based disinfectant such as Actichlor plus[™]

- Particular attention must be paid to frequently touched areas such as bed rails and door handles.
- Avoid having extraneous equipment or items or large quantities of disposable items in the room.
- Dedicated / single patient or single use equipment is to be used where possible.
- Water and disinfectant used for cleaning the patient's environment must be disposed of in a designated cleaning sink. Hand wash basins must not be used for disposal of contaminated water.

TERMINAL DECONTAMINATION:

Decontamination is most crucial following a patient leaving a specific area – for example from an isolation room or bed space. This will need coordination between housekeeping, healthcare assistants, nurses and other specialties, as appropriate.

Should the patient require a diagnostic test or procedure, ideally it should be undertaken in the patient's room (if appropriate or feasible). If not, it should be planned at the end of the day's list and the room, where the procedure was undertaken, and equipment terminally sterilised after use (if allowed). Alternatively for equipment that cannot be sterilised it is advised to undertake high level disinfection of equipment after use.

Surface cleaning and hand-touch / contact areas:

• Scrupulous cleaning and disinfection of all surfaces is required with particular attention to those that may have had patient or staff hand contact.

Mattresses are of particular importance:

- Conventional mattress covers should be cleaned and disinfected.
- Dynamic mattresses should be sent to the external contractor for specialist cleaning.

Other close-patient contact equipment and items (Where possible single patient use items should be used).

- Pulse oximeters require normal cleaning and disinfection or single patient use only.
- Blood pressure cuffs should be single patient use only.
- Stethoscopes and thermometers should be single patient use only.
- There are no extra decontamination requirements for endoscopes above the normal procedures. Any attached cameras / equipment which cannot be steam sterilised, should be protected using a single use covering and thoroughly chemically disinfected between patients once the covering has been removed.
- Privacy curtains should be removed and laundered or single use only.
- Unused wrapped single-use items in the patient's immediate vicinity (that may have become contaminated by hand contact) should be discarded. The burden of this may be minimised by keeping limited stocks near the patient.

• Tubes of ointment and lubricant should be disposed of.

On patient discharge or transfer:

• The room must be deep cleaned with chlorine-based disinfectant such as Actichlor plus[™]. In rooms or areas that can be effectively sealed the deep clean should be followed by Hydrogen Peroxide Vapour treatment. Re-useable equipment used by patient with CPE should be included in the cleaning process. Additional cleaning requirements will be on the advice of the Infection Prevention and Control team.

6.1.7 Early communication on discharge or medical transfer of patients

KEY MESSAGE:

Commence communications as soon as the first suspected or confirmed case comes to light.

- There is no reason for discharge to be delayed once an infection has been resolved even if the patient is still colonised. Good communications will prevent unnecessary anxiety, misunderstanding or confusion for the family or healthcare facility receiving the patient.
- Carefully planning *well in advance* of the patient's movements and discharge / transfer as required.
- Alert neighbouring Trusts and providers to allow them to put the necessary precautions and level of alertness in place to prevent spread. Inter-healthcare transfer form must be completed (Appendix K).
- Ensure good communication with receiving organisations *prior to* patient transfer or discharge and with all healthcare professionals along the patient pathway.
- Ensure the family and / or care facility to which the patient is to be discharged is provided with an accurate explanation of risk in a non-acute / community setting, IP&C management advice and an opportunity for questions.
- There is no reason for non-acute setting to refuse admission or re-admission of service users on the grounds that they are colonised with CPE.
- Standard precautions apply when transferring patients via ambulance with routine cleaning of equipment between patients. If there is any contamination from a leaking wound or faecal contamination, decontamination of the vehicle is required.

Communication is required between and with:

The patient so that they understand on discharge:

- Their current status (e.g., infection cleared but may still be a carrier), and the need for good hand hygiene.
- That should a close contact be admitted to hospital / healthcare setting for any reason, they need to inform healthcare staff of their exposure.
- Relevant patient information leaflets and / or patient card must be provided.

Internal colleagues

- The Consultant Microbiologist
- Laboratory personnel (as required)
- The IPC team to remind ward staff (including housekeeping and visiting staff) of IPC measures.
- Site managers
- Staff on receiving ward ensuring information regarding suspected or confirmed CPE is communicated verbally and documented.
- Housekeeping staff and teams including Rapid response.

External Healthcare colleagues may include:

- Microbiologists, IPC teams in neighbouring healthcare trusts and the community.
- Hospitals, care homes, primary care services *especially* the patient's GP plus any other relevant care provider along the patient pathway.
- Any trusts where there is regular inter-trust transfer from one unit to another e.g., liver units (where one unit is affected).

Key partners may include:

- UK Health Security Agency (UKHSA), particularly your local UKHSA Centre [Tel: 0345 894 2944]
- Clinical commissioning groups
- The local Director of UKSHA
- The local Health and Wellbeing Board

6.2 Management of CPE in the community and non-acute setting

KEY MESSAGE:

Patients admitted to Intermediate care facilities do not routinely require risk assessing or screening for CPE.

In the community and non-acute settings most people will be unaware that they are a CPE carrier. The level of risk is less than in the acute setting as patients are less acutely unwell and are less likely undergo procedures or interventions. The spread of infection can be minimised through effective hygiene practices and use of standard precautions for all individuals receiving care.

6.2.1 Factors that increase the risk of transmission

The patients care needs need to be considered when assessing the risk in the community of non-acute setting.

The individual:

- lives in a shared care environment where individuals are congregated and are cared for in close proximity to one another.
- and their family have not yet received information on how to best manage the infection and prevent the spread of bacteria.
- has a discharging wound or oozing from an infected area.
- has diarrhoea or smears or protests with faeces.
- is confused or has dementia.

Risk assessment: To be undertaken by the Infection Prevention and Control Team based on the following:

CARE NE	EDS	GUIDANCE for RISK ASSESSMENT
HIGH RISK	E.g., patient has diarrhoea, discharging wound, long term ventilation, confusion/dementia, device(s) in situ, undergoing invasive procedures, smearing or 'dirty protests'	identify if there is an immediate risk of infecting others discuss management with GP/clinician in charge, IP&C nurse consider the mental and physical health and wellbeing of the individual consider if the individual requires supervision consider options to facilitate terminal cleaning/sterilisation and disinfection and minimise the risk of spread of infection where possible by: giving individuals an end of list appointment using mobile equipment away from others
MEDIUN RISK	E.g., patient requires assistance with hygiene, mobility or physical rehabilitation	no immediate risk of infecting others identified standard precautions are maintained hygiene advice is provided to individual and family/contacts as appropriate
LOW RISK	E.g., patient is independent and self-caring	contact your ICT

Colonised:

- Patients should be cared for in single rooms with en-suite facilities or designated commode.
- The mental and physical health and wellbeing of the patient needs to be considered.
- Affected patients must be encouraged or assisted to maintain good hand hygiene practice after visiting the toilet.

- No curtailment of communal activities is normally required where standard precautions and effective environmental hygiene are being maintained and there is not risk of infection others.
- Contact the Infection Prevention and Control team for advice.

Infected:

• A risk assessment needs to be undertaken. Contact the Infection Prevention and Control Team for advice.

6.2.2 Communications

KEY MESSAGE:

Always communicate the positive status of a patient appropriately when transferring the patient between care settings

- There is no reason for non-acute settings to refuse admission or re-admission of patients on the grounds that they are colonised with CPE.
- When transferring an affected patient to another care setting a copy of the interhealthcare transfer form must be completed (Appendix K). This must state if the patient is infected or colonised with CPE and ensures that the receiving facility is fully informed of the patient's positive status.

7. Special Considerations

This policy will need to be updated to reflect additional national guidance and local lessons learnt from incidents related to CPE and policy implementation.

8. Evidence Base/References

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UKHSA (2022). Framework of Actions to contain carbapenemase-producing Enterobacterales. Available at:

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9. Competencies and Training Requirements

At ESHT there is a need to ensure awareness amongst employees on the relevance and application of this policy.

- The IPCT will provide training to implement this policy through the Infection Control Link Facilitators (ICLF). The ICLF will then disseminate the relevant changes to their ward/department colleagues.
- The IPCT provide mandatory training to all Trust employees.
- All clinical staff must attend their mandatory Infection Prevention and Control training yearly.
- All non-clinical staff must attend their mandatory training 3 yearly.
- New staff to ESHT are required to attend their mandatory Infection Prevention and Control Induction training and complete the infection control e-learning prior to induction.

10. Document Monitoring Table

Element to be Monitored	Lead	Tool for Monitoring	Frequency	Responsible Individual/Group/ Committee for review of results/report	Responsible individual/ group/ committee for acting on recommendations/action plan	Responsible individual/group/ committee for ensuring action plan/lessons learnt are Implemented
Compliance with policy	ICT	Audit	Initially annually / as required	ICT, Clinical Units Clinical Governance meetings	TICG	ICLF, HON, Matrons, ADNs
Mandatory of Adhoc education and training	Learning & Development ICT	Attendance records	Quarterly	ICT, Clinical Units Clinical Governance meetings	TICG	Matron, HON, ADNs
Incident report	ICT / Head of Department	Datix	As required	ICT, Clinical Units Clinical Governance meetings	TICG	ICT, HON, Matrons, ADNs

Appendix A: EIA Form

Equality Impact Assessment Form 1. Cover Sheet

Please refer to the accompanying guidance document when completing this form.

Strategy, policy or service name	Policy for the Control of Carbapenemase-producing Enterobacterales (CPE)
Date of completion	August 2023
Name of the person(s) completing this form	John Koroneos
Brief description of the aims of the Strategy/ Policy/ Service	This policy has been written for the management of colonisation or infection due to carbapenemase-producing Enterobacterales, to prevent or reduce their spread into (and within) healthcare settings. In the UK, since 2009 there has been a rapid increase in the incidence of infection and colonisation by multi-drug resistant carbapenemase-producing organisms. A number of clusters and outbreaks have been reported in England, some of which have been contained, providing evidence that, when the appropriate control measures are implemented, these clusters and outbreaks can be managed effectively.
Which Department owns the strategy/ policy/ function	Infection Prevention & Control
Version number	Version 2
Pre Equality analysis considerations	Click here to enter text.
Who will be affected by this work? E.g., staff, patients, service users, partner organisations etc.	This policy will affect staff, patients, visitors, other healthcare facilities and partnering organisations.
Review date	August 2026
If negative impacts have been identified that you need support mitigating, please escalate to the appropriate leader in your directorate	To whom has this been escalated? Name: Click here to enter text. Date: Click here to enter a date.

and contact the EDHR team for further discussion.	
Have you sent the final copy to the EDHR Team?	Choose an item.

2. EIA Analysis

	© © 8	Evidence:				
Will the proposal impact the safety of patients', carers' visitors and/or staff? Safe: Protected from abuse and avoidable harm.	Positive	Not implemen risk of expo Additionally, t may not be id life threating i	nting this pol osure to r hose patier dentified and nfections.	icy would p multi drug nts with unl d may go o	ut patients resistant nown carri n to develo	at increased organisms. iage of CPE p potentially
Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers
protected						
characteristic impact or social economic impact		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic
(e.g.,						
nomelessness, poverty, income or education)						
Is the proposal of change effective? Effective: Peoples care, treatment and support achieves good outcomes, That staff are enabled to work in an inclusive environment. That the changes are made on the best available evidence for all involved with due regards across all 9 protected Characteristics		This policy is control of carl (CPE). See re	based on co bapenemas eference pag	urrent guida e-producino ge.	ance availal g Enterobad	ole for the cterales

Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers	
Highlight the							
protected characteristic impact or social		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic	
economic impact (e.g.,							
homelessness, poverty, income or education)			<u>.</u>	<u>.</u>			•
What impact will this have on people receiving a positive experience of care?	Positive	This policy w into (and with	ill help to pr in) healthca	event or ree are settings	duce the sp	read of CF	ΡE
Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers	
Highlight the							
characteristic impact or social		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic	
(e.g.,							
homelessness, poverty, income or education)							-
Does the proposal impact on the responsiveness to people's needs?	Neutral	The policy loo patients in iso to use the tele	oks to be res olation are lo ephone to c	sponsive to onely staff v ontact fami	patients ne vould help t ly.	eeds i.e., if he patient	:
Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers	
Highlight the							
characteristic impact or social economic impact		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic	
(e.g., homelessness, poverty, income or education)							

What considerations have been put in place to consider the organisations approach on improving equality and diversity in the workforce and leadership?	Neutral	Race Gender Sexual Age Disability					
Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers	
Highlight the							
protected characteristic impact or social economic impact		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic	
(e.g.,							
homelessness, poverty, income or education)							
Access Could the proposal	impact pos	sitively or nega	itively on an	y of the foll	owing:		
 Patient Choice 	Neutral	This policy winegative impartice	ll provide pa acts.	atients with	safe care a	and no	
Access	Neutral	All who are e same.	ligible that fi	t the criteri	a are mana	ged the	
Integration	Neutral	No negative i	mpacts.				
Equality Consideration		Race	Gender	Sexual orientation	Age	Disability & carers	
Highlight the							
protected characteristic impact or social economic impact		Gender reassignment	Marriage & Civil Partnership	Religion and faith	Maternity & Pregnancy	Social economic	
(e.a.,							
homelessness, poverty, income or education)							

Engagement and Involvement How have you made sure that the views of stakeholders, including people likely to face exclusion have been influential in the development of the strategy / policy / service:	Positive	This policy is I NICE, Nationa evidence from	based on Na al Infection C ı WHO, UKH	ational Guida Control Mani ISA, CDC.	ance i.e., U ual which in	KHSA, cludes
Equality Consideration Highlight the		Race	Gender	Sexual orientatio n	Age	Disability & carers
protected						
characteristic impact or social economic impact (e.g.,		Gender reassignmen t	Marriage & Civil Partnershi p	Religion and faith	Maternity & Pregnanc y	Social economi c
homelessness, poverty, income or education)						
Duty of Equality Use the space below to provide more detail where you have identified how your proposal of change will impact.	Neutral	All patients an accordingly. A conducted on screen to iden infection with	e treated the risk assess every patier tify suspecte CPE.	e same and ment (Appent as part of ed case of c	will be risk endix B) mu the routine colonisation	assessed st be admission or
Characteristic	Rating	Description				
Race	Neutral	All patients an accordingly.	e treated the	e same and	will be risk	assessed
Age	Neutral	Children do no faecal sample paediatric war with considera	ot undergo re s are obtaine d and this w ation of the c	ectal swabb ed. This wa as consider hild's privac	ing and the s discussed red to be les cy and digni	refore I with the ss invasive ty.
Disability and Carers	Neutral	All patients are accordingly. T which is follow	e treated the he trust has ved.	e same and a Privacy a	will be risk and Dignity	assessed policy
Religion or belief	Neutral	All patients are accordingly. If advice would	e treated the they have s be sought fro	e same and pecial religi om the Cha	will be risk ous require plaincy.	assessed ments

Sex	Neutral	All patients are treated the same and will be risk assessed accordingly.
Sexual orientation	Neutral	All patients are treated the same and will be risk assessed accordingly.
Gender re- assignment	Neutral	All patients are treated the same and will be risk assessed accordingly.
Pregnancy and maternity	Neutral	All patients are treated the same and will be risk assessed accordingly. Pregnant staff have been considered and there is reassurance within the policy that there is no addition risk
		when caring for patients with CPE. There is no risk to pregnant staff as the placenta is an effective barrier in preventing bacteria such as CPE from crossing from the mother to the baby.
Marriage and civil partnership	Neutral	All patients are treated the same and will be risk assessed accordingly.

Human Rights

Please look at the table below to consider if your proposal of change may potentially conflict with the Human Right Act 1998

Articles		Y/N
A2	Right to life	No
A3	Prohibition of torture, inhuman or degrading treatment	No
A4	Prohibition of slavery and forced labour	No
A5	Right to liberty and security	No
A6 &7	Rights to a fair trial; and no punishment without law	No
A8	Right to respect for private and family life, home and correspondence	No
A9	Freedom of thought, conscience and religion	No
A10	Freedom of expression	No
A11	Freedom of assembly and association	No
A12	Right to marry and found a family	No
Protocol	5	
P1.A1	Protection of property	No
P1.A2	Right to education	No
P1.A3	Right to free elections	No



Appendix B: Single patient risk factor assessment for exposure to Carbapenemaseproducing Enterobacterales (CPE)

A CPE risk assessment is to be conducted on all acute admissions to ESHT and copy placed						
in the patients notes		, , , , <u>, ,</u> , ,				
I his form is to be completed by nursing staff to assi with suspected or known CPE	st in the as	sessment and management of patients				
Patients ID sticker to be placed here or:	Hospital	or healthcare setting where inpatient				
Name.	currently	residing.				
Hospital Number:	ourrentry	residing.				
DOB.	Ward [.]					
	Wara.					
Address:	Date of a	admission:				
	GP:					
QUESTIONS (if yes , please give details)	Y/N	Comments / Notes				
Does the patient have a history of previous		Confirmed laboratory result details:				
carbapenemase-producing Enterobacterales						
colonisation or infection? If yes, include dates						
of positive results (if known)		Result date:				
Has the patient travelled abroad in the last 12 r	nonths an	d:				
Received hospital treatment or medical care,						
including Medical Tourism?						
If so which town / city & country?						
Undergone direct <u>inter-healthcare</u> transfer						
from the hospital abroad to a UK hospital?						
In the last 12 months has the patient: (please g	ive all rele	evant details)				
Been in a UK hospital						
If yes, state hospital name and dates of stay						
Had multiple attendances to hospital (e.g.,						
dialysis, haematology/oncology)?						
Had any other known exposure?						
Additional information						
Name of staff completing this form (Please prin	t):					
Signature:	,					

If 'yes' to any of the above, please inform the Infection Prevention and Control Team, Screen the patient and if possible isolate and refer to the CPE policy (appendix D).



Appendix C: Acute Trust Flow Chart of Infection Prevention and Control Measures to contain CPE

Appendix D: Risk assessment tool for isolating CPE-positive patients (when isolation room capacity is limited)

	Yes	No
Does the patient have	Nurse in a side room on a	See questions below
diarrhoea? (Type 6 or 7 on	general ward	
Bristol Stool Chart)		
Is the patient	Yes	No
Continent of urine and	\checkmark	
faeces?		
Alert and orientated?	✓	
Independently mobile?	✓	
→ Consider caring for the pat	ient in a bay on a general ward	
Is the patient	Yes	No
Continent of urine and		X
faeces?		
Alert and orientated?	\checkmark	
Independently mobile?	\checkmark	
→ Patient to be nursed in a si	de room on general ward (refei	to Continence Nurse for
additional advice regarding th	e management of continence, i	f available)
Is the patient	Yes	No
Continent of urine and	✓	
faeces?		
Alert and orientated?		X
Independently mobile?	\checkmark	
→ Take into account clinical e	environment and risk; consider	moving patient to an
alternative area if confused ar	nd unable to comply with isolati	on in a side room
Is the patient	Yes	No
Continent of urine and	✓	
faeces?		
Alert and orientated?	✓	
Independently mobile?		X
→ Patient can be nursed in a	bay on a general ward with a d	edicated commode

Appendix E: CPE: I am colonised / have an infection – what does this mean?

What does 'Carbapenemase-producing Enterobacterales' 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 (chemicals), 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?

Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat certain 'difficult' 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 Carbapenemase-producing Enterobacterales need to be treated?

If a person is a carrier of carbapenemase-producing Enterobacterales (sometimes called CPE), 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' carbapenemase-producing Enterobacterales?

Do ask your doctor or nurse to explain this to you in more detail. As mentioned above, sometimes this bacterium 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. The samples might include a number of swabs from certain areas, such as where the tube for your drip (if you have one) enters the skin, a rectal swab i.e., 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 carbapenemase-producing Enterobacterales 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; any infection will have been treated prior to your discharge. You should continue as normal, maintaining good hand hygiene. If you have any concerns you may wish to contact your GP for advice. 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 carbapenemase-producing Enterobacteriaceae. This will be useful for the future and it is important that you make health care staff aware of it. Should you or a member of your household 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.

Where can I find more information?

If you would like any further information please speak to a member of your care staff, who may also contact the Infection Prevention and Control Team for you.

Doc ID #1531 - Policy for the Control of Carbapenemase-producing Enterobacterales (CPE)

Appendix F: Patient Card

UK Health Security Agency Important information about carbapenemase-producing Enterobacterales (CPE) Please show this card to health and social care staff if you need to attend a health or social care setting	For the attention of health and social care staff This patient is known to be colonised with CPE. Please follow your local infection control guidelines. For further advice please contact your local infection prevention and control team. Issued:
UK Health Security Agency	For the attention of health and social care staff
Important information about carbapenemase-producing Enterobacterales (CPE) Please show this card to health and social care staff if you need to attend a health or social care setting	This patient is known to be colonised with CPE. Please follow your local infection control guidelines. For further advice please contact your local infection prevention and control team. Issued:
UK Health Security Agency	For the attention of health and social care staff
Important information about carbapenemase-producing Enterobacterales (CPE)	This patient is known to be colonised with CPE. Please follow your local infection control guidelines. For further advice please contact your local

Please show this card to health and social care staff if you need to attend a health or social care setting

For further advice please contact your local infection prevention and control team.

Issued: _____

Appendix G: Carbapenemase-producing Enterobacteriaceae: I may be a carrier (or have an infection) – what does this mean?

What does 'carbapenemase-producing Enterobacterales' 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 (chemicals), 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?

Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat certain 'difficult' infections when other antibiotics have failed to do so. Therefore, in a hospital, where there are many vulnerable patients, spread of these resistant bacteria can cause problems.

Does carriage of carbapenemase-producing Enterobacterales need to be treated?

If a person is a carrier of carbapenemase-producing Enterobacterales (sometimes called CPE), they do not need to be treated. As mentioned, these bacteria can live harmlessly in the gut. However, if the bacteria have caused an infection then antibiotics will be required.

How will I know if I am at risk of being a carrier or having an infection?

Your doctor or nurse may suspect that you are a carrier if you have been in a hospital abroad, or in a UK hospital that has had patients carrying these bacteria, or if you have been in contact with a carrier elsewhere. If any of these reasons apply to you, screening will be arranged for you and you might be accommodated in a single room with your own toilet facilities at least until the results are known.

How will I be screened for carbapenemase-producing Enterobacterales?

Screening usually entails taking a rectal swab by inserting it just inside your rectum (bottom). Alternatively, you may be asked to provide a sample of faeces. The swab / sample will be sent to the laboratory and you will normally be informed of the result within two to three days. If all results are negative no further actions are required.

What happens if the result is positive?

If the result is positive, do ask your doctor or nurse to explain this to you in more detail. You will continue to be accommodated in a single room whilst in hospital. If you have an infection, you will need to have antibiotics. However, if there are no signs of infection and you are simply 'carrying' the bacteria, no treatment is required.

How can the spread of carbapenemase-producing Enterobacterales be prevented?

Accommodating you in a single room, if the result is positive, 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; any infection will have been treated prior to your discharge. You should continue as normal, maintaining good hand hygiene. If you have any concerns you may wish to contact your GP for advice.

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 colonised with carbapenemase-producing Enterobacteriaceae. This will be useful for the future and it is important that you make health care staff aware of it. Should you or a member of your household 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.

Where can I find more information?

If you would like any further information please speak to a member of your care staff, who may also contact the Infection Prevention and Control Team for you.

Carbapenem resistance: guidance, data and analysis - GOV.UK (www.gov.uk)

Appendix H: Carbapenemase-producing Enterobacterales – I am a contact of someone who is a carrier or has an infection – what does this mean?

What does 'carbapenemase-producing Enterobacterales' 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 (chemicals), 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?

Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat certain 'difficult' infections when other antibiotics have failed to do so. Therefore, in a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause problems.

Does carriage of carbapenemase-producing Enterobacterales need to be treated?

If a person is a carrier of carbapenemase-producing Enterobacterales (sometimes called CPE), they do not need to be treated. As mentioned, these bacteria can live harmlessly in the gut. However, if the bacteria have caused an infection, then antibiotics will be required.

How is carbapenemase-producing Enterobacterales spread?

If a patient in hospital is carrying these bacteria it can get into the ward environment and can also be passed on by direct contact with that particular patient. For that reason, the patient will normally be accommodated in a single room. Effective environmental cleaning and good hand hygiene by all, staff and patients, can reduce the risk of spread significantly.

Do I need to be screened?

Occasionally, it isn't immediately known that a patient is carrying these bacteria and so they may not be placed into a single room straight away. Screening will be offered if you have shared the same bay (or ward) with a patient who has been found to be carrying carbapenemase-producing Enterobacterales. This screening is offered as there is a *slight* chance that you could have picked up the bacteria and are carrying it too.

How will I be screened for carbapenemase-producing Enterobacteriaceae?

Screening usually entails taking a rectal swab by inserting it just inside your rectum (bottom). Alternatively, you may be asked to provide a sample of faeces. The swab / sample will be sent to the laboratory and you will normally be informed of the result within two to three days. If the result is negative nothing further is required unless you are staying in hospital for some time. In that case, you will probably be asked to provide a sample on a regular basis e.g., once a week, as a precautionary measure.

What if the result is positive?

If the result is positive do ask your doctor or nurse to explain this to you in more detail and to provide a leaflet relating to positive results. You will be given a single room until you leave hospital. No treatment is necessary unless you have an infection when antibiotics will be given.

Where can I find more information?

Carbapenem resistance: guidance, data and analysis - GOV.UK (www.gov.uk)

Date first case ident	tified:	Trust / H	ospital	name and a	address:			Key Contact details:		
Tally of cases (color	nised or inf	ected) as	of	/ /	(insert da	ate)				
Total number of presumptive (locall confirmed) cases	y cases refere	al number confirme nce labor	r of ed by atory	Total nu dea	imber of aths	Total nu (suspecte confirmed) r as inpat	mber ed and emaining ients	Comn	nents	
Case details										
Name	DOB	Sex		Ward	Status Alive (A) Died (D)	Criteria for suspected case (see below)	Res	sult <i>plus</i> Infection (I) Colonised (C)	Number of contacts screened	Number of contacts positive for same strain as case

<u>Abroad</u> – hospitalised abroad in last 12 months; <u>UK Hospital</u> – hospitalised in a UK hospital (with known transmission problems) in last 12 months; <u>Case</u> – history of being a confirmed case (colonised or infected) in last 12 months; <u>Contact</u> – contact with a known case (whether colonised or infected) in last 12 months

Appendix J: Containing CPE in a paediatric setting

Seek advice from your IPC team, to assist with conducting a risk assessment appropriate for your environment or hospital.

There are several considerations. the key one being that the parent(s) are also likely to be colonised with a CPE and therefore, ensure the baby (with resident mother) is placed in a room with an en-suite for the mother, and their visitors to use. If an en-suite is not available, consider a dedicated toilet.

Food management

Food brought in from home is also a potential source of cross contamination of shared fridges. Food brought in by the family should be in wipeable containers, this need to be wiped clean prior to placing in or back into the fridge. Containers or food that has come into the patient's environment should not be returned to the communal fridge.

Equipment management

The family are not to take any equipment or hospital items nappies, milk bottles, trays and so on out of the room. Equipment is only to be taken out of the room by a member of staff who will then clean according to the trust agreed protocol for this situation.

Used nappies

These should not be taken out of the room – if weighing is required, weigh in the room. If this is not possible, they should be taken out in a nappy sack or container, by a member of the unit staff (not the parent or carer) to the sluice room and weighed, then disposed of. Cleaning of the scales plus any surfaces that the nappy, or staff member has been in contact with should then be undertaken.

Breast pumps

It is preferable for a mother to use her own pump. This can stay in the room with the mother, the expressing kit will need decontaminating, this should be carried out by a HCW if coming out of the room. If the mother does not have her own pump, a dedicated breast pump is preferable to be used for her for the length of the baby's admission.

Management of expressed milk

Bottles should be cleaned by a HCW prior to storage in a communal fridge.

Feeding bottles and equipment are disposed of in the room.

Follow the local procedure for cleaning and decontamination of expressed kits, ensuring that surfaces are not left contaminated.

Mother and baby's clothing

The mother and baby's clothing should be taken home to launder and the family given advice on washing clothes at a high temperature.

Use of communal areas

The family should be able to use communal areas with advice on maintaining hand hygiene after handling nappies and care of the baby.

If the baby has or develops loose or diarrhoea stool or has a stoma

If the family are involved with nappy care or with this aspect of care, then they should wear an apron to protect their clothing from contamination to prevent possible spread to communal areas. They should be reminded of the importance of hand hygiene to reduce cross transmission.

Education and follow up

The family and visitors must be educated in hand hygiene, fridge management; equipment management, as necessary and follow up to ensure compliance.

Management of food trays

Food trays and crockery, cutlery and water jugs are only to be removed from the room by the ward staff. If possible clean the underside of the tray or item prior to leaving the room. In the kitchen ensure that the crockery cutlery and tray are placed directly in the dishwasher. The surface in the kitchen should be cleaned after contact.

Toys and play

Toys should be dedicated for the child with CPE for the duration of their stay. Those that are not cleanable should either go home with the child or be discarded.

School age children having teaching

This should occur in the child's room. Items that cannot be easily cleaned should not be used and should not be brought into the room.

Education staff need to wear the same PPE as unit staff.

Laptops and similar items can be wiped clean by the education team after use.

Sibling visitors are not to use the playroom or school areas or communal play areas in the trust. Minimise visitors.

Appendix K: Inter-Healthcare Transfer Form

Patient / client details: (insert						
Patient / client details: <i>(insert label if available)</i> Name: Address:		Consultant name:				
Address:		GP Name:				
Postcode Date of birth: NHS number:		GP contact no:				
Hospital Number:						
Transferring facility:		Receiving facility:				
Transferring ward:		Contact name:				
Contact no:		Contact no				
Diagnosis: <i>(confirmed organism)</i>		Infection: Yes □ No □ Colonisation: Yes □ No □				
Specimen results						
Specimen type	Date	Results				
Treatment Information includ	ing medication, o	dose and durations				
Treatment Information includ Infection prevention and cont □	ing medication, o	dose and durations required / in place:	Yes 🗆 / No			
Treatment Information includ Infection prevention and cont	ing medication, or rol precautions rol precaut	dose and durations required / in place:	Yes□ / No Yes□ / No			
Treatment Information includ Infection prevention and cont Has the patient been given a Other information relevant to	ing medication, or rol precautions r patient card? patient's care:	dose and durations required / in place:	Yes □ / No Yes □ / No			
Treatment Information includ Infection prevention and cont Has the patient been given a Other information relevant to Has ambulance service been	ing medication, or rol precautions of patient card? patient's care:	dose and durations required / in place:	Yes 🗆 / No Yes 🗆 / No Yes 🗆 / No			
Treatment Information includ Infection prevention and cont Has the patient been given a Other information relevant to Has ambulance service been This should be done when bo If no, please give reason	ing medication, o rol precautions o patient card? patient's care: informed? poking the transf	dose and durations required / in place:	Yes 🗆 / No Yes 🗆 / No Yes 🗆 / No			
Treatment Information includ Infection prevention and cont Has the patient been given a Other information relevant to Has ambulance service been This should be done when bo If no, please give reason	ing medication, o rol precautions o patient card? patient's care: informed? poking the transf	dose and durations required / in place: 	Yes 🗆 / No Yes 🗆 / No Yes 🗆 / No Yes 🗆 / No			

Notification of all patients colonised with CPE being transferred to other healthcare facilities

Has patient received information about their status? (Patient leaflet) No □	Yes 🛛 /
Name of staff member completing form: (Please print) Name & Signature: Contact number:	
Date completed: Once completed please attached and send with the SBAR hand over	er tool

Carbapenemase-producing Enterobacteriaceae

What is CPE and CRE?

Carbapenem Resistant Enterobacteriaceae (CRE) are bacteria that usually live harmlessly in the gut of humans. The presence of the bacteria 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. CRE are resistant to the carbapenem class of antibiotics.

Carbapenemase-producing Enterobacteriaceae (CPE) on the other hand are a subset of CRE that produce carbapenemase. Carbapenems are one of the most powerful types of antibiotics. Carbapenemases are enzymes (chemicals), 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?

Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat certain infections when other antibiotics have failed to do so. In a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause huge problems.

How do you get CPE?

Ask your doctor or nurse to explain this to you in more detail. Sometimes 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.

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. For this reason, you must let your doctor know if you have been in a hospital in a different country.

What does it mean if I am a CRE/CPE carrier?

If a person is a carrier of CRE or CPE, they do not need to be treated. However, if the bacteria have caused an infection then antibiotics will be required.

What happens if the result is positive?

If your medical team are concerned that you may have an infection, you may be asked to have you a sample taken of blood, pus, wound, stool, urine, or other body fluid to find out where the infection is coming from so that we can treat it. If you have received treatment in another hospital in the UK or abroad, we may also ask you to provide samples, even if infection is not a concern, so that we know if you are carrying the resistant bacteria as this could be useful for your future treatment and helps us take steps to reduce transmission in the hospital environment. The most common sample we require is a rectal swab - a cotton bud type swab is inserted briefly into your rectum (bottom); or a faecal stool sample can be tested instead.

The samples are tested in the microbiology laboratory and CRE or CPE could be identified. If the result is positive and you have an infection, you will need antibiotics. You will normally be informed of the results within two to three days. If there is no sign of infection and you are a carrier no treatment is required.

You may be asked to provide repeat samples, depending on your treatment plan and/or length of stay in hospital, to check if you are still carrying the bacteria.

How will I be cared for whilst in hospital?

You may be allocated a single room with toilet facilities whilst in hospital to prevent spread of the bacteria.

Healthcare workers should wash their hands regularly. They will use gloves and aprons when caring for you.

CPE can be passed from person to person after touching contaminated surfaces such as bed rails, toilets or equipment. This means that it is important to regularly wash your hands 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 or intravenous drip, particularly at the point where it is inserted into the body or skin. Please do not share toiletries or personal items with other patients.

Visitors will be asked to wash their hands on entering and leaving the room and may be asked to wear an apron.

What happens 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; any infection will have been treated prior to your discharge.

You should carry on as normal, maintaining good hand hygiene. If you have any concerns, you may wish to contact your GP for advice.

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 carbapenemase-producing Enterobacteriaceae. This will be useful for the future and it is important that you make health care staff aware of it. Should you or a member of your household 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.

Sources of information

If you have any queries, please discuss with the nursing or medical staff who can contact the Infection Prevention and Control Team for further advice. You can also obtain information from the following UKHSA website: <u>https://www.gov.uk/government/collections/carbapenem-resistance-guidance-data-and-analysis</u>

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team on 0300 131 4784 or <u>esh-</u> <u>tr.patientexperience@nhs.net</u>.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department on 0300 131 4434 or <u>esh-tr.AccessibleInformation@nhs.net</u>

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The Clinical Specialty that has agreed this patient information leaflet: Infection Prevention and Control

Next review date:April 2026Responsible clinician/author:Reynald Andrus Sison, Infection Prevention and Control Nurse

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