Victorian guideline on Carbapenemase-producing Enterobacteriaceae

For long-term residential care facilities

April 2017
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Foreword

The emergence of multi-drug resistant organisms represents a real and growing threat in Victoria and indeed the world. We take for granted the effectiveness of antibiotics given for many common infections. This effectiveness will diminish and in time could disappear if there isn’t concerted action now to prevent the establishment of these organisms in our health services and community. The UK’s Chief Medical Officer, Dame Sally Davies, described the issue as a “ticking time-bomb…arguably as important as climate change.”

Victoria has identified increasing numbers of bacteria resistant to carbapenem antibiotics, rightly described as a last-line of defence against these bacteria. Right now, these bacteria have been essentially limited to a few health care facilities. The responses have helped to contain the outbreaks, although the threat cannot be declared over yet. There should be no illusions about the level of resources and commitment required to overcome such outbreaks, nor of what it would mean for health services if they became established. Klebsiella pneumoniae has been the predominant organism identified in outbreaks, but these guidelines will apply to all carbapenemase-producing Enterobacteriaceae (CPE) since all CPE pose a threat of spreading critical drug resistance.

Australia is accelerating its response through such initiatives as the National Antimicrobial Resistance Strategy. Existing National guidelines for the management of carbapenem-resistant Enterobacteriaceae are undergoing review. All states and territories recognise that more needs to be done and that the risk to Australia from cases acquired overseas will be ongoing. So vigilance through surveillance and preparedness in planning are key steps for all of us.

Residents of long-term residential care facilities are considered high-risk for CPE infection because of their age, medical conditions and frequent episodes of acute health service care. Residents with CPE will be harder to isolate, screen and manage than cases in acute health services, but actions must be taken. The Department of Health and Human Services has established a team to help manage the response and provide critical information on whether local transmission is occurring. This support and oversight will be ongoing and strongly focused on the recommended preparedness and response recommendations in this guideline. The guidance in this document was informed by international experience, which has seen great successes and catastrophic failures. It takes a systems approach in dealing with CPE, since no single intervention alone is sufficient. The end-game is that CPE outbreaks must be prevented. If local transmission is unfortunately identified, then control measures must ensure it ceases. Nothing less will do.

The key tools in this challenge are neither new technologies nor new antibiotics; they are engagement and leadership. I urge you to become familiar with these guidelines but then to take the critical next step – to establish the team of people who will ensure your facility is focused and ready for CPE. Use these guidelines to inform your facility plan, and benchmark your efforts against the detailed guidance provided here.

I commend you all to these guidelines, and welcome feedback on their usefulness and practicality. This is a space where evidence is limited but growing day by day. Your experience in applying this guidance and in dealing with cases of CPE will be invaluable as we go forward.

Dr Brett Sutton
Deputy Chief Health Officer (Communicable Disease)
Department of Health and Human Services
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### Acronyms and abbreviations

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<td>ABHR</td>
<td>alcohol-based hand rub</td>
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<td>AMS</td>
<td>antimicrobial stewardship</td>
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<td>ATP</td>
<td>adenosine triphosphate</td>
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<td>CPE</td>
<td>carbapenemase-producing <em>Enterobacteriaceae</em></td>
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<td>the department</td>
<td>Department of Health and Human Services</td>
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<td>FIMT</td>
<td>Facility Incident Management Team</td>
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<td>LTRCF</td>
<td>long-term residential care facility</td>
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<td>MDU PHL</td>
<td>Microbiological Diagnostic Unit Public Health Laboratory</td>
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<td>PPE</td>
<td>personal protective equipment</td>
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<td>TBP</td>
<td>transmission based precautions</td>
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<td>TRA</td>
<td>transmission risk area</td>
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<td>VCIMT</td>
<td>Victorian CPE Incident Management Team</td>
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<td>VCSRU</td>
<td>Victorian CPE Surveillance and Response Unit</td>
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<td>Victorian Healthcare Associated Infection Surveillance System</td>
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Glossary

Carbapenemase-producing Enterobacteriaceae
The term carbapenemase-producing Enterobacteriaceae (CPE) refers to bacteria that are members of the family Enterobacteriaceae that have been identified to carry the carbapenemase gene.

Case
A person that has had a clinical or screening specimen that has tested positive for a species of Enterobacteriaceae identified as carrying a carbapenemase gene.

Casual Contact
A casual contact is any other resident in the facility not classified as a close contact.

If a facility has an area, building or otherwise separated section of residents who have NO CONTACT (including for group activities) with residents in the affected area then they are not considered casual contacts. They are not contacts for the purpose of these guidelines.

Close contact
A close contact is determined jointly by the investigating team from the Victorian CPE Surveillance and Response Unit (VCSRU) and by the facility’s clinical services lead, usually a nurse. Some considerations for close contact include:

- Sharing a room and/or toilet, permanently or long-term
- Resident friend who spends significant time with case daily or near-daily in the case’s room
- Other contact spending time with case regularly. This applies especially if contact is diabetic; has an indwelling medical device; or functional impairment affecting hygiene practices.

Colonisation
The term colonisation describes when a microorganism is present on a person without causing signs or symptoms of disease. Someone who is colonised still has the potential to spread the organism to other people.

Frequently Touched Surfaces
As per national guidelines, surfaces can be divided into two groups—those with minimal hand contact (e.g. floors and ceilings) and those with frequent skin contact (‘frequently touched’ or ‘high risk’ surfaces). Frequently touched surfaces include doorknobs, bedrails, over-bed tables, light switches, tabletops and wall areas around the toilet in the resident’s room.

Infection
The term infection is used when microorganisms invade the body’s tissues, causing damage to the tissues with subsequent signs and symptoms of disease.
Outbreak
An outbreak is defined as: two or more confirmed cases of CPE that are of the same type and with a plausible epidemiological link (such as a shared room), without an alternative explanation.

Transmission risk area (TRA)
A transmission risk area is an area in which local transmission is occurring or is suspected to have occurred. That is, CPE has spread from one person to another in a residential facility in Victoria.
Section 1: Background

Scope of the Victorian CPE Guideline

Victorian long-term residential care facilities

This guideline applies to all long-term residential care facilities (LTRCFs) in Victoria. This refers to any public or private aged care, disability services or other congruent accommodation setting in Victoria where residents are provided with personal care or health care by facility staff.

This guideline has recommendations that are relevant for a wide range of health professionals, including medical staff, nursing and allied health staff, personal care attendants and disability support staff.

What are the facts about CPE?

What is CPE?

*Enterobacteriaceae* is the name given to a family of bacteria that normally lives in our bowel. A well-known *Enterobacteriaceae* you may have heard of is *Escherichia coli* or *E. coli*.

Carbapenems are a group of antibiotics that usually work against these bacteria. Carbapenems are often a last line of defence against these bacteria. Some of these bacteria, however, have become hard to treat because these antibiotics no longer work. The bacteria have become resistant to the antibiotics because they have acquired an enzyme (carbapenemase) which breaks down the antibiotic. These bacteria are called carbapenemase-producing *Enterobacteriaceae* (CPE).

How do you get CPE?

In Australia, CPE infections are rare. When people do get a CPE infection, it has often been picked up when the person has had medical care overseas. CPE is found in patients in hospitals and clinics around the world, but particularly in Greece, India and South-East Asia.

Healthy people do not usually get CPE infections, so don’t usually become sick. However, it is important to know that people may carry CPE in their bowel or in a wound, without symptoms.

People who carry CPE are at risk of getting a CPE infection if they have an operation, especially on the prostate. Other people at risk are patients who need treatment involving ventilators, catheters, or intravenous drips.

Treatment against CPE

There are not many options for treating CPE infections because the bacteria are usually resistant to most antibiotics. The few antibiotics which work are expensive and often toxic. It is very important that people try to prevent the infection in the first place.

It is vital that appropriate laboratory tests are requested when any infection is suspected. Appropriate identification of the causative organism of an infection will ensure the correct antibiotics are prescribed when required.

What does it mean to have CPE?

People may not know that they are carrying CPE and may never develop serious infection. However, in some people, CPE can become a serious problem and may cause pneumonia, bladder or kidney infections, bloodstream infections, or many other types of infections which can sometimes result in death.
What’s the situation with CPE?

In Australia

Australia has not seen a level of CPE cases compared to areas in Europe, North America, the Middle East and Asia. This may be in part due to its geographic isolation. This creates an opportunity for proactive measures to prevent, detect and contain CPE and thereby limit their impact on human health.

In Victoria

Since 2012, an increasing number of CPE isolates have been identified in Victoria affecting patients. Analysis of the data indicates that, while many cases of CPE in Victoria are found in patients with a history of admission to an overseas healthcare facility, local transmission of some CPE is occurring in Victorian health services. This suggests that transmission in Victoria is mostly through hospital spread, without recognisable ongoing community transmission. This presents an opportunity to implement targeted control measures.

Most of the patients who have acquired CPE locally have had several hospital admissions and episodes in sub-acute care (e.g. rehabilitation facilities). A number of these patients are elderly and it is likely that some patients have had time in LTRCFs. There has been little screening for CPE in such settings, however, so the real extent of the problem is unknown. International experience tells us that LTRCFs are at risk of having residents with CPE. The risk of outbreaks is higher if individual cases or single transmissions are not recognised and controlled.
Section 2: Governance

Requirements for CPE management plans

LTRCFs have a responsibility for the following actions in preventing and managing CPE:

- Minimising risk of local transmission through prompt identification and management of CPE cases and the routine application of standard and transmission-based precautions
- Maintaining excellent communication when transferring residents to, and receiving residents from, health services
- Providing a coordinated, transparent, accountable and collaborative response to any CPE case
- Ensuring high levels of staff awareness, competence and confidence in preventing and managing CPE cases are established and maintained

Principles of Management Plans for CPE

Plans should incorporate the following principles:

- Strategies for the prevention, detection and management of CPE
- Compliance with recommended control measures by facility personnel to limit local transmission of CPE
- Education of staff (including induction for new staff) on CPE and infection prevention and control

Content of Management Plans

LTRCF plans should include all the essential areas which are covered in these guidelines. These guidelines are intended to provide a template for LTRCFs.

Any facility staff member managing a suspected or confirmed case of CPE should be familiar with the required actions, how to check that these are in place and know who to contact for assistance.

Specifically, the following areas should be covered in any health services plan:

- Governance and Communication
- Awareness and Prevention of CPE
- Screening and Detection of CPE
- Infection Prevention and Control measures

Roles and responsibilities

The Department of Health and Human Services (the department)

The Department of Health and Human Services will be the first point of contact for reporting suspected or confirmed CPE cases and will maintain the database for all information collected during the investigation of cases.

Microbiological Diagnostic Unit Public Health Laboratory (MDU PHL)

MDU PHL is Victoria’s bacterial public health reference laboratory and receives reports and isolates of all suspected and confirmed CPE, confirms CPE, investigates to establish local transmission, and supports the Victorian CPE Incident Management Team (see below).
**Victorian Healthcare Associated Infection Surveillance System (VICNISS)**

VICNISS have been collecting healthcare associated infection surveillance data on a range of conditions from both public and private healthcare facilities for a number of years. VICNISS will coordinate collection of data, audit CPE response in LTRCF as required and provide advice on CPE prevention and control to LTRCFs.

**Victorian CPE Surveillance and Response Unit (VCSRU)**

The Victorian CPE Surveillance and Response Unit is a term that describes the joint work of the department, VICNISS and the MDU PHL in assessing and responding to CPE in Victoria. This unit is based at The Peter Doherty Institute for Infection and Immunity.

**Long-term residential care facilities**

LTRCFs need to implement this guideline; they have a number of specific roles and responsibilities as outlined in each chapter of this guideline.

**Diagnostic laboratories**

Diagnostic laboratories have a role to identify suspected CPE, and to report suspected CPE to the department by faxing the result within one business day to 1300 651 170, and to send isolates to MDU PHL for characterisation. The diagnostic laboratory should notify the LTRCF and/or doctor who requested the original microbiological test of any suspected CPE isolates as well as confirmed CPE isolates.

Laboratories should refer to Section 5 of the *Victorian guideline on carbapenemase-producing Enterobacteriaceae for health services version 2* (April 2017) <www2.health.vic.gov.au/infection-control> for laboratory methods and reporting requirements.

**Victorian CPE Incident Management Team (VCIMT)**

The Victorian CPE Incident Management Team supports and oversees all aspects of the public health, health service and LTRCF response to CPE. It will oversee a range of actions, including coordinating a risk assessment, undertaking appropriate investigations, and determining control measures and actions required.

The VCIMT is chaired by the Victorian Chief Health Officer or delegate, and will provide advice and guidance on required control measures based on the authority of the Public Health and Wellbeing Act 2008. The membership of the VCIMT will include expertise in public health medicine, microbiology, infectious diseases, epidemiology, infection prevention and control, communications and health service performance and quality assurance. A member from a Facility Incident Management Team (see below) may be invited to join the VCIMT. The VCIMT will be supported in its functions by MDU PHL, VICNISS and other agencies, who will perform roles such as assisting in collection of information and provision of advice and guidance.

**Facility Incident Management Team (FIMT)**

A Facility Incident Management Team is an approach that can provide best practice governance for a response to transmission of CPE within a facility. An FIMT should be established when transmission of CPE has been identified.

An FIMT will be activated at the discretion of the approved provider. Membership could include representatives from: the executive management (chair); the clinical services lead (nurse); a personal care attendant (PCA) lead; and environmental services (cleaner).
External assistance may be provided through membership from a local acute care health service, for example: Infectious Diseases (Doctor); Infection Prevention and Control Consultant; and Laboratory (Specialist Microbiologist or Microbiology Scientist).

The FIMT should ensure that there is timely notification of suspected cases; all required data is collected and provided; and all control measures and actions as specified by the VCIMT are implemented, including audits.
Section 3: Screening, detection and investigation of CPE

Data collection for a case of CPE

All isolates of suspected or confirmed CPE are to be referred by the diagnostic laboratory to the Microbiological Diagnostic Unit Public Health Laboratory (MDU PHL) for further confirmation and typing. Non-laboratory clinicians are not required to report suspected or confirmed cases to the department. This is a laboratory requirement only.

If the isolate is confirmed as CPE, MDU PHL will notify the diagnostic laboratory. It is the responsibility of the diagnostic laboratory to advise the clinician who requested the specimen of the result.

The clinical service lead (nurse) or an appropriate delegate of the LTRCF will be contacted by VICNISS in order to collect further information about the resident. Part A of the CPE Surveillance Form will need to be completed by the LTRCF and returned to VICNISS through the contact information at the top of the form. The form is available on the department's website <www2.health.vic.gov.au/infection-control>.

If there is evidence of local transmission (an outbreak) further data is required (see section 5).

Contact tracing and screening of residents

Who to screen?

New Residents

It is recommended that all new residents to a facility are interviewed to ascertain if they have had an overnight stay in any overseas hospital or overseas residential care facility in the last 12 months. These people are at significantly higher risk of being colonised or infected with CPE thus should be screened for CPE. Infection control precautions as outlined in Section 4 should be followed whilst awaiting the result. The precautions can be ceased if the CPE screening result is negative.

If a new resident is a direct transfer from an acute hospital in Australia the hospital should inform the receiving LTRCF if the person is suspected or confirmed as having CPE (or any other multi-resistant organisms). To facilitate communication it is also reasonable that the LTRCF enquires if the person has been located in an area where CPE is known to have spread from one patient to another, also known as a transmission risk area (TRA) in Victoria. If so, screening requirements should be discussed before transfer.

When a new CPE case is identified

A key step in the risk assessment and management of CPE is identifying and screening close contacts of a newly identified resident with CPE. A person identified as a close contact should be screened and have infection control precautions and other recommendations applied until 'clearance criteria' are met (see clearance of cases).

These close contacts can be determined jointly by the facility clinical services lead and investigating team from VCSRU. A general description of a close contact is provided in the glossary.

Transfer of residents undergoing screening from health services to LTRCFs

When a LTRCF is receiving a resident requiring CPE screening from a health service or other LTRCF, the transferring health service/LTRCF should undertake the screening, unless otherwise negotiated with the receiving LTRCF.
Residential care facilities should **ideally** have a screening result before receiving residents. A result, however, is not needed for a transfer to take place. A LTRCF should not refuse the transfer of a resident awaiting a screening result, nor the transfer/admission of a resident known to have CPE.

If the results of CPE screening are not yet available or screening is to be undertaken by the LTRCF, the resident should be placed into contact precautions (see Section 4) until clearance criteria have been met (see clearance of contacts below).

**Clearance of cases**

Once a person is identified as a case of CPE, they should be considered potentially infectious **indefinitely**. In some cases, the bacteria may remain present and able to be transmitted to other people, without the resident experiencing any signs or symptoms of a CPE infection. While such residents can return negative screening results at times, CPE may remain in their bowel in small numbers, unable to be detected by current screening methods. However, when conditions in the body change, for example if the resident takes antibiotics, CPE bacteria may increase in number causing infection and/or transmission to other people.

This means that ‘clearance’ is never applied to confirmed cases of CPE. This is an interim position until further evidence can be identified to inform a more appropriate period of time to consider a person potentially infectious.

**Clearance of close contacts**

A **close contact** is considered cleared when two suitable specimens taken more than 48 hours apart are found to be negative for CPE. Both of these must have been taken more than seven days after the last date of sharing a room with a case or being classified as a close contact with the case (i.e., after implementation of contact precautions for the case).

**Choice of screening specimen for residents**

The preferred specimen to screen for CPE in persons at higher risk of being CPE positive (e.g., close contacts, overseas hospitalisation in the last 12 months) is a faeces sample. Where this is not possible, a rectal swab (with evidence of faeces on the swab) plus an inguinal swab should be taken. A rectal swab alone is the least preferred screening specimen. A peri-anal swab is not acceptable because of a much lower sensitivity and specificity.

In addition, when screening a resident for CPE, the following samples should also be considered:

- A wound swab for residents with wounds;
- A urine sample for residents with intermittent or continuous urinary catheterisation;
- A stomal specimen for residents with enterostomies.

In all cases, follow appropriate referenced collection methods for the sample type(s) taken.

**Staff screening**

Staff do not routinely require screening for CPE.

**Environmental screening**

Generally, environmental screening is not recommended. The VCIMT may recommend environmental screening if there is evidence of ongoing transmission despite implementation of recommended infection control precautions. See Section 5 for further information regarding environmental screening.
Section 4: Management and control of CPE

Long term residential care facilities are different from other healthcare settings, such as acute care hospitals, in that persons, often the elderly who are at increased risk for infection, are brought together in one setting and remain in the facility for extended periods of time. For most residents it is their home. Residents share common eating and living areas, and participate in various group activities. Since able residents interact freely with each other, controlling transmission of CPE in this setting is challenging. When a patient with CPE is in an acute care hospital they are generally restricted to their room; however, in a LTRCF we need to balance psychosocial needs with infection control needs.

Spread of CPE in LTRCFs can be facilitated by contamination of care providers’ hands, shared resident equipment and the facility environment. The measures to control transmission are therefore focused on these transmission pathways, which can transmit CPE from positive to negative residents.

A summary of the information in this section and general information about CPE for staff in LTRCFs is provided in an information sheet available on the department’s website <www2.health.vic.gov.au/infection-control>.

Prevention of CPE acquisition

Antimicrobial stewardship (AMS)

AMS is a crucial aspect of the prevention of CPE. National standards provide guidance in this space and future developments are likely in relation to the recent publication of the Australian Antimicrobial Resistance Strategy.

AMS is equally important in the LTRCF setting and steps should be undertaken by all LTRCF to implement an AMS program. For further advice regarding implementing an AMS program in your facility and/or participating in the Aged Care National Antimicrobial Prescribing Survey (acNAPS) see the National Centre for Antimicrobial Stewardship website <www.ncas-australia.org/aged-care>.

Use of indwelling devices

In accordance with good infection control practices, LTRCFs should regularly review the need for all indwelling medical devices (e.g. urinary catheter) and remove if no longer required.

Treatment of CPE infection

Treatment of residents with infection or colonisation involving CPE must always be undertaken under the advice of an infectious diseases physician. The resident’s GP will need to work with an infectious diseases physician to manage care.

At the time of writing there are no proven interventions for decolonisation.

An information sheet for clinicians is available on the department’s website <www2.health.vic.gov.au/infection-control>.

Preventing the spread of CPE

How CPE is spread

CPE is usually found in the bowel of infected or colonised people. Sometimes, it may also be found in urine, wounds and other sites. CPE is usually spread person to person through contact with someone who is infected or colonised, particularly contact with faeces or wounds.
CPE may also be spread via equipment that has been shared between residents and has not been adequately cleaned (and disinfected or sterilised as required) between uses; or through contamination of the environment.

Specific resident-risk factors associated with higher risk of spreading CPE include: diarrhoea; faecal incontinence; colostomy or ileostomy; copious or uncontained respiratory secretions or drainage from a wound/abscess; presence of a urinary catheter; as well as residents who have difficulty complying with hygiene and self-care, for example residents living with dementia with wandering behaviours.

To help prevent the spread of CPE there are basic infection control precautions that all staff should use at all times for all residents. These are called **standard precautions**. Sometimes additional precautions are required to prevent the spread of an infection or organism, these are called **transmission-based precautions** (TBPs). The TBPs required to prevent the spread of CPE are called **contact precautions**.

### Standard Precautions

The use of standard precautions is an essential infection control strategy for the successful prevention and minimisation of transmission of all infections between residents. Standard precautions will also protect staff from transmission of infections as well. Standard precautions include the following elements.

#### Hand hygiene

Hand hygiene is one of the most important infection control measures for preventing the spread of infectious organisms, particularly multi-resistant organisms. Emphasis should be placed on the importance of hand hygiene for staff, residents and visitors.

Particular attention should be made to performing hand hygiene before and after providing care for residents. Staff must ensure they wash their hands or use an alcohol-based hand rub (ABHR) after toileting residents, after contact with colonised/infected sites or contact with devices (e.g., urinary catheter). The use of gloves does not remove the need for appropriate hand hygiene. Hand hygiene should be attended to before gloves are put on and immediately after they have been removed.

Residents should wash their hands after toileting, before eating and when leaving their room. If the resident’s cognitive state is impaired, staff caring for them must be responsible for helping residents with this activity. Staff should assist residents to perform hand hygiene whenever they leave their room, after going to the toilet, prior to communal activities and before eating food.

Remind visitors that they should perform hand hygiene before and after visiting any resident.

Ensure there is adequate access to hand hygiene stations (i.e., ABHR and hand basins with liquid soap and water) that are adequately stocked and maintained. Hand basins for staff should, wherever possible, be hands-free (e.g. elbow operated) to facilitate appropriate hand hygiene practices and prevent recontamination of hands when turning off taps. Staff should be made aware of the proper hand hygiene technique and rationale; when, where and how, i.e. the “5 moments of hand hygiene”. For more information about hand hygiene see the [Hand Hygiene Australia](http://www.hha.org.au) website <http://www.hha.org.au>.

Note: ABHR can be used for most hand hygiene opportunities except for when hands are visibly soiled. Hands must be washed with soap and water when visibly soiled.

#### Good aseptic technique

Appropriate aseptic non-touch technique should be used for all clinical procedures, such as wound dressings or emptying or changing urinary catheter bags.

#### Wound management

Ensure oozing wounds are covered with a dressing that will adequately contain the wound ooze.
Personal Protective Equipment (PPE)

Wear appropriate PPE when it is anticipated that you may have contact with a resident's blood or body fluid, mucous membranes, non-intact skin or other potentially infectious material or equipment. Depending on the activity or procedure being undertaken PPE required may include gown, gloves, mask or eye protection. Always perform hand hygiene before putting on PPE and immediately after removal of PPE.

Cleaning shared equipment

Ensure that shared equipment (e.g., lifting machine, commode, thermometer) is not used for another resident until it has been appropriately cleaned (and disinfected or reprocessed if required).

Items such as slings should be dedicated to one resident's use and must be laundered before use for another resident.

Anything labelled as single-use must be discarded after use and not reprocessed or used on another resident.

Routine environmental cleaning

Environmental surfaces should be adequately cleaned on a daily basis. Frequently-touched surfaces, such as door handles and bed rails may require more frequent cleaning compared to other surfaces.

Appropriate handling of linen and laundry items

Handle, transport, and process used linen or items requiring laundering (e.g., clothing) in a manner that avoids contamination of air, surfaces and persons. If linen or resident clothing is laundered onsite compliance with the Australian Standard for Laundry Practice AS/NZS 4146:2000 is required. Linen and clothing items from residents with CPE do not need to be segregated or laundered separately if AS/NZS 4146 is complied with.

No additional precautions are required for the management of linen for CPE cases.

Waste management

Ensure waste is appropriately segregated into the different waste streams, for example, general, recyclable, or clinical and related waste. Storage and handling of all waste must meet the Environment Protection Authority (EPA) Victoria legislative requirements. For more information refer to EPA Victoria's Clinical and Related Waste -- Operational Guidance <www.epa.vic.gov.au/business-and-industry/guidelines/waste-guidance/clinical-waste-guidance>.

Resident's hygiene

Ensure a resident’s personal hygiene, skin and oral care needs are met and clothing is regularly laundered.

Transmission based precautions (Contact precautions)

Transmission based precautions are infection control precautions used in addition to standard precautions to prevent the spread of certain infectious organisms. Contact precautions are the additional infection control precautions required for residents confirmed as having CPE (colonised or infected). Contact precautions are also used for close contacts until clearance criteria are met.

Contact precautions (in addition to the standard precautions listed above) include the following elements.
**Resident placement**

When single rooms with ensuite are available, assign priority for these rooms to residents with CPE. Give highest priority to those residents who have conditions that may increase the risk of transmission of CPE, for example, uncontained secretions or excretions. When single rooms are not available, residents with the same strain of CPE can be cohorted in the same room. When cohorting is not possible you will need to consider lesser alternatives to reduce the risk of transmission, for example, shared room but dedicated bathroom facilities, shared room using a dedicated commode etc.

If sharing a room is unavoidable, consider the following:

- Resident who shares a room with a CPE case should not have indwelling medical devices or open wounds;
- Regularly screen roommate(s) for CPE (e.g. every 3–6 months);
- If roommate is transferred to a health care facility, notify the facility that the resident shares a room with a CPE case.

**Gown/apron and gloves**

Use a gown or apron and gloves when attending to a resident’s personal care, such as showering and toileting. Remember to always remove gown/apron and gloves before exiting the resident’s room and perform hand hygiene before and after all glove use. Visitors do not need to use gowns/aprons and gloves when visiting a resident in contact precautions unless they will be participating in personal care such as showering or toileting.

**Equipment and instruments/devices**

Use disposable equipment where possible (e.g., blood pressure cuffs) or dedicate use of non-disposable equipment to any residents with CPE (e.g., commode). If equipment must be shared (e.g., lifting machine) for multiple residents, ensure the equipment has been cleaned and disinfected before use on another resident.

**Environmental cleaning**

When residents with CPE are suspected or known to be present, routine cleaning should be intensified. Rooms of residents with CPE should be prioritized with a weekly full clean. Daily cleaning and disinfection of the CPE case’s bathroom, frequently touched surfaces (e.g., bed rails, overbed table, commode, toilet surfaces in resident bathrooms, doorknobs) and equipment in the immediate vicinity of the resident should be instituted.

Select a disinfectant or combined cleaning and disinfecting agent that is either “listed” or “registered” with the Therapeutics Goods Administration (TGA). The agent selected must be effective against the vast majority of organisms that cause hospital associated infections and for practical purposes have a fast kill time (or contact time). This will enable killing of organisms before the solution can dry, be removed or before the resident or staff are likely to re-touch the surface. If facilities use an alternative method for cleaning and disinfection, the method must be validated to be equivalent to the above.

If using a no-touch method of surface disinfection as part of your environmental hygiene program (e.g. ultraviolet [UV-C] or hydrogen peroxide vapour) prior cleaning is required. Follow the manufacturer’s instructions when using the selected disinfectant (i.e. amount, dilution, contact time, safe use and disposal) or no-touch method of surface disinfection.

Terminal cleaning should take place on discharge according to the same recommendations above.
Participation in group activities and attending communal areas

It is extremely important to maintain a resident’s ability to socialise and have access to rehabilitation opportunities. Residents with CPE can continue to participate in group activities unless they are unwell (e.g., diarrhoea). Any oozing wounds should be covered with a dressing that contains the wound ooze.

For cases and uncleared close contacts:

- Avoid use of toilets outside of their room. It is always best to toilet residents in their own toilet so as to minimise potential contamination outside their room. If the toileting of a resident does need to occur outside their own room the toilet must be cleaned immediately after its use, or use a commode and ensure it is cleaned as well.
- Ensure strict hand hygiene by the resident if using equipment as part of a group session, and clean and disinfect equipment after use. Staff may need to assist residents with their hand hygiene.

Residents can attend a shared dining area and use regular dishes and cutlery. Dishes and cutlery used by residents with CPE can be processed in the usual manner (e.g., dishwasher).

Once close contacts are cleared, no restrictions apply.

Staff and resident cohorting

Staff and resident cohorting is generally not applicable if there is no evidence of an outbreak.

If there are multiple residents with unrelated CPE (not an outbreak), then consider managing these cases in a single area (e.g. end of wing or floor) with dedicated personal care attendant staff.

Communication

Communication with residents and their families

There is a need to communicate openly and effectively with residents and their families. A CPE Factsheet has been developed for resident’s and their families and is available on the department’s website. The factsheet can be used to form the basis of discussions with residents, family and carers.

The issue of multiple resistant organisms (or “superbugs” as they are commonly referred to in the media) can be a source of real anxiety for residents and cause inappropriate stigmatisation and excessive actions. It is of critical importance to listen to expressed concerns and speak realistically about risk. Involve family and friends if the resident consents, and ensure that there is a good understanding of what has been explained. Ask them to repeat back to you their understanding of the issue and correct any misconceptions.

Resident confidentiality must be maintained. A finding of CPE in a resident’s sample is confidential resident information. Make sure the CPE case or guardian has told you who can be informed of the finding of CPE.

Staff education and communication

Educate staff about the emerging threat of CPE and stress the importance of infection control precautions, i.e., interviewing of new residents, hand hygiene, use of gowns and gloves, cleaning and disinfection of equipment and the environment. Ensure there is a mechanism to notify all staff that a resident requires contact precautions, for example, signage visible on the resident’s door (note: any signage used should not disclose the resident’s confirmed or suspected diagnosis). An example of a “Contact Precautions” poster is in Appendix A.
Conduct in-service education on the affected ward or unit, covering all nursing staff or personal care attendants who may provide care to affected resident/s and to all cleaning staff. In addition, key medical, allied health and other relevant staff for that unit should receive education.

**Communication to other facilities**

If the resident is transferred to another facility, for example, an acute care hospital; provide clear documentation that the resident has CPE, requires a single room with own ensuite, and additional contact precautions. See Appendix B for an example of a transfer letter for residents with CPE.

**Resident alert and flagging systems**

If the LTRCF has the ability to place alerts in a resident’s history the following alerts should be used.

- **CPE case**
  
  Alerts for cases of CPE are essential given the frequency of admissions in residents at high risk of acquisition. Alerts for CPE cases **should remain for life**, until future iterations of these guidelines indicate otherwise. These should be recorded in residents’ records and electronically wherever available.

- **Close contact**
  
  Alerts for close contacts should be recorded in the resident’s record until clearance criteria have been achieved.

**Requirements for reporting**

All suspected and confirmed cases of CPE must be reported to the department by diagnostic laboratories by faxing the microbiological reports to Communicable Disease Prevention and Control on 1300 651 170 within one business day. Communicable Disease Prevention and Control can be phoned on 1300 651 160 for further advice regarding reporting a CPE result. Results should be reported regardless of whether these have arisen as sporadic cases or as part of a recognised local outbreak.

Liaise with the VCSR to provide resident and surveillance information detailed in Part A of the CPE Surveillance Form and to receive laboratory information. For example, contact MDU PHL on (03) 8344 5701 to discuss laboratory results. To discuss surveillance information, contact VICNISS on (03) 9342 9333 or email <vicniss@mh.org.au>. CPE surveillance forms can be found on the department’s website at: <www2.health.vic.gov.au/public-health/infectious-diseases/infection-control-guidelines>.

**Audits**

Compliance with infection control principles is vital in preventing the spread of CPE and other significant organisms. LTRCFs are encouraged to routinely audit infection control practices; e.g., hand hygiene compliance, PPE use and environmental cleaning. Observational audits for environmental cleaning should be supplemented with objective methods of assessing cleaning such as fluorescent gel markers or ATP bioluminescence. An example audit tool can be found in Appendix C.

General infection control guidance for LTRCFs is also provided by the National Health and Medical Research Council (NHMRC) in *Infection prevention and control in residential and community aged care* (2013) <www.nhmrc.gov.au/_files_nhmrc/publications/attachments/d1034_infection_control_residential_aged_care_140115.pdf>.
Section 5: Actions for an outbreak of CPE

Data collection when an outbreak is suspected

When there is evidence of local transmission (see definition of outbreak) in a LTRCF, VICNISS will coordinate collection of information detailed in Part B of the CPE Surveillance Form. The form is available on the department’s website <www2.health.vic.gov.au/infection-control>. This form should be provided to VICNISS through the contact information at the top of the form.

During an outbreak VICNISS will also collect information on infection control measures used by the LTRCF to assess the effectiveness of the response.

Transmission Risk Area (TRA)

When there is evidence that local transmission has occurred within a LTRCF, the VCIMT may declare the facility or part of the facility a Transmission Risk Area (TRA). A TRA is defined as an area (a distinct geographical area or unit) where the following criteria are deemed to have been met by the VCIMT:

- two or more confirmed cases of genetically related CPE as determined by MDU PHL and
- at least one case is a locally acquired case and
- there is a plausible epidemiological connection between the two cases, either through geographic proximity or shared staff, equipment or other exposures in the healthcare setting as determined by the VCIMT
  
  or

- where acquisition from an environmental source is hypothesised, clustering in time and place without a direct patient to patient epidemiological link will also be considered.

If the VCIMT cannot reach a consensus regarding a TRA, the Victorian Chief Health Officer or delegate will have the final determination.

When an area is determined to be a TRA there will be additional screening requirements and other actions as specified by the VCIMT. The LTRCF should convene the FIMT as described in section 2 of this guideline.

Communication of TRA to other public and private health services and LTRCFs

Outcomes and recommendations of VCIMT meetings will be communicated directly to the affected LTRCF. This communication will only be emailed to the:

- LTRCF executive
- facility manager
- nursing lead for infection prevention and control where appropriate.

The department’s media unit will work with the facility management in order to coordinate communication. The spokesperson for the department must agree to any media messaging in advance of any external communications.

All other unaffected public and private health services will receive an email alert from the department directing them to refer to the restricted VICNISS website for status updates on Victorian transmission risk areas (TRA). Under the direction of the department, VICNISS maintains an up-to-date list of all active TRAs within a secure online portal. TRA information will remain listed within the portal until 12 months has lapsed since the end of the TRA. Access to this information is restricted to relevant health professionals from Victorian public and private health services and LTRCFs. Portal access can be granted to relevant staff required to view TRA information such as quality managers, infectious diseases
clinicians, infection control practitioners and chief executives but not to the general public. Login access to the restricted area is at the discretion of the infection control coordinator or equivalent at each facility and/or VICNISS Coordinating Centre. For any enquiries regarding access/registration contact VICNISS on 9342 9333 or via email to <vicniss@mh.org.au>.

**Stand-down of TRA**

The VCIMT will determine whether TRA status will be continued or stood-down, depending on further transmission.

**Screening**

**Resident Screening**

When a new CPE case is identified, screening of contacts is a key step in the risk assessment to determine the extent of ongoing transmission.

When an area has been designated a TRA, CPE screening of close contacts may be extended to include casual contacts or the entire facility. Which residents will require screening will be determined by the VCIMT. Some of the factors used to determine which residents will require screening are the location of the TRA within a facility and how much other residents and staff interact with residents from the TRA.

Following designation of a TRA, the first round of screening should take place within 1 week. The results from this round of screening will determine the need for further screening (e.g., if there is evidence of ongoing transmission weekly screening may be required).

**Choice of screening specimen(s) for residents**

For choice of screening samples see Section 3.

**Staff screening**

Staff do not require screening, including in the event of transmission within a facility.

**Environmental Screening**

A facility will be advised by the VCIMT as to whether or not environmental screening is recommended. Generally, environmental screening is not recommended unless there is evidence of ongoing transmission and all other infection prevention and control measures are being complied with.

If activated, environmental screening may be considered for:

- Toilets and surrounds
- Washbasins or sinks
- Shared resident equipment (e.g. commode chair or lift machine)
- *Frequently Touched Surfaces* e.g. call buttons, mattresses, beds, bedrails, bedside tables, tables, chairs, armchairs, window sills, computers on wheels.

The method of specimen collection may vary slightly depending on the nature and shape of the surface/article to be tested. The VCSRU will provide advice regarding specimen collection methodology.

**Communication**

**Communication with residents and carers**

It is very important to openly and accurately communicate with residents and their families when there is evidence of transmission of CPE within a facility. Consent will need to be obtained from residents when
screening for CPE and as such information provided to them will need to address concerns the resident and their families may have. An example of an information sheet that can be provided to residents when screening for CPE is available on the department’s website <www2.health.vic.gov.au/infection-control>.

**Staff education and communication**

Conduct in-service education across the entire facility, covering all nursing staff or personal care attendants who may provide care to affected resident/s and to all cleaning staff. In addition, key medical, allied health and other relevant staff should receive education. Staff may also require further information regarding the screening process and its relevance to them. An example of an information sheet for staff when screening of residents occurs within a facility is available on the department’s website <www2.health.vic.gov.au/infection-control>.

VICNISS has developed an in-service package including a PowerPoint presentation, brochures / fact sheets and other materials for use in outbreak situations. This can be requested by any facility and delivered by the facility or local health service, with support from VICNISS and the department as needed.

For any enquiries regarding the in-service package contact VICNISS on 9342 9333 or via email to <vicniss@mh.org.au>.

**Communication to other facilities**

If a resident with CPE is transferred to another facility, for example, an acute care hospital; provide clear documentation that the resident has CPE, requires a single room with own ensuite, and contact precautions. See Appendix B for an example of a transfer letter for residents with CPE.

During the initial phase of screening within the LTRCF (i.e. when screening weekly), receiving facilities and health services will need to be notified when CPE contacts (close and casual) are transferred and clearance criteria have not been met. Receiving facilities will need to place the resident into a single room with contact precautions and screen for CPE.

**Transmission-based precautions**

**For CPE cases (infections or colonisations)**

Contact precautions to be applied as for single cases in Section 4.

**For close contacts**

Contact precautions should be used as above until screening is completed and resident meets clearance criteria (see below).

**For casual contacts**

For practical reasons, it is not feasible to place all casual contacts in contact precautions. If a casual contact is transferred to a health service or other LTRCF, the health service or other facility must be advised the resident is a casual contact (similar to a ward contact definition from health services CPE guideline). As such, contact precautions must be applied until the casual contact has had appropriate CPE screening and is cleared.

**Clearance of contacts**

A close contact is considered cleared when two suitable specimens taken more than 48 hours apart are found to be negative for CPE. Both of these must have been taken more than seven days after the last
date of sharing a room with a case or being classified as a close contact with the case (i.e. after implementation of contact precautions for the case).

A **casual contact** is considered cleared after one suitable specimen is found to be negative for CPE at any point in time.

### Limiting TRA activity and unit/facility closure

If after initial control measures for example screening, contact precautions, and cleaning there is ongoing transmission, then the VCIMT may consider closure of an affected TRA to new admissions.

### Residents’ movement within the LTRCF

During the initial phase of screening within the LTRCF (i.e. when screening weekly), all resident movement between the TRA and other residential areas within the facility should be minimised until advised by the VCIMT. This should also include group sessions such as the gym or hydrotherapy.

### Staff, resident and equipment cohorting

Cohorting applies to the practice of grouping residents infected or colonized with CPE together to confine their care to one area and prevent contact with susceptible residents (cohorting residents). During outbreaks, staff may also be assigned to a cohort of residents to further limit opportunities for transmission (cohorting staff).

When there is an outbreak with **two cases** at a particular time, risk assessment by the FIMT should take place regarding the value of staff and resident cohorting.

When there is an outbreak involving **several cases** at a particular time, there should be resident cohorting. Staff cohorting should be put in place when there are sufficient cases to justify it. When staff cohorting is activated, priority should be given to cohorting personal care attendants, nursing staff, and allied health professionals.

When there is an ongoing transmission despite recommended measures, the VCIMT will help decide on additional measures. This may include help to design and monitor a dedicated cohorting area in the facility or arranging for transfer of residents to an acute care ward designed for this purpose.

Equipment should wherever possible be dedicated to individual residents in contact precautions.

### Cleaning and disinfection

Cleaning and disinfection is as for individual cases in [Section 4](#).

### Use of indwelling devices

When there is local transmission, review of use of all indwelling devices should be considered daily as part of routine practice.

### Audits of infection control processes

In addition to regular local audits and staff education conducted by the facility, the department may initiate an audit of the adequacy of adherence to these guidelines or – especially if transmission is ongoing – establish regular performance reviews.

### Requirements for reporting

- Regular communication (daily in the acute phase) should occur between facility leadership and appropriate staff regarding the progress of the outbreak.
• Establish and maintain communication with the VCSRU. This will usually be done through the VICNISS representative.
Appendices

Appendix A: Contact precautions signage
Appendix B: Example of transfer letter for residents with CPE

Dear Doctor

Re: CPE Case - Requires screening, isolation and additional contact precautions

Thank you for your ongoing care of <name of Resident>.

This letter is to alert you that the above-named resident has been identified as having a multi-resistant organism known as carbapenemase-producing Enterobacteriaceae (CPE).

Date isolated: _______________________________

Organism: ____________________________________________

Specimen: ___________________________________________

CPE are resistant to carbapenem antibiotics by means of an acquired carbapenemase gene. These organisms pose a greater risk of transmission to other patients. This may lead to health service outbreaks or establishment of endemicity in Victoria. CPE is endemic in some areas of Europe, North America, the Middle East and Asia and is an emerging risk in Australia. The Victorian guideline on carbapenemase-producing Enterobacteriaceae for health services published in December 2015 outlines the proactive measures Victoria is implementing to prevent, detect and contain CPE.

As a precautionary measure, the Department of Health and Human Services (the department) requires the health facility admitting this individual to:

- Place the resident in a single room with own ensuite
- Initiate contact precautions (i.e., use of long-sleeved gown and gloves)
- Screen the resident for CPE

These infection control precautions must be maintained until discharge (even if screening specimens taken are negative for CPE). A case of CPE, whether colonised or infected, can excrete CPE intermittently for many months and in some cases for over 18 months. As a result, the current Victorian Guideline on CPE for health services states: “once a person is identified as a case of CPE, they should be considered potentially infectious indefinitely”.

For more information regarding care of a CPE case in an acute hospital (e.g., screening, contact precautions, environmental cleaning & disinfection) contact your facility’s Infection Prevention and Control Consultant, Infectious Diseases Physician or access the Victorian guideline on CPE for health services available on the department’s website <www2.health.vic.gov.au/infection-control>.

Yours sincerely,
### Appendix C: Example infection control self-audit checklist for long-term residential care facilities

**Date / Time:** ________________________________

**Person conducting audit:** ________________________________

<table>
<thead>
<tr>
<th>1. Staff Training</th>
<th></th>
</tr>
</thead>
</table>
| 1.1 | Do staff regularly attend in-service training on infection control? (If No got to Q1.2)  
Is this training compulsory?  
How often is training provided?  |
| Yes / No | Yes / No |
| 1.2 | Are infection control training programs part of the orientation program for new employees?  |
| Yes / No | |

<table>
<thead>
<tr>
<th>2. Hand hygiene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Hand hygiene stations are easily accessible for staff near residents’ rooms?</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
</tr>
</tbody>
</table>
| 2.2 | Does each hand hygiene station have:  
- Hand basin with hands-free taps (e.g. elbow operated)  
- Soap dispenser  
- Paper towel  
- Plastic-lined bin for waste disposal  |
| Yes / No | Yes / No | Yes / No | Yes / No |
| 2.3 | Are soap dispensers disposable and not refillable?  
Does the facility provide 60-80% Alcohol-based hand rub (ABHR)  |
| Yes / No | Yes / No |
| 2.4 | Do the following communal areas have ABHR and/or a hand hygiene station available for residents and staff to use?  
- Dining room  
- Sitting room/television area  
- Gymnasium  |
| Yes / No | Yes / No | Yes / No |
| 2.5 | Is ABHR and/or a hand hygiene station available near the entrance to the facility for visitors to use?  |
| Yes / No | |
| 2.6 | Is appropriate signage visible for visitors advising them about the need for hand hygiene when visiting?  |
| Yes / No | |
| 2.7 | Do staff receive training on how to wash their hands correctly and use an ABHR? (If No go to Q2.8)  
Is this training compulsory?  
How often is training provided?  |
<p>| Yes / No | Yes / No |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 Have staff received education about the 5 moments of hand hygiene?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>2.9 Has auditing of staff’s hand hygiene compliance been conducted in the facility? (If No go to Q2.10)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>What was the date and result of the last hand hygiene compliance audit?</td>
<td></td>
</tr>
<tr>
<td>2.10 Are all residents reminded or assisted to perform hand hygiene themselves:</td>
<td>Yes / No</td>
</tr>
<tr>
<td>• Before each meal</td>
<td></td>
</tr>
<tr>
<td>• After toileting</td>
<td></td>
</tr>
<tr>
<td>• Before communal activities</td>
<td></td>
</tr>
<tr>
<td>3. Personal protective equipment (PPE)</td>
<td></td>
</tr>
<tr>
<td>3.1 Are gloves available to staff and easily accessible for staff to wear when there is a risk of exposure to blood or body fluids /substances?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>3.2 Are gloves used once only and then discarded?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>3.3 Are gowns/aprons disposed of after each use (i.e. not reused multiple times)?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>3.4 Do staff receive training on how to put on and take off PPE? (If No go to Q3.5)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Is this training compulsory?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>How often is training provided?</td>
<td></td>
</tr>
<tr>
<td>3.5 Has an audit of PPE use been conducted? (If No go to Q3.6)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>What was the date and result of the last PPE audit?</td>
<td></td>
</tr>
<tr>
<td>3.6 Are bins for disposal of PPE immediately inside the resident’s room?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>4. Cleaning of the environment and shared equipment</td>
<td></td>
</tr>
<tr>
<td>4.1 Have cleaning staff received specific education about how to clean? (if No, go to 4.2)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Is this training compulsory?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>How often is training provided?</td>
<td></td>
</tr>
<tr>
<td>4.2 Is shared equipment (e.g. commode chair, lifting machine) cleaned after use/prior to use on another resident?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>4.3 Is shared group activity equipment (e.g. ball, hand weight) cleaned after each session?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>4.4 Have any cleaning audits been conducted? (If No go to Q5.1)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>What type of cleaning audit(s) are conducted?</td>
<td></td>
</tr>
<tr>
<td>• Observational assessment of cleanliness</td>
<td>Yes / No</td>
</tr>
<tr>
<td>• Objective assessment of cleaning (e.g. fluorescent marker or ATP)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>What was the result and date of the last cleaning audit?</td>
<td></td>
</tr>
<tr>
<td>How frequently are cleaning audits conducted?</td>
<td></td>
</tr>
</tbody>
</table>
### 5. Specific infection control measures for care of residents with CPE (Note: You may not be able to answer all questions if there are no CPE cases in your LTRCF)

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the facility have a guideline/protocol regarding the management of residents with multi-resistant organisms, including CPE?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.1 Have all staff received specific education regarding CPE? (If No go to Q 5.2)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Is this training compulsory?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>How often is training provided?</td>
<td></td>
</tr>
<tr>
<td>Do staff have access to written information pertaining to CPE?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.2 Do all residents with CPE have a single room with their own ensuite? (If Yes go to Q5.3)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>If No, are residents with CPE assigned a dedicated bathroom?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.3 Are residents with CPE always toileted in their own bathroom? (If Yes go to Q5.4)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>If No, are any toilets used by residents with CPE outside their own room cleaned and disinfected immediately after use?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.4 Is there an alert mechanism (e.g. signage in room) in use to alert staff to the need for contact precautions for residents with CPE?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.5 Are gowns/aprons and gloves easily accessible for staff to wear when attending to close personal care of residents with CPE?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.6 Do all staff use gown/apron and gloves for all close personal care (e.g. toileting) of residents with CPE?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.7 Do the rooms of resident’s with CPE receive a weekly full clean and disinfection?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.8 Are the following areas of the rooms of resident’s with CPE cleaned and disinfected daily?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>• Bathrooms</td>
<td></td>
</tr>
<tr>
<td>• Frequently touched surfaces</td>
<td></td>
</tr>
<tr>
<td>• Equipment/furniture in the immediate vicinity of the resident</td>
<td></td>
</tr>
<tr>
<td>5.9 Is a TGA listed or registered disinfectant used to disinfect environmental surfaces in rooms of residents with CPE? (If Yes go to Q4.4)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>If No, what alternative method for cleaning/disinfection is used?</td>
<td></td>
</tr>
<tr>
<td>5.10 Is all equipment (e.g. commode chair, lifting machine) used for residents with CPE dedicated to their use? (If Yes go to Q5.11)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>List shared equipment:</td>
<td></td>
</tr>
<tr>
<td>Are these items cleaned and disinfected after use/prior to use on another resident?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.11 Is shared equipment used by residents with CPE in group activities cleaned and disinfected prior to use by other residents?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>5.12 Are other LTRCFs or health facilities (e.g. acute hospital) advised when a resident with CPE is transferred to them?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>If Yes, is a template letter of transfer used to document all necessary information</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>