DC 05

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MDRO INCLUDING ESBL AND CPO

Community Infection Prevention and Control Policy for Domiciliary Care staff

MDRO including ESBL and CPO)

(Multi-drug resistant organisms including Extended-Spectrum Beta-Lactamase and carbapenemase-producing organism)

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MDRO INCLUDING ESBL AND CPO

Please note that the internet version is the only version that is maintained. Any printed copies should, therefore, be viewed as 'uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

This Policy has been adopted by:

Organisation: .....

Signed: .....

Job Title: .....

Date Adopted: .....

Review Date: .....

If your organisation would like to exclude or include any additional points to this Policy, please include below. Please note, the Community IPC Team cannot endorse or be held responsible for any addendums.

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MDRO INCLUDING ESBL AND CPO (Multi-drug resistant organisms including Extended-Spectrum Beta-Lactamase and carbapenemase-producing organism)

1. Introduction

The increasing numbers of antibiotic resistant micro-organisms, especially those with multiple resistance, is an international concern.

Many bacteria are normally found in the bowel. Not all are resistant to antibiotics and not all will cause serious illness. Bacteria commonly found include *Escherichia coli* (*E. Coli*), Klebsiella, Proteus, Pseudomonas Enterobacter and Acinetobacter. Collectively these bacteria are referred to as Gram-negative bacilli (GNB) and are part of our 'good bacteria'. However, under certain circumstances, they can become resistant to antibiotics and may require infection control management. They are referred to as **Multi-drug resistant organisms** (MDRO), formerly known as Multi-resistant Gram-negative bacteria (MRGNB).

Some MDRO contain beta-lactamases (**extended spectrum beta lactamases** or ESBL's) which can destroy/inactivate even broad spectrum antibiotics (which are effective against a wide range of bacteria), such as cefuroxime and cefotaxime.

One of the most recent MDRO is MDRO CPO (**carbapenemase-producing organism**), formerly known as CPE (carbapenemase-producing *Enterobacteriaceae*). These resistant strains of bacteria produce an enzyme that destroys the powerful group of antibiotics such as imipenem which is used in hospitals. Until now, these have been the 'last resort' antibiotics medics have relied on when other antibiotics have failed to treat infections.

Antibiotic resistance makes infections difficult to treat. It may also increase the length of severity of illness, the period of infection, adverse reactions (due to the need to use less safe alternative drugs), length of hospital admission and overall costs.

2. Key points

- Gram-negative bacteria (GNB) are commonly found in the gastro-intestinal tract (stomach, small and large bowel), in water and in soil and can be transmitted (spread) by contaminated hands and equipment used in care.
- MDRO are usually identified in stool and urine specimens and are likely to be passed on via the faecal/oral route.
- MDRO can cause urinary tract infections, pneumonia and surgical wound infections. However, the majority of service users with MDRO are colonised which means bacteria are present, but they do not have symptoms of infection. If the service user does not have active infection, i.e. they are colonised, antibiotic treatment is not required.
- Colonisation with MDRO may be long term, service users who are colonised with MDRO do not usually pose a risk to healthy people, but may be a risk to those who are vulnerable.
- People at increased risk of being colonised or infected with MDRO are:
  - Those who in the last 12 months have:
    - Been an inpatient in any hospital, UK or abroad
    - Had multiple hospital treatments, e.g. dialysis, or have had cancer chemotherapy
    - Been previously identified as CPO positive (includes household and contacts of known cases)
    - Been admitted to an augmented care unit, e.g. adult critical/intensive care, burns unit

  Or:

    - Are immunosuppressed
    - Have had broad-spectrum antibiotic courses, particularly carbapenems, in the last month

3. Routes of transmission

- Direct spread from person to person, via hands of staff or service users.
- Indirect spread from:
  - Contaminated care equipment, e.g. hoists, wheelchairs, walking frames, that have not been cleaned appropriately
  - Contaminated surfaces that have not been cleaned appropriately (*Staphylococci* that spread into the environment may survive for long periods in dust)

Although MDRO can be spread via equipment, the most common route is by contact with an infected or colonised service user. Therefore, the importance of good hand hygiene before and after direct contact with a service user is essential.

4. Treatment

Giving antibiotics to asymptomatic (colonised) service users to clear the organism is not recommended because it is not causing an infection.

Antibiotic treatment is only advised for those service users who have clinical signs of infection, e.g. raised temperature, pain on passing urine.

5. Clearance specimens

MDRO clearance specimens, including stool samples or swabs for CPO, are not required for a service user in their own home.

6. Precautions for MDRO

Standard infection control precautions and transmission based precautions (SICPs and TBPs), refer to the 'SICPs and TBPs Policy for Domiciliary Care staff', should be taken by all staff, including:

- Strict hand hygiene is essential on arriving and leaving the service users home, before and after direct contact with a service user or their surroundings, using either liquid soap and warm running water or alcohol handrub. Refer to the 'Hand hygiene Policy for Domiciliary Care staff'
- Disposable gloves and apron should be worn for direct care or when handling items contaminated with blood and/or body fluids. These should be disposed of after each procedure and hands cleaned after disposing of each item of personal protective equipment (PPE), e.g. pair of gloves, apron. Refer to the 'Personal protective equipment Policy for Domiciliary Care staff'
- Where there is a presence of wound drainage, diarrhoea or faecal (bowel movement) incontinence, there is increased potential for environmental contamination and subsequent risk of transmission
- Long sleeved fluid repellent gowns should be worn if there is a risk of extensive splashing of body fluids to the uniform, e.g. dealing with an ileostomy
- Service users should be encouraged to wash hands or use skin wipes after using the toilet and before eating and drinking

- For service users with profuse diarrhoea, enhanced cleaning of the toilet used by the service user should be undertaken
- Service users in their own home can socialise in and outside of their home without restrictions
- To prevent contamination of hands, the sink and surrounding environment, staff should not rinse soiled linen and clothing by hand
- Soiled clothing or linen should be washed as soon as possible, separately from other items, on a pre-wash cycle in the service user's or communal washing machine followed by a wash cycle on the highest temperature advised on the label
- Non-soiled clothing or linen should be washed as soon as possible, separately from other items, in the service user's or communal washing machine at the highest temperature advised on the label
- Waste should be securely bagged and tied, using a suitable plastic tie or secure knot, and disposed of as household waste
- Before leaving the service user's home, staff and visitors should wash their hands with liquid soap and warm running water, drying them thoroughly using paper towels. The use of kitchen roll is acceptable, fabric towels should only be used on an individual person basis and laundered daily. Alternatively, alcohol handrub can be used

Refer to the 'Hand hygiene Policy for Domiciliary Care staff' for further information on handwashing and the use of alcohol handrub.

7. Referral or transfer to another health or social care provider

- Transfer to another Domiciliary Care Agency or a Care Home should, where possible, be deferred until the service user is no longer infectious.
- Non-urgent hospital outpatient attendances or planned admissions should be postponed if at all possible, refer to the 'Patient placement and assessment for infection risk Policy for Domiciliary Care staff'.
- If the condition of a service user requires urgent hospital attendance or admission, to reduce the risks of spreading infection, the unit at the hospital they are attending and the transport service taking them must be made aware the service user has *a* MDRO prior to them being transferred. Staff with responsibility for arranging the service user's transfer should complete relevant documentation, e.g. the Inter-Health and Social Care Infection Control (IHSCIC) Transfer Form (see Appendix 1). This ensures appropriate placement of the service user, refer to the 'Patient placement and assessment for infection risk Policy for Domiciliary Care staff'.

8. Environmental and care equipment cleaning

There are no special requirements for cleaning a service user's environment and care equipment unless they have an active infection, e.g. diarrhoea, wound infection. In these cases, toilets, baths, showers and medical equipment, such as commodes, walking frames, wheel chairs, should be decontaminated with detergent and warm water, followed by disinfection with a chlorine-based disinfectant at 1,000 parts per million (ppm), e.g. household bleach, until the infection or diarrhoea has resolved. Refer to the 'Safe management of care equipment Policy for Domiciliary Care staff' and 'Safe management of the care environment Policy for Domiciliary Care staff' for further information.

9. Information for service users and visitors

Information about MDRO should be given to service users and/or family and visitors. Information and factsheets are available to download at www.infectionpreventioncontrol.co.uk.

10. Infection Prevention and Control resources, education and training

The Community Infection Prevention and Control (IPC) Team have produced a wide range of innovative educational and IPC resources designed to assist Domiciliary Care in achieving compliance with *The Health and Social Care Act 2008*: *Code of Practice on the prevention and control of infections and related guidance* and CQC registration requirements.

These resources are either free to download from the website or available at a minimal cost covering administration and printing:

- IPC Policy documents for Domiciliary Care staff
- 'Preventing Infection Workbook: Guidance for Domiciliary Care staff'.
- IPC audit tools, posters, leaflets and factsheets
- 'IPC Bulletin for Domiciliary Care staff'

In addition, we hold educational study events in North Yorkshire and York and can arrange bespoke training packages. Prices vary depending on your requirements and location.

Further information on these high quality evidence-based resources is available at www.infectionpreventioncontrol.co.uk.

11. References

Department of Health (2015) *The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance*

NHS England and NHS Improvement (March 2019) *Standard infection control precautions: national hand hygiene and personal protective equipment policy*

Public Health England (2020) *Framework of actions to contain carbapenemase-producing Enterobacterales* *www.gov.uk/government/publications/actions-to-contain-carbapenemase-producing-enterobacterales-cpe*

Public Health England (2017) *Gram-negative bacteria: prevention, surveillance and epidemiology* *https://www.gov.uk/guidance/gram-negative-bacteria-prevention-surveillance-and-epidemiology#diagnosis-prevention-and-management*

12. Appendices

Appendix 1: Inter-Health and Social Care Infection Control Transfer Form

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Inter-Health and Social Care Infection Control Transfer Form

The *Health and Social Care Act 2008: Code of Practice on the prevention and control of Infection and related guidance* (Department of Health 2015), states that "suitable accurate information on infections be provided to any person concerned with providing further support or nursing/medical care in a timely fashion". This form has been developed to help you share information with other health and social care providers. The form should accompany the patient and, where possible, a copy filed in the patient's notes.

Patient Name: ..... Address: ..... NHS number: ..... Date of birth: ..... Patient's current location:	GP Name and contact details:

Receiving facility, e.g., hospital ward, hospice: .....

If transferred by ambulance, the service has been notified: Yes ☐ N/A ☐

Is the patient an infection risk:
Please tick most appropriate box and give details of the confirmed or suspected organism

☐ Confirmed risk Organisms: .....
☐ Suspected risk Organisms: .....
☐ No known risk

Patient exposed to others with infection, e.g., D&V, Influenza: Yes ☐ No ☐ Unaware ☐

If yes, please state: .....

If the patient has a diarrhoeal illness, please indicate bowel history for last week, if known, (based on Bristol Stool Form Scale):

.....

Is diarrhoea thought to be of an infectious nature? Yes ☐ No ☐ Unknown ☐

Relevant specimen results if available

Specimen:				
Date:				
Result:				

Treatment information:

Is the patient aware of their diagnosis/risk of infection? Yes ☐ No ☐

Does the patient require isolation? Yes ☐ No ☐

If the patient requires isolation, phone the receiving facility in advance: Actioned ☐ N/A ☐

Additional information:

Name of staff member completing form: .....

Print name: .....

Contact No: ..... Date .....

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