SECTION 11

INTRODUCTION OF MULTIDRUG RESISTANT ORGANISMS (MDRO’s)

- Introduction
- Risk Groups
- Infection Prevention and Control Measures

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Date developed: August 2012

Approved by: Cork and Kerry Infection Prevention and Control Committee

Kerry Infection Prevention and Control Committee

Reference number: IPCG 11.0/ 2012

Revision number: 0

Revision date: 2015 or sooner if new evidence becomes available

Responsibility for review: Infection Prevention and Control Nurses
**Introduction**

Multi Drug Resistant Organisms (MRDOs) are micro-organisms which are resistant to one or more groups of antimicrobials. They include

- Gram negative organisms such as
  - ESBL-producing E.coli (extended -Spectrum Beta-Lactemases) (section 10.9) and
  - CRE Carbapenem Resistant Enterobacteriaceae (section 10.10)
- Gram positive organisms such as
  - MRSA- Methicillin Resistant Staphylococcus Aureus (section 10.11)
  - VRE Vancomycin Resistant Enterococci. (section 10.12)

**Risk Groups**

Risk groups for acquisition of MDRO’s include;
- Prior and prolonged hospitalisation, in particular high dependency areas,
- Exposure to multiple antimicrobials- especially broad spectrum cephalosporins and fluoroquinolones,
- Presence of indwelling medical devices, particularly urinary catheters,
- A higher prevalence of colonisation with MRDO’s has been documented in residents of long term care facilities.

**Infection Prevention and Control Measure**

- **Standard Precautions** must be used when caring for all resident’s/clients regardless of known or unknown status in respect of MRDO’s. Standard Precautions limit the transmission from potentially colonised individuals. It is important to note that surveillance cultures may fail to identify colonisation due to lack of sensitivity, laboratory methods or intermittent colonisation due to antimicrobial therapy.
- **Antimicrobial resistance** is an evolving process and advice should be sought from the local Infection Prevention and Control Nurse in relation to the infection control management of any resident colonised or infection with a MDRO.
- **Additional precautions** such as Contact Precautions maybe advised for the management of some MDRO’s further advice should be sought from your local Infection Prevention and Control Nurse.
- **Antimicrobial agents** are the most important tool available for managing infectious diseases and are a precious resource. Using antibiotics needlessly allows bugs that cause infections to build up resistance against antibiotics and renders them useless over time. Their proper use is not only essential for residents/clients to recover from the infectious process, but also to avoid potential toxic effects, reduce associated costs, and reduce the emergence of resistance. Healthcare facilities should consult National and local guidelines on prescribing such as Guidelines for Antimicrobial Prescribing in Primary Care in Ireland 2011 available at www.hpsc.ie

Reference and Bibliography

Health Protection Surveillance Centre. (2011) DRAFT Guidelines for Control and Prevention of Multi-drug resistant organisms (MDRO) excluding MRSA in the healthcare setting.