

**Practical guidance for primary care teams on
caring for patients with antibiotic resistant bacteria
with an emphasis on those that live in the bowel**

1. Background

There has been a large increase in multi drug resistant organisms (MDROs) that are carried in the bowel. These include:

- Gram negative bacteria such as Ecoli, Klebsiella, enterobacter, etc.
 - Types of resistance:
 - ESBL: resistant to penicillins, cephalosporins, and often resistant to other antibiotic classes as well
 - CRE: resistant to most and sometimes all available antibiotics
- Gram positive bacteria such as Enterococcus faecalis and Enterococcus faecium
 - Types of resistance:
 - VRE: resistant to cephalosporins, vancomycin, and often resistant to other antibiotic classes as well

Infections caused by these bacteria are often very difficult to treat, frequently require treatment in hospital, and are associated with increased mortality.

While the terminology of the antibiotic resistant bacteria that are carried in the bowel can be confusing, the key messages are:

- These bacteria are strongly linked to antibiotic use, particularly broad-spectrum antibiotics, such as co-amoxiclav, cephalosporins, quinolones (e.g. ciprofloxacin), and macrolides (e.g. clarithromycin, azithromycin). Avoid unnecessary antibiotic prescribing and, where antibiotics are required, use the “preferred antibiotics” detailed on www.antibioticprescribing.ie.
- They are carried in the bowel where they usually do no harm to the person who is carrying them. However, they are usually present in very high numbers, making them easily transmissible.
- They can be transmitted from person-to-person by hands, contamination of the environment, or shared patient equipment.

Who is considered most 'at-risk' of carrying antibiotic resistant bacteria?

1. Exposure to multiple antibiotics
2. Frequent contact with healthcare including contact with a patient positive with antibiotic resistant bacteria
3. Contact with a healthcare facility in another country with exposure to antibiotic resistant bacteria

How would I know if my patient is carrying antibiotic resistant bacteria?

- Confirmed microbiology result
 - Disclosure on discharge letter from the hospital / other healthcare facility

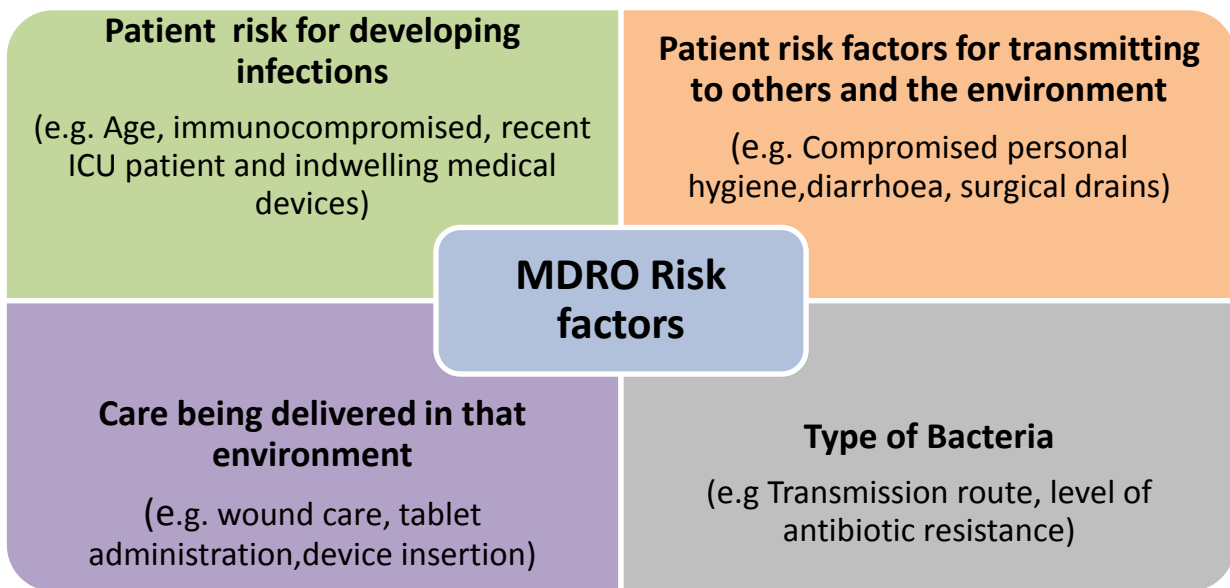
Should I test my patient to see if they are carrying antibiotic resistant bacteria?

- No:
 - Unless it has been advised by the hospital infection prevention control team or as part of an outbreak investigation.
 - Contact hospital microbiologist or infection prevention control nurse for additional guidance or queries if screening has been indicated

2. Key Actions of the Primary Care team

- Do not prescribe antibiotics unless there is a reasonable suspicion of a bacterial infection
- Adhere to national antibiotic guidance – www.antibioticprescribing.ie – when considering antibiotic treatments for any patient and use preferred list of antibiotics for primary care where possible – <http://bit.ly/2pXTOhE>
- Have adequate awareness and knowledge of MDROs and their transmission
- Ensure effective communication with appropriate information is timely communicated to patients and other colleagues
- Apply standard infection prevention precautions at all times. Standard precautions are required for every interaction with every patient, because it must be assumed that any patient could be carrying an antibiotic resistant bacteria or a transmissible infection. All healthcare workers should be trained in the use of standard precautions regardless of where they deliver care in the primary setting (primary care centre, GP practice and the patient's home)
- **Risk assessment to ensure effective application of IPC Standard Precautions.** Within the **primary care setting** the level of precautions depend on the clinical situation and the level of

healthcare delivery, e.g. routine GP consultation, wound dressing and any exposure to blood and body fluids. Patients with active diarrhoea present the highest risk of contaminating shared toilet facilities or surfaces, e.g. waiting room chair.



Important points to remember:

Hand Hygiene using an alcohol based hand rub or hand washing with soap and water is the single most important procedure to prevent spread and contamination. Know your 5 moments for hand hygiene and practice them.

Personal protective equipment (PPE)

- **Gloves** should be used when there is a risk of contact with blood and body fluids. Remember to always perform hand hygiene after glove removal.
- **Plastic apron** should be worn when examining a patient with diarrhoea or secreting other body fluids to prevent your skin or clothes from becoming contaminated.

Waste: All items, including PPE and single use items should be disposed of as healthcare risk waste (yellow bag/container) and hand hygiene performed

Clean and disinfect surfaces where contamination is suspected / occurs (as per local policy) in areas where the patient has been in direct contact e.g. examination couch and any reusable equipment.

Single use items should be used where possible and discarded immediately after use as healthcare risk waste

For further guidance, see the ICGP Infection Prevention & Control in General Practice e-learning module: <http://bit.ly/2p8owjH>

3. Reducing the risk of infection in patients colonised with CRE / MDRO

- Avoid use of indwelling devices – urinary catheters
- Ensure good control of diabetes mellitus
- Ensure wound care is undertaken using aseptic technique
- Ensure device care is undertaken using aseptic technique
- Minimise duration of immunosuppression – steroids

4. What advice should we give a patient with antibiotic resistant bacteria?

The patient should:

- Be told about the positive test result and an explanation about how the bacteria are spread.
- Be provided with an information leaflet and the content explained.

<https://www.hpsc.ie/Publications/InformationLeafletsfortheGeneralPublic/File,12780,en.pdf>

- Be reassured that for most people, the antibiotic resistant bacteria do not cause personal harm.
- Be shown how to clean their hands properly and the most important times for hand hygiene. For those who are unable to get to the sink, they should be assisted with hand hygiene.
- Be asked to let healthcare workers know about the positive result in the event that they attend a healthcare facility or OOH ED service in the future.
- When travelling, be provided with information or a copy of their microbiology report and asked to share it with healthcare workers if they are seeking healthcare abroad.

Within **the patient's home**, the importance of careful attention to social hand hygiene (after using the toilet, before handling food) and maintaining good personal hygiene and environmental cleanliness, particularly in bathrooms and kitchen needs to be emphasised. Clothing, bed linen, towels, dishes and cutlery may all be washed as normal.

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For further information, refer to:

- Infection Prevention and Control Guidelines for GPs and Primary Care
http://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,14612_en.pdf
- National Guidelines for Prevention and management of MDROs
http://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,12922_en.pdf
- HSEland HH and standard precautions module
<http://www.hseland.ie/coursefiles/packages/Infect2/topic1/hygiene.html>
<http://www.hseland.ie/coursefiles/packages/Infect1/topic1/precautions.html>
- ICGP eLearning module on infection prevention and control in general practice
<https://www.icgp-education.ie/mod/page/view.php?id=4918>
- Hand hygiene – video on 5 moments in general practice, HH posters
<http://www.hse.ie/eng/health/hl/hcaiamr/handhygiene/>