



## CLINICAL GUIDELINE

# Protected Antimicrobial policy (adult)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

<b>Version Number:</b>	22
<b>Does this version include changes to clinical advice:</b>	Yes
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<b>Lead Author:</b>	Ysobel Gourlay
<b>Approval Group:</b>	Antimicrobial Utilisation Committee

### Important Note:

The Intranet version of this document 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 limits the use of specific antimicrobials which should be **reserved for special circumstances** (e.g. resistant organisms). Inappropriate use of these antimicrobials may increase resistance (reducing the effectiveness of these valuable agents in the future), result in unnecessary financial costs or put patients at increased risk of toxicity.

The WHO **AWaRe** classification of antibiotics takes into account the impact of different antibiotics and antibiotic classes on antimicrobial resistance, emphasising the importance of their appropriate use:

**Access Antimicrobials:** have activity against a wide range of commonly encountered susceptible pathogens, while also showing lower resistance potential than antimicrobials in the other groups.

**Watch Antimicrobials:** have higher resistance potential and so require careful use. They should be targeted in stewardship programmes and for monitoring.

**Reserve Antimicrobials:** should be reserved for confirmed or suspected infections due to multi-drug resistant organisms and treated as “last resort” options, where all alternatives have failed or are unsuitable.

The protected antibacterial agents in this policy have been colour coded below to reflect their **AWaRe** classification.

**Protected Antimicrobials should only be used for the permitted indications listed below. ALL other use MUST be approved by a microbiologist or Infectious Diseases (ID) physician (or virologist in the case of the protected antiviral agents). It is mandatory to send a completed Protected Antimicrobial Monitoring Form to pharmacy when prescribing a Protected Antimicrobial. ❖**

**Failure to do so may delay your patient's treatment.**

❖ *On rare occasions where having a form completed would lead to a treatment delay (e.g. medical staff not available on ward out of hours/at weekends) a limited emergency supply will be issued without a completed form. This is on the undertaking that a completed form is sent to pharmacy before requesting further supply.*

#### To contact a microbiologist:

Beatson, Gartnavel, GRI, IRH, RAH, Stobhill, VoL: 0141 201 8551 (short code 18551)

QEUH, VI: 0141 354 9132 (shortcode 89132), option 1

Out of hours go through switchboard.

**To contact an ID physician:** tel. 0141 201 1100 (QEUH Switchboard) and ask for the ID consultant/specialist registrar on call.

## Protected Antimicrobials which can ONLY be used on infection specialist advice

### Protected Antibacterial Agents which can ONLY be used on microbiology or ID advice

**Azithromycin (IV only)**

**Aztreonam/Avibactam (Emblavio®)**

**Cefiderocol**

**Ceftaroline**

**Ceftobiprole**

**Colistin (IV only)**

**Delafloxacin**

**Fidaxomicin**

**Imipenem/Cilastatin/Relebactam (Recarbrio®)**

**Meropenem/Vaborbactam (Vaborem®)**

**Tedizolid**

### Protected Antiviral Agents which can ONLY be used on virology or microbiology or ID advice

**Ganciclovir** (check Clinical Portal Patient Notes for Virology/ID recommendation)

**Zanamivir (IV only)**

# Protected Antimicrobials which can be used for the listed Permitted Indications

(all other use MUST be discussed with microbiology or ID)

## Permitted indications for Protected Antibacterial Agents (discuss all other use with microbiology or ID)

### Ceftazidime

1. Febrile neutropenia, in accordance with haematology or oncology unit's sepsis protocol
2. Empiric therapy for CAPD-associated peritonitis
3. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism

### Ceftazidime/Avibactam (Zavicefta®)

1. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism

### Ceftolozane/Tazobactam (Zerbaxa®)

1. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism

### Ceftriaxone

1. Bacterial meningitis or brain abscess
2. Enteric fever (typhoid or paratyphoid)
3. Acute severe pelvic inflammatory disease
4. Use via OPAT (on the advice of an ID physician or under PGD)
5. Switch from IV gentamicin after 4 days in patients requiring ongoing IV therapy for empiric treatment of suspected Gram-negative infection in line with NMSGC guidelines

### Ciprofloxacin (IV only)

1. Oral route compromised and prescribed in line with the Infection Management Guidelines
2. Treatment of spontaneous bacterial peritonitis in line with the Infection Management Guidelines
3. Neutropenic patient with fever and true penicillin allergy (in line with the Infection Management Guidelines)
4. Intra-abdominal sepsis with true penicillin allergy & eGFR <20 ml/min/1.73m<sup>2</sup> (in line with the Infection Management Guidelines)
5. Surgical prophylaxis in penicillin-allergic patients with blood loss (>1.5L) or prolonged surgery (>8h) in line with NMSGC policy

### Dalbavancin

1. Only for use via OPAT on the advice of an ID physician

### Daptomycin (N.B. NOT for pneumonia)

1. Use via OPAT (on the advice of an ID physician or under a PGD)
- Only on ID physician/consultant microbiologist advice for in-patients

### Ertapenem

1. Proven ESBL infections requiring IV therapy
2. Use via OPAT on the advice of an ID physician

### Fosfomycin (IV only)

1. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism

### Imipenem/Cilastatin

1. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism

### Linezolid (IV and oral)

1. Multi-drug resistant tuberculosis on respiratory/ID physician/consultant microbiologist advice
  2. Non-tuberculous mycobacterial pulmonary disease on respiratory/ID physician/consultant microbiologist advice
- NB. If a patient is to be discharged on linezolid remember that weekly symptom/tolerability AND blood monitoring is MANDATORY: refer to OPAT (via TrakCare) to facilitate this.**

### Meropenem

1. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism
2. Febrile neutropenia (as **second line** therapy)/severe neutropenic sepsis in accordance with haematology or oncology unit's sepsis protocol/Infection Management Guidelines

3. Infections due to multi-resistant (including ertapenem) organisms where no narrower spectrum agent (e.g. temocillin) suitable

#### **Moxifloxacin (IV and oral)**

1. Multi-drug resistant tuberculosis on respiratory/ID physician/consultant microbiologist advice
2. Non-tuberculous mycobacterial pulmonary disease on respiratory/ID physician/consultant microbiologist advice

#### **Oritavancin**

1. Only for use via OPAT on the advice of an ID physician

#### **Piperacillin/Tazobactam (Tazocin®)**

1. Febrile neutropenia/immunocompromised in line with the Infection Management Guidelines
2. Exacerbation of bronchiectasis/cystic fibrosis if evidence of colonisation with pseudomonas/resistant Gram-negative organism
3. Empiric treatment of sepsis of unknown source associated with decompensated chronic liver disease
4. Empiric treatment of intra-abdominal infection in patients with eGFR < 20ml/min/1.73m<sup>2</sup>
5. Empiric treatment of spontaneous bacterial peritonitis (SBP) in patients receiving co-trimoxazole prophylaxis

#### **Temocillin**

1. In preference to meropenem for infections caused by extended spectrum beta-lactamase (ESBL) producing organisms known to be sensitive to temocillin (at increased dose) where other agents are not suitable

See:

[Changes to antimicrobial susceptibility reporting from microbiology laboratory from 3rd May 2022 | Right Decisions \(scot.nhs.uk\)](#)

[Adult high dose Temocillin \(for I sensitivity\) dosing for patients with Renal Impairment \(1102\) | Right Decisions \(scot.nhs.uk\)](#)

#### **Tigecycline**

1. Non-tuberculous mycobacterial pulmonary disease on respiratory/ID physician/consultant microbiologist advice

#### **Permitted indications for Protected Antifungal Agents (discuss all other use with microbiology or ID)**

#### **Amphotericin, Anidulafungin, Caspofungin, Isavuconazole, Posaconazole & Voriconazole**

1. Use in accordance with haematology or oncology unit's protocol
2. Invasive candidiasis in adult non-haemato oncology patients in line with the NHSGGC guideline for this patient group
3. Pulmonary aspergillosis (voriconazole and posaconazole)

#### **Rezafungin**

1. Only for use via OPAT on the advice of an ID physician