CLINICAL GUIDELINE

Adult Protected Antimicrobial Policy

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.

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Approval Group:	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 will increase resistance, reducing the effectiveness of these valuable agents in the future.

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. 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: during working hours use the contact details below, out of hours go through switchboard.
Beatson, Gartnavel, GRI, IRH, RAH, Stobhill, VoL: 0141 201 8551 (short code 18551)
QEUH, VI: 0141 354 9132 (shortcode 89132), option 1

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

Permitted Indications for Protected Antimicrobials (discuss all other use with microbiology or ID)

Protected Antibacterial Agents

Azithromycin (IV only)

Only on ID physician/consultant microbiologist advice

Cefiderocol

Only on ID physician/consultant microbiologist advice

Ceftaroline

Only on ID physician/consultant microbiologist advice

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

Ceftobiprole

Only on ID physician/consultant microbiologist advice

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 NHSGGC 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^2 (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 NHSGGC policy

Colistin (IV only)
Only on ID physician/consultant microbiologist advice

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

Daptomycin (NB. **not** for pneumonia)
1. Use via OPAT (on the advice of an ID physician or under PGD)
2. Only on ID physician/consultant microbiologist advice for in-patients

Delafloxacin
Only on ID physician/consultant microbiologist advice

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

Fidaxomicin
Only on ID physician/consultant microbiologist advice

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

Imipenem/Cilastatin/Relebactam (Recarbrio®)
Only on ID physician/consultant microbiologist advice

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

Meropenem/Vaborbactam (Vaborem®)
Only on ID physician/consultant microbiologist advice

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 < $20 ml/min/1.73m^2$
5. Empiric treatment of spontaneous bacterial peritonitis (SBP) in patients receiving co-trimoxazole prophylaxis

Tedizolid
Only on ID physician/consultant microbiologist advice

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

Protected Antifungal Agents

Amphotericin, Anidulafungin, Caspofungin, Isavuconazole, Posaconazole, Rezafungin & 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)
4. Only for use via OPAT on the advice of an ID physician (rezafungin)

Protected Antiviral Agents

Zanamivir (IV only)

Only on ID physician/virologist/consultant microbiologist advice