
MEMORANDUM

To: All Medical and Nursing Staff – Logan & Beaudesert Hospitals

Copies to: Pharmacy Staff – Logan and Beaudesert Hospitals

From: Dr Marjoree Sehu
Infectious Diseases Physician

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Subject: **Update on Antimicrobial Shortage: piperacillin-tazobactam & gentamicin**

File Ref: Piptaz4-2018

A global piperacillin-tazobactam shortage and concurrent gentamicin recall in late 2017 necessitated changes to both empirical antimicrobial guidelines and imprest locations to reserve stock for high risk indications.

This situation has now largely resolved, allowing the reintroduction of both agents into the empirical antimicrobial guidelines.

1. **Adult Patients** – refer to updated local Empirical Guidelines for indications where piperacillin-tazobactam (Appendix 1) and gentamicin (Appendix 2) were previously recommended first line therapy
N.B. there is variation from other Metro South sites
2. **Paediatric Patients** – refer to [CHQ \(LCCH\) Empirical Antimicrobial Guidelines](#) for antimicrobial choice and doses
3. **Approval outside the guidelines** – contact Logan ID Registrar on 2144 (Monday to Friday 08:00-16:00) or outside these time, the Metro South ID Physician on-call (available all hours via PAH switch)

Prescribers should document the name of the approving Infectious Diseases Physician/Registrar in the appropriate field within the MAR.

For any further questions or advice, please contact Tina Patterson or Zack Klyza (Antimicrobial Stewardship Pharmacists) on 8180.

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17th April 2018

Appendix 1: Adult Empirical Piperacillin-Tazobactam Guidelines

This guideline refers to those indications where piperacillin-tazobactam was previously recommended first line therapy. For a complete guideline including gentamicin and vancomycin dosing, refer to the [Metro South Health Antimicrobial Prescribing Guidelines](#).

N.B. Indications highlighted orange differ from other Metro South HHS sites

	Indication	Indication Subset	Empirical Guidelines
Sepsis	Febrile neutropenia		Piperacillin-tazobactam 4.5g IV q6h + Gentamicin
	Hospital-acquired sepsis	Unknown source	Piperacillin-tazobactam 4.5g IV q8h Add Vancomycin if MRSA colonised or central line in situ
	Proven <i>Pseudomonas</i> sp. infection		Piperacillin-tazobactam 4.5g IV q6h [ID approval required]
Bone and Joint	Open fractures		Cefazolin 2g IV q8h + Metronidazole 400mg PO q12h*
	Diabetic foot infection	Osteomyelitis or severe limb or life threatening infection	Cefazolin 2g IV q8h & Metronidazole 400mg PO q12h* Seek ID opinion if additional cover is required
Surgical site	Surgical site infection	Surgery involving the gastrointestinal or genital tract	Ceftriaxone 1g IV daily + Metronidazole 400mg PO q12h*
Gastrointestinal and intra-abdominal infections	Peritonitis, cholangitis or severe diverticulitis	When switching from a gentamicin-containing regimen if IV therapy is required beyond 48 hours or where gentamicin is contra-indicated	Ceftriaxone 1g IV daily + Metronidazole 400mg PO q12h*
	Spontaneous bacterial peritonitis		Ceftriaxone 2g IV daily
	in patients with ascites	In patients already on fluoroquinolone or trimethoprim-sulfamethoxazole prophylaxis	Ceftriaxone 2g IV daily + Ampicillin 2g IV q6h
Respiratory	Hospital-acquired pneumonia (HAP), including aspiration pneumonia		Ceftriaxone 1g IV daily & if anaerobic infection is suspected, add Metronidazole 400mg PO q12h*
	Bronchiectasis	Infective exacerbation where <i>Pseudomonas aeruginosa</i> is proven or nil improvement after 48 hours empirical therapy	Piperacillin-tazobactam 4.5g IV q6h [ID approval required]
	Empyema/lung abscess		Ceftriaxone 2g IV daily + Metronidazole 400mg PO q12h*
Bites		Moderate to severe, established infection	Ceftriaxone 1g IV daily + Metronidazole 400mg PO q12h*
All other indications (except ICU)		Infectious Diseases approval is required before prescribing	

*PO metronidazole is generally recommended given excellent oral bioavailability. Where the PO route is not feasible, use metronidazole 500mg IV q12h.

Please contact Infectious Diseases for specific clinical situations that may require alternate antimicrobial therapy (e.g. where known/suspected multiresistant organisms, immunosuppression, allergies, or other complicating factors).

Appendix 2: Adult Empirical Gentamicin Guidelines

This guideline refers to those indications where gentamicin was previously recommended first line therapy prior to recall. For a complete guideline, refer to the [Metro South Health Antimicrobial Prescribing Guidelines](#)

Indication	Current regimen
Community-onset severe sepsis with no obvious source	Gentamicin AND flucloxacillin AND vancomycin
Febrile Neutropenia	Gentamicin AND piperacillin-tazobactam
Acute pyelonephritis	Gentamicin AND ampicillin
Intra-abdominal sepsis (Peritonitis, cholangitis, or severe diverticulitis)	Gentamicin AND ampicillin AND metronidazole* Metronidazole may be omitted in cholecystitis or cholangitis without biliary obstruction
CAPD peritonitis (empiric therapy)	Gentamicin and cefazolin (both intraperitoneal)
Chorioamnionitis	Gentamicin AND ampicillin AND metronidazole*
Perioperative surgical prophylaxis	Various – see Metro South Surgical Prophylaxis Guides Page https://metrosouth.health.qld.gov.au/clinician-resources/antimicrobial-prescribing-guidelines/surgical-antibiotic-prophylaxis-guides
All other indications & ward areas	Infectious Diseases approval is required before prescribing

*PO metronidazole is generally recommended given excellent oral bioavailability. Where the PO route is not feasible, use metronidazole 500mg IV q12h.

See [Metro South Gentamicin Guidelines for Adults](#) for dosing, administration and monitoring available at: <https://metrosouth.health.qld.gov.au/sites/default/files/content/msh-gentamicin-guidelines.pdf>