ADULT MEDICATION GUIDELINE	
PIPERACILLIN with TAZOBACTAM	
Scope (Staff):	All WNHS Staff
Scope (Area):	Obstetrics and Gynaecology
This document should be read in conjunction with the Disclaimer.	

Quick Links

Dose	Administration	Monitoring	Pregnancy and Breastfeeding

Restrictions

Formulary: Restricted

Medication Class

Penicillin antibiotic and beta-lactamase inhibitor

Presentation

Vial contains 4.5 g as 4 g of piperacillin and 500 mg of tazobactam

Storage

Store at room temperature, below 25°C

Dose

Mixed aerobic and anaerobic infections (including *P. aeruginosa*)

IV infusion:

Dose is expressed as piperacillin component and is dependent on renal function:

Creatinine Clearance	Dose	Dose frequency
More than 40 mL/min	2 – 4 g	6 to 8 hourly (Max 24 g daily)
20 – 40 mL/min	2 – 4 g	8 hourly
Less than 20 mL/min	2 – 4 g	12 hourly

Administration

Refer to the Australian Injectable Drugs Handbook

Monitoring

- Monitor complete blood count and renal and hepatic function during prolonged high dose treatment (>10 days)
- Monitor serum potassium in those likely to develop hypokalaemia during treatment
- Contraindicated in patients with severe hypersensitivity to penicillins, carbapenems and cephalosporin antibiotics
- In renal impairment, high parenteral doses and/or prolonged treatment may result in electrolyte disturbance (due to their sodium content) and neurotoxicity (due to accumulation of the penicillin. Risk of neutropenia may be increased

Pregnancy

1st Trimester: Safe to use

2nd Trimester: Safe to use

3rd Trimester: Safe to use

Breastfeeding

Safe to use

Monitor infant for diarrhoea, vomiting, rash and candidiasis

Comments

Vancomycin and Piperacillin-Tazobactam Co-Therapy

There is an increased rate of nephrotoxicity (up to 20%) in patients who receive combination therapy with piperacillin-tazobactam and vancomycin.

In order to limit the risk of acute kidney injury with this combination therapy:

- Use alternative antibiotic if possible.
- Avoid vancomycin loading dose unless the patient is critically ill.
- Limit duration of treatment with combination therapy.

- Increased monitoring of renal function and serum vancomycin level is recommended when combination therapy cannot be avoided.
- Avoid treatment with other nephrotoxic agents (e.g. anti-inflammatory medications) whenever possible.

Maintain adequate hydration.

Related Policies, Procedures & Guidelines

DoH WA policies

WA Statewide Medicines Formulary

WNHS Policies:

Antimicrobial Stewardship (AMS) policy

List and hyperlink the titles of useful resources, do not hyperlink MR forms

WNHS Clinical Practice Guidelines:

Infections: Urinary tract infection in pregnant women

Maternal Sepsis and Septic Shock: detection, investigation and management

References

Australian Medicines Handbook. Piperacillin with tazobactam. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2025 [cited 2026 Jan 19]. Available from: https://amhonline.amh.net.au/

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NSQHS Standards Applicable:	☒ Std 1: Clinical Governance ☐ Std 2: Partnering with Consumers ☒ Std 3: Preventing and Controlling Healthcare Associated Infection ☒ Std 4: Medication Safety			☐ Std 5: Comprehensive Care ☐ Std 6: Communicating for Safety ☐ Std 7: Blood Management ☐ Std 8: Recognising and Responding to Acute Deterioration	
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