



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](#).

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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 40mL/min	2 - 4g	6 to 8 hrs (Max 24g daily)
20 - 40mL/min	2 - 4g	8 hrs
Less than 20mL/min	2 - 4g	12 hrs

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)

Contraindicated in patients with severe hypersensitivity to penicillins, carbapenems and cephalosporin antibiotics

Pregnancy

1st Trimester: Safe to use

2nd Trimester: Safe to use

3rd Trimester: Safe to use

Breastfeeding

Safe to use

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

WNHS Policies:

[Antimicrobial Stewardship \(AMS\) policy](#)

[Antimicrobial Restriction Category List](#)

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; 2021 [cited 2021 Sep 08]. Available from: <https://amhonline.amh.net.au/>

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The Royal Women's Hospital. Piperacillin with tazobactam. In: Pregnancy and Breastfeeding Medicines Guide [Internet]. Parkville (Victoria): The Royal Women's Hospital; 2021 [cited 2021 Sep 08]. Available from: <https://thewomenspbmg.org.au/>

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