Piperacillin-tazobactam Intravenous Infusion for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Piperacillin/Tazobactam is a **Penicillin** antibiotic. Enquire and clearly document the patient's allergy status **prior** to giving or prescribing this medicine
- **Flush the line** before and after giving Piperacillin/Tazobactam, particularly where **gentamicin** or other aminoglycosides are concerned (in order to avoid inactivation of the aminoglycosides)
- **All brands contain Sodium** (approx 10mmol per 4.5g vial)- if sodium load is important [ref 1]
- See under 'Dose' for adjustments required in **renal** impairment

Available preparations

Piperacillin/Tazobactam (4g/0.5g)

Piperacillin/Tazobactam (2g/0.25g)

(Tazocin- search synonym)

Reconstitution

Sodium chloride 0.9% or Water for injection

Add 10ml to each 2.25g

Add 20ml to each 4.5g

- Shake the vial vigorously for one to two minutes
- The displacement value is significant - withdraw the whole volume in the vial after reconstitution for administration of the whole dose [ref 1]

Infusion fluids

Sodium chloride 0.9% or Glucose 5%

Glucose 5% may be preferred for high doses (to avoid Sodium load)

Methods of intravenous administration

Intermittent intravenous infusion

- Add required dose to 100ml infusion fluid and administer over 30 minutes
- To prepare infusion, attach a 100ml infusion bag to the vial using the Braun Transofix (ref 4090500) device
- **See further information re smaller volume infusions if required**

Dose in adults

Neutropenic sepsis, Sepsis source unclear [ref 2]**, Hospital Acquired Pneumonia,**

- Give 4.5g every **six** hours

Other infections

- Give 4.5g every **eight** hours

Renal impairment		
eGFR (ml per minute/1.73m^2)	**Dose**	**Frequency**
20 to 40	4.5g	Every eight hours
less than 20	4.5g	Every twelve hours
Renal replacement therapy	Consult pharmacy or specialist text	

Hepatic Impairment: No dose adjustment is necessary

Monitoring

- Monitor FBC, renal and hepatic function during prolonged treatment

Further information

- While an infusion volume of 50ml or 100ml may be used, a 100ml volume is recommended in order to reduce the amount of drug lost in the 'residual volume' of the administration set (which can be up to 20ml - ie 40% of drug lost). A smaller volume infusion of 50ml may be used, but care must be taken to flush through the drug solution remaining in the line.

Storage

- Store below 25^{0}C

References

Piperacillin/Tazobactam 4g/0.5g Viatris 23/09/2024

1.Medusa- Injectable drugs guide, downloaded 08/01/2025

2: GAPP app- accessed online

Therapeutic classification

Broad-spectrum antipseudomonal penicillin with beta-lacatamase inhibitor