

## Who can administer

May be administered by registered competent doctor or nurse/midwife

## Important information

- **Penicillin** antibiotic
- See under 'Dose' for adjustments required in **renal** impairment
- Contains 1.68mmol sodium per 600mg

## Available preparations

Crystapen 600mg (1 mega unit) powder

## Reconstitution

### For slow intravenous injection

- Add 4ml of Water for Injections or Sodium chloride 0.9% to each 600mg vial
- Dilute further to a final volume of 600mg/10ml, 1.2g/20ml <sup>(ref 1)</sup>

### For intravenous infusion

- Add 4ml Water for Injections or Sodium chloride 0.9% to each 600mg vial
- Sodium chloride 0.9% infusion bag: a transfer device may be used to add the contents of the Benzylpenicillin vial to the bag

## Infusion fluids

Sodium chloride 0.9% or Glucose 5% (ref 1)

## Methods of intravenous administration

**Can use either method of administration- choice depends on practicalities such as time available, fluid status of patient, etc**

### Slow intravenous injection <sup>(ref 1)</sup>

- Doses up to 1.2g: administer slowly over 5 minutes
- Doses greater than 1.2g - maximum rate of administration 300mg/minute
  - Give 2.4g dose over at least 8 minutes (may be preferable to give this dose as infusion due to time required for slow intravenous injection)
  - Too rapid an injection rate may result in high levels, causing irritation to the central nervous system and/or electrolyte imbalance

### Intermittent intravenous infusion

- Add required dose to **100ml sodium chloride 0.9%** <sup>(ref 1)</sup> and administer over 30 to 60 minutes
- A 50ml infusion may be used for doses of 2.4g or less if required (eg fluid restriction) but the residual volume in the infusion line must be flushed through at the same rate to avoid significant underdosing

# Dose in adults

## Usual dose

- Give 600mg (1 Megaunit) to 1.2g every six hours <sup>(BNF)</sup> (increased if necessary in more serious infections - see below)

## Acute pharyngitis or tonsillitis <sup>(ref 2)</sup>

- Give 1.2g every four hours

## Necrotising fasciitis/gas gangrene <sup>(ref 2)</sup>

- Give 2.4g every four hours

## Meningococcal disease

- Give 2.4g every four hours

## Intrapartum prophylaxis against group B Streptococcal infection

- Initially 3g stat, then 1.5g every four hours until delivery
- See Q pulse CLN-LW-0033 [guideline](#)

## Renal impairment <sup>(ref 2)</sup>

### Increased incidence of neurotoxicity in renal impairment (seizures)

eGFR (mL/min/1.73m <sup>2</sup> )	Dose (use higher end of dose range for severe infections e.g. endocarditis)
<b>20 to 50</b>	Dose as in normal renal function
<b>10 to 20</b>	600mg to 2.4g every six hours
<b>less than 10</b>	600mg to 1.2g every six hours
<b>Renal replacement therapies</b>	Consult specialist text or pharmacy

## Further information

- **Skin sensitisation** may occur in persons handling benzylpenicillin - care should be taken to avoid contact with the substance

## Storage

Store below 25°C

## References

SPC April 2006

1: Medusa Injectable Medicines Administration Guide downloaded 05/03/2025

2: [GUH antimicrobial guidelines 2021](#)

Search synonym Benzyl penicillin

# Therapeutic classification

Penicillin antibiotic