

not receive a penicillin. Individuals with a history of a minor rash (i.e. non-confluent, non-pruritic rash restricted to a small area of the body) or a rash that occurs more than 72 hours after penicillin administration are probably not allergic to penicillin and in these individuals a penicillin should not be withheld unnecessarily for serious infections; the possibility of an allergic reaction should, however, be borne in mind. Other beta-lactam antibiotics (including cephalosporins) can be used in these patients.

Patients who are allergic to one penicillin will be allergic to all because the hypersensitivity is related to the basic penicillin structure. Patients with a history of immediate hypersensitivity to penicillins may also react to the cephalosporins and other beta-lactam antibiotics, they should not receive these antibiotics. If a penicillin (or another beta-lactam antibiotic) is essential in an individual with immediate hypersensitivity to penicillin then specialist advice should be sought on hypersensitivity testing or using a beta-lactam antibiotic with a different structure to the penicillin that caused the hypersensitivity.

ANTIBACTERIALS > PENICILLINS, ANTIPSEUDOMONAL WITH BETA- LACTAMASE INHIBITOR

F 347

Piperacillin with tazobactam

01-May-2019

● INDICATIONS AND DOSE

Hospital-acquired pneumonia | Septicaemia | Complicated infections involving the urinary-tract | Complicated infections involving the skin | Complicated infections involving the soft-tissues

► BY INTRAVENOUS INFUSION

► Neonate: 90 mg/kg every 8 hours.

- Child 1 month–11 years: 90 mg/kg every 6–8 hours (max. per dose 4.5 g every 6 hours)
- Child 12–17 years: 4.5 g every 8 hours; increased if necessary to 4.5 g every 6 hours, increased frequency may be used for severe infections

Complicated intra-abdominal infections

► BY INTRAVENOUS INFUSION

- Child 2–11 years: 112.5 mg/kg every 8 hours (max. per dose 4.5 g)
- Child 12–17 years: 4.5 g every 8 hours; increased if necessary to 4.5 g every 6 hours, increased frequency may be used for severe infections

Acute exacerbation of bronchiectasis

► BY INTRAVENOUS INFUSION

- Child 1 month–11 years: 90 mg/kg every 6–8 hours (max. per dose 4.5 g every 6 hours)
- Child 12–17 years: 4.5 g every 8 hours; increased if necessary to 4.5 g every 6 hours, increased frequency may be used for severe infections

Infections in neutropenic patients

► BY INTRAVENOUS INFUSION

- Child: 90 mg/kg every 6 hours (max. per dose 4.5 g)

- **UNLICENSED USE** Not licensed for use in children under 12 years (except for children 2–12 years with neutropenia and complicated intra-abdominal infections).

[EvGr] Piperacillin with tazobactam is used for the treatment of acute exacerbation of bronchiectasis, \blacktriangle but is not licensed for this indication. See Respiratory system infections, antibacterial therapy p. 318 for further information.

- **CAUTIONS** High doses may lead to hypernatraemia (owing to sodium content of preparations)
- **INTERACTIONS** → Appendix 1: penicillins

● SIDE-EFFECTS

- **Common or very common** Anaemia · candida infection · constipation · gastrointestinal discomfort · headache · insomnia
- **Uncommon** Arthralgia · flushing · hypokalaemia · hypotension · myalgia · thrombophlebitis
- **Rare or very rare** Epistaxis · stomatitis
- **Frequency not known** Eosinophilia · pancytopenia · pneumonia eosinophilic · renal failure · thrombocytosis
- **PREGNANCY** Manufacturers advise use only if potential benefit outweighs risk.
- **BREAST FEEDING** Trace amount in milk, but appropriate to use.
- **RENAL IMPAIRMENT**
Dose adjustments *Child under 12 years* 78.75 mg/kg (max. 4.5 g) every 8 hours if estimated glomerular filtration rate less than 50 mL/minute/1.73 m².
Child 12–18 years max. 4.5 g every 8 hours if estimated glomerular filtration rate 20–40 mL/minute/1.73 m²; max. 4.5 g every 12 hours if estimated glomerular filtration rate less than 20 mL/minute/1.73 m².
- **EFFECT ON LABORATORY TESTS** False-positive urinary glucose (if tested for reducing substances).
- **DIRECTIONS FOR ADMINISTRATION** Displacement value may be significant when reconstituting injection, consult local guidelines. For *intravenous infusion*, dilute reconstituted solution to a concentration of 15–90 mg/mL with Glucose 5% or Sodium Chloride 0.9%; give over 30 minutes.
- **PRESCRIBING AND DISPENSING INFORMATION** Dose expressed as a combination of piperacillin and tazobactam (both as sodium salts) in a ratio of 8:1.

- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug. Forms available from special-order manufacturers include: infusion

Powder for solution for infusion

ELECTROLYTES: May contain Sodium

► Piperacillin with tazobactam (Non-proprietary)

Tazobactam (as Tazobactam sodium) 500 mg, Piperacillin (as Piperacillin sodium) 4 gram Piperacillin 4g / Tazobactam 500mg powder for solution for infusion vials | 1 vial **[PoM]** £15.75–£19.97 (Hospital only) | 1 vial **[PoM]** £12.90 | 10 vial **[PoM]** £48.00–£153.00 | 10 vial **[PoM]** £163.30 (Hospital only)

► Tazocin (Pfizer Ltd)

Tazobactam (as Tazobactam sodium) 500 mg, Piperacillin (as Piperacillin sodium) 4 gram Tazocin 4g/0.5g powder for solution for infusion vials | 1 vial **[PoM]** £15.17 (Hospital only)

Powder for solution for injection

ELECTROLYTES: May contain Sodium

► Piperacillin with tazobactam (Non-proprietary)

Tazobactam (as Tazobactam sodium) 250 mg, Piperacillin (as Piperacillin sodium) 2 gram Piperacillin 2g / Tazobactam 250mg powder for solution for infusion vials | 1 vial **[PoM]** £9.55 DT = £7.65 (Hospital only) | 10 vial **[PoM]** £82.30 (Hospital only)

► Tazocin (Pfizer Ltd)

Tazobactam (as Tazobactam sodium) 250 mg, Piperacillin (as Piperacillin sodium) 2 gram Tazocin 2g/0.25g powder for solution for infusion vials | 1 vial **[PoM]** £7.65 DT = £7.65

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Ticarcillin with clavulanic acid

● INDICATIONS AND DOSE

Infections due to *Pseudomonas* and *Proteus* spp.

► BY INTRAVENOUS INFUSION

- Preterm neonate (body-weight up to 2 kg): 80 mg/kg every 12 hours.
- Preterm neonate (body-weight 2 kg and above): 80 mg/kg every 8 hours; increased if necessary to 80 mg/kg every 6 hours, increased frequency used for more severe