

Serious infections caused by Gram-positive bacteria (e.g. complicated skin and soft-tissue infections, pneumonia, complicated urinary tract infections)

- ▶ BY INTRAVENOUS INJECTION, OR BY INTRAVENOUS INFUSION, OR BY INTRAMUSCULAR INJECTION
- ▶ Child 12–17 years: Initially 6 mg/kg every 12 hours for 3 doses, then 6 mg/kg once daily

Streptococcal or enterococcal endocarditis (in combination with another antibacterial) | Bone and joint infections

- ▶ INITIALLY BY INTRAVENOUS INJECTION, OR BY INTRAVENOUS INFUSION
- ▶ Child 12–17 years: 12 mg/kg every 12 hours for 3–5 doses, then (by intravenous injection or by intramuscular infusion or by intramuscular injection) 12 mg/kg once daily

Surgical prophylaxis

- ▶ BY INTRAVENOUS INJECTION
- ▶ Child: (consult local protocol)

Serious infections caused by Gram-positive bacteria (including endocarditis, complicated skin and soft-tissue infections, pneumonia, complicated urinary tract infections, bone and joint infections)

- ▶ BY INTRAVENOUS INJECTION, OR BY INTRAVENOUS INFUSION
- ▶ Neonate: Initially 16 mg/kg for 1 dose, followed by 8 mg/kg once daily, subsequent dose to be administered 24 hours after initial dose, doses to be given by intravenous infusion.
- ▶ Child 1 month: Initially 16 mg/kg for 1 dose, followed by 8 mg/kg once daily, subsequent dose to be administered 24 hours after initial dose, doses to be given by intravenous infusion
- ▶ Child 2 months–11 years: Initially 10 mg/kg every 12 hours for 3 doses, then 6–10 mg/kg once daily

Peritonitis associated with peritoneal dialysis (added to dialysis fluid)

- ▶ BY INTRAPERITONEAL INFUSION
- ▶ Child 12–17 years: (consult local protocol)

PHARMACOKINETICS

- ▶ Teicoplanin should **not** be given by mouth for systemic infections because it is not absorbed significantly.

- **UNLICENSED USE** Not licensed for surgical prophylaxis.
- **INTERACTIONS** → Appendix 1: teicoplanin
- **SIDE-EFFECTS**
 - ▶ Common or very common Fever · pain · skin reactions
 - ▶ Uncommon Bronchospasm · diarrhoea · dizziness · eosinophilia · headache · hearing impairment · hypersensitivity · leucopenia · nausea · ototoxicity · thrombocytopenia · vomiting
 - ▶ Rare or very rare Abscess · red man syndrome
 - ▶ Frequency not known Agranulocytosis · angioedema · chills · neutropenia · overgrowth of nonsusceptible organisms · renal impairment · seizure · severe cutaneous adverse reactions (SCARs) · thrombophlebitis
- **SIDE-EFFECTS, FURTHER INFORMATION** Teicoplanin is associated with a lower incidence of nephrotoxicity than vancomycin.
- **ALLERGY AND CROSS-SENSITIVITY** Caution if history of vancomycin sensitivity.
- **PREGNANCY** Manufacturer advises use only if potential benefit outweighs risk.
- **BREAST FEEDING** No information available.
- **RENAL IMPAIRMENT**
 - ▶ **Dose adjustments** Use normal dose regimen on days 1–4, then use normal maintenance dose every 48 hours if estimated glomerular filtration rate 30–80 mL/minute/1.73 m² and use normal maintenance

dose every 72 hours if estimated glomerular filtration rate less than 30 mL/minute/1.73 m².

Monitoring Monitor renal and auditory function during prolonged treatment in renal impairment.

● MONITORING REQUIREMENTS

- ▶ With intramuscular use or intravenous use Manufacturer advises monitor serum-teicoplanin trough concentration at steady state after completion of loading dose and during maintenance treatment—consult product literature.
- ▶ Blood counts and liver and kidney function tests required.
- ▶ Manufacturer advises monitoring for adverse reactions when doses of 12 mg/kg twice daily are administered.
- **DIRECTIONS FOR ADMINISTRATION**
 - ▶ With intravenous use For intermittent intravenous infusion, dilute reconstituted solution further in sodium chloride 0.9% or glucose 5%; give over 30 minutes.
 - ▶ With oral use Injection can be used to prepare solution for oral administration.

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

Powder and solvent for solution for injection

ELECTROLYTES: May contain Sodium

- ▶ **Teicoplanin (non-proprietary)** ▼
 - ▶ **Teicoplanin 200 mg** Teicoplanin 200mg powder and solvent for solution for injection vials | 1 vial [PoM] £4.45 DT = £3.93
 - ▶ **Teicoplanin 400 mg** Teicoplanin 400mg powder and solvent for solution for injection vials | 1 vial [PoM] £7.57 DT = £7.32
- ▶ **Targocid (Sanofi)** ▼
 - ▶ **Teicoplanin 200 mg** Targocid 200mg powder and solvent for solution for injection vials | 1 vial [PoM] £3.93 DT = £3.93
 - ▶ **Teicoplanin 400 mg** Targocid 400mg powder and solvent for solution for injection vials | 1 vial [PoM] £7.32 DT = £7.32

Vancomycin

11-May-2018

- **DRUG ACTION** The glycopeptide antibiotic vancomycin has bactericidal activity against aerobic and anaerobic Gram-positive bacteria including multi-resistant staphylococci. However, there are reports of *Staphylococcus aureus* with reduced susceptibility to glycopeptides. There are increasing reports of glycopeptide-resistant enterococci. Penetration into cerebrospinal fluid is poor.

● INDICATIONS AND DOSE**Clostridium difficile infection**

▶ BY MOUTH

- ▶ Neonate: 10 mg/kg every 6 hours for 10 days, treatment duration may need to be tailored to the clinical course of individual patients.
- ▶ Child 1 month–11 years: 10 mg/kg every 6 hours for 10 days, treatment duration may need to be tailored to the clinical course of individual patients; maximum 2 g per day

Clostridium difficile infection [first episode]

▶ BY MOUTH

- ▶ Child 12–17 years: 125 mg every 6 hours for 10 days; increased if necessary to 500 mg every 6 hours for 10 days, increased dose if severe or complicated infection

Clostridium difficile infection [multiple recurrences]

▶ BY MOUTH

- ▶ Child 12–17 years: 125 mg every 6 hours for 10 days, followed by, either tapering the dose (gradually reducing until 125 mg daily) or a pulse regimen (125–500 mg every 2–3 days for at least 3 weeks)

continued →