VANCOMYCIN HYDROCHLORIDE

SYNONYMS Vancomycin

BRAND NAME VANCOCIN CP, VANCOMYCIN ALPHAPHARM, VANCOMYCIN HYDROCHLORIDE DBL, VANCOMYCIN SANDOZ

DRUG CLASS Glycopeptide antibiotic

AVAILABILITY Vial contains 500 mg or 1 g of vancomycin hydrochloride. DBL and Vancocin CP brands also contain disodium edetate, hydrochloric acid and/or sodium hydroxide.1 Sandoz brand also contains disodium edetate.1

WARNING Extravasation may cause tissue necrosis.1,2
Vancomycin can cause severe infusion reactions including profound hypotension and red-man syndrome. Do not infuse faster than the recommended rate.3 Check your local guidelines.

pH 2.5–4.51

PREPARATION Reconstitute the 500 mg vial with 10 mL of water for injections and the 1 g vial with 20 mL of water for injections to make a concentration of 50 mg/mL. The solution is clear.1 For intravitreal injection: must be reconstituted and diluted under aseptic conditions, preferably by pharmacy.

STABILITY Vial: store below 25 °C. Protect from light.1
Reconstituted solution: stable for 24 hours at 2 to 8 °C.1
Infusion solution: stable for 24 hours below 25 °C and at 2 to 8 °C.1

ADMINISTRATION
IM injection Contraindicated, causes ulceration and necrosis.1
SUBCUT injection Contraindicated, causes ulceration and necrosis.1
IV injection Not recommended. See SPECIAL NOTES
IV infusion See WARNINGS

Dilute the dose to 5 mg/mL with a compatible fluid and infuse at a rate of 10 mg/minute.1,4
i.e. dilute 1 g to at least 200 mL; infuse 1 g over 100 minutes.
For fluid-restricted patients the maximum concentration is 10 mg/mL i.e. 1 g in 100 mL.1,4

If necessary a 1 g dose may be infused over 1 hour. For doses over 1 g, increase the infusion time by 30 minutes for each additional 500 mg i.e. 1.5 g over 1.5 hours and 2 g over 2 hours.3,5
Check your local guidelines or contact a pharmacist or medicines information service before proceeding. This faster rate of infusion increases the risk of infusion reactions including severe hypotension and red-man syndrome. Monitor blood pressure and slow the infusion if necessary. See SPECIAL NOTES.

May also be given as a continuous infusion over 24 hours.1,4

IV use for infants and children Dilute to 5 mg/mL or less and infuse over at least 60 minutes. Maximum rate for doses over 500 mg is 10 mg/minute. If fluid restricted, infuse a maximum concentration of 10 mg/mL through a central venous catheter over at least 60 minutes.6,7 If symptoms of red man syndrome occur, extend the infusion time to 120 minutes or more.6,7 Pre-treatment with an antihistamine may prevent the syndrome.6
Other  Given as an intravitreal injection during cataract surgery. Very low doses are used and special preparation is required.8

COMPATIBILITY

Fluids  Glucose 5%1, glucose 10%2, Hartmann’s1,2, Plasma-Lyte 148 via Y-site8, sodium chloride 0.9%1

Y-site  Aciclovir2, amifostine2, amiodarone2, anidulafungin2, atracurium2, caspofungin2, cisatracurium2, dexmedetomidine2, esmolol2, filgrastim2, fluconazole2, granisetron2, hydromorphone2, labetalol2, linezolid2, magnesium sulfate2, midazolam2, morphine sulfate2, mycophenolate mofetil2, palonosetron2, pethidine2, posaconazole1, remifentanil2, tegacycline2, vecuronium2, zidovudine2

INCOMPATIBILITY

Fluids  No information

Drugs  Albumin2, aminophylline10, azathioprine10, bivalirudin2, calcium folinate10, daptomycin10, defibrotide2, epopotin alfa2, foscarnet2, furosemide (frusemide)10, ganciclovir10, indometacin10, ketorolac10, methylprednisolone sodium succinate10, moxifloxacin10, omeprazole2, rocuronium2, sodium bicarbonate2, sodium valproate10, urokinase10

Vancomycin is incompatible with many beta-lactam antibiotics i.e. penicillins, cephalosporins and carbapenems.1 Precipitation is more likely at higher concentrations of vancomycin. Flush the line well2.10 Consult the pharmacist, pharmacy department or medicines information service for more information.

SPECIAL NOTES  Therapeutic monitoring may be required. Refer to Therapeutic Guidelines: Antibiotics for recommendations.3

May cause pain at the injection site and thrombophlebitis. If possible use concentrations of 2.5–5 mg/mL and rotate the infusion site.1

Red man syndrome is a histamine-mediated reaction that presents as tingling, flushing or rash of the face, neck and upper body, muscle spasm of the chest and back, and in severe cases hypotension and shock-like symptoms. A maximum rate of infusion of 10 mg/minute is recommended to minimise the risk of red man syndrome. If symptoms of red man syndrome occur, slow the rate of the infusion.1,3

Administer with caution to patients with a history of hypersensitivity to teicoplanin as cross sensitivity may occur.1

The injection is given orally to treat staphylococcal enterocolitis and antibiotic-associated pseudomembranous colitis produced by Clostridium difficile. Dilute the contents of one 500 mg vial with 30 mL of distilled water. A flavouring agent may be added to mask the offensive taste.1

REFERENCES