● **RENAL IMPAIRMENT** Manufacturer advises serial monitoring of renal function.

▸ With intravenous use Manufacturer advises use with caution—increased risk of toxic effects with prolonged high blood concentration.

Dose adjustments ▸ With oral use Manufacturer advises dose adjustment is unlikely to be required unless substantial oral absorption occurs in inflammatory disorders of the intestinal mucosa or with *Clostridium difficile*-induced pseudomembranous colitis, see *Monitoring*.

▸ With intravenous use Manufacturer advises initial dose must not be reduced—consult product literature.

● **MONITORING REQUIREMENTS**

▸ With intravenous use Manufacturer advises initial doses should be based on body-weight; subsequent dose adjustments should be based on serum-vancomycin concentrations to achieve targeted therapeutic concentrations. All patients require serum-vancomycin measurement (on the second day of treatment, immediately before the next dose if renal function normal, earlier if renal impairment—consult product literature). Frequency of monitoring depends on the clinical situation and response to treatment; regular monitoring indicated in high-dose therapy and longer-term use, particularly in patients with impaired renal function, impaired hearing, or concurrent use of nephrotoxic or ototoxic drugs. Manufacturer advises pre-dose ('trough') concentration should normally be 10–20 mg/litre depending on the site of infection and the susceptibility of the pathogen; trough concentration of 15–20 mg/litre is usually recommended to cover susceptible pathogens with MIC greater than or equal to 1 mg/litre—consult product literature.

Manufacturer advises periodic testing of auditory function. Manufacturer advises monitor blood counts, urinalysis, hepatic and renal function periodically in all patients; monitor leucocyte count regularly in patients receiving long-term vancomycin or if given concurrently with other drugs that may cause neutropenia or agranulocytosis.

▸ With oral use Manufacturer advises monitoring serum-vancomycin concentration in inflammatory intestinal disorders.

Manufacturer advises serial tests of auditory function may be helpful to minimise the risk of ototoxicity in patients with an underlying hearing loss, or who are receiving concomitant therapy with other ototoxic drugs.

▸ With intraventricular use Aim for pre-dose ('trough') concentration less than 10 mg/litre.

▸ When used by inhalation Measure lung function before and after initial dose of vancomycin and monitor for bronchospasm.

● **DIRECTIONS FOR ADMINISTRATION**

▸ With intravenous use Avoid rapid infusion (risk of anaphylactoid reactions) and rotate infusion sites. Displacement value may be significant, consult product literature and local guidelines. For intermittent intravenous infusion, the reconstituted preparation should be further diluted in sodium chloride 0.9% *or* glucose 5% to a concentration of up to 5 mg/mL; give over at least 60 minutes (rate not to exceed 10 mg/minute for doses over 500 mg); use continuous infusion only if intermittent not available (limited evidence); 10 mg/mL can be used if infused via a central venous line over at least 1 hour.

▸ With oral use Injection can be used to prepare solution for oral administration—consult product literature.

▸ When used by inhalation *For nebulisation* administer required dose in 4 mL of sodium chloride 0.9% (or water for injections). Administer inhaled bronchodilator before vancomycin.

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

Powder for solution for infusion

▸ **Vancomycin (Non-proprietary)**

Vancomycin (as Vancomycin hydrochloride) 500 mg Vancomycin 500mg powder for solution for infusion vials | 1 vial PoM £7.25 DT = £5.49 | 10 vial PoM £62.50 DT = £62.50

Vancomycin 500mg powder for concentrate for solution for infusion vials | 1 vial PoM £5.49–£8.50 DT = £5.49 (Hospital only) | 10 vial PoM £62.50 DT = £62.50 (Hospital only) | 10 vial PoM £62.50–£72.50 DT = £62.50

Vancomycin (as Vancomycin hydrochloride) 1 gram Vancomycin 1g powder for solution for infusion vials | 1 vial PoM £14.50 DT = £11.25 | 10 vial PoM £125.00 DT = £125.00

Vancomycin 1g powder for concentrate for solution for infusion vials | 1 vial PoM £11.25–£17.25 DT = £11.25 (Hospital only) | 10 vial PoM £125.00 DT = £125.00 (Hospital only) | 10 vial PoM £125.00 DT = £125.00

▸ **Vancocin** (Flynn Pharma Ltd)

Vancomycin (as Vancomycin hydrochloride) 500 mg Vancocin 500mg powder for solution for infusion vials | 1 vial PoM £6.25 DT = £5.49

Vancomycin (as Vancomycin hydrochloride) 1 gram Vancocin 1g powder for solution for infusion vials | 1 vial PoM £12.50 DT = £11.25

Capsule

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▸ **Vancomycin (Non-proprietary)**

Vancomycin (as Vancomycin hydrochloride) 125 mg Vancomycin 125mg capsules | 28 capsule PoM £132.47 DT = £132.47

Vancomycin (as Vancomycin hydrochloride) 250 mg Vancomycin 250mg capsules | 28 capsule PoM £146.38 DT = £146.34

▸ **Vancocin Matrigel** (Flynn Pharma Ltd)

Vancomycin (as Vancomycin hydrochloride) 125 mg Vancocin Matrigel 125mg capsules | 28 capsule PoM £88.31 DT = £132.47

ANTIBACTERIALS › LINCOSAMIDES

Clindamycin

12-Feb-2019

● **DRUG ACTION** Clindamycin is active against Gram-positive cocci, including streptococci and penicillin-resistant staphylococci, and also against many anaerobes, especially *Bacteroides fragilis*. It is well concentrated in bone and excreted in bile and urine.

● **INDICATIONS AND DOSE**

Staphylococcal bone and joint infections such as osteomyelitis | Peritonitis | Intra-abdominal sepsis | Meticillin-resistant *Staphylococcus aureus* (MRSA) in bronchiectasis, bone and joint infections, and skin and soft-tissue infections | Erysipelas or cellulitis in penicillin-allergic patients (alternative to macrolides)

▸ BY MOUTH

▸ Neonate up to 14 days: 3–6 mg/kg 3 times a day.

▸ Neonate 14 days to 28 days: 3–6 mg/kg 4 times a day.

▸ Child: 3–6 mg/kg 4 times a day (max. per dose 450 mg)

▸ BY DEEP INTRAMUSCULAR INJECTION, OR BY INTRAVENOUS INFUSION

▸ Child: 3.75–6.25 mg/kg 4 times a day; increased if necessary up to 10 mg/kg 4 times a day (max. per dose 1.2 g), increased dose used for severe infections, total daily dose may alternatively be given in 3 divided doses, single doses above 600 mg to be administered by intravenous infusion only, single doses by intravenous infusion not to exceed 1.2 g

Staphylococcal lung infection in cystic fibrosis

▸ BY MOUTH

▸ Child: 5–7 mg/kg 4 times a day (max. per dose 600 mg)

continued →