telavancin (tel-a-van-sin)

Classification
Therapeutic: anti-infectives
Pharmacologic: lipoglycopeptides

Pregnancy Category C

Indications

Action
Inhibits bacterial cell wall synthesis by interfering with the polymerization and cross-linking of peptidoglycan. Therapeutic Effects: Bactericidal action against susceptible organisms.

Spectrum: Active against Staphylococcus aureus (including methicillin-susceptible and -resistant strains), Streptococcus pyogenes, Streptococcus agalactiae, Streptococcus anginosus (including S. anginosus, S. intermedius, and S. constellatus), and Enterococcus faecalis (vancomycin-susceptible strains only).

Pharmacokinetics
Absorption: IV administration results in complete bioavailability.
Distribution: Penetrates blister fluid.
Metabolism and Excretion: Metabolism is not known; 76% excreted unchanged in urine, 1% in feces.
Half-life: 8 hr.

TIME/ACTION PROFILE
ROUTE ONSET PEAK DURATION
IV unknown end of infusion 24 hr

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Congenital long QT syndrome; known prolongation of the QT interval, uncorrected Historical or severe left ventricular hypertrophy (risk of fatal arrhythmias). OB: Do not use unless potential maternal benefit outweighs potential risk to fetus.
Use Cautiously in: Renal impairment (efficacy may be decreased); CCr <30 mL/min (risk of mortality in patients with CCr <30 mL/min; use only if benefits outweigh risks); Diabetes, HF, hypertension (risk of renal impairment); Pregnancy (benefit outweighs risk if benefit outweighs risk of adverse renal reactions).

Adverse Reactions/Side Effects

Interactions
Drug-Drug: Concurrent use of other medications known to prolong QT interval may increase risk of atrial fibrillation. Concurrent use of NSAIDs, ACE inhibitors, and loop diuretics may increase risk of adverse renal effects.

Route/Dosage
Complicated Skin/Skin Structure Infections
IV (Adults): 10 mg/kg every 24 hr for 7–14 days.
Hospital-Acquired/Ventilator-Associated Bacterial Pneumonia
IV (Adults): 10 mg/kg every 24 hr for 7–21 days.
Renal Impairment
IV (Adults): CCr 30–50 mL/min—7.5 mg/kg every 24 hr; CCr 10–30 mL/min—10 mg/kg every 48 hr.

NURSING IMPLICATIONS
Assessment
• Assess for infection (vital signs, appearance of wound, sputum, urine, and stools; WBC at beginning of and throughout therapy.
• Obtain specimens for culture and sensitivity prior to therapy. First dose may be given before receiving results.
• Assess women of child-bearing age for pregnancy. Women should have a negative serum pregnancy test before starting treatment.

Other: Use with caution in patients with a history of renal disease; consider age-related decrease in renal function and adjust dosage accordingly. Use with caution in patients with a history of arrhythmias or conditions that predispose to arrhythmias.

Name: rick_33161_1_drgms_img_data/telavancin
02/17/2014 10:38AM
Page # 4 of 4
Monitor bowel function. Diarrhea, abdominal cramping, fever, and bloody stools should be reported to health care professional promptly as a sign of pseudomembranous colitis. May begin up to several weeks following cessation of therapy.

Monitor for infusion reactions (Red-man syndrome—flushing of upper body, urticaria, pruritus, rash). May resolve with stopping or slowing infusion.

Observe patient for signs and symptoms of anaphylaxis (rash, pruritus, laryngospasm, wheezing). Discontinue drug and notify health care professional immediately if symptoms occur. Keep epinephrine, an antihistamine, and resuscitation equipment close by in case of anaphylactic reaction.

Lab Test Considerations: Monitor renal function (serum creatinine, creatinine clearance) prior to, every 48–72 hrs during, and at the end of therapy. May cause nephrotoxicity. If renal function decreases, reassess need for telavancin.

May interfere with prothrombin time, INR, aPTT, activated clotting time, and coagulation based factor Xa tests. Collect blood samples for these tests as close to next dose of telavancin as possible.

May interfere with urine qualitative dipstick protein assays and quantitative dye methods; may use microalbumin assays.

Potential Nursing Diagnoses
Risk for infection (Indications)
Diarrhea (Adverse Reactions)

Implementation

IV Administration

Reconstitute the 250 mg vial with 15 mL and the 750 mg vial with 45 mL of D5W, sterile water for injection, or 0.9% NaCl for concentrations of 15 mg/mL. Reconstitution time is usually under 2 min but may require up to 20 min. Mix thoroughly with contents dissolved completely. Do not administer solution that is discolored or contains particulate matter. Discard vial if vacuum did not pull diluent into vial. Time in vial plus time in bag should not exceed 4 hr at room temperature or 72 hr if refrigerated.

Concentration: For doses 150–800 mg dilute further with 100–250 mL of D5W, 0.9% NaCl, or LR. Concentration: 0.6–8 mg/mL. Rate: Administer over at least 60 min to minimize infusion reactions.

Y-Site Incompatibility: Do not mix or administer with other medications. Flush line with D5W, 0.9% NaCl, or LR before and after administration.

Y-Site Compatibility: amphotericin B lipid complex, ampicillin/sulbactam, aztreonam, calcium gluconate, cephalosporins, clindamycin, clindamycin, doxycycline, ethambutol, gentamicin, hydrocortisone, labetalol, magnesium sulfate, mannitol, metoclopramide, vancomycin, meperidine, morphine, nalbuphine, ondansetron, phenylephrine, piperacillin/tazobactam, potassium chloride, ranitidine, sodium bicarbonate, sodium phosphate, tobramycin, ticarcillin, vasopressin.

Y-Site Incompatibility: amphotericin B colloidal, ampicillin/sulbactam, doxycycline, famotidine, levofloxacin, meropenem.

Patient/Family Teaching

Instruct patient to notify health care professional immediately if diarrhea, abdominal cramping, fever, or bloody stools occur and not to treat with antidiarrheals without consulting health care professionals.

Inform patient that common side effects include taste disturbance, nausea, vomiting, headache, and flushed skin. Notify health care professional if infusion reaction occurs.

Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.

Advise female patients to use effective contraception during therapy and to notify health care professional of pregnancy as soon as it is suspected. Encourage pregnant patients to enroll in the VIBATIV pregnancy registry by calling 1-888-505-6228.

Instruct the patient to notify health care professional if symptoms do not improve.

Evaluation/Desired Outcomes

Resolution of the signs and symptoms of infection. Length of time for complete resolution depends on the organism and site of infection.

Why was this drug prescribed for your patient?