

ACTIVE LEARNING TEMPLATE: Medication

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MEDICATION Cefazolin IV

REVIEW MODULE CHAPTER _____

CATEGORY CLASS anti-infective; first generation Cephalosporins; antibiotic

PURPOSE OF MEDICATION

Expected Pharmacological Action

interferes w/ bacterial cell wall synthesis by inhibiting the final step in the cross-linking of peptidoglycan strands. Peptidoglycan makes cell membranes rigid and protective without it, bacterial cells rupture & die

Therapeutic Use

used to treat bacterial infections caused by E. coli, streptococci, Proteus mirabilis, and S. aureus. Ex. burn wounds, UTI's Bilary tract infections, Bone & joint infections, Pneumonia, bacterial endocarditis prophylaxis for dental & upper respiratory procedures

* not suitable for treatment of meningitis

Complications / adverse reactions / Side effects

Skin: rash, erythema multiforme, Stevens-Johnson Syndrome
GI: diarrhea, nausea, vomiting, C. diff, hepatic failure
CV: edema, hypotension CNS: Seizures, weakness, tiredness
Heme: hemolytic anemia, hypoprothrombinemia, neutropenia, thrombocytopenia, unusual bleeding
Local: Pain at IM site, Phlebitis at IV site

Medication Administration

IM, IV adults: moderate - severe infections - 500 mg - 1g every 6-8hr
IM: Concentration; 225-330 mg/mL
IV: monitor site for pain, redness, swelling. Change sites every 48-72hr
rate: admin 30-60min for intermittent IV, 3-5min for IV push
* IV: adults ≥ 120 kg. Perioperative prophylaxis 3g within 30-60min prior to incision
500mg-1g should be given for all surgeries over 6-8hrs for 24hr following the surgery

Contraindications/Precautions

* hypersensitivity to penicillins, or other cephalosporins or their components.
* renal impairment, hx of GI disease, poor nutritional state, extended antibiotic therapy, or previously stabilized on anticoagulant therapy (may \uparrow risk for bleeding)

Nursing Interventions

* assess for infection (vitals, appearance of wound, urine, \uparrow WBC)
* assess pt skin at site
* assess for allergy related to penicillin
* monitor temperature
* obtain vitals q2hr
* apply cool compress
* assess nausea & vomiting

Interactions

Drug-Drug: probenecid \downarrow excretion and \uparrow levels of renally excreted cephalosporins. may potentiate the effects of anticoagulants and \uparrow risk of bleeding - aminoglycosides, loop diuretics: additive nephrotoxicity

Client Education

- explain the purpose of medication
- explain that it may cause nausea, vomiting, diarrhea
- tell the pt to notify the nurse or tell someone if diarrhea or mucous contains blood

Evaluation of Medication Effectiveness

* patient shows no signs of infections or tolerance/immunity to antibiotic treatment
no * no fever present after 3-5 days postop