**Ceftibuten** (sef-tye-byoo-ten)

**Genetic Implication.** CAPI TALS indicate if life-threatening, underlines indicate most frequent. Strikethrough indicates discontinued.

**Classification**
- Therapeutic: anti-infectives
- Pharmacologic: third-generation cephalosporins

**Pregnancy Category B**

**Indications**
Treatment of the following infections caused by susceptible organisms: Acute exacerbations of chronic bronchitis, Otitis media, Pharyngitis and tonsillitis.

**Action**
Binds to the bacterial cell wall membrane, causing cell death. **Therapeutic Effects:** Bactericidal action against susceptible bacteria. **Spectrum:** Similar to that of second-generation cephalosporins, but activity against staphylococci is less, whereas activity against gram-negative pathogens is greater, even for organisms resistant to first- and second-generation agents. Notable is increased action against: *Haemophilus influenzae* (including *β*-lactamase-producing strains), *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus*, *Providencia*, *Moraxella catarrhalis* (including *β*-lactamase-producing strains).

**Pharmacokinetics**
- **Absorption:** Well absorbed after oral administration; absorption p by food.
- **Distribution:** Widely distributed. Crosses the placenta.
- **Metabolism and Excretion:** 56% excreted in urine; 39% in feces.
- **Half-life:** 120–144 min (q in renal impairment).

**TIME/ACTION PROFILE**
- **ROUTE ONSET PEAK DURATION**
  - PO rapid 3 hr 24 hr

**Contraindications/Precautions**
**Contraindicated in:** Hypersensitivity to cephalosporins; Serious hypersensitivity to penicillins.

**Use Cautiously in:** Renal impairment (dosing recommended if CrCl < 50 mL/min). Diabetes (suspension contains sucrose). History of G6PD defect, especially sickle cell. Geriatric patients (age-related reductions in renal function may be necessary). **OB, Lactation, Pedi:** Pregnancy, lactation, and infants < 6 mos (safety not established).

**Adverse Reactions/Side Effects**
- **CNS:** SEIZURES (very high doses in patients with renal impairment), dizziness, headache.
- **GI:** PSEUDOMEMBRANOUS COLITIS, abdominal pain, diarrhea, dyspepsia, nausea, vomiting.
- **Derm:** STEVENS-JOHNSON SYNDROME, rashes, urticaria.
- **Hemat:** bleeding, eosinophilia, hemolytic anemia, leukopenia, thrombocytopenia, thrombocytosis.
- **Misc:** allergic reactions including anaphylaxis and superinfection.

**Interactions**
**Drug-Drug:** None known.

**Route/Dosage**
- **PO (Adults and Children ≥12 yr):** 400 mg once daily for 10 days.
- **PO (Children 6 mo–12 yr):** 9 mg/kg once daily for 10 days (max daily dose = 400 mg).

**Renal Impairment**
- **PO (Adults):** CrCl 30–49 mL/min — 200 mg or 4.5 mg/kg every 24 hr; CrCl 10–29 mL/min — 100 mg or 2.25 mg/kg every 24 hr.

**NURSING IMPLICATIONS**
**Assessment**
- **Assess patient for infection (vital signs; appearance of wound, sputum, urine, and stool, WBC) at beginning of and throughout therapy.
- Before initiating therapy, obtain a history to determine previous use of and reactions to penicillins or cephalosporins. Persons with a negative history of penicillin sensitivity may still have an allergic response.
- Obtain specimens for culture and sensitivity before initiating therapy. First dose may be given before receiving results.
- Observe patient for signs and symptoms of anaphylactic shock, pruritus, laryngeal edema, wheezing. Discontinue the drug and notify the physician or other health care professional immediately if these symptoms occur. Keep epinephrine, an antihistamine, and resuscitation equipment close by in the event of an anaphylactic reaction.

**Nursing Considerations**
- **Cardiac drug name**
- **Generic Implication**
- **OPPI2 indicates risk-determining adjective**
- **Medication discontinued**

**Targets**
- **Microorganisms:** *H. influenzae*, *E. coli*, *P. aeruginosa*, *S. pneumoniae*, *P. mirabilis*, *K. pneumoniae*, *Bacteroides fragilis*, *M. catarrhalis*, *S. aureus*, *S. pyogenes*, *S. pneumoniae*.
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.

Assess patient for skin rash frequently during therapy. Discontinue at first sign of rash; may be life-threatening. Stevens-Johnson syndrome may develop. Treat symptomatically; may recur once treatment is stopped.

Lab Test Considerations: May cause positive results for Coombs’ test.

May cause increased serum AST, ALT, alkaline phosphatase, bilirubin, LDH, BUN, and creatinine.

May rarely cause leukopenia, thrombocytopenia, eosinophilia, and thrombocytosis.

Potential Nursing Diagnoses

Risk for infection (Indications) (Side Effects)

Diarrhea (Adverse Reactions)

Implementation

PO: Administer either at least 1 hr before or at least 2 hr after meals. Suspension is stable for 14 days after reconstitution if refrigerated. Shake oral suspension well before administering.

Patient/Family Teaching

Instruct patient to take medication at evenly spaced times and to finish the medication completely, even if feeling better. Missed doses should be taken as soon as possible unless almost time for next dose; do not double doses. Instruct patient to use calibrated measuring device with suspension. Advise patient that sharing of this medication may be dangerous.

Advise patient to report signs of superinfection (furry overgrowth on the tongue, vaginal itching or discharge, loose or foul-smelling stools), rash, and allergy.

Instruct patient to notify health care professional of rash, or fever and diarrhea develop, especially if stool contains blood, pus, or mucus. Advise patient not to treat diarrhea without consulting health care professional.

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?