cefprozil (saf-proe-zil)

Classification
Therapeutic: anti-infection
Pharmacologic: second-generation cephalosporins

Pregnancy Category B

Indications
Treatment of the following infections caused by susceptible organisms: Respiratory tract infections, Uncomplicated skin and skin structure infections, Otitis media.

Action
Binds to bacterial cell wall membrane, causing cell death. Therapeutic Effects: Bactericidal action against susceptible bacteria.

Spectrum: Similar to that of first-generation cephalosporins but has increased activity against several other gram-negative pathogens including: Haemophilus influenzae (including β-lactamase-producing strains), Proteus, Moraxella catarrhalis (including β-lactamase-producing strains). Not active against methicillin-resistant staphylococci or enterococci.

Pharmacokinetics
Absorption: Well absorbed following oral administration.
Distribution: Widely distributed. Enters breast milk in low concentrations.
Metabolism and Excretion: Excreted primarily unchanged by the kidneys.
Half-life: 90 min (increased in renal impairment).

TIME/ACTION PROFILE
ROUTE ONSET PEAK DURATION
PO unknown 1–2 hr 12–24 hr

Contraindications/Precautions
Contraindicated in: Hypersensitivity to cephalosporins; Serious hypersensitivity to penicillins.
Use Cautiously in: Renal impairment (dosage reduction recommended if CCr <30 mL/min); History of GI disease, especially colitis; Suspension contains aspartame and should be avoided in patients with phenylketonuria; Geriatric patients (dosage adjustment due to age-related decrease in renal function may be necessary); Pregnancy and lactation (has been used safely).

Adverse Reactions/Side Effects
CNS: SEIZURES (very high doses), dizziness.
GI: PSEUDOMEMBRANOUS COLITIS, abdominal pain, diarrhea, nausea, vomiting.
Derm: Rash, urticaria.
GU: Vaginitis.
Hemat: Eosinophilia, hemolytic anemia, leukopenia.
Misc: Allergic reactions including ANAPHYLAXIS, superinfection.

Interactions
Drug-Drug: Probenecid decreases excretion and increases blood levels. Concurrent use of aminoglycosides may increase risk of nephrotoxicity.

Route/Dosage
PO (Adults and Children ≥13 yr): Most infections—250–500 mg every 12 hr or 500 mg every 24 hr.
PO (Children 6 mo–12 yr): Otitis media—15 mg/kg every 12 hr; Acute sinusitis—7.5–15 mg/kg every 12 hr (higher dose to be used for moderate- to-severe infections).
PO (Children 2–12 yr): Pharyngitis/tonsillitis—7.5 mg/kg every 12 hr; Skin and skin structure infections—20 mg/kg every 24 hr.

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Renal Impairment
(Adults and Children ≥6 mo): CCr <30 mL/min—of usual dose at normal dosing interval.

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 and 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 anaphylaxis (rash, pruritus, laryngeal edema, wheezing). Discontinue the drug and notify the physi-

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- = Greater Implication. OPTIND indicates risk-determining adjective; indicate most frequent. Underline = Discontinued.
cian 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.

- 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.

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

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

- May rarely cause leukopenia, neutropenia, agranulocytosis, thrombocytopenia, and eosinophilia.

Potential Nursing Diagnoses

- Risk for infection (Indications) (Side Effects)
- Diarrhea (Adverse Reactions)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

Implementation

- PO: Administer around the clock. May be administered on full or empty stomach. Administration with food may minimize GI irritation. Shake oral suspension well before administering. Suspension is stable for 14 days after reconstitution if refrigerated.

Patient/Family Teaching

- Instruct patient to take medication around the clock 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) and allergy.

- Instruct patient to notify health care professional if 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 signs and symptoms of infection. Length of time for complete recovery depends on the organism and site of infection.

Why was this drug prescribed for your patient?