cholestyramine (koe-less-**tear**-a-meen)

LoCHOLEST, LoCHOLEST Light, Prevalite, Questran, Questran Light

Classification

Therapeutic: lipid-lowering agents
Pharmacologic: bile acid sequestrants

Pregnancy Category C

Indications

Management of primary hypercholesterolemia. Pruritus associated with elevated levels of bile acids. **Unlabeled Use:** Diarrhea associated with excess bile acids.

Action

Bind bile acids in the GI tract, forming an insoluble complex. Result is increased clearance of cholesterol. **Therapeutic Effects:** Decreased plasma cholesterol and low-density lipoproteins (LDLs). Decreased pruritus.

Pharmacokinetics

Absorption: Action takes place in the GI tract. No absorption occurs.
Distribution: No distribution.
Metabolism and Excretion: After binding bile acids, insoluble complex is eliminated in the feces.
Half-life: Unknown.

TIME/ACTION PROFILE (hypocholesterolemic effects)

ROUTE	ONSET	PEAK	DURATION
PO	24–48 hr	1–3 wk	2–4 wk

Contraindications/Precautions

Contraindicated in: Hypersensitivity; Complete biliary obstruction; Some products contain aspartame and should be avoided in patients with phenylketonuria.
Use Cautiously in: History of constipation.
Exercise Extreme Caution in: Children (may cause intestinal obstruction; deaths have occurred).

Adverse Reactions/Side Effects

EENT: irritation of the tongue. **GI:** abdominal discomfort, constipation, nausea, fecal impaction, flatulence, hemorrhoids, perianal irritation, steatorrhea, vomiting. **Derm:** irritation, rashes. **F and E:** hyperchloremic acidosis. **Metab:** vitamin A, D, and K deficiency.

Interactions

Drug-Drug: May decrease absorption/effects of orally administered **acetaminophen**, **amiodarone**, **clindamycin**, **clofibrate**, **digoxin**, **diuretics**, **gemfibrozil**, **glipizide**, **corticosteroids**, **imipramine**, **mycophenolate**, **methotrexate**, **methyldopa**, **niacin**, **NSAIDs**, **penicillin**, **phenytoin**, **phosphates**, **propranolol**, **tetracyclines**, **tolbutamide**, **thyroid preparations**, **ursodiol**, **warfarin**, and **fat-soluble vitamins (A, D, E**, and **K)**. May decrease absorption of other **orally administered medications**.

Route/Dosage

PO (Adults): 4 g 1–2 times daily (initially, may be increased as needed/tolerated up to 24 g/day in 6 divided doses).
PO (Children): 240 mg/kg/day in 2–3 divided doses (not >8 g/day).

NURSING IMPLICATIONS

Assessment

- **Hypercholesterolemia:** Obtain a diet history, especially in regard to fat consumption.
- **Pruritus:** Assess severity of itching and skin integrity. Dose may be decreased when relief of pruritus occurs.
- **Diarrhea:** Assess frequency, amount, and consistency of stools.
- ***Lab Test Considerations:*** Serum cholesterol and triglyceride levels should be evaluated before initiating, frequently during first few months and periodically throughout therapy. Discontinue medication if paradoxical increase in cholesterol level occurs.
- May cause an increase in AST, ALT, phosphorus, chloride, and alkaline phosphatase and a decrease in serum calcium, sodium, and potassium levels.
- May also cause prolonged prothrombin times.

Potential Nursing Diagnoses

Constipation (Side Effects)
Noncompliance (Patient/Family Teaching)

Implementation

- Parenteral or water-miscible forms of fat-soluble vitamins (A, D, and K) and folic acid may be ordered for patients on chronic therapy.
- **PO:** Administer before meals.
- Scoops for powdered preparations may not be exchangable between products.
- Administer other medications 1 hr before or 4–6 hr after the administration of this medication.

Patient/Family Teaching

- Instruct patient to take medication exactly as directed; do not skip doses or double up on missed doses.
- Instruct patient to take medication before meals. Mix cholestyramine with 4–6 oz water, milk, fruit juice, or other noncarbonated beverages. Shake vigorously. Slowly stir in a large glass. Rinse glass with small amount of additional beverage to ensure all medication is taken. May also mix with highly fluid soups, cereals, or pulpy fruits (applesauce, crushed pineapple). Allow powder to sit on fluid and hydrate for 1–2 min before mixing. Do not take dry. Variations in the color of cholestyramine do not alter stability.
- Advise patient that this medication should be used in conjunction with dietary restrictions (fat, cholesterol, carbohydrates, alcohol), exercise, and cessation of smoking.
- Explain that constipation may occur. Increase in fluids and bulk in diet, exercise, stool softeners, and laxatives may be required to minimize the constipating effects. Instruct patient to notify health care professional if constipation, nausea, flatulence, and heartburn persist or if stools become frothy and foul smelling.
- Advise patient to notify health care professional if unusual bleeding or bruising; petechiae; or black, tarry stools occur. Treatment with vitamin K may be necessary.

Evaluation/Desired Outcomes

- Decrease in serum low-density lipoprotein cholesterol levels. Therapy is usually discontinued if the clinical response remains poor after 3 mo of therapy.
- Decrease in severity of pruritus. Relief usually occurs 1–3 wk after therapy is initiated.
- Decrease in frequency and severity of diarrhea.

Why was this drug prescribed for your patient?