sulfasalazine (sulf-a-sal-azeen)
Azulfidine, Azulfidine EN-tabs, Salazopyrin

Classification
Therapeutic: anti-rheumatics (DMARD), gastrointestinal anti-inflammatories
Pregnancy Category B

Indications
Mild to moderate ulcerative colitis or as adjunctive therapy in severe ulcerative colitis. Rheumatoid arthritis unresponsive or intolerant to salicylates and/or NSAIDs.

Action
Locally acting anti-inflammatory action in the colon, where activity is probably a result of inhibition of prostaglandin synthesis. Therapeutic Effects: Reduction in the symptoms of ulcerative colitis or rheumatoid arthritis.

Pharmacokinetics
Absorption: 10–15% absorbed after oral administration.
Distribution: Widely distributed; crosses the placenta and enters breast milk.
Protein Binding: 99%.
Metabolism and Excretion: Split by intestinal bacteria into sulfapyridine and 5-aminosalicylic acid. Some absorbed sulfasalazine is excreted by bile back into intestines; 15% excreted unchanged by the kidneys. Sulfapyridine also excreted mostly by the kidneys.
Half-life: 6 hr.

Contraindications/Precautions
Contraindicated in: Hypersensitivity reactions to sulfonamides, salicylates, or sulfasalazine; Cross-sensitivity with furosemide, sulfonylurea hypoglycemic agents, or carbonic anhydrase inhibitors may exist; Glucose-6-phosphate dehydrogenase (G6PD) deficiency; Hypersensitivity to bisulfites (mesalamine enema only); Urinary tract or intestinal obstruction; Porphyria.

Use Cautiously in: Severe hepatic or renal impairment; History of porphyria; Blood dyscrasias; OB: Neural tube defects have been reported; Lactation: Safety not established; may compete with bilirubin for binding sites on plasma proteins in the newborn and cause kernicterus; bloody stools or diarrhea reported in breast-fed infants.

Adverse Reactions/Side Effects

Interactions
Drug-Drug: May ↑ action/risk of toxicity from oral hypoglycemic agents, phenytoin, methotrexate, zidovudine, or warfarin. ↑ risk of drug-induced hepatitis with other hepatotoxic agents. ↑ risk of crystalluria with methenamine. May ↓ metabolism and increase effects/toxicity of other antirheumatics, phenytoin, folic acid and bilirubin absorption.

Route/Dosage
Ulcerative Colitis
PO (Adults): 1 g q 6–8 hr (may start with 500 mg q 6–12 hr), followed by maintenance dose of 50 mg/kg q 24 hr.
PO (Children ≥2 yr): Initial—6.7–10 mg/kg q 4 hr or 10–15 mg/kg q 6 hr or 13.3–20 mg/kg q 8 hr. Maintenance—7.5 mg/kg q 24 hr (max 300 mg/kg q 24 hr).

Rheumatoid arthritis
PO (Adults): 500 mg–1 g/day (as delayed-release tablets) for 1 wk, then ↑ by 500 mg/day q wk up to 2 g/day in 2 divided doses, if no benefit seen after 12 wk. ↑ to 3 g/day in 2 divided doses.
PO (Children ≥6 yr): 30–50 mg/kg/day in 2 divided doses (as delayed-release tablets); initiate therapy at 1/4–1/3 of planned maintenance dose and ↑ q 7 days until maintenance dose is reached (max 2 g/day).

Contraindicated in: Hypersensitivity to sulfonamides, salicylates, or sulfasalazine. Cross-sensitivity with furosemide, sulfonylurea hypoglycemic agents, or carbonic anhydrase inhibitors may exist. Glucose-6-phosphate dehydrogenase (G6PD) deficiency. Hypersensitivity to bisulfites (mesalamine enema only).
NURSING IMPLICATIONS

Assessment

- Assess patient for allergy to sulfonamides and salicylates. Therapy should be discontinued if rash, difficulty breathing, swelling of face or lips, or wheezing occurs.
- Monitor intake and output ratios. Fluid intake should be sufficient to maintain a urine output of at least 1200–1500 mL daily to prevent crystalluria and stone formation.
- Assess for rash periodically during therapy. May cause Stevens-Johnson syndrome. Discontinue therapy if severe or if accompanied with fever, general malaise, fatigue, muscle or joint aches, blisters, oral lesions, conjunctivitis, hepatitis, and/or eosinophilia.
- Ulcerative Colitis: Assess abdominal pain and frequency, quantity, and consistency of stools at the beginning of and during therapy.
- Diarrhea: Assess range of motion and degree of swelling and pain in affected joints before and periodically during therapy.

Lab Test Considerations:

- Monitor urinalysis, BUN, and serum creatinine before and periodically during therapy. May cause crystalluria and urinary cell calculi formation.
- Monitor CBC with differential and liver function tests before and every second wk during first 3 mo of therapy, monthly during the second 3 mo, and every 3 mo thereafter as clinically indicated. Discontinue sulfasalazine if blood dyscrasias occur.
- Serum sulfapyridine levels may be monitored; concentrations >50 μg/mL may be associated with increased incidence of adverse reactions.

Potential Nursing Diagnoses

Acute pain (Indications)
Diarrhea (Indications)

Implementation

- Do not confuse sulfasalazine with sulfadiazine.
- Varying dosing regimens of sulfasalazine may be used to minimize GI side effects.
- PO: Administer after meals or with food to minimize GI irritation, with a full glass of water. Do not crush or chew enteric-coated tablets.

Patient/Family Teaching

- Inform patient on the correct method of administration. Advise patient to take medication as directed, even if feeling better. Take missed doses as soon as remembered unless almost time for next dose.
- May cause skin rash. Caution patient to avoid driving or other activities that require alertness until response to medication is known.
- Advise patient to notify health care professional if skin rash, sore throat, fever, mouth sores, unusual bleeding or bruising, wheezing, fever, or hives occur.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Inform patient that this medication may cause orange-yellow discoloration of urine and skin, which is not significant. May permanently stain contact lenses yellow.
- Inform patient to notify health care professional if symptoms worsen or do not improve. If symptoms of acute intolerance (cramping, acute abdominal pain, bloody diarrhea, fever, headache, rash) occur, discontinue therapy and notify health care professional immediately.
- Inform female patient that pregnancy may cause infertility.
- Inform patient that infrequently health care professional may need to change dosage schedule to control disease and to avoid side effects.
- Patient who has received an organ transplant: Avoid exposure to people with chickenpox or measles. Call health care professional immediately if stool or urine turns black or urine has an unusual odor. Avoid giving or taking antibiotics without consulting health care professional; antibiotics may increase risk of severe, possibly fatal side effects.
- Instruct patient to notify health care professional if symptoms do not improve after 1–2 mo of therapy.

Evaluation/Desired Outcomes

- Decrease in diarrhea and abdominal pain.
- Return to normal bowel pattern in patients with ulcerative colitis. Effects may be seen within 5–21 days. The usual course of therapy is 1–6 wk.
- Maintenance of remission in patients with ulcerative colitis.
- Decrease in pain and inflammation, and increase in mobility in patients with rheumatoid arthritis.

Why was this drug prescribed for your patient?