ACETAZOLAMIDE

CLASS: Anticonvulsant, Miscellaneous; Carbonic Anhydrase Inhibitor; Diuretic, Carbonic Anhydrase Inhibitor; Ophthalmic Agent, Antiglaucoma

INDICATIONS: Treatment of glaucoma (chronic simple open-angle, secondary glaucoma, preoperatively in acute angle-closure); drug-induced edema or edema due to congestive heart failure (adjunctive therapy; I.V. and immediate release dosage forms); centrencephalic epilepsies (I.V. and immediate release dosage forms); prevention or amelioration of symptoms associated with acute mountain sickness (immediate and extended release dosage forms)

AVAILABLE DOSAGE FROM THE HOSPITAL:

ACETAZOLAMIDE 250MG TAB, ACETAZOLAMIDE 500 MG VIAL

TRADE NAMES:

DOSAGE:

- **Dosing: Adult:**

  Note: I.M. administration is not recommended because of pain secondary to the alkaline pH.

  Altitude illness: Oral: Manufacturer's labeling: 500-1000 mg/day in divided doses every 8-12 hours (immediate release tablets) or divided every 12-24 hours (extended release capsules). These doses are associated with more frequent and/or increased side effects. Alternative dosing has been recommended:

  Prevention: 125 mg twice daily; beginning either the day before (preferred) or on the day of ascent; may be discontinued after staying at the same elevation for 2-3 days or if descent initiated (Basnyat, 2006; Luks, 2010). **Note:** In situations of rapid ascent (such as rescue or military operations), 1000 mg/day is recommended by the manufacturer. The Wilderness Medical Society recommends consideration of using dexamethasone in addition to acetazolamide in these situations (Luks, 2010).

  Treatment: 250 mg twice daily. **Note:** With high altitude cerebral edema, dexamethasone is the primary treatment; however, acetazolamide may be used adjunctively with the same treatment dose (Luks, 2010).

  Edema: Oral, I.V.: 250-375 mg once daily

  Epilepsy: Oral: 8-30 mg/kg/day in divided doses. A lower dosing range of 4-16 mg/kg/day in 1-4 divided doses has also been recommended; maximum dose: 30 mg/kg/day or 1 g/day (Oles, 1989; Reiss, 1996). **Note:** Minimal additional benefit with doses >16 mg/kg/day. **Extended release capsule is not recommended for treatment of epilepsy.**

Glaucoma: Oral, I.V.:

Chronic simple (open-angle): 250 mg 1-4 times/day or 500 mg extended release capsule twice daily

Secondary or acute (closed-angle): Initial: 250-500 mg; maintenance: 125-250 mg every 4 hours (250 mg every 12 hours has been effective in short-term treatment of some patients)

Metabolic alkalosis (unlabeled use): I.V.: 500 mg as a single dose; reassess need based upon acid-base status (Marik, 1991; Mazur, 1999)

Respiratory stimulant in stable hypercapnic COPD (unlabeled use): Oral: 250 mg twice daily (Wagenaar, 2003)

- **Dosing: Geriatric**

Refer to adult dosing. Oral: Initial doses should begin at the low end of the dosage range.

- **Dosing: Renal Impairment**

Note: Use is contraindicated in marked renal impairment; creatinine clearance cutoff not specified in manufacturer's labeling.

Cl_{cr} 10-50 mL/minute: Administer every 12 hours.

Cl_{cr} <10 mL/minute: Avoid use.

Hemodialysis: Moderately dialyzable (20% to 50%).

Peritoneal dialysis: Supplemental dose is not necessary (Schwenk, 1994).

- **Dosing: Hepatic Impairment**

Use contraindicated in patients with cirrhosis or marked liver disease or dysfunction.

COMMON SIDE EFFECT: Frequency not defined.

- Cardiovascular: Flushing
- Central nervous system: Ataxia, confusion, convulsions, depression, dizziness, drowsiness, excitement, fatigue, fever, headache, malaise
- Dermatologic: Allergic skin reactions, photosensitivity, Stevens-Johnson syndrome, toxic epidermal necrolysis, urticaria
- Endocrine & metabolic: Electrolyte imbalance, growth retardation (children), hyperglycemia, hypoglycemia, hypokalemia, hyponatremia, metabolic acidosis
- Gastrointestinal: Appetite decreased, diarrhea, melena, nausea, taste alteration, vomiting
- Genitourinary: Crystalluria, glycosuria, hematuria, polyuria, renal failure
- Hematologic: Agranulocytosis, aplastic anemia, leukopenia, thrombocytopenia, thrombocytopenic purpura

- Hepatic: Cholestatic jaundice, fulminant hepatic necrosis, hepatic insufficiency, liver function tests abnormal
- Local: Pain at injection site
- Neuromuscular & skeletal: Flaccid paralysis, paresthesia
- Ocular: Myopia
- Otic: Hearing disturbance, tinnitus
- Miscellaneous: Anaphylaxis

PREGNANCY RISK FACTORS: C