LISINOPRIL

Class: Angiotensin-Converting Enzyme (ACE) Inhibitor

Indications: Treatment of hypertension, either alone or in combination with other antihypertensive agents; adjunctive therapy in treatment of heart failure (afterload reduction); treatment of acute myocardial infarction within 24 hours in hemodynamically-stable patients to improve survival; treatment of left ventricular dysfunction after myocardial infarction Available dosage form in the hospital: 10MG TAB, 20MG TAB

Dosage:

- Heart failure: Oral: Initial: 2.5-5 mg once daily; then increase by no more than 10 mg increments at intervals no less than 2 weeks to a maximum daily dose of 40 mg. Usual maintenance: 5-40 mg/day as a single dose. Target dose: 20-40 mg once daily.

Note: If patient has hyponatremia (serum sodium <130 mEq/L) or renal impairment (Cl_{cr} <30 mL/minute or creatinine >3 mg/dL), then initial dose should be 2.5 mg/day

-Hypertension: Oral: Usual dosage range : 10-40 mg/day

(*Not maintained on diuretic:* Initial: 10 mg/day,*Maintained on diuretic:* Initial: 5 mg/day)

Note: Antihypertensive effect may diminish toward the end of the dosing interval especially with doses of 10 mg/day. An increased dose may aid in extending the duration of antihypertensive effect. Doses up to 80 mg/day have been used, but do not appear to give greater effect.

Patients taking diuretics should have them discontinued 2-3 days prior to initiating lisinopril if possible. Restart diuretic after blood pressure is stable if needed. If diuretic cannot be discontinued prior to therapy, begin with 5 mg with close supervision until stable blood pressure. In patients with hyponatremia (<130 mEq/L), start dose at 2.5 mg/day.

-Acute myocardial infarction (within 24 hours in hemodynamically stable patients): Oral: 5 mg immediately, then 5 mg at 24 hours, 10 mg at 48 hours, and 10 mg every day thereafter for 6 weeks. Patients should continue to receive standard treatments such as thrombolytics, aspirin, and beta-blockers.

Geriatric

Refer to adult dosing. In the management of hypertension, consider lower initial doses (eg, 2.5-5 mg/day) and titrate to response (Aronow, 2011).

Renal Impairment:

-Heart failure: Adults: Cl_{cr} <30 mL/minute or creatinine >3 mg/dL: Initial: 2.5 mg/day
-Hypertension: Adults: Initial doses should be modified and upward titration should be cautious, based on response (maximum: 40 mg/day)

-Cl_{cr} >30 mL/minute: Initial: 10 mg/day

-Cl_{cr} 10-30 mL/minute: Initial: 5 mg/day

Hemodialysis: Initial: 2.5 mg/day; dialyzable (50%)

Hepatic Impairment:
No dosage adjustment provided in manufacturer's labeling.

Common side effect: Cardiovascular: Orthostatic effects (1%), hypotension (1% to 4%)

Central nervous system: Headache (4% to 6%), dizziness (5% to 12%), fatigue (3%)

Dermatologic: Rash (1% to 2%) . Endocrine & metabolic: Hyperkalemia (2% to 5%)

Gastrointestinal: Diarrhea (3% to 4%), nausea (2%), vomiting (1%), abdominal pain (2%)

Pregnancy Risk Factor: D