

ACTIVE LEARNING TEMPLATE: *Medication*

STUDENT NAME _____

MEDICATION Lisinopril

REVIEW MODULE CHAPTER _____

CATEGORY CLASS ACE Inhibitor

PURPOSE OF MEDICATION

Expected Pharmacological Action

Angiotensin-converting enzyme (ACE) inhibitors block the conversion of angiotensin I to the vasoconstrictor angiotensin II. ACE inhibitors also prevent the degradation of bradykinin and other vasodilatory prostaglandins. ACE inhibitors also increase plasma renin levels and decrease aldosterone levels. Net result is systemic vasodilation.

Therapeutic Use

Alone or with other agents in the management of hypertension.
Management of heart failure.
Reduction of risk of death or development of heart failure after myocardial infarction.

Complications

CNS: dizziness, fatigue, headache, weakness. Resp: cough.
CV: hypotension, chestpain.
GI: abdominal pain, diarrhea, nausea, vomiting.
GU: erectile dysfunction, impaired renal function.
Derm: rashes.
F and E: hyperkalemia.
Misc: ANGIOEDEMA.

Medication Administration

Per oral

Contraindications/Precautions

Contraindicated in: Hypersensitivity; History of angioedema with previous use of ACE inhibitors; Concurrent use with aliskiren in patients with diabetes or moderate to-severe renal impairment (CCr <60 mL/min); Obstetrics: Can cause injury or death of fetus— if pregnancy occurs, discontinue immediately; Lactation: Discontinue drug or use formula.

Nursing Interventions

Hypertension: Monitor BP and pulse frequently during initial dose adjustment and periodically during therapy. Notify health care professional of significant changes.
Monitor frequency of prescription refills to determine compliance.
Assess patient for signs of angioedema (dyspnea, facial swelling).
Heart Failure: Monitor weight and assess patient routinely for resolution of fluid overload (peripheral edema, rales/crackles, dyspnea, weight gain, jugular venous distention).

Interactions

Drug-Drug: Excessive hypotension may occur with concurrent use of diuretics. Additive hypotension with other antihypertensive agents. Increased risk of hyperkalemia with concurrent use of potassium supplements, potassium-sparing diuretics, or potassium-containing salt substitutes. Increased risk of hyperkalemia, renal dysfunction, hypotension, and syncope with concurrent use of angiotensin II receptor antagonists or aliskiren; avoid concurrent use with aliskiren in patients with diabetes or CCr <60 mL/min. NSAIDs and selective COX-2 inhibitors may blunt the antihypertensive effect and increase the risk of renal dysfunction. Increases levels and may increase the risk of lithium toxicity.

Client Education

Instruct patient to take medication as directed at the same time each day, even if feeling well.
Caution patient to avoid salt substitutes containing potassium or foods containing high levels of potassium or sodium unless directed by health care professional.
Caution patient to change positions slowly to minimize orthostatic hypotension.
Use of alcohol, standing for long periods, exercising, and hot weather may increase orthostatic hypotension.
May cause dizziness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.

Evaluation of Medication Effectiveness

Decrease in BP without appearance of excessive side effects.
Improvement in survival and reduction of symptoms in heart failure.
Reduction of risk of death or development of heart failure after myocardial infarction.