**Indications**


**Action**

- Blocks the vasoconstrictor and aldosterone-secreting effects of angiotensin II at various receptor sites, including vascular smooth muscle and the adrenal gland. Therapeutic Effects: Lowering of BP in hypertensive patients. Decreased progression of diabetic nephropathy. Decreased incidence of stroke in patients with hypertension and left ventricular hypertrophy (effect may be less in black patients).

**Pharmacokinetics**

- Absorption: Well absorbed but undergoes extensive first-pass hepatic metabolism, resulting in 33% bioavailability.
- Distribution: Crosses the placenta.
- Protein Binding: 99%.
- Metabolism and Excretion: Undergoes extensive first-pass hepatic metabolism; 14% is converted to an active metabolite. 4% excreted unchanged in urine, 6% excreted in urine as active metabolite; some biliary elimination also occurs.
- Half-life: 2 hr (6–9 hr for metabolite).

**TIME/ACTION PROFILE (antihypertensive effect†)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>6 hr</td>
<td>3–6 wks</td>
<td>24 hr</td>
</tr>
</tbody>
</table>

†Onset of antihypertensive effect with chronic dosing

**Contraindications/Precautions**

- Contraindicated in: Hypersensitivity; Bilateral renal artery stenosis; OB: Can cause injury or death of fetus — if pregnancy occurs, discontinue immediately. Lactation: Discontinue drug or use formula.

**Use Cautionally in:** Volume- or salt-depleted patients or patients receiving high doses of diuretics (correct deficits before initiating therapy or initiate at lower doses). Black patients (reduction in stroke risk may not apply to this patient population). Impaired renal function due to primary renal disease or heart failure (may worsen renal function). Hepatic impairment (lower initial doses recommended). Women of childbearing potential. Pediatric: Avoid use (safety not established).

**Adverse Reactions/Side Effects**

- CNS: Dizziness, fatigue, headache, insomnia, weakness.
- CV: Chest pain, edema, hypotension.
- EENT: Nasal congestion.
- Endo: Hypoglycemia, weight gain.
- GI: Diarrhea, abdominal pain, dyspepsia, nausea.
- GU: Impaired renal function.
- F and E: Hyperkalemia.
- MS: Back pain, myalgia.
- Misc: Angioedema, fever.

**Interactions**

- Drug-Drug: Additive hypotension with other antihypertensives. Excessive hypotension may occur with concurrent use of diuretics. Risk of hypotension in patients with concurrent use of potassium supplements, potassium-containing salt substitutes, or potassium-sparing diuretics. Risk of hyperkalemia, renal dysfunction, hypotension, and congestive heart failure with concurrent use of ACE inhibitors. Rifampin may enhance the antihypertensive effect and the risk of renal dysfunction. May increase the effect of lidocaine, barbiturates, phenytoin, procainamide, sotalol, and warfarin.

**Route/Dosage**

- **PO (Adults):**
  - Hypertension — 50 mg once daily initially (range 25–100 mg/day as a single daily dose or 2 divided doses) (initiate therapy at 25 mg once daily in patients who are receiving diuretics or are volume depleted). Prevention of stroke in patients with hypertension and left ventricular hypertrophy — 50 mg once daily Initially, hydrochlorothiazide 12.5 mg once daily should be added and/or dose of losartan to 100 mg once daily followed by an increase in hydrochlorothiazide to 25 mg once daily based on BP response. Left ventricular hypertrophy in patients with type 2 diabetes — 50 mg once daily, may 75 to 100 mg once daily depending on BP response.
Hepatic Impairment

PO (Adults): Hypertension — 25 mg once daily initially; may be titrated as tolerated.

PO (Children 6 yr): Hypertension — 0.7 mg/kg once daily (up to 50 mg/day), may be titrated up to 1.4 mg/kg/day (or 100 mg/day).

Renal Impairment

Children 6 yr: 

Hypertension — Contraindicated.

NURSING IMPLICATIONS

Assessment

● Assess BP (lying, sitting, standing) 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). May rarely cause angioedema.

● Lab Test Considerations: Monitor renal function. May cause BUN and serum creatinine.

● May cause hyperkalemia.

● May cause slight pheochromocytoma.

Potential Nursing Diagnoses

Risk for injury (Adverse Reactions)

Noncompliance (Patient/Family Teaching)

Implementation

● Do not confuse Cozaar with Colace or Zocor.

● Correct volume depletion, if possible, before initiation of therapy.

● PO: For patients with difficulty swallowing tablet, pharmacist can compound an oral suspension; stable for 4 wk if refrigerated. Shake suspension before each use.

Patient/Family Teaching

● Emphasize the importance of continuing to take as directed, even if feeling well. Take missed doses as soon as remembered of not almost twice for next dose, do not double doses. Medication controls but does not cure hypertension. Instruct patient to take medication at the same time each day. Warn patient not to discontinue therapy unless directed by health care professional.

● 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 avoid sudden changes in position to decrease 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 or other activities requiring alertness until response to medications is known.

● Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications.

● Instruct patient to notify health care professional of medication regimen before treatment or surgery.

● Instruct patient to notify health care professional if swelling of face, eyes, lips, or tongue or if difficulty swallowing or breathing occurs.

● Instruct women of childbearing age to use contraception and notify health care professional if pregnancy is planned or suspected, or if breast feeding. Lactation should be discontinued as soon as possible when pregnancy is detected.

● Emphasize the importance of follow-up exams to evaluate effectiveness of medication.

● Hypertension: Encourage patients to comply with additional interventions for hypertension (weight reduction, low-sodium diet, discontinuation of smoking, moderation of alcohol consumption, regular exercise, stress management). Medication controls but does not cure hypertension.

● Instruct patient and family on proper techniques for monitoring BP. Advise them to check BP at least weekly and to report significant changes.

Evaluation/Desired Outcomes

● Decrease in BP without appearance of excessive side effects.

● Delayed progression of diabetic nephropathy in patients with type 2 diabetes.

● Decreased incidence of stroke in patients with hypertension and left ventricular hypertrophy.

Why was this drug prescribed for your patient?