**Moexipril**

**Classification**
Antihypertensives

**Pharmacologic**
ACE inhibitors

**Pregnancy Category**
D

**Indications**

Use concomitant with other agents in the management of hypertension.

**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 lower plasma renin levels and aldosterone levels. Net result is systemic vasodilation.

**Therapeutic Effects:**

Lowering of BP in hypertensive patients.

**Pharmacokinetics**

**Absorption:** 13% bioavailability as moexiprilat following oral administration (limited by food).

**Distribution:** Crosses the placenta.

**Protein Binding:** Moexipril—90%; moexiprilat—50–70%.

**Metabolism and Excretion:** Converted by liver and GI mucosa to moexiprilat, the active metabolite; 13% excreted in urine, 53% excreted in feces.

**Half-life:** Moexipril—1 hr; moexiprilat—2–9 hr (in renal impairment).

**TIME/ACTION PROFILE (antihypertensive effect with chronic dosing)**

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**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).

**Use Cautiously in:**

- Patients with renal impairment, hypovolemia, hyponatremia, and concurrent diuretic therapy
- Black patients (monotherapy for hypertension less effective, may require additional therapy; higher risk of angioedema)
- Surgery/anesthesia (hypotension may be exaggerated)
- Pregnancy (discontinue immediately)
- Lactation: Discontinue drug or use formula.

**Exercise Extreme Caution in:** Family history of angioedema.

**Adverse Reactions/Side Effects**

- **CNS:** dizziness, fatigue, headache.

- **Resp:** cough.

- **CV:** hypotension, chest pain, edema.

- **GI:** diarrhea, dyspepsia.

- **GU:** impaired renal function.

- **Derm:** flushing, rash.

- **F and E:** hyperkalemia.

- **MS:** myalgia.

- **Misc:** ANGIOEDEMA, flu-like symptoms.

**Interactions**

**Drug-Drug:** Excessive hypotension may occur with concurrent use of diuretics. Additive hypotension with other antihypertensive agents. Risk of hyperkalemia with concurrent use of potassium supplements, potassium-binding diuretics, or potassium-containing salt substitutes. Risk of hyperkalemia, renal dysfunction, and syndrome with concurrent use of angiotensin II receptor antagonists or aliskiren. Avoid concurrent use with diuretics in patients with diabetes or CCr < 60 mL/min. NSAIDs and selective COX-2 inhibitors may blunt the antihypertensive effect and the risk of renal dysfunction. Levels and map. Risk of hyperkalemia, renal dysfunction, hypotension, and syncope with concurrent use of angiotensin II receptor antagonists or aliskiren.

**Drug-Food:** Food significantly absorbs. Administer moexipril 1 hr before meals.

**Route/Dosage**

**PO (Adults):**

- 7.5 mg once daily, may be up to 30 mg/day in 1–2 divided doses; initiate therapy with 3.75 mg/day in patients receiving diuretics.

**Renal Impairment**

**PO (Adults):** CCr < 40 mL/min—initiate therapy at 5.75 mg once daily, may be increased upward to a maximum of 15 mg/day.

**NURSING IMPLICATIONS**

- **Assessment:**
  - Monitor BP and pulse frequently during initial dosage adjustment and periodically throughout therapy. Notify health care professional of significant changes.
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**Common Drug Interactions**

- **Positive:**
  - **Neutral:**
  - **Negative:**

**Generic Implication**

- **Interacting drugs indicate most frequent.**

**Discontinued**

- **Discontinued**
Monitor frequency of prescription refill to determine compliance.

Access patient for signs of angioedema (dyspnea, facial swelling).

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

May cause hypokalemia.

Monitor CBC periodically during therapy in patients with collagen vascular disease and/or renal disease. May rarely cause agranulocytosis.

May cause ↑ ALT, alkaline phosphatase, serum bilirubin, and uric acid.

Potential Nursing Diagnoses

Decreased cardiac output (Indications) (Side Effects)

Deficient knowledge, related to medication regimen (Patient/Family Teaching)

Noncompliance (Patient/Family Teaching)

Implementation

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

PO: Administer moexipril on an empty stomach, 1 hr before a meal.

Patient/Family Teaching

Instruct patient to take medication as directed at the same time each day, even if feeling well. Take missed doses as soon as remembered but not if almost time for next dose. Do not double doses. Warn patient not to discontinue ACE inhibitor therapy unless directed by health care professional.

Encourage patient to comply with additional interventions for hypertension (weight reduction, low sodium diet, discontinuation of smoking, medication of alcohol consumption, regular exercise, and stress management). Medication controls but does not cure hypertension.

Instruct patient and family to correct technique for monitoring BP. Advise them to check BP at least weekly and to report significant changes to health care professional.

Instruct patient to avoid salt substitutes containing potassium, or foods containing high levels of potassium or sodium unless directed by health care professional.

Instruct patient to avoid alcohol, standing for long periods,exercising, and hot weather may increase orthostatic hypotension.

Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult health professional before taking any new medications, especially cough, cold, or allergy remedies.

May cause dizziness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.

Advise patient to inform health care professional of medication regimen before treatment or surgery.

Instruct patient to notify health care professional if rash; mouth sores; sore throat; fever; swelling of hands or feet; irregular heart beat; chest pain; dry cough; hoarseness; swelling of face, eyes, lips, or tongue; or if dizziness, swelling of face or breathing occurs. Persistent dry cough may occur and may not resolve until medication is discontinued. Consult health care professional if cough becomes bothersome. Also notify health care professional if fever, swelling, or rash occurs and continues.

Advise women of childbearing age to use contraception and notify health care professional of pregnancy is planned or suspected.

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

Evaluation/Desired Outcomes

Decrease in BP without appearance of excessive side effects.

Why was this drug prescribed for your patient?