Irbesartan (ir-be-sar-tan)

**Classification**

Therapeutic: antihypertensives
Pharmacologic: angiotensin II receptor antagonists

**Pregnancy Category D**

**Indications**

Used alone or with other agents in the management of hypertension. Treatment of diabetic nephropathy in patients with type 2 diabetes and hypertension.

**Action**

Blocks the vasoconstrictor and aldosterone-secreting effects of angiotensin II at various receptor sites, including vasculature, smooth muscle, and the adrenal gland.

**Therapeutic Effects:**


**Pharmacokinetics**

**Absorption:** 60–80% absorbed following oral administration.

**Distribution:** Crosses the placenta.

**Protein Binding:** 90%.

**Metabolism and Excretion:** Some hepatic metabolism; 20% excreted in urine, 80% in feces.

**Half-life:** 11–15 hr.

**Contraindications/Precautions**

**Contraindicated in:**

- Hypersensitivity
- Bilateral renal artery stenosis
- Concurrent use with aliskiren in patients with diabetes or moderate-to-severe renal impairment (CCr < 60 mL/min)

**Use Cautiously 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 (may not be as effective)
- Impaired renal function due to primary renal disease or heart failure (may worsen renal function)
- Women of childbearing potential if pregnancy occurs, discontinue immediately

**Adverse Reactions/Side Effects**

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

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

**Derm:** rash.

**GI:** abdominal pain, diarrhea, dyspepsia, nausea, vomiting.

**GU:** impaired renal function.

**F and E:** hyperkalemia.

**MS:** pain.

**Misc:** ANGIOEDEMA.

**Interactions**

**Drug-Drug:** NSAIDs and selective COX-2 inhibitors may blunt the antihypertensive effect and increase the risk of renal dysfunction. Additive hypotension with other antihypertensives. Excessive hypotension may occur with concurrent use of diuretics. Concurrent use of potassium-sparing diuretics, potassium-containing salt substitutes, or potassium supplements may increase the risk of hyperkalemia. Use of ACE inhibitors or aliskiren may increase the risk of hyperkalemia, renal dysfunction, hypotension, and syncope with concurrent use of irbesartan or aliskiren. Avoid concurrent use with aliskiren in patients with diabetes or CCr < 60 mL/min. May decrease the levels/effects of amiodarone, fluoxetine, glimeperide, glipizide, phenytoin, rosiglitazone, warfarin.

**Route/Dosage**

**PO (Adults):**

- Hypertension—150 mg once daily; may be increased to 300 mg once daily.
- Nephropathy in patients with type 2 diabetes—300 mg once daily.

**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 patients for signs of angioedema (dyspnea, facial swelling). May rarely cause angioedema.
- Lab Test Considerations: Monitor renal function. May cause ↑ BUN and serum creatinine.

**Contraindications/Precautions**

**Contraindicated in:**

- Hypersensitivity
- Bilateral renal artery stenosis
- Concurrent use with aliskiren in patients with diabetes or moderate-to-severe renal impairment (CCr < 60 mL/min)

**Use Cautiously 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 (may not be as effective)
- Impaired renal function due to primary renal disease or heart failure (may worsen renal function)
- Women of childbearing potential if pregnancy occurs, discontinue immediately

**Adverse Reactions/Side Effects**

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

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**Interactions**

**Drug-Drug:** NSAIDs and selective COX-2 inhibitors may blunt the antihypertensive effect and increase the risk of renal dysfunction. Additive hypotension with other antihypertensives. Excessive hypotension may occur with concurrent use of diuretics. Concurrent use of potassium-sparing diuretics, potassium-containing salt substitutes, or potassium supplements may increase the risk of hyperkalemia. Use of ACE inhibitors or aliskiren may increase the risk of hyperkalemia, renal dysfunction, hypotension, and syncope with concurrent use of irbesartan or aliskiren. Avoid concurrent use with aliskiren in patients with diabetes or CCr < 60 mL/min. May decrease the levels/effects of amiodarone, fluoxetine, glimeperide, glipizide, phenytoin, rosiglitazone, warfarin.

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- Monitor frequency of prescription refills to determine compliance.
- Assess patients 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 hematuria.

Potential Nursing Diagnoses
Risk for injury (Adverse Reactions)
Noncompliance (Patient/Family Teaching)

Implementation
Correct volume depletion, if possible, before initiation of therapy.
PO: Administer once daily without regard to food.

Patient/Family Teaching
Emphasize the importance of continuing to take as directed, even if feeling well. Take missed doses as soon as remembered or at least once daily for next dose. Do not double doses. Instruct patient to take medication at the same time each day. Warn patient not to discontinue therapy unless directed by healthcare professional.
Caution patient to avoid salt substitutes containing potassium or foods containing high levels of potassium or sodium unless directed by healthcare professional.
Caution patient to avoid sudden changes in position to decrease orthostatic hypotension. Use of alcohol, standing for long periods, exercising, or hot weather may increase orthostatic hypotension.
May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to avoid concurrent use of Rx, OTC, and herbal products, especially NSAIDs and cough, cold, or allergy medications, without consulting health care professional.
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.
Advise women of childbearing age to use contraception and notify health care professional if pregnancy is planned or suspected, or if breast feeding. Irbesartan should be discontinued as soon as possible when pregnancy is detected.
Emphasize the importance of follow-up visits to evaluate effectiveness of medication.

Hypertension: Encourage patient 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 technique 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.

Why was this drug prescribed for your patient?