PERINDOPRIL

Class: Angiotensin-Converting Enzyme (ACE) Inhibitor.

Indications: Treatment of hypertension; reduction of cardiovascular mortality or nonfatal myocardial infarction in patients with stable coronary artery disease.

Unlabeled: To delay the progression of nephropathy and reduce risks of cardiovascular events in hypertensive patients with type 1 or 2 diabetes mellitus

Available dosage form in the hospital: 4MG TAB

Dosage:

- **Heart failure (Canadian labeling; unlabeled use in U.S.):** Initial: 2 mg once daily; if necessary, may titrate over 2-4 weeks to 4 mg once daily. The American College of Cardiology/ American Heart Association (ACC/AHA) 2009 Heart Failure Guidelines recommend an initial dose of 2 mg once daily with dose titration at 1- to 2-week intervals to a target dose of 8-16 mg once daily.

- **Hypertension:** Oral: Initial: 4 mg/day but may be titrated to response; usual range: 4-8 mg/day (may be given in 2 divided doses); increase at 1- to 2-week intervals (maximum: 16 mg/day).

  **Note:** The Canadian labeling recommended maximum dose is 8 mg/day.

  **Concomitant therapy with diuretics:** To reduce the risk of hypotension, discontinue diuretic, if possible, 2-3 days prior to initiating perindopril. If unable to stop diuretic, initiate perindopril at 2-4 mg/day (given in 1-2 divided doses) and monitor blood pressure closely for the first 2 weeks of therapy, and after any dose adjustment of perindopril or diuretic.

- **Stable coronary artery disease:** Oral: Initial: 4 mg once daily for 2 weeks; then increase as tolerated to 8 mg once daily.

Geriatric

- **Hypertension:** >65 years: Oral:
  - U.S. labeling: Initial: 4 mg/day; maintenance: 8 mg/day; experience with doses >8 mg/day is limited; may be given in 1-2 divided doses
  - Canadian labeling: Initial: 2 mg/day; if necessary may increase dose after 4 weeks to 4 mg/day; then to 8 mg/day (based on renal function); may be given in 1 or 2 divided doses.
  - ACCF/AHA Expert Consensus recommendations: Consider lower initial doses and titrating to response (Aronow, 2011)

- **Stable coronary artery disease:** >70 years: Oral: Initial: 2 mg/day for 1 week; then increase as tolerated to 4 mg/day for 1 week; then increase as tolerated to 8 mg/day.
Renal Impairment:
- **U.S. labeling:**
  - $\text{Cl}_{cr} > 30 \text{ mL/minute}$: Initial: 2 mg/day; maintenance dosing not to exceed 8 mg/day
  - $\text{Cl}_{cr} < 30 \text{ mL/minute}$: Safety and efficacy not established.
  
  - Hemodialysis: Perindopril and its metabolites are dialyzable

- **Canadian labeling:**
  - $\text{Cl}_{cr} \geq 60 \text{ mL/minute}$: Initial: 4 mg/day; maintenance dosing not to exceed 8 mg/day
  - $\text{Cl}_{cr} 30-60 \text{ mL/minute}$: 2 mg/day
  - $\text{Cl}_{cr} 15-30 \text{ mL/minute}$: 2 mg every other day
  - Hemodialysis ($\text{Cl}_{cr} < 15 \text{ mL/minute}$): 2 mg on dialysis days (given after dialysis)

Hepatic Impairment:
No dosage adjustment provided in manufacturer’s labeling. However, perindoprilat bioavailability is increased with hepatic impairment.

**Common side effect:** Central nervous system: Headache (24%)

Respiratory: Cough (incidence is higher in women, 3:1) (12%)

**Pregnancy Risk Factor:** D