

Guidelines for Administration of Captopril (Capoten)

Recommended Neonatal Dose, Route, and Interval

- PO: Initial dose 0.01-0.05 mg/kg/dose every 8-12 hours; titrate dose up to 0.5 mg/kg/dose given every 6-24 hours.

Chief Indications

1. Treatment moderate to severe hypertension
2. Afterload reduction in patients with CHF

Possible Adverse Reactions

1. Neutropenia and Agranulocytosis
2. Proteinuria
3. Rash , angioedema
4. Hyperkalemia (especially when given with KCl supplements or spironalactone)
5. Hypotension (especially when given with diuretics)
6. GI upset
7. Decreased resting heart rate
8. Seizure (due to sudden drop of cerebral blood flow with doses higher than recommended)

Contraindications & Precautions

1. Hypersensitivity
2. Contraindicated in patients with bilateral renovascular disease or with unilateral renal artery stenosis in solitary kidney
3. Give cautiously with renal impairment, patients receiving potassium, or concurrent use of diuretics, especially potassium-sparing diuretics like spironolactone - may result in hyperkalemia

Special Considerations

1. Low initial dose is used because some infants have experienced a dramatic drop in blood pressure
2. Adjust doses with renal impairment
3. Administer one hour **prior** to feeding (food will decrease absorption)
4. May cause false positive acetone in urine
5. Action potentiated when given with other hypotensive agents and diuretics
6. Peak: 30 - 90 min.; duration of action is usually 2 - 6 hours, but may be significantly longer (>24 hours)
7. Patients showing a poor response to captopril alone may benefit from the addition of hydrochlorothiazide to their regimen

Nursing Implications

1. Frequent assessment of BP, particularly after first dose
2. Monitor BUN, electrolytes (especially serum potassium) and urine protein levels **closely**
3. Monitor for adverse reactions
4. Pharmacy will compound a 1mg/mL oral suspension. Keep refrigerated and shake well prior to drawing up your dose.

References:

1. Neofax 2009
2. The Johns Hopkins Harriet Lane Handbook, 17th Edition, Mosby Co. 2005
3. Pediatric Dosage Handbook, 16th Edition, Lexi Co

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