NEONATAL Medication Monograph

CAPTOPRIL

This document should be read in conjunction with this **DISCLAIMER**

Restricted: Requires Neonatologist or Cardiologist review within 24 hours of initiation

⚠ **High Risk Medication**
Use with caution – a test dose is recommended
An overdose can be fatal – associated with significant seizures, apnoea and renal complications

Presentation	Oral solution: • 1000microgram/mL (prepared by Pharmacy) - ***preferred strength*** • 5mg/mL = 5000microgram/mL (Capoten®)
Description	Angiotensin converting enzyme inhibitor
Indication	Management of heart failure (reduction in afterload) Hypertension
Contraindications	Contra-indicated in renal artery stenosis
Precautions	Renal impairment, hyperkalaemia **Neonatal response to captopril is variable and neonates can become profoundly hypotensive even with a small dose**
Dosage	**Oral:** **Monitor blood pressure during administration** **< 37 weeks** **Initial test dose:** 10microgam/kg. If tolerated can give 10microgram/kg every 8 hours Titrate slowly according to response **Maximum 300microgram/ kg in 24 hours** **≥ 37 weeks** **Initial test dose:** 10-50microgram/kg If tolerated can give 10-50microgram/kg every 8-12 hours Titrate according to response **Maximum of 2000microgram/ kg in 24 hours**

Dosage Adjustment	Dose reduction required in renal impairment
Preparation	**Oral:** 5mg/mL = 5000microgram/mL May be diluted with water for lower doses Contact Pharmacy for 1000microgram/mL solution (KEMH and PCH)
Administration	**Oral:** Extremely unpalatable – mix well with part of a feed (this is not necessary if being fed by intragastric tube) Separate dose from remainder of feed by 1 hour as feeds may limit absorption
Adverse Reactions	**Common**: cough, hypotension, raised creatinine **Serious**: hyperkalaemia, angioedema /anaphylaxis, apnoea, seizures
Monitoring	Urea and electrolytes (particularly creatinine and potassium) Continuous blood pressure monitoring
Interactions	May cause false positive Coombs test if sodium nitroprusside is used in urine acetone determination High risk of hyperkalaemia if used with potassium sparing diuretics (i.e. spironolactone) or potassium supplementation Pentoxifylline and sildenafil may increase captopril effects
Storage	Store oral solution in the refrigerator between 2-8 degrees. Discard oral solution 28 days after opening bottle
Notes	Onset of action within 15 minutes, peak action within 30-90 minutes SAS form required for capto
References	Truven Health Analytics. Captopril. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2020 Sept 04]. Available from: https://neofax.micromedexsolutions.com/ Ainsworth SB. Neonatal formulary 7: drug use in pregnancy and the first year of life. Seventh ed. Chichester (West Sussex): John Wiley & Sons Inc.; 2015. P124. Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2019. P346-9. British National Formulary. BNF for Children. 2018-19 ed. London, UK: BMJ Group and Pharmaceutical Press; 2018.

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