NEONATAL MEDICATION GUIDELINE	
Phenobarbtitone (Phenobarbital)	
Scope (Staff):	Nursing, Medical and Pharmacy Staff
Scope (Area):	KEMH NICU, PCH NICU, NETS WA
This document should be read in conjunction with the Disclaimer.	

Quick Links

Dose	Preparation & Administration	Side Effects & Interactions	Monitoring

Restrictions

Formulary: Restricted

Requires Neonatologist or Neurologist review within 24 hours of initiation

Description

Barbiturate – anticonvulsant and sedative

Presentation

Ampoule: 200mg/mL

Oral Solution: 10mg/mL

Storage

Store at room temperature, below 25°C

Contraindications

Avoid in acute porphyrias

Severe respiratory depression

Severe hepatic impairment

Dose

Neonatal seizures

IV/IM/Oral:

Loading dose: 20 mg/kg

If no response, a further 10 – 20 mg/kg may be given

Maximum loading dose: 40 mg/kg

Maintenance dose: 3 – 5 mg/kg once daily commencing 12 -14 hours after the loading dose

Neonatal jaundice

IV/IM/Oral:

5 mg/kg once daily

Neonatal abstinence syndrome (NAS)

IV/IM/Oral:

Refer to clinical practice guideline Neonatal Abstinence Syndrome

Dose Adjustment

Adjust dose according to response and concentration monitoring

Renal Impairment:

Dosage adjustment may be required in severe renal impairment

Preparation

IM

Use undiluted

IV

Withdraw 1mL (200mg) of phenobarbitone and make up to a final volume of 10mL of a compatible fluid

Concentration = 200mg/10mL = **20mg/mL**

Administration

Oral

Mixture is bitter and may be poorly tolerated. Consider administering a loading dose via the IGT if the infant has poor suck

IM

Refer to clinical practice guideline Medication Administration: Intramuscular, Subcutaneous, Intravascular

IV

Infuse over 20 – 30 minutes or at a maximum rate of 1 mg/kg/minute

Compatible Fluids

Glucose 5%, Glucose 10%, Sodium Chloride 0.9%

Y-Site Compatibility

Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates

Side Effects

Common: hypotension, respiratory depression, extravasation

Serious: paradoxical hyperactivity and irritability may occur

Interactions

Phenobarbitone interacts with a range of medications – contact Pharmacy for further advice

Monitoring

Observe for signs of extravasation

Concentration monitoring

Sampling time: Immediately prior to next dose

Therapeutic range: 15 – 40 mg/L

Time to reach steady state: 2 – 4 weeks

Related Policies, Procedures & Guidelines

CAHS Clinical Practice Guidelines:

End of Life Care

Hypoxic Ischaemic Encephalopathy (HIE)

Medication Administration: Intramuscular, Subcutaneous, Intravascular

Neonatal Abstinence Syndrome

Neonatal Seizures

WNHS Pharmaceutical and Medicines Management Guidelines:

Medication Administration

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