**NEWBORN USE ONLY**
**GIVEN ON DOCTORS ORDER ONLY**

**PHENOBARBITONE**
Schedule 4 Medicine

**DESCRIPTION**
An anticonvulsant that limits the spread of seizure activity and increases the threshold for electrical stimulation of the motor cortex. Reduction of serum bilirubin levels is attributed to the increased levels of glucuronyl transferase and intracellular y-binding protein. Phenobarbitone is effective in controlling symptoms of neonatal withdrawal syndrome with the exception of vomiting and diarrhoea.

**PHARMACOKINETICS**
Primarily metabolised by liver and excreted in urine. Half-life is prolonged in neonates (up to 120 hrs).

**USE**
1. Neonatal seizures – first line of drug
2. Neonatal abstinence syndrome
3. Cholestatic jaundice

**PRESENTATION**
200mg/ml ampoule
10mg/ml Phenobarbiton Sodium oral elixir

**DOSE**
1. **NEONATAL SEIZURES**
   **LOADING**
   20mg/kg/dose. Can be repeated after every 60 minutes at 10mg/kg/dose to a maximum of 40mg/kg/dose when seizures are not controlled. This is followed 12 hours later by
   **MAINTENANCE**
   2.5 mg/kg/dose 12 hrly

2. **NEONATAL ABSTINENCE SYNDROME**
   **LOADING**
   5mg/kg/dose orally followed 24 hours later by
   **MAINTENANCE**
   2.5mg/kg/dose orally 12 hrly

3. **NEONATAL JAUNDICE**
   5mg/kg/day orally

**ROUTE**
IV injection, IM injection, oral

**ADMINISTRATION**
IV
Add 9ml of normal saline to 1ml of Phenobarbitone to make a 20mg/ml solution. Slow IV bolus injection over 10 minutes, using the proximal IV bung.

ORAL
VOMITING
Seek medical advice prior re-dosing if infant vomits 20 minutes or less after giving oral Phenobarbiton.

**STORAGE**
Discard unused portion

**MONITORING**
Continuous cardio-respiratory monitoring. When loading is given for an anticonvulsant effect, monitor serum levels every 24 hours for first 3 days. Once seizures are controlled, dose may need to be adjusted to maintain serum levels between 65-170micromol/l for anticonvulsant activity. Serum concentrations may increase when patient is also receiving phenytoin or valproate.
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PHENOBARBITONE cont

ADVERSE EFFECT Irritating to veins due to high pH. Respiratory depression with levels >60 mcg/ml, sedation >40 mcg/ml, and lethargy. Tolerance and dependence can occur with continued use.

SOLUTION COMPATIBILITY 5%dextrose, 10%dextrose, 0.9%sodium chloride

TERMINAL INJECTION SITE COMPATIBILITY acyclovir, amikacin, aminophylline, calcium gluconate, enalaprilat, fosphenytoin, heparin, meropenem, propofol, PG E1, sodium bicarbonate.

INCOMPATABILITY cimetidine, clindamycin, hydralazine, hydrocortisone, insulin, methadone, midazolam, morphine, ranitidine, sodium bicarbonate, vancomycin. No data on potassium chloride.

REFERENCE