Guidelines for the Use of Phenobarbital

Recommended Neonatal Dose, Route, and Interval

- Seizure:
  - Loading dose: 20 mg/kg, given slow IV push over 10 to 15 minutes, may give additional 5 mg/kg bolus x 4 up to a total dose of 40 mg/kg.
  - Maintenance: 3-4 mg/kg/day (starting 12-24 hours after loading dose) divided every 12-24 hours IV push over 5 minutes, IM, or PO

- Prophylaxis for severe prenatal asphyxia: 40 mg/kg/dose IV over 60 minutes X 1 dose, prior to onset of seizures.

Chief Indications

- Anticonvulsant
- Sedative/hypnotic
- May improve outcomes in severely asphyxiated infants
- May enhance bile excretion in patients with cholestasis

Possible Adverse Reactions:
1. Apnea, respiratory depression
2. Hypotension (2° to peripheral vasodilation)
3. Drowsiness, paradoxical excitation
4. Nausea, vomiting, constipation
5. Rash
6. Necrosis if extravasation occurs

Contraindications & Precautions

- Hypersensitivity to phenobarbital
- Preexisting CNS depression, uncontrolled pain, severe respiratory disease
- Use with caution in patients with hepatic or liver dysfunction
- Abrupt discontinuation after prolonged use may precipitate withdrawal or seizures.
- Be prepared to support respirations, especially if loading doses > 20 mg/kg are given.

Nursing Implications

- Monitor seizure activity, serum concentrations, respiratory rate, heart rate, and blood pressure.
- Give oral doses with the nearest feed.
- Onset of effect: PO within 20-60 minutes, IV within 5 minutes
- Peak effect: IV within 30 minutes

DRUG LEVELS:

- Therapeutic: 15-40 mcg/ml
- Check serum level after one week of therapy, sooner if clinically indicated.
References:
1. Neofax 2010

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