NEWBORN USE ONLY
GIVEN ON DOCTORS ORDER ONLY

PHENYTOIN

DESCRIPTION
Raises the seizure threshold of the motor cortex to electrical or chemical stimuli.

PHARMACOKINETICS
85-90% protein-bound. Bilirubin displaces phenytoin from albumin-binding sites increasing the percentage of unbound drug. This may complicate the interpretation of serum levels. Half-life is 18-60 hours. Oral absorption is erratic.

USE
1. Seizures unresponsive to phenobarbitone
2. Cardiac arrhythmia

PRESENTATION
100mg/2ml ampoule
30mg/5ml oral mixture

DOSE
LOADING 15-20 mg/kg/dose
MAINTENANCE 4-8 mg/kg/day

ROUTE
IV injection
Oral

ADMINISTRATION
1. Add 100mg (2ml) phenytoin to 2ml of 0.9%sodium chloride to make a 25mg/ml solution. Administer the required dose through proximal IV bung over 1 hour (maximum rate of infusion 0.5mg/kg/min).
2. Flush IV with normal saline before and after injection.
3. If same line is used, halt the maintenance infusion.
4. Avoid using in central lines because of risk of precipitation.

STORAGE
Discard unused portion.

MONITORING
Continuous cardio-respiratory monitoring. If loading dose is given, monitor serum levels every 24 hours for 3 days. Once on maintenance dose may be adjusted to maintain the serum levels at 6-15mcg/ml.

ADVERSE EFFECT
1. Irritating to veins due to high pH, hypotension or circulatory collapse with rapid IV administration.
2. CNS depression.
3. Reduces action of calcium, clonazepam, dexamethasone, digoxin, frusemide and theophylline (by 40-50%). Increases action of chloramphenicol, diazepam and cimetidine.

COMPATIBLE SOLUTIONS
0.9%sodium chloride only! (Not even 0.45%sodium chloride.)

INCOMPATIBLE SOLUTIONS
dextrose containing solutions, Hartmanns

COMPATIBILITY VIA Y SITE
esmolol, famotidine, fluconazole, sodium bicarbonate.

INCOMPATIBILITY
All other drugs
PHENYTOIN cont

REFERENCE