PAEDIATRIC PHENYTOIN LOADING DOSE CALCULATIONS

IN ALL CASESMAKE CONCENTRATION OF 10 mg/mlBY ADDING EACH 250mg/5ml VIAL REQUIRED OF PHENYTOIN TO 20mls 0.9% SALINE AND INFUSE REQUIRED VOLUME OVER 20 MINUTES

Calculate loading dose as follows:

- **18mg/kg loading dose 1month-16 years (neonates 20mg/kg)**
- **Always 10mg/ml strength**
- **Divide mg needed by 10 to give number of mls required**
- **Always give over 20 mins**
- **Multiply number of mls by 3 to set hourly rate for syringe driver**

Example calculation:

For **21 kg** child:

Loading dose 18 mg/kg = 18 x 21 = **378 mg**

Make up 250 mg in 25 mls as above (=10 mg/ml strength)

378mg / 10 = **37.8 mls** of this diluted strength (rounded up to **38 mls**for ease of administration)

Give **38 mls** as an infusion **over 20 mins** (38 x 3 = set pump at **114 mls/hr**)

PRE CALCULATED DOSES

AGE	ESTIMATED WEIGHT (kg	LOADING DOSE	VOLUME of 10mg/ml DILUTED STRENGTH to be given over 20 mins	RATE (mls/hr)
neonate	4	80 mg	8 mls	24
4 months	6	108 mg	11 mls	33
8 months	8	144 mg	14.5 mls	43
1 year	10	180 mg	18 mls	54
2 years	12	216 mg	21.5 mls	64
3 years	14	252 mg	25 mls	75
4 years	16	288 mg	29 mls	87
5 years	18	324 mg	32 mls	96
6 years	25	450 mg	45 mls	135
7 years	28	504 mg	50 mls	150
8 years	31	558 mg	56 mls	168
9 years	34	612 mg	61 mls	183
10 years	37	666 mg	67 mls	200
11 years	40	720 mg	72 mls	216
12 years	43	774 mg	77 mls	231