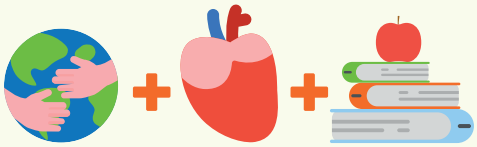

DRUG CALCULATIONS

ELSEVIER

Common Abbreviations

Times

a.c.	before meals
b.d.	twice daily
mane	morning
nocte	night
p.c.	after meals
p.r.n.	when required
q.i.d.	four times a day
stat	immediately
t.d.s	three times a day

Routes

IA	intra-arterial
IC	intracardiac
ID	intradermal
IM	intramuscular
IT	intrathecal
IV	intravenous
NG	nasogastric
O	oral
PR	rectal
PV	vaginal
SC	subcutaneous
SL	sublingual

Useful units and concentrations

1 gram (g) = 1000 milligrams (mg)
1 milligram (mg) = 1000 micrograms (microg)
1 litre (L) = 1000 millilitres (mL)

Abbreviated calculations (see reverse)

AR = amount required, VR = volume required, T = time, SR = solution required, SS = stock strength, S = solution, DR = drug dosage rate, TL = total, AD = adult dose, Wt = weight, A = adult, SA = surface area, V = volume

Drug Doses and Drip rates Calculation Formulae

Oral drugs (solids, liquids)

$$AR = \frac{SR}{SS} \times V \text{ of } SS$$

Parenteral drugs

Solutions (IM, IV injections)

$$VR = \frac{SR}{SS} \times V \text{ of } SS$$

Powders For dilution, follow manufacturer's directions and then use the appropriate formula

IV Infusions

$$\text{Rate (drops/min)} = \frac{V \text{ of } S \text{ (mL)} \times \text{No. of drops/mL}}{T \text{ (min)}}$$

NB: A drip chamber delivers 20 drops / mL

$$\text{Rate (mL/h)} = \frac{DR \text{ (mg/h)} \times V \text{ of } S \text{ (mL)}}{T \text{ amount of drug (mg)}}$$

NB: After selecting the appropriate formula, ensure that all strengths are in the same units,otherwise convert.

Infusion pumps

$$\text{Rate (mL/h)} = \frac{V \text{ (mL)}}{T \text{ (h)}}$$

Clark's Body Weight Rule

$$\text{Child's dose} = \frac{AD \times \text{Wt of child (kg)}}{\text{Average adult Wt (70kg)}}$$

Clark's Body Surface Area Rule

$$\text{Child's dose} = \frac{AD \times SA \text{ of child } (m^2)}{\text{Average SA of adult } (1.7m^2)}$$