mccp-ahmed–01

Nursing Medication Calculation Formulae

Right Patient
Right Time/Frequency
Right Dose
Right Route
Right Drug

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Dosage

$$\text{Dose} = \frac{\text{WANT}}{\text{GOT}} \times \text{IN}$$

Concentration

- **Ratio**

  1:something (one in something) concentration
  means grams in mls, e.g., 1:100 means 1g in 100ml

- **Percentages**

  Weight in volume (w/v) – solid dissolved in liquid,
  e.g., Glucose 5%(w/v) = 5g Glucose in every 100 ml

Drop Rates & Infusion Rates

$$\text{Rate (ml/min)} = \frac{\text{Volume (ml)}}{\text{Time (min)}}$$

$$\text{Time (min)} = \frac{\text{Volume (ml)}}{\text{Rate (ml/min)}}$$

$$\text{Volume (ml)} = \text{Rate (ml/min)} \times \text{Time (min)}$$

Units

1 kg = 1000g

1 g = 1000 mg

1 mg = 1000 mcg

1 litre = 1000 ml

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height}^2\ (\text{m}^2)}$$

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25 – 29.9	Overweight
30 & above	Obese

Standard Drop Rates

Blood	IV
15 drops/ml	20 drops/ml

Notes

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