

IV Therapy Passport

Drug Calculations in IV Therapy - Key Formulae

Desired Dose Formula =

$$\frac{\text{Want (W)}}{\text{Got (G)}} \times \text{Solution (S)}$$

Dilution Requirements =

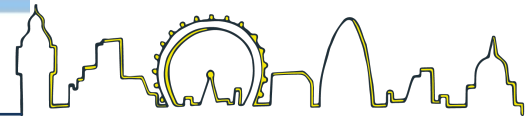
$$\text{Volume to administer} = \frac{\text{Prescribed dose}}{\text{Max concentrations}}$$

Drip Rates =

$$\frac{\text{Volume of fluid prescribed} \times \text{Drops per mL (Drop factor)}}{\text{Time (No. of hours prescribed)} \times 60 \text{ (No. of minutes in an hour)}}$$

Infusion over a fixed time =

$$\frac{\text{Volume to be infused} \times 60 \text{ minutes}}{\text{Time to be infused in minutes}}$$



Maximum infusion rate =

$$\frac{\text{Dose prescribed (in mg)}}{\text{Maximum infusion rate (in mg/min)}}$$

Weight based Prescriptions – infusion rate calculation =

$$\text{Rate of infusion (mL/hr)} = \frac{\text{Dose (mcg/kg/min)} \times \text{weight (kg)} \times 60 \text{ (minutes)}}{\text{Drug in solution (mcg)}} \times \text{solution (volume in mL)}$$

Weight based prescriptions – dose calculations =

$$\text{Dose in mcg/kg/min} = \frac{\text{Concentration of drug in solution (mcg/mL)} \times \text{infusion rate (mL/hr)}}{\text{Patient's weight (kg)} \times 60 \text{ (minutes)}}$$

