Dosage Calculations per kg

Study Development Quick Guide

## Formulae

Daily dose ((mg or ml)/day) = patient weight (kg) x dosage for one day ((mg or ml)/kg/day)

Single dose ((mg or ml)/dose) = $\frac{daily dose ((mg or ml)/day)}{number of doses in a given time period (doses/day)}$

Dose volume (ml) = $\frac{single dose (mg)}{concentration of drug (mg/ml)}$

## Example

A patient is prescribed a drug that has a dosage of 2mg/kg of bodyweight per day. The patient weighs 81kg, and the drug has a concentration of 3mg/ml. What volume of the drug should the patient be given in a single dose if they must take the drug 3 times per day?

## Answer

Daily dose (mg/day) = patient weight (kg) x dosage for one day (mg/kg/day)

= 81kg x 2mg/kg per day = 162mg/day.

Single dose (mg/dose) = $\frac{ daily dose (mg/day)}{number of doses in a given time period (doses/day)}$ = $\frac{162 mg/day}{3 doses/day}$ = 54mg/dose.

 Dose volume (ml) = $\frac{single dose (mg/dose)}{concentration of drug (mg/ml)}$ = $\frac{54 mg/dose}{3 mg/ml}$ = 18 ml/dose.

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