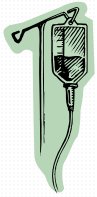
Calculating IV Drug Dose based on Weight

- Example 1 Your patient's current weight is 22 lbs. Dopamine is to be infused at 10 mcg/kg/minute. How many mcg of dopamine should you infuse per minute?

To find the mcg per minute:

Step 1 – Write down patient wt & convert if necessary
Step 2 – Write down the IV dosage
Step 3 – Reduce units
Step 4 – Perform the math



Step 1 Step 2 Step 4

$$\frac{22\ \cancel{\text{lbs}}}{1} \times \frac{1\ \cancel{\text{kg}}}{2.2\ \cancel{\text{lbs}}} \times \frac{10\ \text{mcg}}{1\ \cancel{\text{kg}}/\text{min}} = \frac{22 \times 1 \times 10\ \text{mcg}}{1 \times 2.2 \times 1\ \text{min}} = \frac{220\ \text{mcg}}{2.2\ \text{min}} = \frac{100\ \text{mcg}}{\text{min}}$$

Step 3

Slide 3

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- Example 2 Your patient's current weight is 64 kg. Regular insulin is to be infused at 0.05 units/kg/hour. How many units of Regular insulin should you infuse per hour?

To find the units per hour:

Step 1 – Write down patient wt & convert if necessary
Step 2 – Write down the IV dosage
Step 3 – Reduce units
Step 4 – Perform the math

Step 1 Step 2 Step 4

$$\frac{64\ \cancel{kg}}{1} \times \frac{0.05\ \text{units}}{1\ \cancel{kg}/\text{hour}} = \frac{64 \times 0.05\ \text{units}}{1 \times 1\ \text{hour}} = \frac{3.2\ \text{units}}{1\ \text{hour}}$$

Step 3