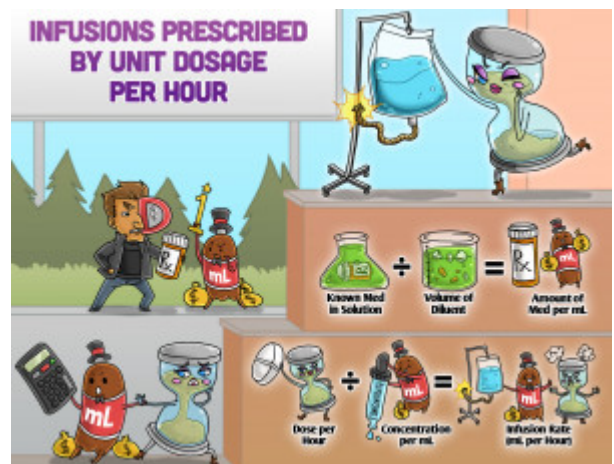


Infusions Prescribed by Unit Dosage per Hour

When an infusion is prescribed by unit dosage per hour, you will need to determine the amount of milliliters (mL) to infuse over each hour. To determine the unit dosage per hour, there is a two-step process used to calculate these problems. In step one, you will need to determine the amount of medication (units) per milliliter. This is done by calculating the known amount of medication in solution divided by total volume of diluent, which equals the amount of medication per milliliter. In step two, you will calculate the infusion rate (milliliters per hour). To do this, you will take the dose ordered, divided by the concentration per milliliter (your answer from step one), which equals the infusion rate, or mL/hour.



PLAY PICMONIC

Step 1

Determine Amount of Medication per 1mL

[D-terminator with Med-bottle and \(1\) Wand Millionaire-liter-of-cola](#)

The first step of the equation is to calculate the amount of medication per 1 mL. This will make it easier to calculate the mL per hour in the next step.

Known Amount of Medication in Solution/Total Volume of Diluent = Amount of Medication per Milliliter

[Med-bottle in Solution / Volume-cup of Dissolving-liquid = Med-bottle and Millionaire-liter-of-cola](#)

The first calculation is to divide the known amount of units in the solution by the total volume of diluent. Example: The available IV bag of medication is 25,000 units of heparin in 500 mL D5W; the equation would be $25,000 \text{ units} / 500 \text{ mL} = 50 \text{ units/mL}$.

Step 2

Calculate mL per Hour

[Calculator Millionaire-liter-of-cola and Hour-glass](#)

In the second step, you calculate how many milliliters to give over an hour. This is done by using the amount of units per mL which was calculated in step 1.

Dose per Hour Desired/Concentration per Milliliter = Infusion Rate (mL/hour)

[Dose and Hour-glass / Concentration Millionaire-liter-of-cola = In-fuse with Millionaire-liter-of-cola and Hour-glass](#)

In this equation you take the dose per hour desired; which is the prescribed amount, divided by the concentration per milliliter; which is the amount of units/hour that was calculated in step 1 (50 units/mL). This will give you the infusion rate or mL/hour.