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(1m2)

Dosage Calculation Worksheet #1

1. An individual is taking cough suppressant that contains codeine 10 mg in 5 mL. If the individual took 12 tsp of the medication during a 24-hour period, how many milligrams of codeine would have been taken?

$$\begin{aligned} \text{codeine } 10\text{mg} / 5\text{mL} \\ 12 \text{ tsp} = 5\text{mL}(12) = 60\text{mL total} \\ 60\text{mL} / 5\text{mL} \\ = 12(10\text{mg}) = \boxed{120\text{mg of codeine}} \end{aligned}$$

2. The nurse is to give 10 mcg/kg/min of a medication. The patient weighs 80 kg. How many mcg will the nurse give in 15 minutes?

$$\begin{aligned} 10\text{mcg/kg} (80\text{kg}) = 800\text{mcg/min} \\ 15\text{min} (800\text{mcg}) \\ = \boxed{12000\text{mcg}} \end{aligned}$$

3. Calculate the individual dose in mg a medication to be administered in six divided doses if a patient weighs 35 pounds and is to be given

$$\begin{aligned} 40\text{mg/kg/day. Round kg to nearest } 10^{\text{th}}. \\ 35\text{lbs} / 2.2\text{kg} = 15.90 \approx 15.9\text{kg} \\ 40\text{mg/kg} (15.9\text{kg}) = 636\text{mg per day} \rightarrow \\ 636\text{mg} / 6 = \boxed{106\text{mg per dose}} \end{aligned}$$

4. The medication order is to administer naloxone (Narcan) 1.5 mcg/kg STAT. The child weighs 36.3 pounds. How many mg of Narcan will the nurse give to the child?

$$\begin{aligned} 36.3\text{lbs} / 2.2\text{kg} = 16.5\text{kg} \\ 1.5\text{mcg/kg} (16.5\text{kg}) = 24.75\text{mcg} \approx 24.8\text{mcg} \\ = 24.8\text{mcg} \rightarrow 2\text{mg} = \text{STAT} = \frac{24.8}{1000} \\ = \boxed{0.0248\text{mg}} \end{aligned}$$

5. An individual is taking an antibiotic that contains penicillin (PCN) 180 mg in 5 mL. If the individual took 21 tsp of the medication in 7 days, how many milligrams of PCN would have been taken?

$$\begin{aligned} (\text{PCN}) : 180\text{mg per } 5\text{mL} \\ 21 \text{ tsp} = 5(21) = 105\text{mL total} \\ 105 / 5 \\ = 21(180\text{mg}) = \boxed{3780\text{mg}} \text{ in 7 days.} \end{aligned}$$