Dosage Calculation Worksheet #4

1. Ordered is flucloxacillin 250mg IM. Available is 1 G in 10 mL. How much should the nurse administer in mL?

$\frac{D}{H} \times V$ $250\,mg \times \frac{1\,g}{1{,}000\,mg} = 0.250$ $\frac{0.250\,g}{1\,g} \times 10 = \boxed{2.5\,mL}$

2. Order: Administer 160 mg IV. Available is 100 mg/2 mL. How much should the nurse administer in mL?

$\frac{160\,mg}{100\,mg} \times 2\,mL = \boxed{3.2\,mL}$

3. Azulfidine 1.5 g has been ordered every 12 hrs. Available are 500mg tablets. How many tablets should the nurse administer per day?

$500\,mg \times \frac{1\,g}{1{,}000\,mg} = 0.5\,g$ $\frac{1.5\,g}{0.5\,g} \times 1\,tab = 3\,tab \times 2 = \boxed{6\,tab}$

$24 \div 12 = 2$ x a day

4. Ergotrate maleate 200 mcg is ordered po daily. Available is 0.2 mg. How many tablets should the nurse administer?

$200\,mcg \times \frac{1\,g}{1{,}000{,}000\,mcg} \times \frac{1{,}000\,mg}{1\,g} = 0.2\,mg$ $\frac{0.2\,mg}{0.2\,mg} \times 1\,tab = \boxed{1\,tab}$

5. From 0700 to 1900 the nurse calculates the patient's total intravenous fluid intake as _?_ milliliters. An IV is infusing at 50 mL/hour. At 0900 the patient will receive IVPB of 125 mL for 30 minutes (1/2 hr). What is the total amount in mL the patient will receive during this time?

0700 - 1900 = 12 hrs − 1 hr = 11 hrs $50/2 = 25$

$11 \times 50\,mL = 550\,mL$ $25 + 125 = 150 + 550 = \boxed{700\,mL}$

6. Solumedrol 1.5 mg/kg is ordered for a child weighing 42 lb. Solumedrol is available as 75 mg / 1 mL is available. How many mL must the nurse administer?

$42\,lb \times \frac{1\,kg}{2.2\,lb} = 19.09\,kg \times 1.5\,mg = 28.64\,g$ $\frac{28.64\,g}{75\,mg} \times 1\,mL = \boxed{0.38\,mL}$

7. Give patient 17.1 mg of dopamine in 223 mL of D5W to be infused at a rate of 17,221 mcg/hr. Calculate the flow rate in mL/hr.

$17{,}221 \times \frac{1\,g}{1{,}000{,}000\,mcg} \times \frac{1{,}000}{1\,g} = 17.221\,mg/hr$ $\frac{17.221\,mg/hr}{17.1\,mg} \times 223\,mL = 224.57 \rightarrow \boxed{224.6\,mL/hr}$

8. Calculate the IV flow rate for 0.2 L of D5W IV over 462 min. Infusion set has drop factor of 59 gtts/mL. What is the IV flow rate in gtts/min?

$0.2\,L \times \frac{1{,}000\,mL}{1\,L} = 200\,mL$ $\frac{200\,mL}{462\,min} \times 59 = 25.54 \rightarrow \boxed{25.5\,mL/hr}$

9. Ordered Lasix 24 g IV push now. Available: 22,000,000 mcg in 12 mL. How much will the nurse draw up?

$22{,}000{,}000 \times \frac{1\text{g}}{1{,}000{,}000} = 22\text{g} \quad \frac{24\text{g}}{22\text{g}} \times 12\text{mL} = 13.09 \rightarrow$ 13.1mL

10. Calculate the IV flow rate for 392 mL of D5W IV over 582 min. Infusion set has drop factor of 74 gtts/mL. What is the IV flow rate in gtts/min?

$\frac{392\text{mL}}{582\text{min}} \times 74\text{gtts/mL} =$ 49.8 gtts/min

11. From 0700 to 1800 the nurse calculates the patient's total intravenous fluid intake as [1] milliliters. An IV is infusing at 100 mL/hour. At 0900 and 1500, the patient will receive IVPB of 75 mL for 30 minutes. What is the total amount the patient will receive during this time?

1800 − 700 = 11hrs − 2hrs = 9 × 100mL = 900mL + 250

(1hr) 75mL + 50 = 125

(1hr) 75mL + 50 = 125 > 250

= 1,150mL

12. Ordered 7 g of Amoxicillin. Amoxicillin is available as 0.016 kg per 20 mL. How much will the nurse draw up?

$0.016\text{kg} \times \frac{1{,}000\text{g}}{1\text{kg}} = 16\text{g} \quad \frac{7\text{g}}{16} \times 20\text{mL} = 8.75 \rightarrow$ 8.8mL

13. Potassium chloride is available as 0.016 kg per tablet. Potassium Chloride (K-Dur), 24,000,000 mcg, is ordered. How many tablets would the nurse administer?

$0.016\text{kg} \times \frac{1{,}000\text{g}}{1\text{k}} = 16\text{g} \quad \frac{24\text{g}}{16\text{g}} \times 1\text{tab} = 1.5 \rightarrow$ 1 ½ tab

$24{,}000{,}000 \times \frac{1\text{g}}{1{,}000{,}000\text{mcg}} = 24\text{g}$

14. Aggrastat at 23.8 mg in 129 mL is to be infused at 3 mcg/kg/hr in a patient who weighs 82 kg. At what flow rate in mL/hr will you set the pump?

$23.8\text{mg} \times \frac{1\text{g}}{1{,}000\text{mg}} \times \frac{1{,}000{,}000}{1\text{g}} = 23{,}800\text{mcg} \quad \frac{246\text{mcg/hr}}{23{,}800\text{mcg}} \times 129 =$ 1.3mL/hr

82 × 3mcg = 246mcg/hr

15. Administer 0.06 g of codeine po now. Available are 30 mg tablets. How many tablets should the nurse administer?

$0.06\text{g} \times \frac{1{,}000\text{mg}}{1\text{g}} = 60\text{mg} \quad \frac{60\text{mg}}{30\text{mg}} \times 1\text{tab} =$ 2 tab