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?

$$\frac{1000\,mg}{10\,mL}=\frac{250\,mg}{x} \quad 1000\,x=2,500=2.5mL$$

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

$$\frac{1000\,mg}{2\,mL}=\frac{160\,mg}{x} \quad 100\,x=320=3.2\,mL$$

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

$$\frac{0.5\,g}{tab}=\frac{1.5\,g}{x} \quad 0.5\,x=1.5=3x\,2=6\,tabs\;per\;day$$

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

$$\frac{200\,mcg}{tab}=\frac{200\,mcg}{x} \quad 200\,x=200=1\,tab$$

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. What is the total amount in mL the patient will receive during this time?

$$50\,mL\,x\,11.5\,hrs=575\,mL\;\;575\,mL+125\,mL=700\,mL$$

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?

$$42\,lbs\,x\,\frac{1\,kg}{2.2\,lbs}=19.1\,kg\,x\,\frac{1.5\,mg}{kg}=28.7\,mg\;\;\frac{75\,mg}{mL}=\frac{28.7\,mg}{x}\;\;75\,x=28.7=0.382=0.4\,mL$$

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.

$$17{,}221\,mcg\,x\,\frac{1\,mg}{1000\,mcg}=17.2\,mg\;\;\frac{17.2\,mg}{17.1\,mg}\,x\,223\,mL=224\,mL/hr$$

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?

$$0.2\,Lx\,\frac{1000\,mL}{L}=200\,mL\;\;\frac{200\,mL}{462\,min}\,x\,59\,\frac{gtts}{mL}=25.5\,gtts/min$$

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

$$22{,}000{,}000\,mcg\,x\,\frac{1\,mg}{1000\,mcg}\,x\,\frac{1\,g}{1000\,mg}=22\,g\;\;\frac{22\,g}{12\,mL}=\frac{24\,g}{x}\;\;22\,x=288=13.1\,mL$$

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?

$$\frac{392\,mL}{582\,min}\,x\,74\,\frac{gtts}{mL}=49.8\,gtts/min$$

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?

$$100\,mL\,x\,10\,hrs=1000\,mL\;\;\;\;1000\,mL+75\,mL+75\,mL=1{,}150\,mL$$

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

$$0.016\,kg\,x\,\frac{1000\,g}{kg}=16\,g\;\;\frac{16\,g}{20\,mL}=\frac{7\,g}{x}\;\;16\,x=140=8.8\,mL$$

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?

$$0.016\,kg\,x\,\frac{1000\,g}{kg}\,x\,\frac{1000\,mg}{g}\,x\,\frac{1000\,mcg}{mg}=\frac{16{,}000{,}000\,mcg}{tab}=\frac{24{,}000{,}000\,mcg}{x}$$
$$16{,}000{,}000\,x=24{,}000{,}000=1.5\,tabs$$

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?

$$82\,kg\,x\,\frac{3\,mcg}{kg\,x\,hr}=246\,\frac{mcg}{hr}\,x\,\frac{1\,mg}{1000\,mcg}=0.246\,mg/hr\,\frac{0.246\,mg}{23.8\,mg}\,x\,129\,mL=1.3\,mL/hr$$

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

$$30\,mg\,x\,\frac{1\,g}{1000\,mg}=0.03\,g\quad\frac{0.03\,g}{tab}=\frac{0.06\,g}{x}\quad0.03\,x=0.06=2\,tabs$$