

9. From 0700 to 1600 the nurse calculates the patient's total intravenous fluid intake as 1 milliliters. An IV is infusing at 150 mL/hour. At 1200, the patient will receive IVPB of 75 mL for 30 minutes. What is the total amount the patient will receive during this time?

$$8 \text{ hrs} \times \frac{150 \text{ mL}}{1 \text{ hr}} = 1200 \text{ mL}$$

$$75 \text{ mL} \times 1 = 75 \text{ mL}$$

$$1200 \text{ mL} + 75 \text{ mL} = \boxed{1275 \text{ mL}}$$

10. Administer 5 milligrams of acyclovir in 75 milliliters of normal saline over 15 minutes. The nurse will set the IV pump at 1 mL/hour.

$$75 \text{ mL} \times 4 = \boxed{300 \text{ mL/hr}}$$

11. Phenytoin (Dilantin), 7,000,000 mcg PO, is ordered to be given through a nasogastric tube. Phenytoin is available as 5,000 mg / 18 mL. How much would the nurse administer? Round to a whole number.

1 mg = 1000 mcg

$$7,000,000 \text{ mcg} \times \frac{1 \text{ mg}}{1000 \text{ mcg}} = 7000 \text{ mg} \times \frac{18 \text{ mL}}{5000 \text{ mg}} = 25.2 = \boxed{25 \text{ mL}}$$

12. Solumedrol 1.5 mg/kg is ordered for a patient weighing 74.8 lb. Solumedrol is available as 125 mg / 2 mL. How many mL should the nurse administer?

$$74.8 \text{ lb} \times \frac{1 \text{ kg}}{2.2 \text{ lb}} = 34 \text{ kg} \times \frac{1.5 \text{ mg}}{1 \text{ kg}} = 51 \text{ mg} \times \frac{2 \text{ mL}}{125 \text{ mg}} = \boxed{0.82 \text{ mL}}$$

13. Give patient 24.4 mg of dopamine in 363 mL of D5W to be infused at a rate of 9,818 mcg/hr. Calculate the flow rate in mL/hr.

$$9818 \text{ mcg} \times \frac{1 \text{ mg}}{1000 \text{ mcg}} = 9.818 \text{ mg/hr}$$

$$\frac{24.4 \text{ mg}}{363 \text{ mL}} = 0.067 \text{ mg/mL}$$

$$\frac{9.818 \text{ mg}}{\text{hr}} \times \frac{\text{mL}}{0.067 \text{ mg}} = \boxed{147 \text{ mL/hr}}$$

14. Give patient 10.1 mg of dopamine in 251 mL of D5W to be infused at a rate of 6 mg/hr. Calculate the flow rate in mL/hr.

$$\frac{10.1 \text{ mg}}{251 \text{ mL}} = 0.04 \text{ mg/mL}$$

$$\frac{6 \text{ mg}}{\text{hr}} \times \frac{\text{mL}}{0.04 \text{ mg}} = \boxed{150 \text{ mL/hr}}$$

15. Ordered Lasix 12,000,000 mcg IV push now. Available: 0.025 kg in 15 mL. How much will the nurse draw up?

$$12,000,000 \text{ mcg} \times \frac{1 \text{ kg}}{1,000,000,000 \text{ mcg}} = 0.12 \text{ kg} \times \frac{15 \text{ mL}}{0.025 \text{ kg}} = \boxed{72 \text{ mL}}$$