

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?

0700 to 1200 - 150 ml/hr so $150 \text{ mL} \times 5 \text{ hrs} = 750 \text{ mL}$
 1200 to 1230 - 75 mL / 30 mins = 75 mL
 1230 to 1600 (3 1/2 hrs) 150 mL/hr = $150 \text{ mL} \times 3.5 \text{ hrs} = 525 \text{ mL}$
 $750 \text{ mL} + 75 \text{ mL} + 525 \text{ mL} = \boxed{1350 \text{ mL}}$

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.

$\frac{75 \text{ mL}}{15 \text{ mins}} \times 4 = \frac{75 \text{ mL}}{60 \text{ mins}} \times 4 = \boxed{300 \text{ mL/hr}}$

kg g mg mcg
 $\div 1000$

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.

$7,000,000 \div 1000 = 7000 \text{ mg}$ - order Available - 5,000 mg / 18 mL
 $\frac{DV}{H} = \frac{7000 \times 18 \text{ mL}}{5000} = 25.2 = \boxed{25 \text{ mL}}$

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?

Order 1.5 mg/kg 74.8 lb $\div 2.2 = 34 \text{ kg}$
 $1.5 \times 34 \text{ kg} = 51 \text{ mg}$
 $\frac{DV}{H} = \frac{51 \text{ mg} \times 2 \text{ mL}}{125 \text{ mg}} = 0.816 = \boxed{0.82 \text{ mL}}$

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.

$9818 \div 1000 = 9.8 \text{ mg/hr}$ $24.4 \text{ mg} / 363 \text{ mL}$ $363 \div 2.49 = 145.8 = \boxed{146 \text{ mL/hr}}$
 $9.8 \text{ mg} \times 2.49 = ?$

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.

$10.1 \text{ mg} / 251 \text{ mL}$ $10.1 \text{ mg} = 6 \text{ mg} = 1.68$
 6 mg/hr $251 \text{ mL} : 1.68 = \boxed{149.4 \text{ mL/hr}}$

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

$12,000,000 \text{ mcg} = 12,000 \text{ mg}$ ← order
 $0.025 \text{ kg} = 25,000 \text{ mg}$ Available 25,000 mg / 15 mL
 $\frac{25,000 \text{ mg}}{15 \text{ mL}} = \frac{12,000 \text{ mg}}{?} = \frac{12,000 \text{ mg} \times 15 \text{ mL}}{25,000 \text{ mg}} = \boxed{7.2 \text{ mL}}$