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Dosage Calc Homework - page 2

11. 175 lbs = 79.5 kg
50 mg / 500 mL = 0.1 mg/mL

0.1 mg = 100 mcg/mL

$\frac{100 \times 142}{79.5 \times 60} = \frac{14,200}{4,770} = 2.97 = \boxed{3 \text{ mcg/kg/min}}$

12. 70 kg

250 mg / 500 mL = 0.5 mg/mL = 500 mcg/mL

$\frac{70 \times 1 \times 60}{500 \text{ mcg}} = \frac{4,200}{500} = \boxed{8.4 \text{ mL/hr}}$

13. 100 mg / 250 mL = 0.4 mg/mL = 400 mcg/mL
 $\frac{400 \text{ mcg} \times 12 \text{ mL/hr}}{60 \text{ min}} = \boxed{80 \text{ mcg/min}}$

14. 75 kg

800 mg / 500 mL = 1.6 mg/mL = 1,600 mcg/mL

$\frac{75 \text{ kg} \times 2 \text{ mcg/kg/min} \times 60}{1,600 \text{ mcg/mL}} = \frac{150}{1,600} = \boxed{5.6 \text{ mL/hr}}$

15. $\frac{4 \text{ mcg} \times 60}{64 \text{ mcg}} = \frac{240}{64} = \boxed{3.8 \text{ mL/hr}}$

16. $\frac{50 \text{ mcg} \times 15 \text{ mL/hr}}{60 \text{ min}} = \boxed{12.5 \text{ mcg/min}}$

17. $\frac{25,000}{250} = 100 \text{ units/mL}$ $\frac{500}{100} = \boxed{5 \text{ mL/hr}}$

18. $\frac{100}{250} = 0.4 \text{ units/mL}$ $\frac{5}{0.4} = 12.5 = \boxed{13 \text{ mL/hr}}$

19. $4 \text{ mL} \times 50 + \text{bsa} \times 90.9 = \frac{1000}{18} = \boxed{18 \text{ liters}}$

20. $\frac{4 \text{ mL} \times .75 \times 68.1 \text{ kg}}{1000} = \frac{20,430}{1000} = 20.4 = \boxed{20 \text{ liters}}$