Dakota Clayton
322 – Med math assignment 2

Self-test 1 pg. 269

1. 800 units/hour IV heparin
    a. 8 mL/hr
    b. 31.25 hours
2. 100 mL/hr
3. 1000 mL / 24 hr = 41.7 mL/hr
4. 100 mL / 125 mg * 10 mg = 8 mL/hr
5. 100 mL / 100 mg * 4 mg = 4 mL/hr
6. 15 units/hr IV insulin
    a. 250 mL / 125 units * 15 units = 30 mL/hr
    b. 8.3 hrs
7. 250 mL / 24 hr = 10.4 mL/hr
8. Heparin 1200 units/hour IV
    a. 500 mL / 25,000 units * 1200 units = 24 mL/hr
    b. 20.8 hrs
9. Regular insulin 23 units/hour
    a. 250 mL / 250 units * 23 units = 23 mL/hr
    b. 10.9 hrs
10. 250 mL * 100,000 / 750,000 = 33.3 mL/hr

Proficiency test pg. 244

1. 1000 mL D5NS; 150 mL/hr
    a. 1000 mL / 150 mL = 6.7 hrs
    b. 150 mL / 1 hr * 60 gtt / 1 mL * 1 hr / 60 min = 150 gtt/min microdrip
    c. Depends what available! Macrodrip is likely better
2. 100 mL LR 6 hour drip
    a. 100 mL / 360 minutes * 10 gtt = 3 gtt/min
    b. Macrotubing
3. 150 mL NS over 3 hour
    a. Runoff 100 mL NS to obtain 150 mL NS
    b. 150 mL/3 hr * 15 gtt / 60 min = 13 gtt/min
    c. Macrotubing
4. 500 mL / 24 hrs = 20.8 mL/hr
5. Doxycycline 100 mg IV
    a. Reconstitute 100 mg into 250 mL D5W
    b. 250 ml/1 hr * 10 gtt / 60 minutes = 42 gtt/min
6. Aminophylline 500 mg in 250 mL
    a. 5 mL aminophylline = 500 mg
    b. 250 mL / 8 hr = 31.2 mL/hr
7. 125 mL * 20 hr = 2,500 mL + 75 mL * 4 = 2,800 mL

8. 1000 mL NS at 90 mL/hr
    a. 90 mL/hr
    b. 1000 mL / 90 mL = 11.1 hrs
9. 500 mL = 500 mg; 50 mg/hr
10. Trimethoprim and Bactrim 5 mL Q6
    a. 75 mL D5W; 1 hour (60 minutes)
    b. For 90 minutes = 75 / 1.5 hr = 50 mL/hr
11. 150 * 0.75 = 112.5 mL isocal; 37.5 mL H2O
12. 250 mL vivonex; 250 mL H2O
13. 400 * 0.25 = 100 mL osmolyte; 300 mL H2O
14. 500 mL isocal; 0 mL H2O