Dakota Clayton
322 – Med Math assignment 3
Case study – pg. 291-293

Calculations

1. 30,000 mcg / 500 mL = 60 mcg/mL
2. 100 mcg/min = 1.7 mL/min
    a. 1.7 mL/min = 100 mL/hr
3. 4,000 mcg / 500 mL = 8 mcg/mL
4. 0.5 mcg/min = 0.063 mL/min
    a. 0.063 mL/min = 3.8 mL/hr
5. 12 units/kg/hr
    a. 90 kg * 12 = 1,080 units/hr
6. 500 mL * 1,080 units = 540,000
    a. 540,000 / 25,000 = 21.6 mL/hr
    b. Next PTT in 6 hours
7. 1000 mg
8. 450 mcg/min
    a. 450 / 166.7 = 2.7 mL/hr

Critical thinking

1. Both phenylephrine and norepinephrine are being used as vasopressors to elevate the client's heartrate. Given that the client has a history of hypertension, these medications may work too well and send the patient into a hypertensive crisis when the hypotension subsides.
2. The two vasopressors are given together because they have different mechanisms of action and work in a synergistic way.
3. Propofol is being used for sedation because the client is intubated.
4. Diltiazem and/or verapamil may help the AFib but are contraindicated because they are calcium channel blockers.
5. The drop in blood pressure may be leading to the sinus tachycardia.
6. Medications like pantoprazole are given slowly to assess any allergic reactions and/or any immediate adverse reactions to the medication.