Ch. 7 Case Study

Pg 291-293

Julia B

Calculations

1. $\frac{30mg}{500mL} \times \frac{1000mcg}{1mg} = \boxed{60 mcg/mL}$

2. ~~[illegible]~~ 1 mcg/min

$\frac{500mL}{50mg} \times \frac{100mcg}{1min} \times \frac{60min}{1hr} \times \frac{1mg}{1000mcg} = \boxed{100mL/hr}$

3. $\frac{4mg}{500mL} \times \frac{1000mcg}{1mg} = \boxed{8mcg/mL}$

4. $\frac{500mL}{4mg} \times \frac{0.5mg}{min} \times \frac{60min}{1hr} \times \frac{1mg}{1000mcg} = \boxed{4mL/hr}$

5. $90 \times 12 = \boxed{1080 units/hr}$

6. $\frac{500mL}{25000units} \times \frac{12units}{kg/hr} \times 90kg = 21.6 \approx \boxed{22mL/hr}$

7. $\frac{10mg}{1mL} \times 100mL = \boxed{1000mg}$

8. $5 \times 90 = 450 mcg/min$

$\frac{100mL}{1000mg} \times \frac{5mcg}{kg/min} \times \frac{60min}{1hr} \times \frac{1mg}{1000mcg} \times 90kg = 27 \approx \boxed{3mL/hr}$

$\frac{100mL}{1600mg} \times \frac{50mcg}{kg/min} \times \frac{60min}{1hr} \times \frac{1mg}{1000mcg} \times 70kg = \boxed{27mL/hr}$

Critical Thinking

1. The dt of renal failure can affect the drug process in the body which can mean ineffective absorption and lead to build up. The client may need a higher or lower drug dose.

2. Two vasopressures together are used to effectively treat Shock and raise BP (or MAP).

3. The propofol is used to keep the client sedated while she is intubated.

4. Diltiazem (cardizem) is a calcium channel blocker that can be used for a-fib but is contraindicated d/t the clients allergy.

5. Vasopressures can cause an increase in heart rate.

6. Pushing an IV drug slow can help side effects from occuring. Giving Protonix too fast can cause nausea.