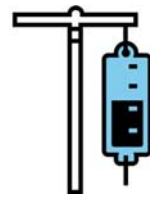


Critical Care Calculations

Study Guide



Work out the answers in the 10 sample questions below. The answers and formulas are on the following page. We encourage you to practice ALL the equations so that you are capable of correctly calculating IV medications seen in the ICU setting.

Practice Questions

1. Your patient has dobutamine ordered at 15 mcg/kg/min. the patient weighs 75 kg. The 250 mL IV bag has 500 mg of dobutamine in it. What rate will you set for your IV?
2. The order reads amiodarone 0.5 mg/min. You have 450 mg amiodarone in 250 mL fluid. What rate will you run your IV at?
3. Your patient is to receive nitroglycerine at 12mcg/min. Your IV bag has 50 mg of nitroglycerine in 250 mL. What rate will you set for your IV?
4. Your patient patient has a dobutamine IV drip running. The IV rate is 30 mL/hour. The IV bag has 500 mg of dobutamine in 250 mL of fluid. How many mcg/kg/min is your patient receiving?
5. Your patient is on a heparin drip with 20,000 units in a 250 mL bag of fluid. The order is to deliver heparin at 750 units per hour. What rate will you set for your IV? (**HINT: Since the rate is per hour, you will not have to multiply by 60 minutes!**)
6. Your patient has diltiazem ordered at 2 mg/hour. Your IV bag has 125 mg of medication in 500 mL. What rate will you set for your IV? (**HINT: Since the rate is per hour, you will not have to multiply by 60 minutes!**)
7. Your patient has vasopressin ordered at a rate of 0.2 units/min. Your IV bag has 200 units of vasopressin in a 500 mL bag. What rate will you set for your IV?
8. Your esmolol drip is running at 15 mL/hour. Your patient weighs 65 kg. The IV contains 2500 mg esmolol in 250 mL fluid. Your IV is running at how many mg/kg/min?
9. You have an order to run dopamine at 15 mcg/kg/min. Your IV bag has 500 mg dopamine in 500 mL. Your patient weighs 50 kg. What rate will you set for your IV?
10. You have an order to run nitroglycerine at 16 mcg/min. You have a solution of 50 mg of nitroglycerine in 250 mL fluid. What rate will you set for your IV?