Imperial Valley College
Division of Nursing Education and Health Technologies
NURS

Study Guide

Critical Care IV's

1. Administer Dopamine at 8 mcg/Kg/min to a 65 Kg patient. The concentration on hand is 500 mL NS c 400 mg Dopamine. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

2. Administer Dobutrex @ 3.5 mcg/Kg/min to a 70 Kg patient. The concentration on hand is 250 mL of D_5W c 250 mg Dobutrex. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

3. Administer Dopamine 8 mcg/Kg/min to a 180 pound patient. The concentration on hand is 500 mL of D_5W c 200 mg Dopamine. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

4. Administer Dobutrex at 8 mcg/Kg/min to a 70 Kg patient. The concentration on hand is 200 mL of D_5W c 250 mg Dobutrex. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

5. Administer Dobutrex at 10 mcg/Kg/min to a 198 pound patient. The supply on hand is 250 mL D_5W c 250 mg Dobutrex. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

6. Administer Dopamine at 6 mcg/Kg/min to an 80 Kg patient. The supply available is 500 mL of D_5W c 400 mg Dopamine. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

7. Administer Nipride at 4 mcg/Kg/min to a 55 Kg patient. The concentration on hand is 500 ml of NS c 50 mg Nipride. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

8. Administer a Nipride drip at 0.8 mcg/Kg/min to a 66 Kg patient. The concentration used is 200 mcg Nipride per 1mL. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

9. Administer Dopamine at 7.27 mcg/Kg/min to a 55 Kg patient. The concentration on hand is 500 mL D_5W c 400 mg Dopamine. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

10. Administer Nipride at 1.54 mcg/Kg/min to a 143 pound client. The concentration on hand is 250 mL NS c 50 mg Nipride. Using a drop factor of 60 gtts/mL, calculate the:

   a. volume/hr

   b. volume/min

11. Administer Dobutrex at 18 gtts/min to an 80 Kg patient. The concentration on hand is 250 mL of D_5W c 250 mg Dobutrex. Using a drop factor of 60 gtts/mL, calculate the dosage in mcg/Kg/min the patient is receiving. Calculate to two (2) decimal places.

12. Administer a Nipride drip at 20 mL/hr to a 70 Kg patient. The concentration on hand is 250 mL D_5W c 50 mg Nipride. Calculate in mcg/Kg/min the dosage the patient is receiving. Calculate to two (2) decimal places.

13. Administer Dopamine at 20 gtts/min through a tubing c a drop factor of 60 gtts/mL to a 110 pound patient. The concentration on hand is 500 ml of D_5W with 400 mg Dopamine. Calculate in mcg/Kg/min the dosage the patient is receiving. Calculate to two (2) decimal places.

14. Administer a Nipride drip at 38 mL/hr to a 200 pound patient. The concentration on hand is 250 mL of NS with 50 mg Nipride. Calculate in mcg/Kg/min the dosage that the patient is receiving. Calculate to two (2) decimal places.

15. A 100 pound patient is receiving a Nipride drip at 8 mcg/Kg/min through a tubing with a drop factor of 60 gtts/mL. The concentration on hand is 250 mL D_5W with 400 mg Dopamine. Calculate the:

    a. volume/hr

    b. volume/min

16. A 59 Kg patient is receiving Dobutrex at 20 mL/hr. The concentration being used is 500 mL D_5W with 250 mg Dobutrex. Calculate the dosage the patient is receiving in mcg/Kg/min. Calculate to two (2) decimal places.

17. T.C is a 64 year-old female admitted to the coronary care unit with a diagnosis of severe cardiac problems. T.C weighs 109 lb. Currently she has severe dyspnea and her blood pressure is 80/50 mm Hg. Among her medical orders are:

Oxygen at 3 L/min	Cardiac monitor on V1 continuously
Vital signs q15min	Pulmonary wedge pressure q 1hr
Hourly output	Limit fluid to 1500 cc/24 hours
IV of 250 cc D_5W at KVO	Start Dobutrex at 5 mcg/Kg/min.

The pharmacy sends 250 mg Dobutrex dissolved in 250 mL NS. Calculate the volume/minute for the Dobutrex drip using a tubing with a drop factor of 60 gtts/1mL.

18. M.K., a 63 year-old male, was admitted through the emergency room with a medical diagnosis of Acute Myocardial Infarction. Among his medical orders are O_2 per ventimask at 40%, vital signs q 15 min; limit fluids to 1500 mL/24 hr; I.V. of 500 cc of NS at 25 mL/hr; Nitrostat (nitroglycerin) 5 mcg/min initially diluted to 100 mcg/mL in a glass bottle; PCWP q 1 hr. If PCWP falls, reduce Nitrostat gradually and discontinue drug temporarily. Calculate the volume/minute for the Nitrostat drip.

19. The order is to give Dobutrex (dobutamine) 250 mg in 250 mL of D_5W at a rate of 6 mcg/Kg/min. The patient weighs 50 kg. Using 60 gtts/mL, find the rate of the IV in gtts/min.

20. The order is to give Intropin (dopamine) at a rate of 7 mcg/Kg/min. The concentration of the IV solution is 400 mcg/mL, with 200 mg dissolved in 500 mL. The patient weighs 130 lb. Find the rate in gtts/min.

21. Nipride (nitroprusside) is to be infused at 0.7 mcg/kg/min using 50 mg in 250 mL of D_5W. The patient weighs 75 kg. Using 60 gtts/mL, find the rate in gtts/min.

22. The order is for Intropin (dopamine) 13 mcg/kg/min using 400 mg in 500 mL of NS. The patient weighs 90 kg. Using 60 gtts/mL, find the rate in gtts/min.

23. The patient is to receive Nipride at 0.5 mcg/kg/min using a concentration of 100 mcg/mL. The patient weighs 125 lb. Find the rate in cc/hr using 60 gtts/mL.

24. The patient is receiving Intropin (dopamine) at a rate of 25 cc/hr. The weight of the patient is 65 kg. The concentration of Intropin is 200 mg in 250 mL. Find the mcg/kg/min the patient is receiving. Calculate to two (2) decimal places.

25. A 180 lb patient is receiving Nipride (nitroprusside) at 30 gtts/min with a drop factor of 60 gtts/mL. The concentration of the solution is 50 mg per 250 mL. Find the mcg/kg/min the patient is receiving. Calculate to two (2) decimal places.

26. A 156 lb patient is receiving Dobutrex (dobutamine) 24 mL/hr through a minidrop. The concentration of the solution is 250 mg/250 mL. Find the mcg/kg/min that the patient is receiving. Calculate to two (2) decimal places.

27. Intropin (dopamine) is being infused at a rate of 35 cc/hr using minidrop tubing. The patient weighs 85 kg and the concentration of the solution is 800 mcg/mL. Find the mcg/kg/min the patient is receiving. Calculate to two (2) decimal places.

28. A 78 kg patient is receiving Nipride (nitroprusside) at 20 gtts/min through a minidrop. The concentration of the solution is 200 mcg/mL. Find the mcg/kg/min the patient is receiving. Calculate to two (2) decimal places.