Module 1 Worksheet

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1. **Infuse ceftriaxone 1 gram over 45 minutes. The drug is supplied as 1gram/50ml. The drip factor is 15. How many gtt/min will you infuse?**

   50 ml x 15 gtt/60 min = 12.5 gtt/min or 13 gtt/min rounded

2. **The physician writes an order to give 1000mL of normal saline over 8hrs. How many mL/hr. will you infuse?**

   1000 ml /8 hrs. = 125 ml/hr

3. **Infuse vancomycin hydrochloride 1.5 gram over 3 hours. The drug is supplied as 1.5 gram/250mL. The drip factor is 15. How many gtt/min will you infuse?**

250 ml x 15 gtt/60 min. = 62.5 gtt/min or 63 gtt/min rounded up

4. **An order has been written to give cefazolin 1gram over 30 minutes. The drug is supplied as 1 gram/50mL. The gtt factor is 60. How many gtt/min will you infuse?**

50 ml x 60gtt/ 60 min = 3000/60 = 50 gtt/min x 2 = 100 gtt/min

5. The nurse is to give Ciprofloxacin 500mg IV over 1 hr. The drug is supplied as 1gram/250mL. The gtt factor is 15. How many gtt/min will you infuse?

1 gm x 1000 = 1000mg 1000 mg ÷2 = 500 mg 250 ml ÷2 = 125 ml

500mg x 15 gtt/125ml = 7500÷125 ml = 60 gtt/min

The nurse will have to call the pharmacy and have them remove half of the bag, or make sure to remove the ciprofloxacin when the infusion is complete to make sure the patient does not receive more than prescribed.

6. An order is received for Fentanyl 75mcg IV now. The drug is supplied as 100mcg/2mL. How many mL will you give?

100mcg/2ml = 50 mcg/ml

50mcg/ml = X/75mcg

X = 1.5 ml to be administered

7. Infuse 1000 mLs normal saline over 4 hrs. How many mL/hr will you set on the pump?

1000ml/4 hrs = 250 ml/hr

8. The patient is to receive metoprolol 5mg for chest pain. The drug is supplied as 20mg/5mL. How many mL will you give? (Do not round your final answer)

20mg/5ml = 4mg/ml
5mg/4mg = 1.25 ml

9. The order is to give midazolam 2mg IV now. The drug is supplied as 10mg/mL. How many mL will you give?

2mg/X = 1ml/10mg = 0.2 ml

10. Infuse meropenem 1gm IV over 8 hrs. The drug is supplied as 1gm/100mL. The drip factor is 60. How many gtt/min will you infuse?

100 ml X 60 = 6000 ÷ 60 X 8 = 6000 ÷480 = 12.5 gtt/min or 13 gtt/min