

LURLEEN B. WALLACE COLLEGE OF NURSING AND HEALTH SCIENCES  
NU 324 Child and Family Health  
Study Guide

DIRECTIONS:

- Show all work.
  - Circle your answers.
  - Give the units of measurement in your answer and round to the nearest tenth.
1. **The nurse practitioner orders Zithromax suspension for a child to be given once daily according to the recommended dose. The child weighs 44 lbs. The drug information recommends Zithromax 5 mg / kg / day be given as a daily dose. Zithromax is available as 100 mg / 5 ml.**
    - A. **What is the recommended DAILY dose?**
  
  
  
  
  
  
  
  
  
  
    - B. **How many mL should be given according to the calculated (in problem A.) recommended dose?**
  
  
  
  
  
  
  
  
  
  
  2. **A child weighing 22 lbs has an order for Versed on call to the CT Scan. The doctor's order reads: "Give 0.5-1.0 mg/kg to get child relaxed enough to lay still for the procedure".**
    - A. **What is the dose range that may be administered to the child for this one time dose?**
  
  
  
  
  
  
  
  
  
  
    - B. **Utilizing the lowest calculated dose (in problem A.) how many mL will the nurse administer if Versed comes as 2 mg/ mL?**
  
  
  
  
  
  
  
  
  
  
  3. **Omnipen oral suspension is ordered QID for a 33 pound child. The drug literature states that the recommended dose of Omnipen is 50 mg / kg / day, and that is should be given in four equally divided doses. Omnipen is available as 250 mg / 5 ml.**

- A. What is the recommended DAILY (for the entire 24 hours) of Omnipen?**
- B. Utilizing the daily dose (calculated in problem A.) what is the QID dose?**
- C. Utilizing the QID dose (calculated in problem B.) how many mL will be given per dose?**
- 4. A child has a per dose order for Kanamycin sulfate 100 mg p.o. The medication is available in a vial containing 75 mg / 2 mL. How many mL of medication should the child receive?**
- 5. A 66 pound child has an order for Viracept 20-30 mg / kg / day in three evenly divided doses not to exceed 750 mg per day.**
- A. What is the DAILY (for the entire 24 hours) dosage range of Viracept the child could receive?**
- B. Utilizing the highest safe daily dose (calculated in problem A.) how many mg will the child receive per TID dose?**

6. A 15 pound child has an order for Keflin IM. The PDR states that the recommended range for Keflin is 50 – 100 mg / kg / day in 4 divided doses. Keflin is available in a vial containing 500 mg / 2.2 ml.
- A. What is the recommended DAILY (for the entire 24 hours) dosage range for Keflin?
  - B. Utilizing the daily dosage range (calculated in problem A.) what is the every six hour dosage range of Keflin?
  - C. Utilizing the every six hour dosage range (calculated in problem B.) what is the appropriate range in mL the child could receive?
7. A child has a NG tube. The physician's order states: "Replace NG drainage mL for mL with D<sub>5</sub> 1/4 NS + 10 mEq KCl/L every 8 hours." If the child has had 350 mL of NG drainage out over the past 8 hours how many mL/hr will the nurse set the pump to replace the drainage over the next 8 hours?
8. A child has an order for Prilosec 20 mg per dose to be given twice daily. The Pyxis only has 10 mg tablets. How many tablets will you give per 20 mg dose?

9. A 20 pound child has an order for Streptomycin BID. The PDR recommends that Streptomycin 30 mg / kg / day should be given in 2 divided doses. Streptomycin is available as 1 Gm. / 2 ml.
- A. What is the recommended DAILY (for the entire 24 hours) dosage of Streptomycin?
  
  
  
  
  
  
  
  
  
  
  - B. Utilizing the calculated daily dose (in problem A.) what is the BID dose of Streptomycin?
  
  
  
  
  
  
  
  
  
  
  - C. Utilizing the BID dose (calculated in problem B.) how many mL should the child receive per dose?
10. A 6-year old child has a physician's ordered dose of Morphine 1.5 mg every 4 hours prn. The child weighs 70 lbs. As part of the JCAHO safety requirements, the nurse must verify the safe range prior to administering the medication. The safe range is 0.1-0.3 mg/kg/dose. Morphine is supplied 10 mg/mL?
- A. What is the recommended safe dose range?
  
  
  
  
  
  
  
  
  
  
  - B. Is the ordered dose (Morphine 1.5 mg) within the safe dose range? If not, what would you do?
  
  
  
  
  
  
  
  
  
  
  - C. How many mL will the nurse administer to give the physician's ordered dose of Morphine?

11. The patient has a scheduled dose of Rocephin 350 mg IV Q 8 hours. The drug reference recommends the dilution range for Rocephin administration as 10-40 mg/ml. Pharmacy has sent a syringe containing Rocephin 350 mg in 4 ml. The standard pediatric IV set with soluset requires a 20 ml flush volume and a 60 gtt/ml drip factor?

- A. What is the dilution range needed to administer this dose of Rocephin?
- B. What should your rate be to infuse this drug in the lowest safe volume of fluid if you need to infuse it in 30 minutes?

#### Answer Key

- 1 a. 100 mg/day  
1 b. 5 ml  
2 a. 5-10 mg  
2 b. 2.5 ml  
3 a. 750 mg/day  
3 b. 187.5 mg/dose  
3 c. 3.75 ml or 3.8 ml  
4. 2.7 ml  
5 a. 600-900 mg/day not to exceed 750 mg/day  
5 b. 250 mg/dose (do not use more than 750 mg/day). Therefore,  $750/3=250$  mg for max dose!  
6 a. 340-680 mg/day  
6 b. 85-170 mg/every 6 hour dosage

- 6 c. 0.4-0.7 ml
- 7. 43.8 ml
- 8. 2 tablets
- 9 a. 273 mg/day
- 9b. 136.5 mg/dose
- 9 c. 0.3 ml
- 10 a. 3.2-9.5 mg/dose
- 10 b. Yes safe, but too low dose not effective or therapeutic. Contact MD.
- 10 c. 0.2ml
- 11 a. 8.8-35 ml
- 11 b. 65.6 ml/hour or 66 ml/hour