Pediatric Med Math Practice Quiz 3 Key
Show your calculations

1. Order: dexamethasone 1.5 mg PO BID

   Supply: tablet 0.75 mg

   Answer: 2 tablets

2. Order: digoxin 0.25 mg PO daily

   Supply: scored tablets 0.5 mg

   Answer: 1/2 tablet

3. Order: ampicillin 0.5 g PO q6 hours

   Supply: capsules 250 mg

   Answer: 2 capsules

4. Order: prednisone 10 mg PO TID

   Supply: tablet 2.5 mg

   Answer: 4 tablets

5. Order: nifedipine 20 mg PO BID

   Supply: capsules 10 mg

   Answer 2 tablets

6. Diphenhydramine 5 mg/kg/day to be given every 6 hours. Child weighs 44 lbs. How many mg/dose?
   a. 44 lbs = 20 kg
   b. 5 mg(20 kg)= 100 mg/day
   c. 100/4 = **25 mg/dose**

7. Prednisone 2 mg/kg/day to be given every 12 hours. Child weighs 22 lbs. How many mg/dose?
    a. 22 lbs = 10 kg
    b. 2mg (10 kg)= 20 mg/day
    c. 20/2= **10 mg/dose**

8. Digoxin 0.010 mg/kg/day to be given every 12 hours. Child weighs 44 lbs. Available elixir is 0.05 mg/mL. How many mL/dose?
    a. 44 lbs= 20 kg
    b. 0.010mg(20 kg)= 0.2 mg/day
    c. 0.2/2= 0.1 mg/dose
    d. 0.01/0.05 x1 = **2 mL/dose**

9. Child weighs 18 kg. Calculate hourly rate of IVF, round to the nearest whole number.
    a. 1000 mL + 50(8)
    b. 1000 mL + 400 = 1400
    c. 1400/24 = 58.33 **~58 mL/hr**

10. Child is 21 kg and 116 cm tall. Calculate their body surface area.
    a. 21 (116) = 2436
    b. 2436/3600= 0.676
    c. Square Root of 0.676= **0.82 m2**

11. Child is 42 lbs. and 36 inches tall. Calculate their body surface area. Round to the nearest hundredth.
    a. 42/2.2= 19.09090909 kg
    b. 36(2.54)= 91.44 cm
    c. $\sqrt{19.09090909(91.44)}$
    d. $\sqrt{\frac{1745.6727}{3600}}$
    e. $\sqrt{0.484909}$
    f. ¿$0.696354\,m\,2$

g. $0.70\,m2$

12. Order: Amoxicillin 70 mg q8

    Weight: 20 lbs

    Supply: Amoxicillin 125 mg/5 mL

    Literature: 20-40 mg/kg/day in divided doses every 8 hours

    Determine if the order is safe and calculate the amount needed. Round to the nearest hundredth.

    a. 20 lbs = 9.09 kg
    b. 20(9.09) = 181.8 mg/day (Low end)
    c. 40(9.09) = 363.6 mg/day (High end)
    d. **Range: 181.8—363.6 mg/day**
    e. 70 mg (dose TID) X 3 =210 mg/day → Safe Dose, within range
    f. 70 mg/125 mg = 0.56
    g. 0.56(5)= **2.8 mL/dose**

13. Order: Ferrous sulfate 200 mg PO TID

    Weight: 30 kg

    Supply: bottle of 125 mg/5 mL

    Literature: 600 mg/day divided TID

    Determine if the order is safe and calculate the amount needed. Round to the nearest hundredth.

    a. Dose is safe: 200 mg is within range of 600 mg/day
    b. 200 mg/125 mg = 1.6
    c. 1.6(5)= **8 mL/dose**

14. Order: Metoclopramide 5 mg PO q6
    Weight: 30 kg
    Supply: syrup 5 mg/5 mL
    Literature: 0.1 – 0.2 mg/kg/dose up to QID
    a. 0.1(30) = 3 mg/dose (Low end)
    b. 0.2(30) = 6 mg/dose (High end)
    c. **Range: 3 mg-6 mg/dose →Safe dose, 5 mg within range**
    d. 5 mg/5 mL = 1
    e. **1 (5)= 5 mL/dose**

15. Order: Phenytoin 60 mg PO BID
    Weight: 12 lbs 8 oz
    Supply: suspension 30 mg/5 mL
    Literature: 4-8 mg/kg/day divided into 2 doses. Maximum dose is 300 mg/day
    a. 8 oz = 0.5 lb
    b. 12.5 lbs = 5.68 kg
    c. 5.68 (4 mg)= 22.72 (Low end)
    d. 5.68 (8 mg)= 45.44 (High end)
    e. **Range: 22.72 mg—45.44 mg/day**
    f. **Range PER DOSE: 11.36—22.72 mg/dose**
    g. **60 mg>22.72 mg, dose is out of range, speak with the provider.**

16. Order: Digoxin 100 mcg PO BID
    Weight: 32 lbs.
    Supply: 0.05 mg/mL
    How many mL does the nurse draw up?
    a. 100 mcg= 0.1 mg
    b. 0.1/0.05= 2
    c. 2 (1 mL)= 2 mL