Medication/ Math

1. Answer: Yes

350 mg /25 mL = 14 mg/mL

The dilution is appropriate.

2. Answer: 18 mg /10 ml = 1.8 mg/mL

3. Answer: B. 1.200 mg every 4 hours

200 mg x 30 kg = 6,000 mg

300 mg x30 kg = 9,000 mg > in 24 hours

A 30 kg child can receive 6,000-9,000mg of piperacillin sodium in 24 hours

1,200 x 6 = 7,200 mg in 24 hours

7,200 mg in 24 hrs. is within the range.

4. **Answer: Yes**

Recommended range = 1,000 mg – 1,500 mg

50 mg x 20kg = 1000 mg

kg

75 mg x 20 kg = 1,500 mg

Kg

5. **Answer: Yes, the medication is within the recommended range.**

50 mg x 20 kg = 1,000 mg in 24 hr

kg

75 mg x 20 kg = 1,500 mg in 24 hr

kg

1000 mg/24 hr. = 500 mg/ 12 hours

2 doses

1500 mg/24 hr. = 750 mg/ 12 hours

2 doses

700 mg is within the range

6. **Answer: B. 400 mg every 8 hours**

30 kg x 40 mg = 1,200 mg in 24 hours

A. 200 mg every 6 hours
200 mg x 4 =800mg

B. 400 mg every 8 hours
400 mg x 3 = 1,200 mg

C. 100 mg every 12 hours
100 mg x 2 = 200 mg

D. 1,200 mg every 24 hours

7. **Answer: 50 mL/hr**

25 mL x 60 gtt/mL

30 minutes

= 1,500 /30 = **50 mL/hr**

Additional Practice Problems Answers

1. 80 mg x 6.5 kg = 520 mg
kg
520 mg = **260 mg**
2

90 mg x 6.5 kg = 585 mg
Kg
585 mg = **292.5 mg**
2
The recommended range is 260 mg to 292.5 mg every 12 hours.

Desired = 275 mg =**5.5 ml**
Have 50 ml
The nurse will administer 5.5 ml of amoxicillin every 12 hours.

2. **Answer: C. contact the primary care provider regarding a dose exceeding the recommended range**

   1.1 grams x 2 = 2.2 grams

   2.2 grams exceeded to a total dose of 2 gm/hr

3. **Answer A. administer the medication at 50 mL/hr**

   640 mg = **25.6 mg/ml**
   25 ml
   Dilution/concentration = 25.6 mg/ml

   40 mg x16 kg **= 640 mg**
   kg
   Recommended dose = 640 mg/kg every 8 hours

   15 min = 100 ml/hr
   25ml x 60 **=** 100ml/hr
   15

   30 min = 50 ml/hr
   25ml x 60 **= 50ml/hr**
   30

4. **Answer: c. 100**

   50 ml x 60 min = **150 ml/hr**
   20 min hr.

   50 ml = **100ml/hr**
   0.5 hr.

   50 and 75 is low, 160 is too high