IM2 Medication Calculation Practice
Week 2

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 500 mg of ceftriaxone mixed in 50 mL of normal saline
Administer at 200 mL/hour

The nurse should
A. Administer the medication at 200 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: B. 50 mL divided by 0.5 hours = 100 mL/hour or
50 mL x 2 = 100 mL/hour

Medication Reference: Recommended concentration should be 10 mg/mL to 40 mg/mL
IVPB Label: 500 mg of ceftriaxone mixed in 15 mL of normal saline

The nurse should
A. Administer the medication
B. Contact the pharmacist
C. Contact the provider

Answer: A. 500 mg divided by 15 mL = 33.3 mg/mL which falls within the recommended range of 10 mg/mL to 40 mg/mL

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 500 mg of ceftriaxone mixed in 50 mL of normal saline
Administer at 100 mL/hour

The nurse should
A. Administer the medication at 100 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: A. 50 mL divided by 0.5 hours = 100 mL/hour or
50 mL x 2 = 100 mL/hour

Medication Reference: Recommended concentration should be 10 mg/mL to 40 mg/mL

IVPB Label: 500 mg of ceftriaxone mixed in 250 mL of normal saline

The nurse should
A. Administer the medication
B. Contact the pharmacist
C. Contact the provider

Answer: B. 500 mg divided by 250 mL = 2 mg/mL which falls outside the recommended range of 10 mg/mL to 40 mg/mL. 250 mL of normal saline is a very large volume of fluid for a 250 mg dose of ceftriaxone.

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 1 Gm of ceftriaxone mixed in 100 mL of normal saline
Administer at 200 mL/hour

The nurse should
A. Administer the medication at 200 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: A. 100 mL divided by 0.5 hours = 200 mL/hour or
1000 mL x 2 = 100 mL/hour

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 1 Gm of ceftriaxone mixed in 100 mL of normal saline
Administer at 25 mL/hour

The nurse should
A. Administer the medication at 25 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: B. 100 mL divided by 0.5 hours = 200 mL/hour or
100 mL x 2 = 200 mL/hour. Administration would take 4 hours at 25 mL/hr

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 250 mg of ceftriaxone mixed in 25 mL of normal saline
Administer at 50 mL/hour

The nurse should
A. Administer the medication at 50 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: A. 25 mL divided by 0.5 hours = 50 mL/hour or
25 mL x 2 = 50 mL/hour

Medication Reference: Recommended concentration should be 10 mg/mL to 40 mg/mL
IVPB Label: 1 Gm of ceftriaxone mixed in 25 mL of normal saline

The nurse should
A. Administer the medication
B. Contact the pharmacist
C. Contact the provider

Answer: A. 1,000 mg divided by 25 mL = 40 mg/mL which falls within the recommended range of 10 mg/mL to 40 mg/mL

Medication Reference: Recommended concentration should be 10 mg/mL to 40 mg/mL
IVPB Label: 1 Gm of ceftriaxone mixed in 10 mL of normal saline

The nurse should
A. Administer the medication
B. Contact the pharmacist
C. Contact the provider

Answer: B. 1,000 mg divided by 10 mL = 100 mg/mL which falls outside the recommended range of 10 mg/mL to 40 mg/mL

IM2 Medication Calculation Practice
Week 2

Medication Reference: Administer a single dose over 30 minutes
IVPB Label: 250 mg of ceftriaxone mixed in 25 mL of normal saline
Administer at 100 mL/hour

The nurse should
A. Administer the medication at 100 mL/hour
B. Contact the pharmacist
C. Contact the provider

Answer: B. 25 mL divided by 0.5 hours = 50 mL/hour or
25 mL x 2 = 50 mL/hour

Medication Reference: Recommended concentration should be 10 mg/mL to 40 mg/mL

IVPB Label: 250 mg of ceftriaxone mixed in 10 mL of normal saline

The nurse should
A. Administer the medication
B. Contact the pharmacist
C. Contact the provider

Answer: A. 250 mg divided by 10 mL = 25 mg/mL which falls within the recommended range of 10 mg/mL to 40 mg/mL