

Practice Problem Set #3

1. A physician has ordered a dobutamine drip for a 194-pound patient. The physician wishes the drip started at 5.0mcg/kg/min. Your pharmacy's standard dobutamine concentration is 250mg in 500ml D5W. At what infusion rate should the nurse program the pump to run?

_____ml/hr

2. The US RDA for calcium is 1200mg for ages 11-24 and 800mg thereafter. A 28-year old patient wants to increase her calcium intake by taking a calcium supplement. You determine she receives approximately 300mg/day via diet. Please recommend a product and dose for her from the following products you carry in your pharmacy:

- Tums (calcium carbonate 500mg)
- Cal-Plus (calcium carbonate 1.5gm)
- generic calcium carbonate 650mg

Calcium carbonate contains 40% calcium.

I recommend _____ tablet(s) of _____ daily.

3. You note in the graphics portion of a chart that a patient had an axillary temperature of 38.6°C. The patient has a standing order for Tylenol 325mg po prn oral temp >100.5°F. Please determine this patient's temperature in °F, oral equivalent, and recommend whether the Tylenol should be given or not.

_____°F, oral equivalent

_____ give Tylenol _____ don't give Tylenol

4. A patient has been receiving methylprednisolone 40mg IV q6h while in the hospital. The physician would like to convert the patient to an equivalent oral dose of prednisone (4mg of methylprednisolone equals 5mg prednisone) for the patient to receive after discharge. Prednisone is usually dosed once or twice daily. What initial dose will you recommend the physician begin the patient on?

prednisone _____mg _____ a day.

5. The physician would like to taper the prednisone for the patient in question 4 by approximately 20% daily until the patient is off the medication. Please show the dosage regimen you will recommend. You do not need to use all of the blanks below if you don't feel that you need them.

- day 1: _____mg _____times daily
- day 2: _____mg _____times daily
- day 3: _____mg _____times daily
- day 4: _____mg _____times daily
- day 5: _____mg _____times daily
- day 6: _____mg _____times daily
- day 7: _____mg _____times daily
- day 8: _____mg _____times daily
- day 9: _____mg _____times daily
- day 10: _____mg _____times daily

6. You carry prednisone 1mg, 5mg, 10mg, 20mg, and 50mg oral tablets in your pharmacy. Which product will you dispense for the patient in questions 4 and 5 and how many tablets will you dispense?

I will dispense _____ tablets of the _____ mg strength.

7. Imipenim/cilastatin (trade name: Primaxin) is a medication reserved for severe infections in hospitalized patients. A 165-pound, 5'6", 82-year-old female patient with a serum creatinine of 1.4 mg/dl was prescribed imipenim 500mg IV q6h (the normal dose). Facts and Comparisons makes the following recommendations for patients with renal insufficiency:

CrCl (ml/min/m ²)	dose
31-70	500mg IV q8h
21-30	500mg IV q12h
6-20	250mg IV q12h

Please calculate this patient's creatinine clearance and recommend any needed dosing adjustments.

CrCl: _____ ml/minute

I recommend imipenim _____ mg IV q _____ h.

8. Inulin is a solution commonly used to measure glomerular filtration rate. Because it tends to crystallize, it is often necessary to place it in a warm water bath prior to use. Package literature recommends placing it in a 70°C water bath for 30 minutes. Your water bath measures in °F. What temperature will you set it to?

_____ °F

9. A physician has ordered Darvocet N-100, which contains 650mg acetaminophen and 100mg propoxyphene napsylate in each tablet. The directions the physician wrote on the prescription are: i-ii po q4-6h prn pain. The maximum recommended amount of acetaminophen that a patient can safely ingest in a day is 4g. Are the physician's directions safe for the patient? If not, please indicate what you would recommend the directions be changed to.

_____ yes

_____ no; change directions to: _____ tablets every _____ hours prn pain

10. A patient has 50mEq of sodium chloride ordered to be added to a TPN. How many milliliters of a 23.4% sodium chloride solution will you add to the TPN? (MW Na 23, Cl 35.5)

_____ ml