

Solutions Manual for Henke's Med-Math - Dosage Calculation, Preparation & Administration 10th Buchholz

Chapter 4, Calculation of Oral Medications—Solids and Liquids

Harry Cohen, age 71, is admitted to the hospital with “what feels like indigestion.” Lab tests and an EKG rule out a myocardial infarction. Mr. Cohen has a history of MI (myocardial infarction) ×1 with stent placement, CHF (congestive heart failure), HTN (hypertension), and Type 2 diabetes. (Topics covered: solving solid oral medication problems)

Medication orders:

- digoxin 0.25 mg po daily
- ASA 80 mg po daily
- metoprolol 100 mg po bid
- metformin 500 mg po daily
- warfarin 7.5 mg po daily
- nitroglycerin tablets 1/150 mg SL×3 prn for chest pain
- acetaminophen 325 mg po prn pain q4 hours

Calculate the doses (do not round answers):

1. digoxin. Supply: 500 mcg tablets
2. ASA. Supply: 160 mg tablets
3. metoprolol. Supply: 50 mg tablets
4. metformin. Supply: 1000 mg tablets
5. acetaminophen. Supply: 650 mg tablets
6. warfarin. Supply: 5 mg tablets

Critical Error: Warfarin 7.5 mg tablets unit dose were supplied by the pharmacy instead of 5 mg tablets. What error could happen if the nurse does not check the strength of the supplied unit dose?

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Christine Rivers, age 62, is admitted with exacerbation of COPD (chronic obstructive pulmonary disease). Her medical history includes COPD, HTN (hypertension), pneumonia three times in the previous year, and subtotal thyroidectomy. She has difficulty swallowing pills secondary to the thyroidectomy surgery. (Topics covered: solving liquid oral medication problems)

Medication orders:

- theophylline 100 mg po q 8 hours
- prednisone 60 mg po daily
- enalapril 2.5 mg po daily
- furosemide 60 mg po daily
- KCl 30 mEq po daily
- ceclor 250 mg po q 8 hours
- levothyroxine 0.075 mg po daily
- Albuterol 2.5 mg nebulizer q 4 hours

Calculate the doses (do not round the answers):

1. theophylline. Supply: 80 mg/15 mL
2. prednisone. Supply: 5 mg/mL
3. enalapril. Supply: 1 mg/mL
4. furosemide. Supply: 10 mg/mL
5. KCl. Supply: 20 mEq/15 mL
6. ceclor. Supply: 125 mg/5 mL
7. levothyroxine. Supply: 50 mcg/mL

Critical Error: The order for levothyroxine was entered as .075 mg po daily. The nurse was aware that the dosage was missing a leading zero and interpreted the order as 0.75 mg po daily. What error could happen?