PROFICIENCY TEST 3 Calculation of Oral Doses

Name: Benjamin Ruettiger

For each question, determine the amount to be given. Answers are given in Appendix A.

1. Order: potassium chloride 20 mEq po in juice bid
   Supply: liquid in a bottle labeled 30 mEq/15 mL — 15mL / 30mEq | 20mEq = 10mL
2. Order: syrup of tetracycline hydrochloride 80 mg po q6h
   Supply: liquid in a dropper bottle labeled 125 mg/5 mL — 5mL / 125mg | 80mg = 3.2 mL
3. Order: propranolol 0.02 g po bid
   Supply: scored tablets labeled 10 mg — 10mg / 1g | 1000mg = 0.01g = 2 tablets
4. Order: ampicillin sodium 0.5 g po q6h
   Supply: capsules of 250 mg — 250mg / 1g | 1000mg = 0.25mg = 2 capsules
5. Order: digoxin 0.5 mg po every day
   Supply: scored tablets of 0.25 mg — 0.25mg x 2 = 0.5 — 2 tablets
6. Order: prednisone 20 mg po every day
   Supply: liquid in a bottle labeled 5 mg/5 mL — 5mL / 5mg | 20mg = 20 mL
7. Order: hydrochlorothiazide 75 mg po every day
   Supply: scored tablets 50 mg — 75mg / 50mg = 1.5 tablets
8. Order: furosemide 40 mg po every day
   Supply: scored tablets of 80 mg — 40mg / 80mg = 0.5 tablet
9. Order: digoxin 0.25 mg po daily
   Supply: liquid in a dropper bottle labeled 500 mcg/10 mL — 0.5mg → 10mL / 0.5mg | 0.25mg = 5 mL
10. Order: phenytoin susp 75 mg po tid
    Supply: liquid in a bottle labeled 50 mg/10 mL — 1mL / 5mg | 75mg = 15 mL
11. Order: diazepam 5 mg po q4h prn
    Supply: scored tablets 2 mg — 5mg / 2mg = 2.5 tablets
12. Order: levothyroxine 0.15 mg po every day
    Supply: scored tablets 300 mcg = 0.3mg — 0.15mg / 0.3mg = 0.5 tablet
13. Order: disulfiram 375 mg po today
    Supply: scored tablets 250 mg — 375mg / 250mg = 1.5 tablets
14. Order: ibuprofen 0.4 g (400 mg) po q4h prn
    Supply: film-coated tablets 200 mg — 400mg / 200mg = 2 tablets
15. Order: chlorpheniramine maleate syr 1.5 mg po bid
    Supply: liquid in a bottle 1 mg/8 mL — 8mL / 1mg | 1.5mg = 12 mL
16. Order: diphenhydramine maleate syrup 25 mg po q4h while awake
    Supply: liquid labeled 12.5 mg/5 mL — 5mL / 12.5mg | 25mg = 10 mL
17. Order: simethicone liquid 60 mg po in 1/2 glass water q6h prn
    Supply: liquid in a dropper bottle labeled 40 mg/0.4 mL — 0.4mL / 40mg | 60mg = 0.6 mL
18. Order: chlorothiazide oral susp 0.5 g via NGT every day
    Supply: liquid labeled 250 mg/5 mL — 5mL / 250mg | 1000mg / 1g | 0.5g = 10 mL
19. Order: meperidine HCl syrup 15 mg po q4h prn
    Supply: liquid labeled 50 mg/5 mL — 5 mL / 50mg | 15mg = 1.5 mL
20. Order: hydroxyzine susp 50 mg po q6h prn
    Supply: liquid labeled 25 mg/5 mL — 5mL / 25mg | 50mg = 10 mL

PROFICIENCY TEST 3 Calculations of Liquid Injections (*continued*)

18. Order: digoxin 0.125 mg IV daily
    Supply: ampule labeled 0.25 mg/2 mL
19. Order: nalbuphine HCl 12 mg IM × 1 dose
    Supply: vial 10 mg/mL
20. Order: prepare 20 mEq KCl (that will be added to IV fluids for infusion)
    Supply: vial 40 mEq/20 mL (use 10 mL syringe)

PROFICIENCY TEST 4 Mental Drill in Liquids-for-Injection Problems

Name: Benjamin Ruettiger

As you develop proficiency in solving problems, you will be able to calculate many answers without written work. This drill combines your knowledge of equivalents and dosages. Solve these problems mentally and write only the amount to give. If necessary, round to the nearest tenths. See Appendix A for answers.

Order	*Supply*	*Give*
1. 0.5 g IM	250 mg/mL	2 mL
2. 10 mEq IV	40 mEq/20 mL	5 mL
3. 0.5 mg IM	0.25 mg/mL	2 mL
4. 100 mg IM	0.2 g/2 mL	1 mL
5. 50 mg IM	100 mg/1 mL	0.5 mL
6. 0.25 mg IM	0.5 mg/2 mL	1 mL
7. 0.3 mg subcutaneous	0.4 mg/mL (round to the nearest tenths)	0.8 mL
8. 1 mg subcutaneous	1:1000 solution	1 mL
9. 1 g IV	10% solution 10g/100	10 mL
10. 0.1 g IM	200 mg/5 mL	2.5 mL
11. 400,000 units IM	500,000 units/mL	0.8 mL
12. 0.5 mg IM	0.5 mg/2 mL	2mL
13. 1 g IV	50% solution 50/100 = 5/10 = 1/2	2 mL
14. 75 mg IM	100 mg/2 mL	1.5 mL
15. 15 mg IM	1:100 solution	1.5 mL
16. 50 mg IM	100 mg/mL	0.5 mL
17. 0.2 mg subcutaneous	0.4 mg/mL	0.5 mL
18. 0.15 g IM	0.3 g/2 mL	1 mL