

# Chapter 08: Oral and Enteral Preparations with Clinical Applications

## Ke: Clinical Calculations, 8th Edition

### OTHER

- Order: HydroDIURIL 50 mg, PO, daily  
Drugs available:



- Which bottle of HydroDIURIL would you use?
- How many tablets would you give? (Show your work.)

ANS:

- HydroDIURIL 25 mg bottle. (You could use HydroDIURIL 100 mg bottle, but the tablet should be scored and broken in half.)

$$\text{b. BF: } \frac{D}{H} \times V = \frac{50}{25} \times 1$$

$$= 2 \text{ tablets}$$

**OR**

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{25}{1} = \frac{50}{x}$$

$$\text{Cross multiply: } 25x = 50$$

$$x = 2 \text{ tablets}$$

**OR**

$$\text{RP: } H : V :: D : x$$

$$25 : 1 :: 50 : x$$

$$25x = 50$$

$$x = 2 \text{ tablets}$$

**OR (using 100 mg bottle)**

$$\text{DA: tab} = \frac{1 \times 50 \text{ mg}}{100 \text{ mg} \times 1}$$

$$= \frac{1}{2} \text{ tablet}$$

- Order: hydroxyzine pamoate 0.1 g, PO, q8h  
Drugs available:

Store below 86°F (30°C).

Directions: Initial, follow/initial capsules (150).

**INDICATION AND USE**  
See accompanying prescribing information.

**USUAL DOSAGE**  
ADULTS: 25 mg t.i.d. to 100 mg q.i.d.  
CHILDREN: Under 6 years - 25 mg t.i.d. in divided doses. Over 6 years - 50 to 100 mg t.i.d. in divided doses.

Each tablet contains 100 mg of hydroxyzine hydrochloride.

**CAUTION:** Federal law prohibits dispensing without prescription.

Store below 86°F (30°C).

Dispense in light, light-resistant containers (USP).

TARTRAZINE DYE FREE.

**INDICATION AND USE**  
ADULTS: 25 mg t.i.d. to 100 mg q.i.d.  
CHILDREN: Under 6 years - 25 mg t.i.d. in divided doses. Over 6 years - 50 to 100 mg t.i.d. in divided doses. See accompanying prescribing information.

Each capsule contains hydroxyzine pamoate equivalent to 100 mg hydroxyzine hydrochloride.

**CAUTION:** Federal law prohibits dispensing without prescription.

NDC 0049-5630-66

100 Tablets

**Atarax**<sup>®</sup> 100  
(hydroxyzine HCl)

100 mg

**Pfizer** **Roerig**  
Division of Pfizer Inc., NY, NY 10017

100 Capsules

**Vistaril**<sup>®</sup> 100  
(hydroxyzine pamoate)

100 mg\*

**Pfizer** **Pfizer Labs**  
Division of Pfizer Inc., NY, NY 10017



- a. Which bottle of hydroxyzine would you use? Explain.
- b. How many tablets/capsules would you give?

ANS:

a. Vistaril is hydroxyzine pamoate.

Change 0.1 g to milligrams.

a. 0.1 mg = 100 mg (move the decimal point 3 spaces to the right) (.100 g)

$$b. \text{BF: } \frac{D}{H} \times V = \frac{100 \text{ mg}}{100 \text{ mg}} \times 1$$

$$= 1 \text{ cap/tab}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} =$$

$$\frac{100}{1} = \frac{100}{x} =$$

Cross multiply 100x = 100

$$x = 1 \text{ cap/tab}$$

OR

$$\text{RP: } H : V :: D : x$$

$$100 \text{ mg} : 1 \text{ tab} :: 100 \text{ mg} : x \text{ tab}$$

$$100x = 100$$

$$x = 1 \text{ cap/tab}$$

OR (conversion needed)

$$\text{DA: tablet} = \frac{1 \text{ tab} \times 1000 \text{ mg} \times 0.1 \text{ g}}{100 \text{ mg} \times 1 \text{ g} \times 1}$$

$$\frac{10 \times 0.1}{1} = 1 \text{ cap/tab}$$

3. Order: aspirin gr X, PO, bid

Drug available:



- Gr X is equal to how many milligrams?
- How many tablets would you give?

ANS:

- Gr X = 650 mg (Gr = 65, X = 10,  $10 \times 65 = 650$ )
- 2 tablets of aspirin per dose ( $325 \text{ mg} \times 2 = 650 \text{ mg}$ )

4. Order: amoxicillin clavulanate (Augmentin) 0.5 g, PO, q8h  
Drugs available:



- Which bottle would you use?
- How many tablets would you give?

ANS:

- Either bottle;  $0.5 \text{ g} = 500 \text{ mg}$
- 2 tablets of Augmentin 250 mg; 1 tablet of Augmentin 500 mg

5. Order: megestrol acetate 160 mg, PO, in four divided doses  
Drug available:



- How many milligrams should the patient receive per dose?
- How many tablets should the patient receive per dose?

ANS:

- $160 \text{ mg} \div 4 \text{ times a day} = 40 \text{ mg per dose}$

b. BF:  $\frac{D}{H} \times V = \frac{40 \text{ mg}}{20 \text{ mg}} \times 1 \text{ tab} = 2 \text{ tablets}$

OR

FE:  $\frac{H}{V} = \frac{D}{x} = \frac{20}{1} = \frac{40}{x} =$

Cross multiply  $20x = 40$

$x = 2 \text{ tablets}$

OR

RP:  $H : V :: D : x$

$20 \text{ mg} : 1 \text{ tab} :: 40 \text{ mg} : x \text{ tab}$

$20x = 40$

$x = 2 \text{ tablets}$

OR (No conversion needed)

DA:  $\text{tab} = \frac{1 \times 40}{20 \times 1} = 2 \text{ tablets}$

6. Order: minocycline HCl 100 mg, PO, q12h  
Drug available:



How many capsules would you give per dose?

ANS:

2 capsules

7. Order: Nitrostat 0.6 mg, SL, stat  
Drugs available:



a. Which bottle of Nitrostat would you use?

b. How many tablets would you give?

ANS:

- a. Nitrostat 0.3 mg sublingual (SL) tablet for Nitrostat tablets cannot be broken.
- b. 2 tablets SL

8. Order: Nitrostat gr 1/100, SL, stat  
Drug available:



- a. How many tablets would you give?
- b. Explain your answer.

ANS:

- a. None from this bottle. Clarify order with provider stat, if nitroglycerin is needed, typically angina or acute coronary syndrome is suspected and delays can cause serious harm to the patient.
- b. SL tablet cannot be broken.

9. Order: carvedilol (Coreg) 12.5 mg, PO, bid  
Drug available:



- a. How many tablets should the patient receive per dose?
- b. How many milligrams should the patient receive per day?

ANS:

- a. 2 tablets
- b. 25 mg per day

10. Order: acebutolol (Sectral), 200 mg, PO, bid (twice a day)  
Drugs available: acebutolol 100 mg, 200 mg, and 400 mg tablets
- a. Which acebutolol tablet you would select
  - b. How many tablets would you give per dose per day?

ANS:

- a. 200 mg tablet strength
- b. 1 tablet per dose; 2 tablets per day

11. Order: acyclovir (Zovirax) 200 mg, PO, 5 × a day  
Drugs available: Zovirax 200 mg capsule; and 400 mg and 800 mg tablets
- a. Which Zovirax would you select?

- b. How many milligrams should the patient receive per day?
- c. How many tablets/capsules of Zovirax should be administered per dose?

ANS:

- a. 200 mg capsule
- b. 1000 mg per day
- c. 1 Zovirax 200 mg capsule

12. Order: almotriptan (Axert) 12.5 mg PO, stat. May be repeated in 2 hours only.  
Drug available: Axert 6.25 mg tablet
- a. How many tablets would you administer?
  - b. If the dose is repeated in 2 hours, how many tablets should be given?

ANS:

- a. 2 tablets
- b. 2 tablets

13. Order: amiloride (Midamor) 10 mg, PO, in two divided doses and may increase to 15 mg per day.  
Drug available: amiloride 5 mg tablet
- a. How many tablets should the patient receive per dose?
  - b. If the dose is increased, how many tablets should the patient receive per day?

ANS:

- a. 1 tablet per dose
- b. 3 tablets per day

14. Order: aripiprazole (Abilify) 30 mg, PO, daily for 2 weeks; then 15 mg, PO, daily  
Drugs available: Abilify, 10 mg, 15 mg, 20 mg, 30 mg tablets
- a. Which Abilify tablet would you select? Explain.
  - b. How many tablet(s) daily would you give during the first 2 weeks?
  - c. How many tablet(s) would you give daily after the first 2 weeks?

ANS:

- a. Either the 15 mg or 30 mg tablet. By selecting the 15 mg tablet, the same strength could be used after the first 2 weeks.
- b. 2 tablets of Abilify 15 mg or 1 tablet of the Abilify 30 mg tablet
- c. 1 tablet of Abilify 15 mg or  $\frac{1}{2}$  tablet of the Abilify 30 mg tablet

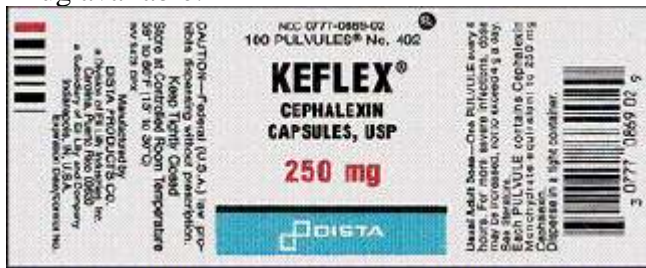
15. Order: captopril (Capoten) 75 mg, PO, bid  
Drugs available: Capoten 12.5 mg, 25 mg, 50 mg, 100 mg tablets
- a. Which Capoten strength would you select? Why?
  - b. How many milligrams should the patient receive per day?
  - c. How many tablets should the patient receive per dose?

ANS:

- a. Select 25 mg strength, having multiple strengths can lead to errors
- b. 150 mg per day
- c. 3 tablets

16. Order: cephalexin 0.5 g, PO, q6h

Drug available:



- How many milligrams equal 0.5 g?
- How many capsules would you give?

ANS:

- 500 mg (500. mg)
- 2 capsules

17. Order: dicloxacillin 1 g/day, PO, in four divided doses, q6h

Drug available:



- How many milligrams should the patient receive q6h?
- How many capsules would you give per dose?

ANS:

- 1 g = 1000 mg;  $1000 \text{ mg} \div 4 = 250 \text{ mg}$ , q6h
- 1 capsule of dicloxacillin per dose

18. Order: Cardizem SR 120 mg, PO, bid

Drugs available:





- Which bottle of Cardizem would you use?
- How many milligrams per day should the patient receive?
- How many tablets/capsules per dose would you give?

ANS:

- Cardizem SR
- 240 mg per day (bid means twice a day)
- 2 capsules of Cardizem SR per dose

19. Order: Decadron 0.5 mg, PO, tid  
Drug available:



- How many milligrams should the patient receive per day?
- How many tablets would you give per dose?

ANS:

- 1.5 mg of Decadron per day (tid means three times per day)



b. BF:  $\frac{D}{H} \times V$

$$= \frac{0.5 \text{ mg}}{0.25 \text{ mg}} \times 1 \text{ tab}$$

$$= 0.25 \overline{) 0.50}$$

= 2 tablets

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{0.25}{1} = \frac{0.5}{x}$$

= 2 tablets

OR

$$\text{RP: } H : V :: D : x$$

$$25 : 1 :: 0.5 : x$$

$$0.25x = 0.5$$

$$x = 2 \text{ tablets}$$

OR (No Conversion needed)

$$\text{DA: tablet} = \frac{1 \times 50}{25 \times 1} = 2 \text{ tablets}$$

20. Order: Cipro (ciprofloxacin) 0.5 g, PO, q12h

Drug available:

NDC 0093-0864-01

**CIPROFLOXACIN**  
Tablets USP  
**500 mg\***

\* Each tablet contains:  
ciprofloxacin hydrochloride, USP  
equivalent to 500 mg ciprofloxacin

**Rx only**

**100 TABLETS**

**TEVA**

Usual Dosage: See package insert for full prescribing information.  
Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature].  
Dispense in a tight, light-resistant container as defined in the USP, with a child-resistant closure (as required).  
**KEEP THIS AND ALL MEDICATIONS OUT OF THE REACH OF CHILDREN.**  
Rev. A 3/2006  
Manufactured in Israel By:  
TEVA PHARMACEUTICAL IND. LTD.  
Jerusalem, 91010, Israel  
Manufactured for:  
TEVA PHARMACEUTICALS USA, 0093-0864-01  
 Sellersville, PA 18960 N  
323K0023003906

a. How many tablets would you give per dose?

b. How many milligrams would you give per day?

ANS:

a. 1 tablet

b. 1000 mg of Cipro per day

21. Order: carbidopa-levodopa, 50 mg carbidopa/200 mg levodopa ER, PO, bid  
Drug available: 25 mg carbidopa/100 mg levodopa ER tablet  
How many ER tablets should the patient receive per dose?

ANS:

2 ER tablets per dose

22. Order: chlorzoxazone (Paraflex) 750 mg, PO, tid  
Drugs available: chlorzoxazone 250 mg and 500 mg tablet  
a. How many milligrams should the patient receive per day?  
b. Which chlorzoxazone strength would you select? Explain

ANS:

a. 2250 mg per day

b. Select the 250 mg strength; give 3 tablets. May also give one 250 mg tablet and one 500 mg tablet.

23. Order: colestevlam (Welchol) 1250 mg, PO, bid with meals  
Drug available: colestevlam 625 mg tablet  
How many tablets should the patient receive per dose?

ANS:

2 tablets

24. Order: doxazosin (Cardura) 0.5 mg, PO, at bedtime; increase as needed  
Drugs available: doxazosin scored tablets, doses 1 mg, 2 mg, 4 mg, and 8 mg  
a. Which doxazosin strength would you select?  
b. How many tablets would you give?

ANS:

a. 1 mg doxazosin tablet strength

b.  $\frac{1}{2}$  tablet

25. Order: procainamide (Procanbid) ER 0.5 g, PO, q6h  
Drug available:



- a. How many grams should the patient receive per day?  
b. How many tablets of Procan will you give per dose?

ANS:

a. 2 g per day

b. 1 tablet of Procanbid ER per dose

26. Order: methenamine 1 g, PO, q12h  
Drug available:

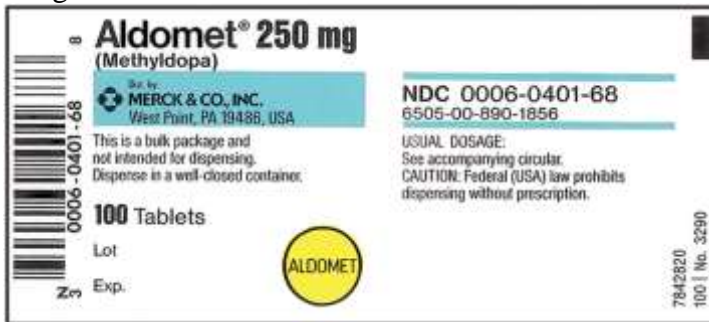


How many tablets would you give?

ANS:

1 tablet of methenamine 1000 mg

27. Order: methyldopa (Aldomet) 0.75 g, PO, bid  
Drug available:



- How many grams of Aldomet should the patient receive per day?
- How many milligrams per day?
- How many tablets would you give per dose?

ANS:

a. 1 g = 1000 mg; 1.5 g per day

b. 1500 mg per day

a. 0.75 g = 750 mg move decimal point to the right 3 spaces. (.750 g)

$$\text{BF: } \frac{D}{H} \times V = \frac{750 \text{ mg}}{250 \text{ mg}} \times 1 \text{ tab} = 3 \text{ tablets}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{250}{1} = \frac{750}{x}$$

Cross multiply  $250x = 750$

$$x = 3 \text{ tablets}$$

OR

$$\text{RP: } H : V :: D : x$$

$$250 \text{ mg} : 1 \text{ tab} :: 750 \text{ mg} : x \text{ tab}$$

$$250x = 750$$

$$x = 3 \text{ tablets}$$

OR (conversion needed)

$$\text{DA: } \text{tab} = \frac{1 \text{ tab} \times 4000 \text{ mcg} \times 0.75 \text{ g}}{250 \text{ mcg} \times 1 \text{ g} \times 1}$$

$$= 4 \times 0.75 = 3 \text{ tablets}$$

28. Order: digoxin (Lanoxin) 0.5 mg, PO, daily  
Drugs available:



- Which bottle of digoxin (Lanoxin) would you use?
- How many tablets would you give?

ANS:

- Lanoxin 250 mcg (0.25 mg) bottle
- 2 tablets (or 4 tablets of 125 mcg bottle)

29. Order: fenofibrate (Antara) 90 mg, PO, daily  
 Drugs available: Antara 45 mg, 87 mg, and 130 mg capsules  
 a. Which Antara strength would you select?  
 b. How many capsules would you give per day?

ANS:

- a. Antara 45 mg strength  
 b. 2 capsules per day

30. Order: bisoprolol (Zebeta) 5 mg, PO daily, for 4 weeks; increase to 10 mg for the next 4 weeks and 15 mg after the last 4 weeks



- a. How many tablets would you give for the first 4 weeks for each dose?  
 b. How many tablets would you give for the next 4 weeks for each dose?  
 c. How many tablets would you give during the third 4 weeks for each dose?

ANS:

- a. 1 tablet  
 b. 2 tablets  
 c. 3 tablets

31. Order: kanamycin 0.5 g, PO, q12h  
 Parameter: 15 mg/kg/day in two or three divided doses  
 Patient weighs 68 kg  
 Drug available:



- a. Is the patient's daily dose within safe dose parameters? Explain.  
 b. How many capsules would you give per dose?

ANS:

- a. Parameter:  $15 \text{ mg} \times 68 \text{ kg} = 1020 \text{ mg}$  per day. Ordered dose is 1 g or 1000 mg per day, which is within safe dose parameters.
- b.  $0.5 \text{ g} = 500 \text{ mg}$ ; 1 capsule per dose

32. Order: cefuroxime 0.25 g, PO, bid  
Drug available:



- a. How many milligrams equals 0.25 g?
- b. How many tablets would you give per dose?

ANS:

- a.  $0.25 \text{ g} = 250 \text{ mg}$ ; move the decimal point 3 spaces to the right 250 mg (.250 g)
- b. 2 tablets of cefuroxime 125 mg per dose

33. Order: ethambutol (Myambutal) 15 mg/kg/day, PO  
Drugs available: Myambutal 100 mg and 400 mg scored tablets  
Patient weight: 67 kg

- a. How many milligrams of Myambutal should the patient receive per day?
- b. Which strength Myambutal would you select?
- c. How many tablets would you give?

ANS:

- a.  $15 \times 67 \text{ kg} = 1005 \text{ mg}$  or 1000 mg
- b. 400 mg strength
- c. 2.5 tablets per day

34. Order: etodolac 1.2 g/day, PO, in three divided doses  
Drug available: etodolac (Lodine) 200 mg capsules
- a. How many milligrams should the patient receive per dose?
  - b. How many capsules would you give per dose?

ANS:

- a.  $1.2 \text{ g} = 1200 \text{ mg}$ ;  $1200 \div 3 = 400 \text{ mg}$  per dose
- b. 2 capsules of etodolac 200 mg per dose

35. Order: Compazine 10 mg, PO, qid  
Drug available:



(Maximum dose is 40 mg/day.)

- Is the dose per day within safe parameters? Explain.
- How many tablets would you give per dose?

ANS:

- Yes; 10 mg, qid = 40 mg per day (qid means 4 times a day)
- 2 tablets of Compazine per dose

36. Order: glyburide 2.5 mg, PO, daily  
Drugs available: Glyburide (DiaBeta) 1.25 mg and 5 mg
- Which bottle of glyburide would you use?
  - How many tablets of glyburide would you give?

ANS:

- Either bottle of glyburide is OK, but the 1.25 mg bottle is preferred because it prevents breaking a 5-mg tablet in half.
- 2 tablets of glyburide 1.25 mg, or  $\frac{1}{2}$  tablet of glyburide 5 mg

37. Order: prazosin 4 mg, PO, tid  
Drugs available: prazosin (Minipress) 1 mg, 2 mg, and 5 mg caplets
- Which bottle of prazosin would you use?
  - How many capsules would you give per dose?

ANS:

- Prazosin 2 mg bottle

b. BF:  $\frac{D}{H} \times V = \frac{4 \text{ mg}}{2 \text{ mg}} \times 1 \text{ cap} = 2 \text{ caps}$

OR

FE:  $\frac{H}{V} = \frac{D}{x} = \frac{2 \text{ mg}}{1} = \frac{4 \text{ mg}}{x} = 2 \text{ caps}$

OR

RP:  $H : V :: D : x$

$2 \text{ mg} : 1 \text{ cap} :: 4 \text{ mg} : x \text{ cap}$

$2x = 4$

$x = 2 \text{ caps}$

OR (No conversion needed)

DA:  $\text{caps} = \frac{1 \text{ cap} \times 4 \text{ mg}}{2 \text{ mg} \times 1} = 2 \text{ caps}$

38. Order: levothyroxine 25 mcg, PO, daily

Drugs available: levothyroxine (Synthroid) 0.025 mg and 0.05 mg tablet

Change micrograms (mcg) into milligrams. Move the decimal point three spaces to the *left*

a. 25 mcg = \_\_\_\_\_ mg

b. Which levothyroxine tablet would you select?

c. How many tablets would you give per day?

ANS:

a. 0.025 mg

b. 0.025 mg tablet

c. 1 tablet

39. Order: Nitrostat tablets

Drugs available:



a. Which of these nitroglycerin preparations is most potent?

b. How is Nitrostat SL administered? Why?

ANS:



- a. Nitrostat 0.6 mg or 1/100 g
- b. SL (under the tongue); drug is absorbed by the sublingual vessels under the tongue because gastric juices destroy the drug.

40. Order: pindolol 5 mg, PO, bid; after 2 weeks increase dose to 20 mg/day in two divided doses

Drugs available:



- a. How many tablets of pindolol should the patient receive per dose for the first 2 weeks?
- b. How many tablets of pindolol should the patient receive per dose after 2 weeks?

ANS:

- a. 1 tablet (5 mg bottle)
- b. 2 tablets (5 mg bottle); 1 tablet (10 mg bottle) per dose [prefer keep pt on 5 mg tablets at home until gone, then switch to 10 mg on next Rx]

41. Order: ethambutol HCl 200 mg, PO, qid

Parameter: 15 mg/kg/day

Patient weighs 121 lb

Drugs available: ethambutol 100 mg and 400 mg

- a. How many kilograms does the patient weigh?
- b. What is the maximum dose the patient should receive per day?
- c. Which bottle of ethambutol would you use?
- d. How many tablets would you give?

ANS:

- a.  $121 \text{ lb} \div 2.2 \text{ kg} = 55 \text{ kg}$
- b.  $15 \text{ mg} \times 55 \text{ kg} = 825 \text{ mg per day}$ ; dose is within safe dose parameter of 825 mg per day or 800 mg per day.
- c. Ethambutol 100 mg bottle
- d. 2 tablets from ethambutol 100 mg bottle per dose.

42. Order: aminocaproic acid (Amicar) 1.5 g, PO, stat, and may repeat in 1 hour

Drug available:



- a. How many milligrams are in 1.5 g?
- b. How many tablets would you give?

ANS:

- a. 1.5 g = 1500 mg (1.500 mg)
- b. 3 tablets of aminocaproic acid from Amicar 500 mg bottle

43. Order: capecitabine (Xeloda) 2500 mg/m<sup>2</sup>/day in two divided doses  
 Patient height: 64 in; weight 160 lb  
 Drugs available: Xeloda 150 mg and 500 mg tablets
  - a. Using the formula, calculate this person's BSA.
  - b. Patient should receive how many mg per day and per dose?
  - c. Which of the Xeloda strengths would you use?
  - d. How many tablets should the patient receive per dose?

ANS:

- a. BSA 1.81

$$\sqrt{\frac{64 \times 160}{3131}} = \sqrt{3.27} = 1.81 \text{ m}^2$$

- b. 4525 mg per day; 2262.5 mg per dose
- c. Select Xeloda 500 mg strength.
- d. 4 $\frac{1}{2}$  tabs per dose using the 500 mg strength = 2262.5 mg per dose (note, if cutting in half you MUST wear gloves as this is an oral chemotherapy agent)

44. Order: mercaptopurine (6-MP), 80 mg/m<sup>2</sup>/day, PO  
 Patient BSA (m<sup>2</sup>) is 1.8  
 Drug available: mercaptopurine (Purinethol) 50 mg tablets
  - a. How many milligrams should the patient receive per day?
  - b. How many tablets should the patient receive per day?

ANS:

- a. 144 mg per day
- b. 2.88 tablets or 3 tablets (round off) per day (144 mg/50 mg = 2.88 tablets).

45. Order: timolol maleate 10 mg, PO, bid; then, after 2 weeks, the patient is to receive 40 mg in two divided doses  
 Drugs available:



- Which bottle of timolol maleate would you choose for the first 2 weeks?
- How many tablets should the patient receive per dose during the first 2 weeks?
- Which bottle of timolol maleate would you choose after the first 2 weeks? Why?
- How many tablets should the patient receive per dose after the second week?

ANS:

- timolol maleate 10 mg
- 1 tablet of timolol maleate of 10 mg
- timolol maleate 20 mg; fewer tablets to give
- 1 tablet of timolol maleate of 20 mg

46. Order: codeine gr 1, PO, stat  
Drug available:



How many tablets of codeine would you give?

ANS:

Conversion factor: gr 1 = 60 mg

$$\text{BF: } \frac{D}{H} \times V = \frac{60 \text{ mg}}{30 \text{ mg}} \times 1 \text{ tab} = 2 \text{ tablets}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{30}{1} = \frac{60}{x}$$

Cross multiply  $30x = 60$

$$x = 2 \text{ tablets}$$

OR

$$\text{RP: } H : V :: D : x$$

$$30 \text{ mg} : 1 \text{ tab} :: 60 \text{ mg} : x \text{ tab}$$

$$30x = 60$$

$$x = 2 \text{ tablets}$$

OR (conversion needed)

$$\text{DA: } \text{tab} = \frac{1 \text{ tab} \times \overset{2}{60} \text{ mg} \times \text{gr } \dagger}{\underset{1}{30} \text{ mg} \times \text{gr } \dagger \times 1} = 2 \text{ tablets}$$

47. Order: propranolol (Inderal) 30 mg, PO, tid  
 Drugs available: propranolol 10 mg, 20 mg, 40 mg, 60 mg, and 80 mg  
 a. Which bottle(s) of propranolol would you use?  
 b. How many tablets would you give per dose?

ANS:

a. Propranolol 10 mg and 20 mg bottles

b. 1 tablet from each bottle per dose (could use the 60 mg bottle and give  $\frac{1}{2}$  tablet)

48. Order: Cimetidine 0.4 g, PO, bid, and 0.8 g, at hour of sleep  
 Drugs available:



- a. Which bottle of Cimetidine would you use?  
 b. How many tablets would you give per dose during the day? How many tablets at hour of sleep?

ANS:

a. 0.4 g = 400 mg; either bottle is OK, but Tagamet 400 mg is preferred.

b. Using a Tagamet 400 mg bottle, give 1 tablet per dose during the day and 2 tablets at night (hs). Using a Tagamet 200 mg bottle, give 2 tablets per dose during the day and 4 tablets at night.

49. Order: Ciprofloxacin 1 g/day, PO, in two divided doses  
 Drugs available: Ciprofloxacin (Cipro) 250 mg and 500 mg tablets
- What are the specific times for the patient to receive ciprofloxacin?
  - How many grams or milligrams per dose?
  - Which bottle of ciprofloxacin would you use?
  - How many tablets would you give?

ANS:

- Two divided doses q12h
- 0.5 g or 500 mg per dose
- Either bottle is OK, but ciprofloxacin 500 mg is preferred.
- Using the ciprofloxacin 500 mg, give 1 capsule per dose; using ciprofloxacin 250 mg, give 2 capsules per dose.

50. Order: captopril (Capoten) 50 mg, PO, bid  
 Drugs available: captopril 12.5 mg, 25 mg, and 37.5 mg tablets
- Which bottle of captopril would you use?
  - How many tablets would the patient receive per dose?

ANS:

- Captopril 25 mg bottle
- 2 tablets of captopril per dose

51. Order: moxifloxacin (Avelox) 400 mg, PO, daily for 5 days; then 200 mg PO, daily for the next 5 days.

Drug available:



- How many tablets would you give for the first 5 days?
- How many tablets would you give for the next 5 days?

ANS:

- 1 tablet of Avelox
- $\frac{1}{2}$  tablet of Avelox

52. Order: amlodipine (Norvasc) 2.5 mg, PO, daily and increase to 5 mg daily after 5 days.  
 Drugs available: Norvasc 5 mg and 10 mg tablets
- Which Norvasc strength would you select?
  - How many tablets would you give for 2.5 mg?
  - With an increase dosage of 5 mg, how many tablets would you give?

ANS:

- Select the Norvasc 5 mg strength.

b.  $\frac{1}{2}$  tablet of Norvasc for 2.5 mg

c. 1 tablet of Norvasc

53. Order: pravastatin (Pravachol) 20 mg, PO, at bedtime  
Drug available:



How many tablets would you give?

ANS:

2 tablets

54. Order: betamethasone (Celestone) 2.4 mg, PO, daily  
Drug available: betamethasone 0.6 mg tablets  
How many tablets would you give?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{2.4 \text{ mg}}{0.6 \text{ mg}} \times 1 \text{ tablet} = 4 \text{ tablets}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{0.6 \text{ mg}}{1 \text{ tab}} = \frac{2.4 \text{ mg}}{x}$$

Cross multiply:  $0.6x = 2.4$

$x = 4$  tablets

OR

RP:  $H : V :: D : x$

$$0.6 : 1 :: 2.4 : x$$

$$0.6x = 2.4$$

$$x = \frac{2.4}{0.6}$$

$x = 4$  tablets

$$\text{DA: } \text{tab} = \frac{1 \text{ tab} \times 2.4 \text{ mg}}{0.6 \text{ mg} \times 1}$$

$$= \frac{2.4}{0.6} = 4 \text{ tablets}$$

55. Order: dexamethasone (Decadron) 3 mg, PO, bid

Drugs available:



- Which bottle of Decadron would you use?
- How many tablets would you give per dose?

ANS:

- Decadron 1.5 mg bottle
- 2 tablets per dose

56. Order: Dilantin 0.1 g, PO, daily

Drugs available: phenytoin (Dilantin) 30 mg and 100 mg capsules

- Which bottle of Dilantin would you use?
- How many capsules of Dilantin would you give?

ANS:

- $0.1 \text{ g} = 100 \text{ mg}$ - move the decimal point three spaces to the right (.100 g)
- 1 capsule from phenytoin 100 mg bottle

57. Order: phenytoin (Dilantin) 1 g, PO, loading dose (LD) in three divided doses in 24 hours

Parameter: 15 to 18 mg/kg/LD

Patient weighs 60 kg

Drug available: Dilantin 100 mg capsule

- In 24 hours, three divided doses would be how often?
- How many milligrams would the patient receive per dose in 24 hours?
- Is the dose within safe parameters? Explain.
- How many capsules would you give per dose?

ANS:

- 8 hours (q8h)
- Per dose: (1) 300 mg, (2) 300 mg, and (3) 400 mg
- Yes, the dose is within safe dose parameters (900-1080 mg). Parameters:  $15 \text{ mg} \times 60 = 900 \text{ mg}$ ;  $18 \text{ mg} \times 60 = 1080 \text{ mg}$ .
- (1) 3 capsules, (2) 3 capsules, and (3) 4 capsules

58. Order: meprobamate (Equanil) 1.2 g/day, in three divided doses

Drugs available: Equanil 200 mg and 400 mg tablets

- How many milligrams would the patient receive per dose?
- Which bottle of meprobamate would you use?
- How many tablets would you give per dose?

ANS:

- $1.2 \text{ g} = 1200 \text{ mg}$ ;  $1200 \div 3 = 400 \text{ mg}$  per dose
- Either bottle is OK, but meprobamate 400 mg bottle is preferred.
- 1 tablet per dose from meprobamate 400 mg bottle

59. Order: cyclophosphamide (Cytosan) 200 mg, PO, daily

Parameter: 1 to 5 mg/kg/day

Patient weighs 100 lb

Drug available:



- How many kilograms does the patient weigh?
- Is the dose of Cytosoxan within the parameter range? Explain.
- How many tablets would you give?

ANS:

a.  $100 \text{ lb} \div 2.2 = 45.5 \text{ kg}$

b.  $1 \text{ mg} \times 45.5 = 45.5 \text{ mg}$ ;  $5 \text{ mg} \times 45.5 = 227.5$ ; Yes; dose is within safe parameters.

c. 4 tablets of Cytosoxan per dose

60. Order: Dilantin 100 mg, PO, daily  
Drug available: Dilantin 250 mg per 5 mL  
How many milliliters would you give?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{100 \times 5}{250} \text{ mL} = \frac{500}{250} = 2 \text{ mL of Dilantin per dose}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{250}{5} = \frac{100}{x}$$

Cross multiply:  $250x = 500$

$x = 2 \text{ mL}$

OR

RP:  $H : V :: D : x$

$250 \text{ mg} : 5 \text{ mL} :: 100 \text{ mg} : x$

$250x = 500$

$x = 2 \text{ mL}$

OR

$$\text{DA: mL} = \frac{5 \text{ mL} \times 100 \text{ mg}}{250 \text{ mg}} = \frac{500}{250} = 2 \text{ mL}$$

61. Order: escitalopram (Lexapro) 7.5 mg, PO in the AM daily  
Drug available: Lexapro 5 mg/5 mL



How many milliliters would you give in the AM?

ANS:

7.5 mL in the AM ( $5 \text{ mg} : 5 \text{ mL} = 7.5 \text{ mg} : x \text{ mL}$ ,  $5 \text{ mL} \times 7.5 \text{ mg} = 5x$ ,  $37.5/5 = 7.5 \text{ mL}$ )

62. Order: famotidine (Pepcid) 40 mg, PO, bedtime for 4 weeks, then 20 mg at bedtime for the next 4 weeks  
Drug available: Pepcid 40 mg/5 mL
- How many milliliters should the patient receive at bedtime for the first 4 weeks?
  - How many milliliters should the patient receive at bedtime for the next 4 weeks?

ANS:

- 5 mL for the first 4 weeks
- $2\frac{1}{2}$  or 2.5 mL for the second 4 weeks

63. Order: fluphenazine HCl (Prolixin) 5 mg, PO, q6h  
Drug available: fluphenazine HCl 2.5 mg/5 mL
- How many milligrams should the patient receive per day?
  - How many milliliters should the patient receive per dose?

ANS:

- 20 mg per day ( $q 6h = 24/6 = 4 \text{ doses} \times 5 \text{ mg} = 20 \text{ mg}$ )
- 10 mL per dose ( $5\text{mg}/2.5 \text{ mg} = 2 \times 5 \text{ mL} = 10 \text{ mL}$ )

64. Order: amoxicillin 200 mg, PO, q8h  
Drug available:



How many milliliters of amoxicillin would you give per dose?

ANS:

4 mL of amoxicillin per dose. Proof:  $250 \text{ mg} : 5 \text{ mL} = 200 \text{ mg} : x \text{ mL}$ ,  $5 \times 200 = 250x$ ,  $1000/250 = 4 \text{ mL}$ )

65. Order: Artane 1 mg, PO initially  
Drug available:

**Leclerc** NDC 0005-4440-65

**Artane®**  
Trihexyphenidyl  
Hydrochloride  
Elixir

This package not for household dispensing  
EACH TEASPOONFUL (5 mL)  
CONTAINS:  
Trihexyphenidyl HCl 2 mg  
Alcohol 5%  
Preservatives:  
Methylparaben 0.08%  
Propylparaben 0.02%  
AVERAGE DOSAGE:  
5 to 5 teaspoonfuls (25-25 mL)  
daily for maintenance  
See Accompanying Literature.  
CAUTION: Federal law prohibits dispensing without prescription.  
Store at Controlled Room Temperature (20-25°C) (68-77°F).  
DO NOT FREEZE.  
Dispense in light containers as defined in the USP.  
Control No.                      Exp. Date

2015-05  
LECLERC LABORATORIES DIVISION  
American Cyanamid Company  
Pearl River, NY 10963, Made in U.S.A.

**1 Pint (473 mL)**

How many milliliters would you give initially?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{1}{2} \times 5 \text{ mL} = \frac{5}{2} = 2.5 \text{ mL of Artane per dose}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{2}{5} = \frac{1}{x}$$

Cross multiply:  $2x = 5$

$$x = 2.5 \text{ mL}$$

OR

$$\text{RP: } H : V :: D : x$$

$$2 : 5 :: 1 \text{ mg} : x$$

$$2x = 5$$

$$x = 2.5 \text{ mL}$$

OR

$$\text{DA: mL} = \frac{5 \text{ mL} \times 1 \text{ mg}}{2 \text{ mg} \times 1} = \frac{5}{2} = 2.5 \text{ mL}$$

66. Order: Artane 5 mg, PO, bid  
Drug available:

**Lederle** NDC 0005-4440-65

**Artane®**  
 Trihexyphenidyl  
 Hydrochloride  
 Elixir

This package not for household dispensing.  
 EACH TEASPOONFUL (5 mL)  
 CONTAINS:  
 Trihexyphenidyl HCl 2 mg  
 Alcohol 5%  
 Preservatives:  
 Methylparaben 0.08%  
 Propylparaben 0.02%

AVERAGE DOSAGE:  
 5 to 5 teaspoonfuls (25-25 mL)  
 daily for maintenance.  
 See Accompanying Literature.

CAUTION: Federal law prohibits dispensing without prescription.  
 Store at Controlled Room Temperature 15-30°C (59-86°F).  
**DO NOT FREEZE.**  
 Dispense in light containers as defined in the USP.  
 Control No. Exp. Date

LEDERLE LABORATORIES DIVISION  
 American Cyanamid Company  
 Pearl River, NY 10965, Made in U.S.A.

**1 Pint (473 mL)**

How many milliliters of Artane would you give per dose?

ANS:

$$BF: \frac{D}{H} \times V = \frac{5 \text{ mg}}{2 \text{ mg}} \times 5 \text{ mL} = \frac{25}{2} = 12.5 \text{ mL of Artane per dose}$$

$$DA: \text{mL} = \frac{5 \text{ mL} \times 5 \text{ mg}}{2 \text{ mg} \times 1} = \frac{25}{2} = 12.5 \text{ mL}$$

67. Order: minocycline (Minocin) 100 mg, PO, q12h

Drug available:

**Lederle** NDC 0005-5313-56

**Minocin®**  
 Minocycline  
 Hydrochloride  
 Oral Suspension  
**50 mg per 5 mL**  
 (Custard Flavored)

CAUTION: Federal law prohibits dispensing without prescription.  
 Usual Daily Dose for Children above 8 years of age:  
 4 mg/kg initially followed by 2 mg/kg every 12 hours.

**2 FL. OZ. (60 mL)** 21411-92 08

**SHAKE WELL**  
**WARNING:**  
**NOT FOR INJECTION**

Each teaspoonful (5 mL) contains Minocycline hydrochloride equivalent to 50 mg minocycline.  
 Propylparaben 0.10%  
 Alcohol USP 5.0% v/v  
 See accompanying literature.

Store at Controlled Room Temperature 15-30°C (59-86°F).  
**DO NOT FREEZE.**

LEDERLE LABORATORIES DIVISION  
 American Cyanamid Company  
 Pearl River, NY 10965

Control No. Exp. Date

3 0005-5313-56 9

How many milliliters would you administer per dose?

ANS:

10 mL of minocycline per dose. Proof: 50 mg : 5 mL = 100 mg : x mL, 5 × 100 = 5x, 500/5 = 10 mL

68. Order: ampicillin (Principen) 150 mg, PO, q6h

Drug available:




**OPEN ALONG**  
**PERFORMANCE**

**READ ACCOMPANYING CIRCULAR**  
 Pharmacist: See base label for dispensing directions. Physician: See base label for dispensing directions. Remove before use.  
**APOTHECON**  
 A Bristol-Myers Squibb Company  
 Princeton, NJ 08540  
 Made in USA. 51041

**NDC 0003-0969-61**  
**200 mL**  
**NSN 6505-01-038-4540**  
**EQUIVALENT TO**  
**125 mg per 5 mL**  
 when reconstituted according to directions.  
**PRINCIPEN®**  
**Ampicillin for Oral Suspension, USP**  
 CAUTION: Federal law prohibits dispensing without prescription.  
**APOTHECON**  
 A BRISTOL-MYERS SQUIBB COMPANY

How many milliliters of ampicillin would you give?

ANS:

$$BF: \frac{D}{H} \times V = \frac{150}{125} \times 5 = \frac{30}{5} = 6 \text{ mL of ampicillin per dose}$$

OR

RP: H : V :: D : x

125 mg : 5 mL :: 150 mg : x

125x = 750

x = 6 mL

OR

$$DA: mL = \frac{5 \text{ mL} \times 150 \text{ mg}}{125 \times 1}$$

$$= \frac{30}{5} = 6 \text{ mL}$$

69. Order: doxycycline monohydrate (Vibramycin) 100 mg, PO, initially; then 100 mg, PO, in two divided doses per day  
 Drug available:

**FOR ORAL USE ONLY.**  
 Store dry powder below 86°F (30°C).  
**SHAKE WELL BEFORE EACH USE.**  
**MIXING DIRECTIONS:**  
 Tap bottle lightly to loosen powder. Add 4.5 mL of water to the bottle to make a total volume of 60 mL. Shake well.  
 This suspension, when in suspension, will maintain its potency for two weeks when kept at room temperature.  
**DISCARD UNUSED PORTION AFTER TWO WEEKS.**  
**DOSE AND USE:**  
 See accompanying prescribing information.  
 When reconstituted as directed, each teaspoonful (5 mL) contains doxycycline monohydrate equivalent to 25 mg of doxycycline.  
 Each bottle contains doxycycline monohydrate equivalent to 300 mg of doxycycline.

**NDC 0069-0970-65**  
**60 mL when reconstituted**  
**Vibramycin®**  
 (doxycycline monohydrate)  
**FOR ORAL SUSPENSION**  
**25 mg/5 mL\***  
**RASPBERRY FLAVORED**  
**Pfizer Pfizer Labs**  
 Division of Pfizer Inc, NY, NY 10017

**6277**  
**Rx only**  
 MADE IN USA  
 05-168432-1

a. How many milliliters should the patient receive initially?

- b. How many milligrams should the patient receive per dose after the initial dose?  
 c. How many milliliters should the patient receive per dose after the initial dose?

ANS:

- a. 20 mL initially (25 mg: 5 mL = 100 mg : x mL,  $5 \times 100 = 25x$ ,  $500/25 = 20$  mL)  
 b. 50 mg,  $100 \text{ mg}/2 = 50$  mg per dose  
 c. 10 mL (25 mg: 5 mL = 50 mg : x mL,  $5 \times 50 = 25x$ ,  $250/25 = 10$  mL)

70. Order: potassium chloride 30 mEq, PO, daily with food  
 Drug available: potassium chloride 20 mEq/15 mL  
 How many milliliters of potassium chloride would the patient receive?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{30}{20} \times 15 = \frac{45}{2} = 22.5 \text{ mL of potassium chloride per dose}$$

OR

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{20}{15} = \frac{30}{x}$$

Cross multiply:  $20x = 450$

$$x = 22.5 \text{ mL}$$

OR

$$\text{DA: mL} = \frac{15 \text{ mL} \times 30 \text{ mEq}}{20 \text{ mEq} \times 1} = \frac{45}{2} = 22.5 \text{ mL}$$

71. Order: docusate sodium (Colace) 200 mg, PO, daily per nasogastric tube  
 Drug available: Colace 50 mg/5 mL  
 How many milliliters of Colace would the patient receive?

ANS:

20 mL of Colace per day

RP: H : V = D : x

$$50 \text{ mg} : 5 \text{ mL} = 200 \text{ mg} : x$$

$$50x = 1000$$

$$x = 20 \text{ mL}$$

72. Order: azithromycin (Zithromax) 300 mg, PO, first day, then 160 mg, PO, per day for the second through the fifth days  
 Drug available:



- How many milliliters should the patient receive the first day?
- How many milliliters should the patient receive per dose for the next 4 days?

ANS:

- 7.5 mL first day ( $200 \text{ mg} : 5 \text{ mL} = 300 \text{ mg} : x \text{ mL}$ ,  $5 \times 300 = 200x$ ,  $1500/200 = 7.5 \text{ mL}$ )

$$\text{b. D.A: mL} = \frac{5 \text{ mL} \times 160 \text{ mg}}{200 \text{ mg} \times 1} = \frac{20}{5} = 4 \text{ mL}$$

- Order: cefuroxime axetil (Ceftin) 350 mg, PO, bid  
Drug available:



- How many milligrams should the patient receive per day?
- How many milliliters should the patient receive per dose?

ANS:

- 700 mg of Ceftin per day
- 7 mL per dose ( $250 \text{ mg} : 5 \text{ mL} = 350 \text{ mg} : x \text{ mL}$ ,  $5 \times 350 = 250x$ ,  $1750/250 = 7 \text{ mL}$ )

- Order: cefadroxil (Duricef) 1 g/day, PO, in two divided doses  
Drugs available:



- How many milligrams would the patient receive per dose?
- Which bottle of Duricef would you use?
- How many milliliters would you give per dose?

ANS:

- a. 500 mg per dose
- b. Either bottle is OK, but Duricef 500 mg/5 mL bottle is preferred.
- c. Using Duricef 500 mg/5 mL bottle, give 5 mL per dose; using Duricef 250 mg/5 mL, give 10 mL per dose.

75. Order: Cephalexin 0.5 g, PO, q6h  
Drug available:



How many milliliters would the patient receive per dose? (Convert grams to milligrams.)

ANS:

0.5 g = 500 mg; thus, give 10 mL of cephalexin per dose ( $250 \text{ mg} : 5 \text{ mL} = 500 \text{ mg} : x \text{ mL}$ ,  $5 \times 500 = 250x$ ,  $2500/250 = 10 \text{ mL}$ )

76. Order: prochlorperazine (Compazine) 7.5 mg, PO, qid  
Drug available:



How many milliliters of Compazine would the patient receive per dose?

ANS:

7.5 mL of Compazine per dose (1 mg per mL, proof:  $5 \text{ mg} : 5 \text{ mL} = 7.5 \text{ mg} : x \text{ mL}$ ,  $5 \times 7.5 = 5x$ ,  $37.5/5 = 7.5 \text{ mL}$ )

77. Order: cyproheptadine 4 mg, PO, tid  
Drug available: cyproheptadine (Periactin) 2 mg/5 mL syrup
- a. How many milligrams should the patient receive per day?
  - b. How many milliliters should the patient receive per dose?

ANS:

- a. Patient should receive 12 mg per day. ( $4 \text{ mg} \times 3 \text{ times per day} = 12 \text{ mg}$ )
- b. Cyproheptadine 10 mL per dose ( $2 \text{ mg} : 5 \text{ mL} = 4 \text{ mg} : x \text{ mL}$ ,  $5 \times 4 = 2x$ ,  $20/2 = 10 \text{ mL}$ )

78. Order: donepezil (Aricept) 5 mg, PO, daily at bedtime

Drug available: Aricept 1 mg/ mL oral liquid  
How many milliliters should the patient receive at bedtime?

ANS:  
5 mL of Aricept at bedtime

79. Order: esomeprazole (Nexium) 20 mg, PO, per day  
Available: Nexium oral suspension powder, 40 mg, mixed with 10 mL  
How many milliliters would you give the patient per day?

ANS:  
$$\frac{D}{H} \times V = \frac{20 \text{ mg}}{40 \text{ mg}} \times 10 \text{ mL} = \frac{1}{2} \times 10 = 5 \text{ mL per day}$$
  
5 mL of Nexium oral solution per day

80. Order: chlorpromazine (Thorazine) 25 mg, PO, qid  
Drug available:



How many milliliters of Thorazine would the patient receive per dose?

ANS:  
$$\text{BF: } \frac{D}{H} \times V = \frac{25}{10} \times 5 = \frac{25}{2} = 12.5 \text{ mL of Thorazine per dose}$$

81. Order: theophylline 120 mg, PO, daily  
Drug available: theophylline elixir 80 mg/15 mL  
How many milliliters of theophylline would you give?

ANS:  
Give 22.5 mL of theophylline per day. (80 mg : 15 mL = 120 mg : x mL, 15 × 120 = 80x, 1800/80 = 22.5 mL)

82. Order: theophylline 5 mg/kg, PO, loading dose  
Patient weight: 55 kg  
Drug available: theophylline elixir 50 mg/5 mL  
How many milliliters of theophylline would you give?

ANS:



Loading dose is 275 mg according to weight, so give 27.5 mL of theophylline as a loading dose.

$$5 \text{ mg} \times 55 \text{ kg} = 275 \text{ mg}$$

$$\text{RP: } H : V = D : x$$

$$50 \text{ mg} : 5 \text{ mL} = 275 \text{ mg} : x$$

$$50x = 1375$$

$$x = 27.5 \text{ mL}$$

OR

$$\text{DA: } \text{mL} = \frac{5 \text{ mL} \times 275 \text{ mg}}{50 \text{ mg} \times 1} = \frac{1375}{50} = 27.5 \text{ mL}$$

83. Order: amoxicillin/clavulanate (Augmentin) 0.25 g, PO, q8h

Drug available:



How many milliliters of Augmentin would you give per dose?

ANS:

0.25 g = 250 mg; thus, give 10 mL of Augmentin per dose. ( $125 \text{ mg} : 5 \text{ mL} = 250 \text{ mg} : x \text{ mL}$ ,  $5 \times 250 = 125x$ ,  $1250/125 = 10 \text{ mL}$ )

84. Order: ampicillin 0.5 g, PO, q8h

Drug available:



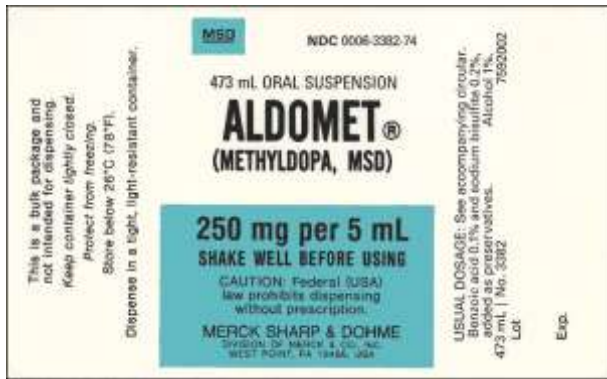
How many milliliters of ampicillin would you give per dose?

ANS:

0.5 g = 500 mg; thus, give 10 mL of ampicillin per dose. ( $250 \text{ mg} : 5 \text{ mL} = 500 \text{ mg} : x \text{ mL}$ ,  $5 \times 500 = 250x$ ,  $2500/250 = 10 \text{ mL}$ )

85. Order: methyl dopa (Aldomet) 400 mg, PO, bid

Drug available:



How many milliliters would you give per dose?

ANS:

8 mL of Aldomet per dose

$$\text{BF: } \frac{H}{V} = \frac{D}{x} = \frac{250}{5} = \frac{400}{x} = 250x = 2000$$

$$x = 8 \text{ mL}$$

OR

$$\text{DA: mL} = \frac{5 \text{ mL} \times 400 \text{ mg}}{250 \text{ mg} \times 1} = \frac{40}{5} = 8 \text{ mL}$$

86. Order: albuterol 4 mg, PO, tid  
 Drug available: albuterol 2 mg/5 mL  
 How many milliliters of albuterol would you give per dose?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{4}{2} \times 5 = \frac{20}{2} = 10 \text{ mL of albuterol per dose}$$

OR

$$\text{DA: mL} = \frac{5 \text{ mL} \times 4 \text{ mg}}{2 \text{ mg} \times 1} = 10 \text{ mL}$$

87. Order: cimetidine (Tagamet) 200 mg, PO, qid with meals  
 Drug available:



How many milliliters of Tagamet would you give?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{200}{300} \times 5 = \frac{10}{3} = 3.3 \text{ mL of Tagamet per dose}$$

OR

$$\text{RP: } H : V = D : x$$

$$300 \text{ mg} : 5 \text{ mL} = 200 \text{ mg} : x$$

$$300x = 1000$$

$$x = 3.3 \text{ mL}$$

88. Order: potassium chloride (KCl) 15 mEq, PO, bid  
 Drug available: potassium chloride 10 mEq/15 mL  
 a. How many milliliters of KCl would you give per dose?  
 b. How many milliequivalents (mEq) of KCl would the patient receive per day?  
 c. How many milliliters of KCl per day?

ANS:

a. 22.5 mL of potassium chloride per dose (10 mEq : 15 mL = 15 mEq : x mL,  $15 \times 15 = 10x$ ,  $225/10 = 22.5 \text{ mL}$ )

b. 30 mEq of KCl per day

c. 45 mL of KCl per day

89. Order: furosemide (Lasix) 30 mg, PO, bid  
 Drug available: furosemide 8 mg/mL  
 How many milliliters of furosemide would you give?

ANS:

3.75 mL of furosemide per dose RP: 8 mg : 1 mL = 30 mg : x mL,  $30=8x$ ,  $30/8= 3.75 \text{ mL} = 3.8 \text{ mL}$

$$\text{DA: mL} = \frac{1 \text{ mL} \times 30 \text{ mg}}{8 \text{ mg} \times 1} = \frac{30}{8} = 3.75 \text{ mL or } 3.8 \text{ mL}$$

90. Order: acyclovir (Zovirax) 400 mg, PO, bid

Drug available:



How many milliliters of Zovirax would you give per dose?

ANS:

10 mL of Zovirax per dose RP:  $200 \text{ mg} : 5 \text{ mL} = 400 \text{ mg} : x \text{ mL}$ ,  $5 \times 400 = 200x$ ,  $2000/200 = 10 \text{ mL}$ .

91. Order: diphenhydramine 50 mg, PO, q6h  
Drug available: diphenhydramine 12.5 mg/5 mL

How many milliliters of diphenhydramine would you give per dose?

ANS:

20 mL of diphenhydramine per dose. RP:  $12.5 \text{ mg} : 5 \text{ mL} = 50 \text{ mg} : x \text{ mL}$ ,  $5 \times 50 = 12.5x$ ,  $250/12.5 = 20 \text{ mL}$

92. Order: lactulose 30 g, PO, tid  
Drug available: lactulose 10 g/15 mL

How many milliliters of lactulose would you give per dose?

ANS:

45 mL of lactulose per dose. RP:  $10 \text{ g} : 15 \text{ mL} = 30 \text{ g} : x \text{ mL}$ ,  $15 \times 30 = 10x$ ,  $450/10 = 45 \text{ mL}$ .

93. Order: guaifenesin 400 mg, PO, q4h  $\times$  5 days or until cough subsides  
Drug available: guaifenesin 100 mg/5 mL

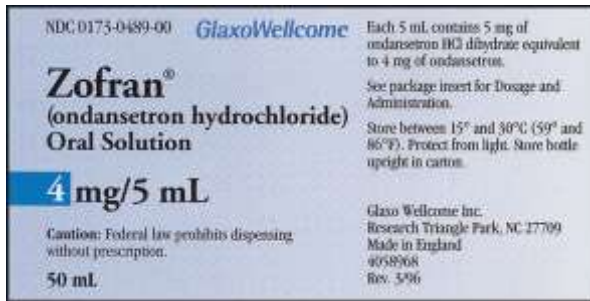
How many milliliters of guaifenesin would you give per dose?

ANS:

20 mL of guaifenesin per dose. RP:  $100 \text{ mg} : 5 \text{ mL} = 400 \text{ mg} : x \text{ mL}$ ,  $5 \times 400 = 100x$ ,  $2000/100 = 20 \text{ mL}$ .

94. Order: ondansetron (Zofran 5 mg, PO, 30 minutes before narcotic administration round answer to the whole number.

Drug available:



How many milliliters would you give before narcotic administration?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{5}{4} \times 5 = \frac{25}{4} = 6.25 \text{ mL or } 6 \text{ mL (rounded off)}$$

$$\text{FE: } \frac{H}{V} = \frac{D}{x} = \frac{4 \text{ mg}}{5 \text{ mL}} = \frac{5 \text{ mg}}{x} =$$

Cross multiply  $4x = 25$

$x = 6.25$  or 6 mL (rounded off) 30 minutes before narcotic

95. Order: paroxetine (Paxil) 20 mg, PO, daily  
 Drug available: Paxil oral suspension 10 mg/5 mL  
 How many milliliters would you give per day?

ANS:

10 mL of Paxil, RP:  $10 \text{ mg} : 5 \text{ mL} = 20 \text{ mg} : x \text{ mL}$ ,  $5 \times 20 = 10x$ ,  $100/10 = 10 \text{ mL}$ .

96. Order: promethazine 25 mg, PO, bid  
 Drug available: promethazine 6.25 mg/5 mL  
 How many milliliters of promethazine would you give per dose?

ANS:

$$\text{BF: } \frac{D}{H} \times V = \frac{25}{6.25} \times 5 = \frac{125}{6.25} = 20 \text{ mL of promethazine per dose}$$

OR

RP:  $H : V :: D : x$

$$6.25 \text{ mg} : 5 \text{ mL} :: 25 \text{ mg} : x$$

$$6.25x = 125$$

$$x = 20 \text{ mL}$$

97. Order: erythromycin 2 g/day in four divided doses  
 Drug available:



- Four divided doses would be equivalent to every \_\_\_\_\_ .
- How many milligrams would the patient receive per dose?
- How many milliliters of erythromycin would you give per dose?

ANS:

- 6 hours (q6h)
- $2\text{ g} = 2000\text{ mg} \div 4 = 500\text{ mg per dose}$
- 10 mL of erythromycin per dose. RP:  $250\text{ mg} : 5\text{ mL} = 500\text{ mg} : x\text{ mL}$ ,  $5 \times 500 = 250x$ ,  $2500/250 = 10\text{ mL}$

- Order: clindamycin 300 mg, PO, q8h  
 Drug available: clindamycin 75 mg/mL  
 How many milliliters of clindamycin would you give per dose?

ANS:

4 mL of clindamycin per dose. RP:  $75\text{ mg} : 1\text{ mL} = 300\text{ mg} : x\text{ mL}$ ,  $300 = 75x$ ,  $300/75 = 4$

- Order: nystatin (Mycostatin) 0.5 million units, qid, swish and swallow  
 Drug available:



How many milliliters of Mycostatin per dose would you pour?

ANS:

0.5 million units = 500,000 units; thus, give 5 mL of Mycostatin per dose.

RP: 100,000 units : 1 mL = 500,000 units : x mL,  $500,000/100,000 = 5$  mL

100. Order: Crestor 10 mg, PO, daily with evening meal  
Drugs available:



- a. Which Crestor bottle would you select?  
b. How many tablets would you give?

ANS:

- a. Either Crestor bottle could be selected; the Crestor 10 mg bottle is preferred.  
b. Give 2 tablets of Crestor from the 5 mg bottle. If the Crestor 10 mg bottle is used, then give 1 tablet.
101. Order: zidovudine (Retrovir) 100 mg by nasogastric tube, q6h  
Drug available:

240 mL    NDC 0173-0113-18

**RETROVIR®**  
(zidovudine)  
**Syrup**

For indications, dosage, precautions, etc., see accompanying package insert.  
Store at 15° to 25°C (59° to 77°F).

Each 5 mL (1 teaspoonful) contains zidovudine 50 mg and sodium benzoate 0.2% added as a preservative.

CAUTION: Federal law prohibits dispensing without prescription.

Made in U.S.A.    Rev. 5/96    587023

U.S. Patent Nos. 4818538 (Product Patent); 4724232, 4833130, and 4837208 (Use Patents)

**GlaxoWellcome**  
Glaxo Wellcome Inc.  
Research Triangle Park, NC 27709

**LOT**  
**EXP**

- a. How many milligrams should the patient receive per day?  
b. How many milliliters would you give per dose?

ANS:

- a. 400 mg per day of zidovudine  
b. 10 mL per dose of zidovudine. RP: 50 mg : 5 mL = 100 mg : x mL,  $5 \times 100 = 50x$ ,  $500/50 = 10$  mL
102. Order: lamivudine (Epivir) 0.15 g, PO, bid

Drug available:



- How many milligrams should the patient receive per day?
- How many milliliters should the patient receive per dose?

ANS:

- $0.15\text{g} = 150\text{mg}$  - move the decimal three places to the right (.150 g)
- 15 mL per dose of lamivudine. RP:  $10\text{mg} : 1\text{mL} = 150\text{mg} : x\text{mL}$ ,  $150/10 = 15\text{mL}$