

A Cumulative Review of Drug Dosage Practice Problems

This handout includes a cumulative review of introductory and advanced drug dosage calculation practice problems. For additional practice problems, please refer to our [Introductory Level Drug Dosage Practice Problems](#) and [Advanced Level Drug Dosage Practice Problems](#) handouts located on the Academic Center for Excellence website at: <https://www.germann.edu/academic-center-for-excellence/helpful-handouts/#nursing>

1. Order: Tegretol 200 mg p.o. b.i.d. On hand:



How much do you give for one dose? _____

2. Order: fluconazole 90 mg p.o. now.

Supply: fluconazole 40 mg per mL

How much do you give for one dose? Round to the tenths. _____

3. Order: Phenergan with Dextromethorphan 10 mg p.o. q.i.d.

Supply: Phenergan with Dextromethorphan 25 mg per 5 mL.

How much do you prepare for one dose? Round to the whole number.

4. Order: itraconazole 200 mg p.o. daily.

Supply: itraconazole 10 mg/mL oral solution.

How much do you prepare for one dose? Round to the whole number.

5. Order: Duralith 0.9 grams p.o. b.i.d.

Supply: Duralith 600 mg scored tablets.

How much do you prepare for one dose? _____

6. Order: Coreg 12.5 mg p.o. b.i.d.

Supply: Coreg 6.25 mg tablets.

How many tablets will the patient receive in a day? _____

7. Order: Cleocin 225 mg p.o. t.i.d.

Supply: Cleocin 75 mg per 5 mL.

How much do you prepare for one dose? Round to the whole number.

8. Prepare 187.5 mg of Keflex oral suspension. The concentration is 125 mg per 5 mL. How many mL is the dose? Round to the tenths. _____

9. You need to prepare 0.3 mg of this medication. How many tablets do you need?

8
0048-1090-05
3

NDC 0048-1090-05
NSN 6505-01-153-3338
Code 3P1095

SYNTHROID®
(Levothyroxine Sodium)
Tablets, USP

150 mcg (0.15 mg)

1000 TABLETS

Rx only

BASF Pharma **knoll**

See full prescribing information for dosage and administration.

Dispense in a tight, light-resistant container as described in USP.

Store at 25°C (77°F); excursions permitted to 15°-30°C (59°-86°F). [See USP Controlled Room Temperature].

Knoll Pharmaceutical Company
Mount Olive, NJ 07828
USA

7890-03

10. Order: cimetidine 800 mg p.o. q.h.s.

Supply: cimetidine 300 mg per 5 mL.

How much is one dose? Round to the whole number. _____

11. Order: acetaminophen 240 mg p.o. q.4-6h, p.r.n. pain or fever greater than 102°F.

Supply: acetaminophen 160 mg per 5 mL.

How much is one dose? Round to the tenths. _____

12. Order: Relafen 1 g p.o. b.i.d.

Supply: Relafen 500 mg tablets.

How many tablets are needed for one day? _____

13. Calculate how many mL of potassium is necessary to add 40 mEq potassium chloride to 1000 mL IV fluids. You have a 30 mL multiple-dose vial with potassium chloride 2 mEq/mL. _____

14. The order is heparin 7,000 units subcut q. 12h. How much do you prepare for one dose?

NDC 63323-542-01 504201

HEPARIN SODIUM

INJECTION, USP

10,000 USP Units/mL

(Derived from Porcine
Intestinal Mucosa)

For IV or SC Use Rx only

1 mL Multiple Dose Vial

Usual Dosage: See insert.

**American Pharmaceutical
Partners, Inc.**

Schaumburg, IL 60173

401807B

LOT

EXP



3 63323-542-01 6

15. Phenergan 40 mg IM q.4h p.r.n., nausea and vomiting is ordered. The vial contains Phenergan 50 mg per 1 mL. How much do you give for one dose? _____

16. Order: ketorolac 40 mg IM q. 6h p.r.n. pain.

Supply: ketorolac 30 mg per mL.

How much do you prepare for a dose? Round your answer to the nearest tenth.

17. Order: Lanoxin 0.7 mg IV now.

Supply: Lanoxin 500 mcg per 2 mL.

How much do you give? _____

18. Order: Dilantin 150 mg IV now.

Supply: Dilantin 100 mg per 2 mL.

How much do you prepare? _____

19. The order reads: morphine 5 mg IV q. 4h p.r.n. pain. Prepare a single dose. Round to the nearest tenth. _____



20. Prepare: metoclopramide 12 mg IV.

Supply: metoclopramide 50 mg per 10 mL.

How much do you need? _____

21. The physician orders abacavir for a 20 lb patient. According to the drug reference, the recommended dose is 8 mg per kg for a maximum of 300 mg per dose. What is the recommended dose for this patient? Round to the tenths. _____

22. Order: Piperacillin 600 mg IM.

Supply: Vial of Piperacillin powder labeled 4 g. Directions on label: Add 7.8 mL sterile water to yield 1 g/2.5 mL.

Administer: _____

23. Order: Mefoxin 1 g IM.

Supply: Vial of Mefoxin powder labeled 2 g. Directions on label: Reconstitute with 4 mL sterile water to yield 400 mg per mL.

Administer: _____

24. Calculate the fluid intake in mL for the following meal: 1 glass of apple juice, 1 bowl of oatmeal, ½ cup coffee, 1 milk carton, 1 slice of toast (juice glass = 3 oz, coffee cup = 6 oz, milk carton = 8 oz) _____

25. Recommended dose: Zinacef 50-100 mg/kg/day. Weight: 55 lb child.

Recommended daily safe dosage: _____

26. Recommended dose: digoxin 20-30 mcg/kg/day. Weight: 3,800 g neonate.

Recommended daily safe dosage: _____

27. Recommended dose: phenobarbital 4-6 mg/kg/day in doses b.i.d. Weight: 7 lb 8 oz infant.

Single dose: _____

28. Order: 1,000 mL D5W over 8 hr. The IV set has a drop factor of 15 gtt/mL.

Drip rate: _____

29. Order: 1,000 mL NS to run at 150 mL/hr. The tubing has a drop factor of 10 gtt/mL.

Drip rate: _____

30. Order: 1,000 mL LR to run at 80 mL/hr. A microdrip infusion set is available.

Drip rate: _____

31. Order: Administer Reglan 15 mg in 50 mL D5W in 20 min. Drop factor is 10 gtt/mL.

Drip rate: _____

32. Order: 500 mL to infuse over 6 hours. The IV set has a drop factor of 20 gtt/mL.

Drip rate: _____

33. 267 mg of Ceclor is ordered p.o. b.i.d. Using the solution strength of 250 mg/5mL, how much do you prepare for one dose? Round to the tenths.

34. Order: 800 mcg Bumex IV daily.

Supply: Bumex (bumetanide) 1 mg per 4 mL (0.25 mg per mL).

How much is one dose? Round to the tenths. _____

35. Order: 1,000 mL LR at 125 mL per hour.

a. How long will the infusion last in hours? _____

b. Calculate the infusion rate using an infusion set calibrated for 10 gtt per mL.

c. If you start the infusion at 1000, what time will it finish? Use military time.

36. Order: 25,000 units of heparin in 500 mL D₅W to run at 700 units per hour. What is the flow rate? _____
37. Your patient is being discharged on Ceclor 250 mg p.o. t.i.d., and does not have an oral syringe or other dosing device that measures in mL. How many teaspoons is one dose? Round to the whole number. _____



38. The patient is receiving penicillin V potassium 250 mg p.o. q.i.d.
Supply: penicillin V potassium 125 mg tablets.
How many tablets will the patient receive in a 24-hour period?

39. A patient is on an insulin drip of Novolin R Regular U-100 insulin 200 units in 100 mL of NS infusing at 10 mL per h. How many units of insulin is this patient receiving per hour?

40. You need to prepare 8 ounces of 1/2 strength H₂O₂ and saline for a patient's wound care. How many mL of saline do you need? Round to the whole number.

41. Your patient is receiving ½ NS infusing at the rate of 30 gtt per min. The infusion set has a drop factor of 20 gtt per mL. How much fluid will the patient receive during your 8 hour shift? Round to the whole number. _____

42. Another nurse prepares a syringe with 12 mL of fentanyl in it for a patient weighing 154 lb, and asks you to verify the order and the amount.

Order: fentanyl 600 mcg IV now

Supply: fentanyl 0.05 mg per mL with a vial insert that says, "The recommended IV dosage is 2-20 mcg per kg."

Is this a safe amount to give? Did the nurse prepare the correct amount?

43. Calculate the BSA for a child whose height is 48 inches, and weight is 44 lbs. Round to the hundredths place. _____

44. Give Cipro 200 mg IV q.12h diluted in 100 mL D₅W (give over 30 minutes). Calculate the rate. _____

45. Calculate the BSA of a child who is 88 cm and 22 kg. Round to the hundredths.

46. Calculate the BSA of an infant who weighs 14 lb and is 18 inches long.

47. Order: Infuse 500 mL of LR over 4 hours. Calculate the rate. Round to the nearest whole number. _____

Questions were adapted from:

Pickar, G.D. (2008). *Dosage calculations* (8th ed.). Clifton Park, NY: Thomson Delmar Learning.

Solutions

- | | | |
|---------------------|------------------------|--------------------------|
| 1. 2 tablets/dose | 21. 72.7 mg/dose | 39. 20 units/hour |
| 2. 2.3 mL/dose | 22. 1.5 mL | 40. 120 mL |
| 3. 2 mL/dose | 23. 2.5 mL | 41. 720 mL |
| 4. 20 mL/dose | 24. 420 mL | 42. The order is safe to |
| 5. 1.5 tablets/dose | 25. 1,250-2,500 mg/day | give, and the nurse has |
| 6. 4 tablets/day | 26. 76-114 mcg/day | prepared the correct |
| 7. 15 mL/dose | 27. 6.8-10.2 mg/dose | amount. |
| 8. 7.5 mL/dose | 28. 31 gtt/min | 43. 0.82 m ² |
| 9. 2 tablets | 29. 25 gtt/min | 44. 200 mL/hour |
| 10. 13 mL/dose | 30. 80 gtt/min | 45. 0.73 m ² |
| 11. 7.5 mL/dose | 31. 25 gtt/min | 46. 0.28 m ² |
| 12. 4 tablets/day | 32. 28 gtt/min | 47. 125 mL/hr |
| 13. 20 mL | 33. 5.3 mL/dose | |
| 14. 0.7 mL/dose | 34. 3.2 mL/dose | |
| 15. 0.8 mL/dose | 35. a. 8 hours | |
| 16. 1.3 mL/dose | b. 21 gtt/min | |
| 17. 2.8 mL | c. 1800 hours | |
| 18. 3 mL | 36. 14 mL/hr | |
| 19. 0.6 mL | 37. 1 tsp/dose | |
| 20. 2.4 mL | 38. 8 tablets | |