

Information for those who are interested in taking a Challenge / Waiver Examination for Nursing 205 (Drug Dosage Calculations for Nursing Students)

PLEASE NOTE:

The dates for the waiver exam for Summer and Fall 2010 are as follows:

Tuesday, June 22, 2010 from 12:45 pm to 4 pm -- Room HS 104

Tuesday, September 14, 2010 from 12 noon to 3:00 pm -- Room HS 104

Thursday, October 14, 2010 from 9:00 am to 12:00 noon -- Room HS 104

Wednesday, November 17, 2009 from 9:00 am to 12:00 noon -- Room HS 104

Please email your request to take the waiver exam to mwerner@contracosta.edu

Thank you for your interest in challenging the Drug Calculations for Nursing Students (Nursing 205) course. Contra Costa College's nursing program has a process for this challenge called a waiver exam. Please read the following to see if this option is appropriate for you. The waiver exam is given several times each semester. In order to qualify for the exam, you must have done one of the following:

- studied similar content in a LVN or other nursing program
- had work experience with calculating medication doses and IV rates,
- had equivalent training or experience, or
- studied extensively and learned drug dosage content as independent study.

You may take the waiver exam one time only. If you are not successful, you may take the course during the summer, fall, or spring semesters. If you are successful, you will be notified by letter, and a note will be placed on your transcript stating that you have met the requirements for the Nursing 205 course. You will not be granted units, nor will you be given a grade on the transcript. There is no fee for the waiver exam.

The waiver exam consists of 33 word problems for a total possible score of 100 points. In order to be successful with the waiver, you must achieve a 75% score on the exam. Calculators are not allowed, and all work must be shown on the exam paper. You will be provided with the exam and scratch paper. All you need to bring to the exam is a pencil and eraser. On the day of the waiver exam, come to the Health Science Building, HS 100, and the proctor will bring you to the exam room

Please review the waiver exam policy, and practice worksheet. The faculty strongly recommends that you prepare fully for the exam to ensure your successful passing of the exam. Course materials for Nursing 205 are available in the CCC bookstore or can be ordered online. The required CD and workbook for Nursing 205 is Castillo, S. and Werner-McCullough, M. (2007). *Drug Dosage Calculations: An interactive approach to learning nursing math*. 2nd Ed. Philadelphia: F.A. Davis Company. This or other drug dosage calculation textbooks can be used in your preparation for the exam.

Please email Maryanne Werner-McCullough at mwerner@contracosta.edu to reserve a place on the date that you wish to take the exam. Good luck to you!

CONTRA COSTA COLLEGE

**LAVA DIVISION
ASSOCIATE DEGREE NURSING PROGRAM**

**WAIVER OF NURSING 205 (DRUG DOSAGE CALCULATION CLASS)
AND/OR NURSING 212 (PHARMACOLOGY FOR NURSES CLASS)
BY EXAM**

POLICY:

A student who is not eligible to receive credit by examination the Drug Dosage Calculation course (Nursing 205) or the Pharmacology for Nurses course (Nursing 212) according to the College procedures for Credit-by-Exam may choose to waive these courses by taking the Nursing Department's waiver exam(s). A student who chooses the waiver option, and successfully passes the waiver exam, will receive a notation on the official transcript that states that the course was waived, but will not receive any unit credit or grade for the course. There is no fee for this waiver.

PROCEDURE:

The procedure for waiving the Drug Dosage Calculation course or the Pharmacology for Nurses course by exam is as follows:

1. The student must request a waiver exam from the course instructor. The instructor will notify the student whether or not the waiver exam is appropriate, and the date and time of the waiver examination.
2. Upon successful completion of the waiver exam (75% average), the instructor will notify the Admissions Office, and a notification regarding the waiver will be entered on the student's official transcript.
3. Nursing 205 and Nursing 212 may be waived by exam one time only.

Adopted: 5/96

Reviewed: 5/97, 5/01, 5/06, 5/09, 5/10

Revised: 5/98, 5/99, 5/00, 5/02, 5/03, 5/04, 5/05, 5/07, 5/08

CONTRA COSTA COLLEGE

ASSOCIATE DEGREE NURSING PROGRAM

**DRUG DOSAGE CALCULATION CHALLENGE / WAIVER EXAM
PRACTICE PROBLEMS**

NOTE: The following instructions are found on the challenge / waiver exam and will be used in the grading of the exam.

INSTRUCTIONS: Show ALL work on the test paper. Place the final answer on the answer line. Reduce all fractions.

General Rounding instructions: Work decimal problems to three places to the right of the decimal. Round the **final** answer to the hundredths place (two places to the right of the decimal).

Rounding for IV problems

(gtt / mL and mL / hr): Round the final answer to the nearest whole number.

(infusion and completion time): Round the final answer to the nearest minute.

Rounding for NG formula strength problems: Round the final answer to the nearest whole number

Eliminate trailing zeros in a decimal fraction (e.g., 1.3, not 1.30).

Place a leading zero in front of all decimal fractions (e.g., 0.32, not .32).

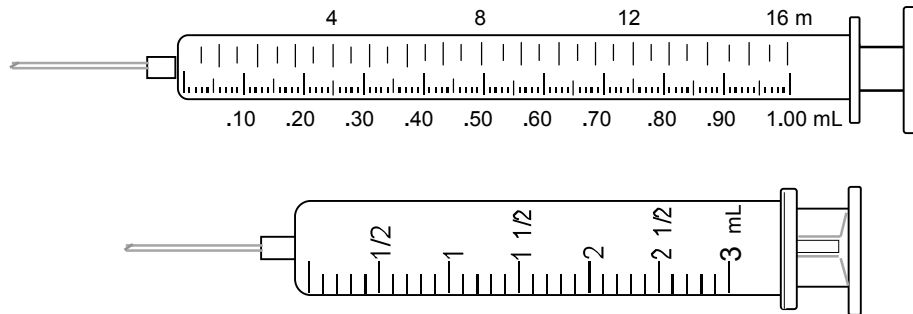
Good luck!

1. The patient is receiving an IV of D₅/W infusing at 100 mL / hr at the start of the shift (0700). He gets an IVPB of Pepcid 20 mg in 50 mL NS q.12h (1000 - 2200). He also receives Ceftriaxone 0.5 g in 50 mL NS q.8h. For breakfast the patient took 4 oz of apple juice and 6 oz of broth. At 1000 the patient drank 1 cup of water. For lunch the patient took 1 glass of milk and 1 Tbs of jello. The patient has a continuous bladder irrigation running at 50 mL / hr throughout the shift. The nurse emptied 1025 mL of urine from the indwelling catheter bag at the end of the shift. The patient vomited 150 mL at 1500. Calculate the patient's I & O beginning at 0700 and ending at 1500.

2. The order is for Dilantin 200 mg p.o. b.i.d. The pharmacy sends a bottle of Dilantin labeled 100 mg / 2.5 mL. How many tsp will the nurse administer?

3. The M.D. orders Epinephrine 1:1000 0.4 mg subcut stat for a patient experiencing an allergic reaction. The nurse has an ampule containing Epinephrine 1:1000 1 mg / mL. How many minims will the nurse administer?

Shade in the desired amount in the most appropriate syringe.



4. Tylenol 0.3 g p.o. q.4h is ordered for the patient. Pharmacy sends a bottle of Tylenol liquid labeled 240 mg / 5 mL. How many mL will the nurse administer?

5. Vancomycin 900 mg IVPB is order q.AM for a patient who weighs 184.4 lbs. The drug book states the following about vancomycin administration:

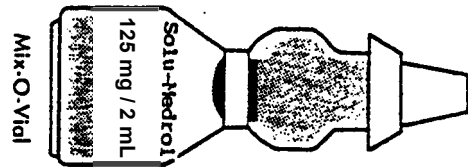
VANCOMYCIN
 IM, IV (Adults) Once daily dosing
 10 – 12 mg / kg q.24h.

Is the ordered dose a safe dose for the patient? _____

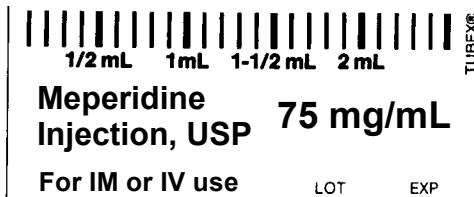
What is the maximum safe dose for this patient? _____

6. The M.D. orders a Lidocaine drip to be started on a patient at 8 mg / min. At 1000 the nurse hangs the IV of NS 0.9% 500 mL with 4 g of Lidocaine. The IV is hung with a microgtt tubing. To administer the ordered dose, how many mL / hr will the nurse calculate?

7. The patient is to receive Methylprednisolone sodium (Solu-medrol) IVP 12.5 mg daily. The nurse has the following vial available. How many mL will the nurse give?



8. The nurse is to administer Meperidine 60 mg and Vistaril 25 mg IM at 0900. The nurse has the following pre-filled syringe and an ampule of Vistaril labeled 50 mg / mL. How many mL of each drug will the nurse administer? Shade in the total amount that the nurse will administer in the pre-filled syringe.

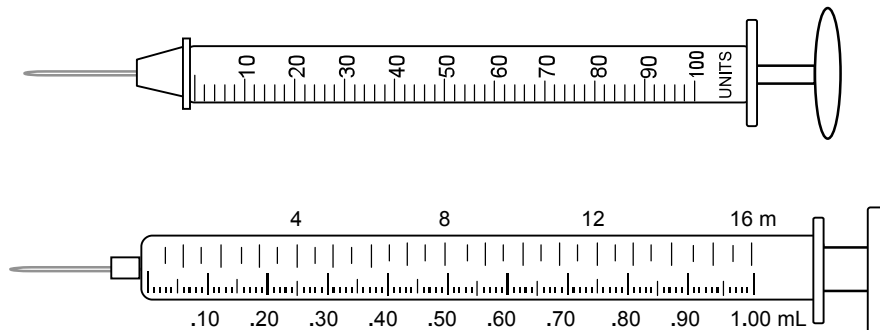


Meperidine _____
 Vistaril _____
 Total Amt _____

9. Digoxin 0.25 mg IVP is ordered daily for the patient. Available is an ampule of Digoxin 500 mcg / 2 mL. How much will the nurse draw up in the syringe?

10. Heparin 3,000 units subcut is ordered q.12h for the patient. Pharmacy sends a vial labeled Heparin 20,000 units / 5 mL. How much will the nurse administer?

Shade in the amount in the most appropriate syringe.



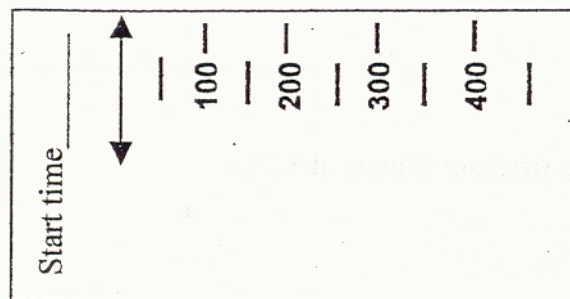
11. The patient has a continuous heparin infusion. The nurse is been given credit for 325 mL at 0700. The order is for NS 500 mL with 15,000 units of heparin to infuse at 600 units/hr. The IV has a pedi-drip tubing. Calculate the flow rate.

How much IV credit will the nurse give the next shift if the I & O is closed at 1500?

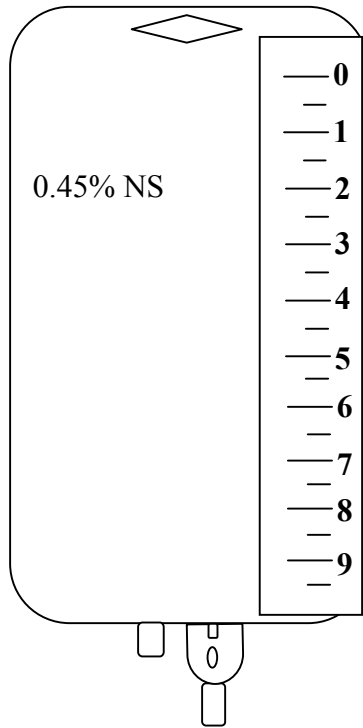
12. The M.D. orders a $\frac{3}{4}$ strength nasogastric tube feeding formula to infuse at 60 mL / hr. The nurse has an 8 oz can of the formula available. How much water will the nurse add to make the desired strength?

13. One unit packed red blood cells (260 mL) is started at 0415 to infuse over 1.5 hours. The blood administration set delivers 10 gtt / mL. Calculate the mL / hr. What is the completion time of the PRBC unit?

14. At 1200, the nurse hangs up 500 mL of Lactated Ringers to infuse over 4 hours. At 1400, the rate is decreased to 75 mL / hr. Label the flow meter hourly starting with the amount left at 1400.



15. The nurse is given credit for 850 mL of 0.45% NS at 2300, the start of the shift. The IV is infusing at 30 mL / hr. At 0400 the IV rate is increased to 50 mL / hr. Label the flow meter q.2h starting with the amount left at this time.



Calculate the flow rate of the increased rate using a drop factor of 15 gtt / mL.

How much IV credit will the nurse give the next shift at 0700?

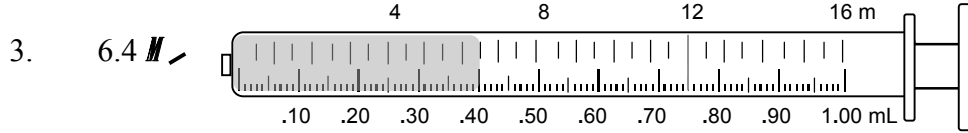
Shade in this amount in the IV bag.

DDC Challenge/Waiver Practice Problems

ANSWERS

1. I = 1695 mL
O = 775 mL

2. 1 tsp



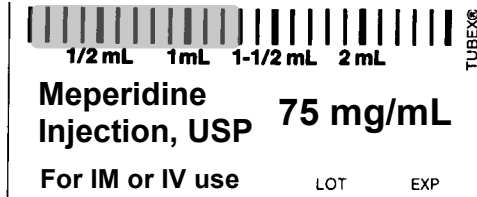
4. 6.25 mL

5. Yes, safe dose
1005.816 mg /dose is maximum safe dose for this patient.

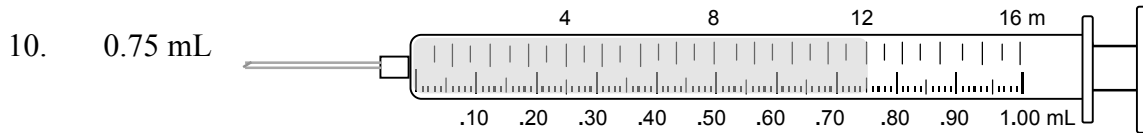
6. 60 mL/hr

7. 0.2 mL

8. Meperidine = 0.8 mL; Vistaril = 0.5 mL
Total amount = 1.3 mL



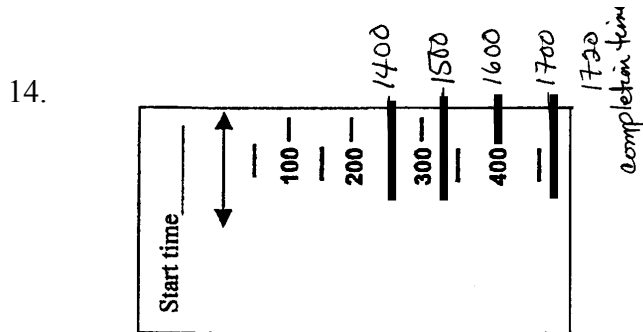
9. 1 mL



11. 20 gtt/min; 165 mL

12. 80 mL

13. 173 mL/hr; 0545



15. 13 gtt/min; 550 mL credit

