LAB PACKAGE #1

Welcome to the lab portion of Pharmacology for nurses NURS 2810! These labs are designed to teach you how to safely and effectively prepare and administer medications, and how to accurately calculate medication dosages. During lab sessions you will have the opportunity to observe and practice medication administration techniques, and be given the opportunity to complete scenarios in the simulation lab. There will some opportunity to review questions from the dosage calculation workbook during lab sessions, but remember that there will be a weekly online adobe connect session on Wednesday from 1-2 to review dosage calculation issues. The webCT site also include many additional resources to assist your learning i.e. lecture videos, critique videos, math resources, mosby skills videos etc. Please access these as often as necessary to assist your learning. You will also need to ensure that you access the lab during IPR hours regularly to maintain your medication administration & preparation skills.

Lab package #1 includes:
Weeks 2, 3 & 4 learning objectives
Weeks 2, 3 & 4 Learner preparation
Drug
Process for formal critique
Patient Profiles
Medication Administration Records (MARs) for critique 1 & 2

Please note: An additional online learning module is included in this course to assist you to work through the Dosage Calculation Workbook…ensure that you have completed **both** the **Pickar** assignments and the posted **lab package** for each lab session.

If you are struggling with the dosage calculations please ensure that you contact me immediately

In order to use the supervised practice lab times effectively, it is ***very*** important that you come to labs prepared. This lab package will outline what preparation is expected. You will refer to lab package #1 for weeks 2, 3 & 4. Ensure that you have purchased the following:

Fundamentals by Potter & Perry
Dosage Calculations 2nd Canadian Edition
Mosby's drug guide for Nurses 9th ed.

Weeks #2, 3 & 4

Oral, topical, inhaled and sublingual medication preparation, administration and documentation

Learning Objectives: At the end of the Session #1 students will successfully demonstrate ability to:

1. Design and deliver health teaching to clients related to their specific learning needs related to oral, topical, inhaled and sublingual medication regime
2. Comply with the principles and legalities of medication administration related to oral, topical, inhaled and sublingual medication
3. Think critically when solving problems related to mathematical calculations for oral, topical, inhaled and sublingual medication
4. Demonstrate accurate calculation, administration and documentation of oral, topical, inhaled and sublingual medications.

Learner Preparation:

- Read **Potter & Perry pp. 676 - 721**
- Wk 1 - **Pickar ch 1 – 5** (hyperlinked on "outline" pg on webCT)
- Wk 2 & 3 – **Pickar ch 6 – 8**
- Wk 4 – **Pickar ch 9, 10 & 12**
- View **lecture #1** (hyperlinked on "outline" pg on webCT)
- View **critique video** (hyperlinke d "outline" pg on webCT)
- Watch Mosby videos

Learning activities during Lab

- Watch demonstration
- Supervised practice
- Simulation

Adobe Connect Session – Wed 1-2

- Pharm theory review
- Dosage calculation tutorial

DRUG CLASSIFICATIONS – DRUG CARDS

By understanding each of the classifications, you will be able to apply this knowledge to many of the medications in that family of drugs. Begin to research the medications that you will be responsible for during the 3 formal critiques this semester (see attached MAR). You should also notice that these medications are some of the more commonly administered on your clinical unit.
A drug card should be complete for each of these classifications. You will be asked to discuss them during your formal critique.

Classification
Action
Indications
Adverse effects
Contraindications
Nursing implications/teaching
The safe dosage range for each of these drugs
Onset, peak and duration

Critique

This is the process for Preparation & Administration of medications that you will demonstrate during your first formal critique – also watch the critique video so you know what to expect.

- Critical thinking – drug classification, indication, nursing assessments (vital signs, pain, weight, lab work, blood sugar, swallowing ability, etc)

- Verify Physician/Nurse Practitioner order with MAR for transcription accuracy by checking for signature on MAR.(If the medication is hand written then you must verify the accuracy of the order directly with the chart)

- Locate medication.

- First check of 8 R's– right pt, right drug, right dose, right route, right time, right frequency, right site, right reason(checking MAR with medication) **remember right site is not applicable for oral medications

- Dosage calculation

- Allergy assessment

- Second check – 8 rights (MAR to medication)

- Pour medication

- Third check of 8 rights (total 8 R's x 3 checks =24) MAR to medication

- Recheck dosage calculation

- Bring health record # / unique # to bedside

- At bedside verbally ID client and check allergy and unique# with armband

- Health teaching in relation to medication – reasons/rationale, side effects etc

- Administer medication

- Document on MAR (time, date, dose & route)

Pharm Lab Critique
Oral/Topical/Inhalation/eye drop

Name **Date** **Pass/Fail**
Critical thinking: **Mechanism of action** **Onset/peak/duration** **Side effects/adverse reactions**
Right Patient Right Medication Right Dose Right Route Right Time Right Frequency Right Reason Right Site
Dose Calculation
Allergy check
Check MAR verification
Right Patient Right Medication Right Dose Right Route Right Time Right Frequency Right Reason Right Site
Pour medication appropriately
Right Patient Right Medication Right Dose Right Route Right Time Right Frequency Right Reason Right Site
Copy unique #
Check unique # to patients wristband & rechecks allergy
Documentation: Date/time/dose/signature

Meet the patients that you will be caring for this semester. Please ensure that you are familiar with their diagnosis and history as you will need to make decisions regarding medication administration based on this information.

Mr. Colin Mitchel

Mr. Mitchel is a 53 year old man admitted to hospital with hypertension. He has a history of TIA's and Atrial Fibrillation. He weighs 81kg. Mr. Mitchel has been married to Carol Mitchel for the last 25 years. They have a daughter Christine 23 and a son Derek 21 both in university. Mr. Mitchel has been experiencing an increased level of stress and anxiety as he lost his job at GM 2 years ago when they downsized. He was unable to finish high school, and has held the same job since he was 17 years old. He is concerned that his children may have to leave school early and that he may lose the house that his children grew up in.

Current Status: Bp 148/88, Pulse 90 irregular, c/o headache rates 7out of 10, alert and orientated X 3.

Mr. Robbie Robertson

Mr. Robbie Robertson is a 68 year old man admitted with UTI and diabetes. He has a past medical history of IDDM for the past 10 years, an MI 2 years ago and CHF. He weighs 78 kg. Mr. Robertson has lived with his partner for the last 30 years. He has no children, but 2 golden retrievers. He is a retired school teacher.

Current Status: Gluc. 5.3, urine cloudy, c/o burning when voiding, chest clear, denies SOB.

Mrs. Anita Smith

Mrs. Anita Smith is a 54 year old woman admitted to the hospital with end-stage carcinoma of the breast with mets to bone and lung. She had a left mastectomy 3 years ago. Her weight is 50kg. Hoping to find a job, Mrs. Smith moved to Ontario from British Columbia a year ago. She has not worked for 7 years due to various health issues. She appears malnourished, has no family support and has just lost her apartment as she was unable to pay the rent.

Current Status: Conditional terminal, bedridden, denies pain, no BM X 3 days, congested cough.

*The following pages are your patients' PO, IM & SQ medication administration records (MARs). Please print **ALL** of the pages for all 3 pages to practice with in the lab. These will be the medications that you are tested on during your formal critique #1 & #2.*

Page 1 of 1

PATIENT IDENTIFICATION

NAME: MITCHEL, COLIN
UI# 07-5151

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: NKA

SCHEDULED MEDICATIONS	**TIME**	**DATE**						
DRUG: RAMIPRIL (ALTACE) **START:** 19/09/11 **STOP:** **DOSE:** 5mg **ROUTE:** PO **FREQUENCY:** daily **DIRECTIONS:** HOLD FOR K > 5.0 OR CR > 150 **ORD**. DR. JONES, NORA **NURSE:**	0900							
DRUG: CARDIZEM CD (DILTIAZEM) **START:** 19/09/11 **STOP:** **DOSE:** 180mg **ROUTE:** PO **FREQUENCY:** daily **DIRECTIONS:**HOLD IF HR< 55 OR SYSTOLIC B/P <100mmHg **ORD.** DR. JONES, NORA **NURSE:**	0900							
DRUG: WARFARIN (COUMADIN) **START:** 19/09/11 **STOP:** **DOSE:** 3mg FOR NEXT 2 DAYS THEN REASSESS **ROUTE:** PO **FREQUENCY:** daily **DIRECTIONS:** INR Q TUES/THURS/SUN **ORD.** DR. JONES, NORA **NURSE:**	1600							
DRUG: ATORVASTATIN CALCIUM (LIPITOR) **START:** 19/09/11 **STOP:** **DOSE:** 40mg **ROUTE:** PO **FREQUENCY:** QHS **DIRECTIONS:** **ORD.** DR. JONES, NORA **NURSE:**	2200							

PATIENT IDENTIFICATION

NAME: MITCHEL, COLIN
UI# 07-5151

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: NKA

DATE/TIME

PRN MEDICATIONS

DRUG: DIMENHYDRINATE (GRAVOL, ASTRA, SABEX)
START: 19/09/11
STOP:
DOSE: 50 mg
ROUTE: IM
FREQUENCY: Q4H prn
DIRECTIONS:
ORD. DR. JONES, NORA
NURSE:

DRUG: ACETAMINOPHEN 300mg WITH CODEINE 30 mg AND 15 mg CAFFIENE (TYLENOL # 3, ATASOL 30'S, T3)
START: 19/09/11
STOP:
DOSE: 1-2 TABS
ROUTE: PO
FREQUENCY: Q4H prn
DIRECTIONS:
ORD. DR. JONES, NORA
NURSE:

DRUG:
START:
STOP:
DOSE:
ROUTE:
FREQUENCY:
DIRECTIONS:
ORD.
NURSE:

DRUG:
START:
STOP:
DOSE:
ROUTE:
FREQUENCY:
DIRECTIONS:
ORD. DR.
NURSE:

PATIENT IDENTIFICATION

NAME: ROBERTSON, ROBBIE
UI# 07-5432

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: CODEINE

SCHEDULED MEDICATIONS	**TIME**	**DATE**						
DRUG: HUMULIN N (HUMULIN N, NOVOLIN N) **START:** 19/09/11 **STOP:** **DOSE:** 13 UNITS **ROUTE:** SC **FREQUENCY:** QAM **DIRECTIONS:** **ORD**. DR. JONES, NORA **NURSE:**	0730							
DRUG: FUROSEMIDE (LASIX, NOVO FUROSEMIDE) **START:** 19/09/11 **STOP:** **DOSE:** 40 mg **ROUTE:** PO **FREQUENCY:** QAM **DIRECTIONS:** LYTES WEEKLY **ORD.** DR. JONES, NORA **NURSE:**	0900							
DRUG: POTASSIUM CHLORIDE (SLOW K) **START:** 19/09/11 **STOP:** **DOSE:** 1 TAB **ROUTE:** PO **FREQUENCY:** BID **DIRECTIONS:** TAKE WITH FOOD **ORD.** DR. JONES, NORA **NURSE:**	0900 1700							
DRUG: NITROGLYCERIN PATCH O.4 mg (NITRO DUR**,** NITROPATCH) **START:** 19/09/11 **STOP:** **DOSE:** 0.4 mg **ROUTE:** TOP **FREQUENCY:** daily **DIRECTIONS:** **ORD.** DR. JONES, NORA **NURSE:**	0900							
DRUG: NITROGLYCERIN PATCH O.4 mg (NITRO DUR, NITROPATCH) **START:** 19/09/11 **STOP:** **DOSE:** **ROUTE:** TOP **FREQUENCY:** QHS **DIRECTIONS:** REMOVE PATCH AT HS **ORD.** DR. JONES, NORA **NURSE:**	2200							

PATIENT IDENTIFICATION

NAME: ROBERTSON, ROBBIE
UI# 07-5432

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: CODEINE

SCHEDULED MEDICATIONS

DRUG: HUMULIN R **START:** 19/09/11
(HUMULIN R, NOVOLIN R) **STOP:**
DOSE: SLIDING SCALE
ROUTE: SC **FREQUENCY:** AC MEALS & HS

IF GLUCOSE = < 8.0 NO UNITS
8.1-10.0 2 UNITS
10.1-12.0 4 UNITS
12.1-14.0 6 UNITS
14.1-16.0 8 UNITS
16.1-18.0 10 UNITS

DIRECTIONS: IF >18 CALL MD
ORD. JONES, NORA **NURSE:**

DRUG: AMOXICILLIN **START:** 19/09/11
(AMOXIL,APO-AMOXI,TRIMOX) **STOP:**
DOSE: 500 mg
ROUTE: PO **FREQUENCY:** Q8H
DIRECTIONS: TAKE ON AN EMPYT STOMACH
ORD. JONES, NORA **NURSE:**

DRUG: **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. **NURSE:**

TIME	DATE						
0730							
1130							
1630							
2200							
0600							
1400							
2200							

PATIENT IDENTIFICATION

NAME: ROBERTSON, ROBBIE
UI# 07-5432

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: CODEINE

DATE/TIME

PRN MEDICATIONS

DRUG: ACETAMINOPHEN 325MG **START:** 19/09/11
(TYLENOL, ATASOL, ABENAL) **STOP:**
DOSE: 1-2 TABS
ROUTE: PO **FREQUENCY:** Q4H prn
DIRECTIONS:
ORD. DR. JONES, NORA **NURSE:**

DRUG: MEPERIDINE HYDROCHLORIDE **START:** 19/09/11
(DEMEROL, PETHIDINE) **STOP:**
DOSE: 50 mg
ROUTE: IM **FREQUENCY:** Q4-6H prn
DIRECTIONS:
ORD. DR. JONES, NORA **NURSE:**

DRUG: **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. DR. **NURSE:**

DRUG: **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. DR. **NURSE:**

DRUG: **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. DR. **NURSE:**

PATIENT IDENTIFICATION

NAME: SMITH, ANITA
UI# 07-6794

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: PENICILLIN

SCHEDULED MEDICATIONS	**TIME**	**DATE**						
DRUG: ENOXAPARIN (LOVENOX) **START:** 19/09/11 **STOP:** **DOSE:** 1 mg/KG **ROUTE:** SC **FREQUENCY:** BID **DIRECTIONS:** INR QMONTHLY **ORD**. DR. SMITH, WILL **NURSE:**	0900 2200							
DRUG: DIOVOL SUSPENSION (GELUSIL, MAALOX, RULOX) **START:** 19/09/11 **STOP:** **DOSE:** 2 TSP **ROUTE:** PO **FREQUENCY:**PC MEALS & HS **DIRECTIONS:** **ORD**. DR. SMITH, WILL **NURSE:**	0900 1300 1800 2200							
DRUG: DOCUSATE SODIUM (COLACE, REGULEX, SOFLAX) **START:** 19/09/11 **STOP:** **DOSE:** 100 mg **ROUTE:** PO **FREQUENCY:** BID **DIRECTIONS:** **ORD**. DR. SMITH, WILL **NURSE:**	0900 2200							
DRUG: LORAZEPAM (ATIVAN) **START:** 19/09/11 **STOP:** **DOSE:** 1 mg **ROUTE:** SL **FREQUENCY:** TID **DIRECTIONS:** **ORD.** DR. SMITH, WILL **NURSE:**	0600 1400 2200							
DRUG: HYDROMORPHONE (DILAUDID) **START:** 19/09/11 **STOP:** **DOSE:** 4 mg **ROUTE:** PO **FREQUENCY:** Q4H **DIRECTIONS:** **ORD.** DR. SMITH, WILL **NURSE:**	0200 0600 1000 1400 1800 2200							

PATIENT IDENTIFICATION

NAME: SMITH, ANITA
UI# 07-6794

VERIFIED BY:

MEDICATION ADMINSTRATION RECORD

ALLERGIES: PENICILLIN

DATE/TIME

PRN MEDICATIONS

DRUG: DIMENHYDRINATE **START:** 19/09/11
(GRAVOL, ASTRA, SABEX) **STOP:**
DOSE: 50 mg
ROUTE: IM **FREQUENCY:** Q4H **prn**
DIRECTIONS:
ORD. DR. SMITH, WILL **NURSE:**

DRUG: HYDROMORPHONE **START:** 19/09/11
(DILAUDID) **STOP:**
DOSE: 2-4 mg
ROUTE: SQ **FREQUENCY:** Q2H **prn**
DIRECTIONS: FOR BREAKTHROUGH PAIN
ORD. DR. SMITH, WILL **NURSE:**

DRUG: ARTIFICIAL TEARS **START:** 19/09/11
STOP:
DOSE: ii gtts
ROUTE: OU **FREQUENCY:** TID prn
DIRECTIONS:
ORD. DR. SMITH, WILL **NURSE:**

DRUG: **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. DR. **NURSE:**

DRUG **START:**
STOP:
DOSE:
ROUTE: **FREQUENCY:**
DIRECTIONS:
ORD. DR. **NURSE:**