



Department of Developmental Services



Medication Administration Training Curriculum for Non-Licensed Personnel Student Manual



Current Curriculum April 2012

Revised Curriculum April 1999

Original Curriculum February 1989



Department of Developmental Services

Medication Administration Training Curriculum

Session 1	Nurse Delegation & Introduction to Medication topics
Session 2	“The Five Rights” and the “Rule of Three”
Session 3	Site of Medication Action and Transcription
Session 4	Routes, Forms, and Techniques
Session 5	Med Classifications and Major Side Effects
	Med Classifications for Medical Conditions
Session 6	Charting with the Court in Mind
Session 7	Review
Session 8	Glossary

Welcome to the Department of Developmental Services Initial Medication Administration Course

The course consists of 21 hours of classroom instruction and a four hour laboratory practicum. The primary objective is to learn how to administer medications in compliance with the state statutes that govern DDS, so that the consumers we care for can receive medications in the safest and most effective way possible.

In order to participate in a DDS medication administration course you must:

- Be currently working for DDS or an agency licensed or funded by DDS
- Have a high school diploma, GED, or be sponsored by your agency
- Have any medication related conviction reviewed by the DDS Med Admin Unit
- Never had a medication administration certification revoked

Because individual states and state agencies have their own regulations and curriculum for medication certification, DDS cannot honor certification from any other source.

What to Expect

You must attend 100% of the class. Participants cannot arrive late or leave early. If you are late or absent, you will be required to start the course process from the beginning.

Cell phones must be turned off or set to vibrate mode. Texting during class is prohibited

Disruptive, rude or disrespectful behavior is reason for expulsion. Be considerate of others.

The final exam is 100 multiple choice questions. You must score 80% or better to pass

On exam day, you must arrive 15 minutes prior to the start of the exam, bring identification and a pencil. No other items will be allowed into the exam room except car keys. Exam scores will be reported to your agency as soon as they are available. Do not call DDS for your score.

Inclement Weather

Inclement weather may require a class cancellation. Notice of class cancellation will be posted two hours prior to the start of the class. Please call 860-616-2045 Ex 5 for this information. If the weather is bad on an exam day, watch local stations for cancellation information at the community colleges.

I have read and understand the class policies

Student Signature _____

Date _____ Agency _____

Session 1

1. Welcome
2. Nurse Delegation
3. Brief History of Medication Therapy
4. Sources of Medication
5. Names of Medications (Chemical, generic, brand)
6. Special Regulations for Controlled Substances
7. Receipt and Disposition Form
8. Documentation of Controlled Drug Count
9. Factors That Influences Medication Effects
10. Effects of Medications
11. Medication Interactions
12. Food to Medication Interactions
13. Abbreviations
14. Medication Measurements and Conversions

Module Objectives

At the end of this module, the student will be able to:

- Define nursing delegation and delegating nurse.
- Describe nursing delegation in relation to non-licensed personnel.
- Identify the intervals at which the nursing delegation will need to be obtained.
- Describe ways in which the delegating nurse will need to assess for competency.
- Identify 4 sources from which medications can come.
- Discuss 4 purposes for medication therapy.
- Describe the difference between the chemical, generic and brand name.
- Discuss 6 effects medications can have when taken.
- Identify the steps required for receiving, storing, monitoring and documentation for controlled medications.
- Discuss the 6 factors that can influence how medications work in the body.
- Define the metric equivalent of teaspoon, tablespoon, ounces and cups.
- Identify the type of equipment acceptable to measure these units.
- Calculate the volume of medication needed to meet a specific prescriber order.

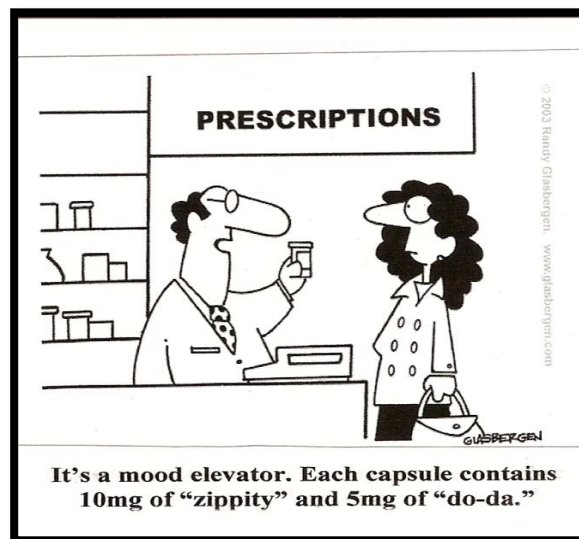
Nursing Delegation

Nursing Delegation (definition): Transferring the authority to perform a selected nursing task in a selected situation.

Delegating Nurse (definition): The RN who retains the responsibility and accountability for the delegated task. This is typically the RN who is responsible for the day to day operations of your site.

Criteria for delegating nursing functions:

- Care delegated is within the scope of practice of the delegating RN.
- It is delegated only at the sites designated by the delegating RN.
- Staff must be delegated at each site they work at by the delegating RN.
- The outcome of the delegated task is predictable.
- The delegating RN maintains the responsibility to verify that staff have adequate skills for the task which consists of:
 - Education with staff observations followed by demonstration back to the RN.
 - Successfully passing the initial course and final exam indicating baseline competency.
 - Completing an annual pass and pour with the certified non-licensed staff.
 - Completing the re-certification process successfully every two years which consists of a pass and pour and exam.
 - It is the sole responsibility of your agency delegated RN to delegate Medication Administration to staff which means the successful completion of an on-site practicum prior to passing medications independently.
- **Carry your certification card with you whenever you are responsible for passing medications. You cannot administer medications without a valid certification card in hand.**
Remember: Do not go outside the medication administration delegation guidelines.
Do what you are taught to do and you will be safe.



Brief History of Medication Therapy

Medication therapy dates back to primitive times, starting with when people had strong beliefs in the spirit world which was seen as invisible, ever watchful, a good or evil population that was thoroughly integrated into the lives of each tribe. Medicine men and women were held in high esteem as they were the tribal members who interceded with the gods. They began medical care, as we know it today, by their use of roots, berries, bark, seeds and other natural substances to treat a variety of ailments, illnesses and injuries, often with great success.

Medication therapy (definition): The use of specific substances to cure (i.e. antibiotics for infections), relieve symptoms (i.e. analgesics or pain meds), prevent disease (i.e. vaccines like hepatitis B) or diagnosis a disease (i.e. barium used to diagnose dysphagia).

Sources of Medication

Medications come from 4 sources –

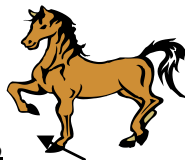
Plants,



Made from flowers, leaves and bark.

Digitalis comes from the Foxglove plant.
An ingredient in aspirin comes from the willow tree

Animals,



Made from the secretions of Animals

Insulin comes from cows, pigs, and sheep.
Premarin comes from the urine of a Pregnant Horse.

Minerals,



Mined out of the ground and ocean.

Iron
Epsom Salts
Baking Soda
Sodium Bicarbonate

Synthetic.



Made in the laboratory.

Birth Control Pills
Thyroid
Antibiotics
Majority of medications

Names of Medications

Names under which medications may be known include **chemical, generic or brand**.

Let's look at the medication Tylenol as an example:

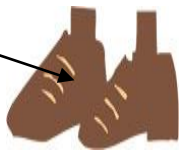
<u>Category</u>	<u>Chemical Name</u>	<u>Generic Name</u>	<u>Trade Name</u>
Example	NO (4-hydroxyphenyl) acetamide	Acetaminophen	Tylenol
Definition	The actual chemical composition of the medication.	A shortened, more simple name of the chemical name although it reflects the chemical description.	Known as the brand name.
Purpose	Useful to chemists in understanding medication components.	Shortened version of chemical name. Easier to understand. Name used in group homes.	Name pharmaceutical company chooses for marketing purposes.

➤ **General rules:**

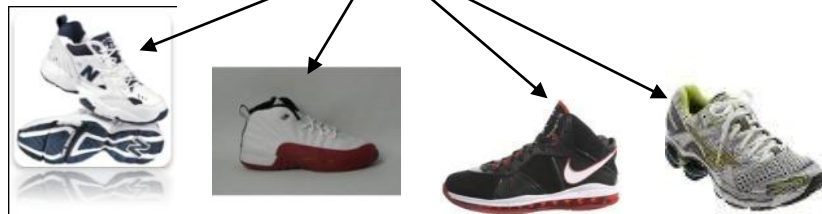
- Generic names are not capitalized.
- Medications are listed in reference books by their generic names.
- Trade names are capitalized.
- In the group home we use the Generic and Trade names of medications.
- By law—if the authorized prescriber does not write “Brand Name Medically Necessary” or Equivalent, the pharmacy must send the generic form.

- **Illustration:** Another way to remember the difference between a generic and brand name is with shoes. We all wear sneakers/shoes (generic name) but we may buy New Balance, Jordan, Nike, Mizuno (brand names)

Generic Shoes



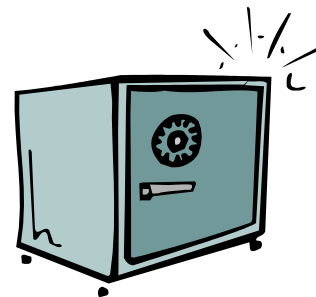
Brand Shoes



Special Regulations for Controlled Substances

Controlled substance (definition): A drug or chemical whose manufacture, possession, and use are regulated by the government.

- They are classified controlled medications because they are habit forming and can be abused.
- They must be kept in a locked cabinet, separate from non-controlled medications, in a non-removable locked box. (Should have 2 locks with different keys.)
- Ordered in small quantities.
- Counting of these medications must be done by oncoming and off-going med certified staff, even if the medications are not due to be administered during that shift or when accepting or relinquishing responsibility for the keys typically.
- So to recap the times the **count** must take place **at a minimum**, it is:
 - **When starting your shift.**
 - **If you hand the keys off to another certified non-licensed staff during your shift.**
 - **When you are going home from your shift.**



Now let's continue and learn about the documentation required when working with controlled medications.

Required documentation for controlled medications includes:

- A **“Receipt and Disposition Form”** (used to document the administration of controlled substances)
 - Typically provided to the home by the pharmacy when controlled medications are delivered.
 - When signing in a controlled substance from the pharmacy, the following information should be included on the form (to be completed as soon as a controlled medication is received)
 - The 5 rights (client name, time given/frequency, drug, dose, and route)
 - Name of the ordering authorized prescriber.
 - Prescription number/date/expiration (Number on the receipt disposition form and prescription number must match.)
 - Pharmacy name/date
 - Client allergies
 - Name of the person receiving the medication from the pharmacy.
 - **DO NOT SIGN YOU RECEIVED THE MEDICATION UNTIL YOU HAVE VERIFIED ALL OF THE INFORMATION NEEDED AND VERIFY THE QUANTITY RECEIVED.**
The number of pills in the bubble pack must match the number of pills listed on the pharmacy receipt. If they do not, the amount needs to be corrected or the delivery refused.
 - When a controlled substance is administered, the information to be documented:
 - Date the dose was given.
 - Time the dose was given.
 - Amount of dose given.
 - Signature of person removing the dose.
 - Quantity left in the bubble pack. (The number of pills in the bubble pack must match the number of pills listed on the form. If they do not—CALL YOUR NURSE IMMEDIATELY)
 - If the medication is wasted (dropped or refused), it must be countersigned.
- **Shift to Shift Controlled Med Count Sheet**
 - Documentation of Controlled Drug Count form is where staff sign for doing the count at the appropriate time each shift.
 - When signing the document, staff are verifying that the number on the Receipt and Disposition Form and the number in the bubble pack are correct.
 - Controlled drugs included in this count include all controlled medications stored at the site even if they are not passed during the shift for which the count is being done. This control count should include even those controlled medications set for destruction. They are part of the count until they are destroyed.



Blister/Bubble Pack

CANDY

LOT: 56423698
EXP: 04/03/2012

QTY 30

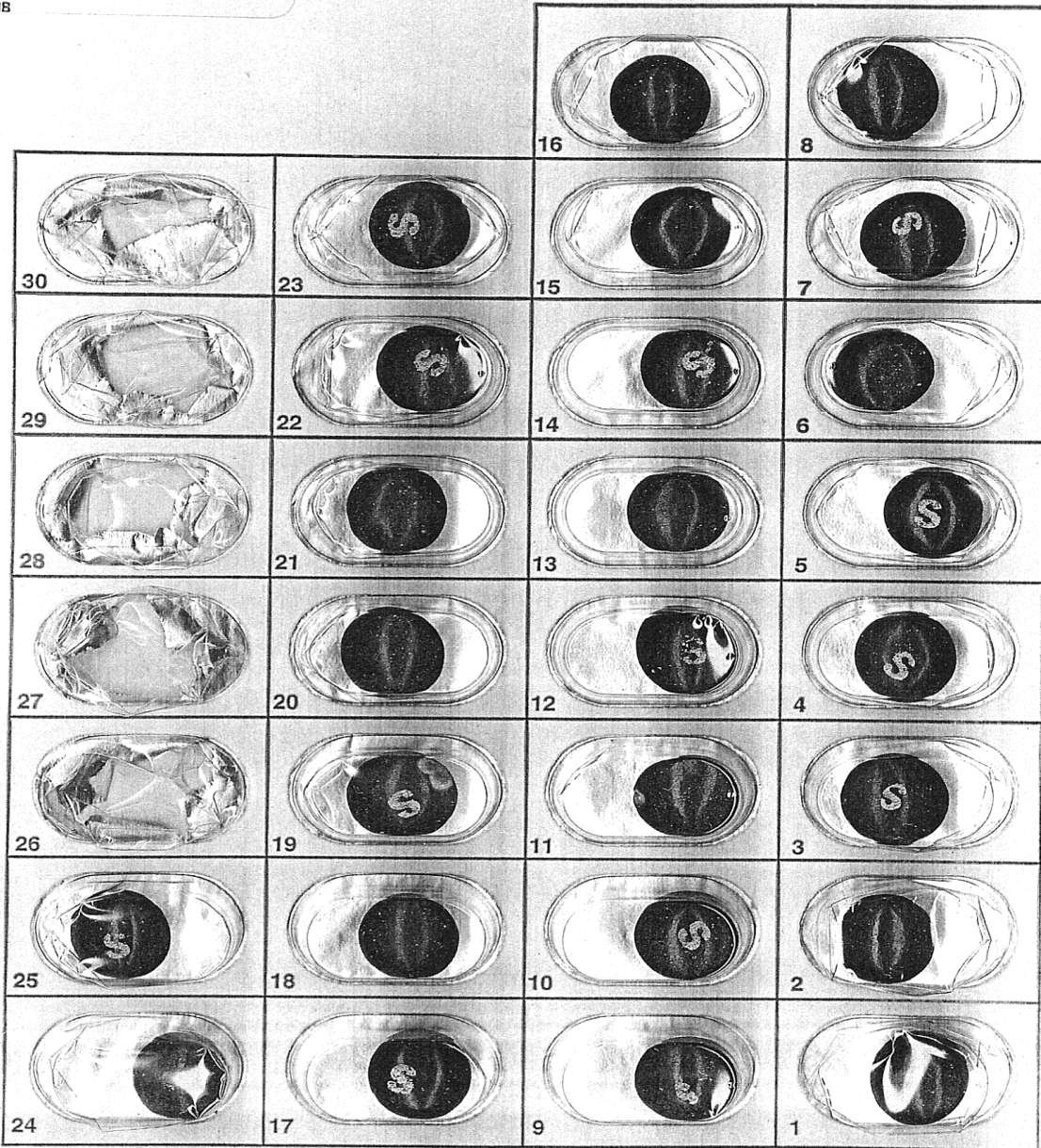
OMNICARE OF CONNECTICUT
MFG BY:
PKG BY ZMP 04/04/11



CANDY
18

C

Carter, Mary Lou RX#32865C
Lorazepam 1mg
PO q HS
Dr. Joy Smith



An Omnicare Company

Department of Developmental Services
Documentation of Controlled Drug Count

Month: _____ Year _____ Location _____

	1 st Shift		2 nd Shift		3 rd Shift	
	Signature of On-coming Staff	Signature of Off-going Staff	Signature of On-coming Staff	Signature of Off-going Staff	Signature of On-coming Staff	Signature of Off-going Staff
1	<i>Charlie Brown</i>	<i>Jinker Bell</i>	<i>Lucy Van Pelt</i>	<i>Charlie Brown</i>	<i>Jinker Bell</i>	<i>Lucy Van Pelt</i>
2	<i>Charlie Brown</i>	<i>Jinker Bell</i>	<i>Lucy Van Pelt</i>	<i>Charlie Brown</i>	<i>Peter Pan</i>	<i>Lucy Van Pelt</i>
3	<i>Charlie Brown</i>	<i>Peter Pan</i>	<i>Lucy Van Pelt</i>	<i>Charlie Brown</i>	<i>Jinker Bell</i>	<i>Lucy Van Pelt</i>
4						
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Factors That Influence Medication Effects

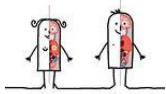
There are many factors that can influence the effect of medication in the body which are:



Age - a significant factor affecting a drug action. Two examples where age has a demonstrated effect on drug action are the elderly and the newborn. Elderly persons usually have decreased hepatic (liver) function, less muscle mass, and diminished kidney function. Therefore, they need lower doses and sometimes longer dosage intervals to avoid toxicity. Similarly, the newborn have underdeveloped metabolisms and immature renal function. They need highly individualized dosages and careful monitoring.



Weight - an important consideration in dosage levels. Body weight is an important factor when prescribing medications for infants, children and the elderly. There is a definite relationship between the amount of drug administered and the amount of body tissue serviced by the drug.



Gender - plays a part in drug therapy calculations. Women tend to have a higher concentration of body fat than men; medications that are more soluble in fat are more quickly absorbed in women. The most important consideration concerning gender, however, would have to be the pregnant woman and the risk of damage to the fetus or risk of premature labor due to drug therapy.



Underlying Disease - Any body system disorder can effect a way the drug will be utilized by the body. For example liver disease effects metabolism, kidney disease effects excretion, cardiac .circulation and diabetes ... overall use and absorption.



Nutritional Status - poor nutritional status can inhibit the metabolism of medications. Adequate enzyme and protein levels must be maintained in order to metabolize the medications. This is not necessarily related to prescribed diet but rather the body's ability to maintain an adequate level of necessary nutrients – ie – protein.









Routes of Medication - a factor that can affect absorption. Before a medication can act within the body, it must be absorbed into the bloodstream. Oral medication, the most common route of medication, takes 30 to 60 minutes to be absorbed and begin to act. An inhalant medication can begin to act within minutes.

Effects of Medication

We are individuals, and so are our responses to any drug. The way an individual responds to medications depends on differences in the body's cellular response and the differences in the body systems that metabolize and excrete medications.

There are several ways any medication can affect the body:

-  **Therapeutic Effect - the desired effect.** The medication is accomplishing the results you intended. It works! Therapeutic level - that level reached in the blood when the drug is working effectively. **Example:** Antibiotics curing ear infections or analgesics helping menstrual cramps.
-  **No Apparent Effect - the drug does not treat the health problem.** A caregiver needs to be aware of the treated person's signs, symptoms, and methods of communication to know whether or not those conditions being treated are actually relieved. **Examples:** The antibiotic does not cure the strep throat, the anti-hypertensive does not lower the blood pressure.
-  **Side Effects - any effect of a drug other than the one for which it is administered.** Side effects usually refer to **mild, but predictable** reactions to the drug. These effects are generally **undesirable** but tolerable. **Examples:** dry mouth caused by an antihistamine; diarrhea caused by an antibiotic.
-  **Adverse Effects - severe, side effects or toxicity caused by the administration of medication.** Onset of such reactions may be sudden or take days to develop. Usually, an adverse reaction would cause the authorized provider to **change the dosage or discontinue the medication.** **Examples:** Severe liver toxicity caused by anticonvulsants or bleeding ulcers caused by aspirin.
-  **Allergic Reaction - hypersensitivity to particular allergens that usually involve skin, mucous membranes and bronchial tubes.** It provokes characteristic symptoms whenever encountered, whether inhaled, ingested, injected, or otherwise contacted. Pollens, fur, feathers, insect bites or stings, mold, dust, foods, medications, cosmetics, and a host of other chemicals can cause an allergic reaction. Most allergies occur in people who have had a family history of allergies. Most reactions involve the skin, mucous membranes, or the respiratory tract
- **Anaphylaxis (anaphylactic): acute systemic allergic reaction (life threatening)**  Typically the person experiences vague feelings of uneasiness, becomes anxious, becomes flushed. They may develop a rash, hives or swelling. Coughing, sneezing, and difficulty breathing may follow and symptoms of shock may occur. Loss of consciousness and death occur if immediate medical attention is not sought. **Example:** A common medication classification that can cause anaphylaxis is antibiotics
Treatment - This is a medical emergency. Call 911 immediately. Death can occur in minutes. Do CPR if necessary

Drug to Drug and Drug to Food Interactions

Medication Interactions – This is a factor to be considered when multiple medications are administered to the same person. The effects of one medication may be **increased** or **decreased** by the other medication. Whether they are given at the same time or hours apart they still can have an effect on each other.

These interactions are divided into 2 categories – **ANTAGONISTIC** and **SYNERGISTIC**.

- **Antagonistic reaction** - One medication may inhibit or decrease the actions of another medication.

This could be considered harmful in the sense it reduces the effects of another medication.



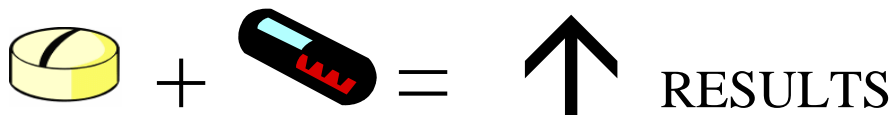
It's like 2 people fighting

they are working against the other.

Example: antibiotics decreasing the effect of birth control pills.

- **Synergistic reaction** – when one medication increases the action of another medication.

Often, two drugs with similar actions are given together because the additives affect the results. The results the 2 meds have on each other are greater than if they were given separately.



Example: Abilify and Prozac

Food to Medication Interactions

Some medications need to be taken with food

and some need to be taken on an empty stomach.

Here are some **key points** to remember with food to medication interactions:

- **Timing** of medication administration can be important.
- Medications that should be taken without food need the acidity of an empty stomach to enact full absorption.
- Sometimes giving an oral medication during or shortly after a meal can alter the absorption of the medication.
- Examples:
 - Ibuprofen is recommended to be taken with food to offset GI upset and irritation
 - Certain antibiotics cannot be combined with dairy products, such as milk, as this combination inactivates the effect of the antibiotic.
 - Some medications may not be taken with grapefruit.
 - Some medications cannot be taken with any aged foods like wine, pickles, saurakraut, lox, or beer just to name a few.



:



To ensure a medication is given on an empty stomach,

it must be given

one hour prior to eating or two hours after eating.



Abbreviations

Time of Administration					
qd	every day or once daily		bid	twice a day	
qid	four times a day		q	every	
q2h	every 2 hours		q4h	every 4 hours	
ac	before meals		pc	after meals	
prn	as needed		stat	immediately	
Location of Administration					
AD	right ear		AS	left ear	
OD	right eye		OS	left eye	
po	by mouth		NPO	nothing by mouth	
sl	sublingual		optic	eye	
Allergies					
NKA	No known allergies		NKDA	No known drug allergies	
Measurements					
cc	cubic centimeter		gm	gram	
mcg	microgram		mg	milligram	
oz	Ounce		tsp	teaspoon	
i	One				
Additional Abbreviations					
c	with		s	without	
tab	tablet		MAR	Medication Administration Record, Kardex	
Rx	prescription		sig	directions	
liq	liquid		cap	capsule	

Note: There is only one letter difference between **optic** and **otic**. When looking to remember right and left in relation to the eyes and ear, think of **right** as **dominant** and **left** as **southpaw**. When you think of ears think **A** for **auditory**. For eyes think **O** for **optometrist**.

Medication Measurements and Conversions

There are three types of measurements used in pharmacology today:

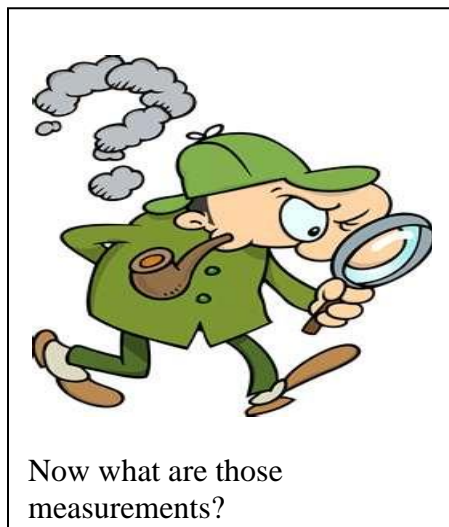
- **Metric** (decimal system): most accurate, includes measurements of weight, volume and length.
- **Apothecary**: includes measurements of weights and volumes. Rarely used.
- **Household measures**: Not recommended due to variation in spoons, cup, etc. If used, standard is to be a measuring spoon to determine the amount of medication and not flatware.

Here are the equivalents in these systems:

1 tsp (teaspoon) = **5 cc** (cubic centimeters) or **5 ml** (milliliters)
1 TBSP (tablespoon) = **3 teaspoons** = **15 cc** or **15 ml**
2 TBSP = **1 oz (fluid ounce)** = **30 cc** or **30 ml**
1 measuring cup = **8 oz** or **240 ml**

You may notice orders in milliliters (ml) or cubic centimeters (cc).
A milliliter and a cubic centimeter are roughly equal.

It is okay to use “measuring spoons” but not a spoon from your “flatware”.



Common measurement abbreviations:

cc	cubic centimeter
ml	milliliter
mg	milligrams
oz	ounce
tsp	teaspoon
TBSP	tablespoon
ss	one half

Common Numerical Symbols (apothecaries system)

gtt	drop
T	1
TT	2
TTT	3

The key symbols in the Apothecary System is i (it is an i with a line between the dot and the line). The number of lines with the dot above it indicates the quantity to be given. (e.g. i=1, ii=2, iii=3, etc)

Medication Measurements and Conversions continued

Example –

The authorized prescriber writes an order for Depakote Liquid **500mg** PO BID x 10 days. The consumer has Depakote Liquid, but the label says **250mg /5cc**. The 250mg/5cc is the concentration of the medication. So, how much do you pour? The information that you need to know is what you **have on hand (250mg/5cc)** and what the authorized prescriber wants **you to give (500mg)**.

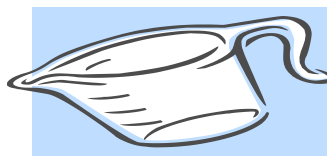
Have on hand - (Label)		250mg	(per) /	=	5 cc	(or ml's)
	+	250mg	/		5 cc	(or ml's)
		_____			_____	
What you want - (authorized prescriber order)		500mg	/		10 cc	(or ml's)

Through simple math you can calculate that you need to pour 10cc for your client.

Example - Additional Method of Calculation

$$\frac{250\text{mg}}{5\text{cc}} = \frac{500\text{mg}}{\text{xcc}} \quad 250 \text{ times } \text{xcc} = 250 \times 500 \text{ times } 5\text{cc} = 2500$$

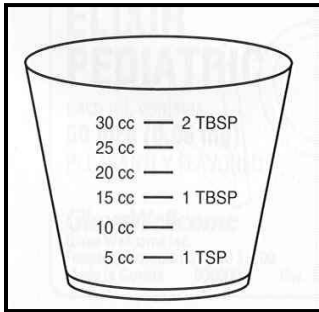
$$2500 \div 250 = 10\text{cc}$$



ADMINISTERING LIQUID MEDICATIONS

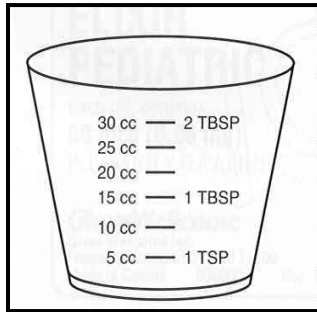
Things to *Remember* about liquid medications

Plastic medication cups are to be used to administer the prescribed dose of medication. The strength of the medication -milligrams (mg.) is different than the amount of the liquid (number of ccs or mls) to be given. Some liquids that are a combination of ingredients are ordered by the amount of liquid only. You must read the label carefully to know how much liquid you need to pour into the cup to give the person the dose that was prescribed for them.



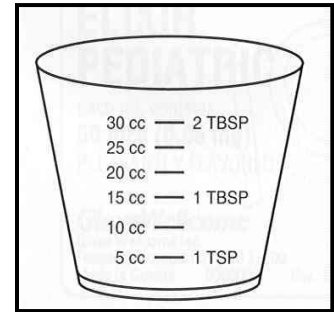
1. The order says
Carbamazepine 500mg
po TID

The label says:
Carbamazepine liquid
100mg / 5 cc
How much do you give?



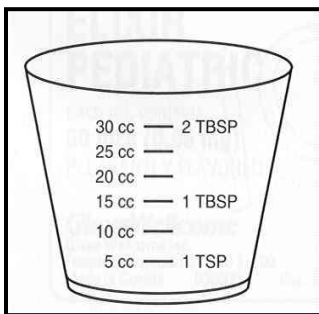
2. The order says
Robitussin 200mg PO q4hr
PRN for cough

The label says:
Robitussin liquid
100mg / 5 cc
How much do you give?



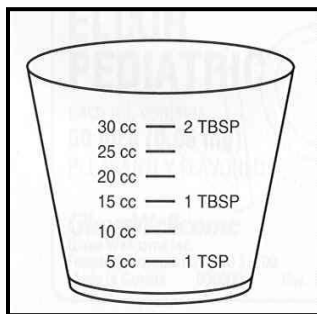
3. The order says
Valproic Acid Liquid
750 mg PO Bid

The label says:
Valproic Acid Liquid
250mg /5cc
How much do you give?



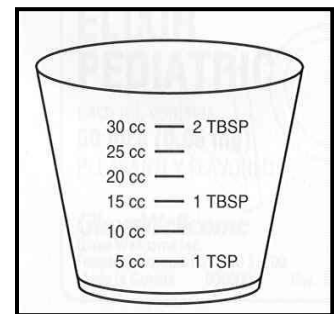
4. The order says
Zoloft Oral Concentration
120mg PO qd

The label says:
Zoloft Oral Concentration
20mg / 5 cc
How much do you give?



5. The order says
Dilantin Liquid 375 mg
PO qd

The label says:
Dilantin liquid
125mg / 5 cc
How much do you give?



6. The order says
Keflex Liquid 1000mg
PO Bid

The label says:
Keflex Liquid
250mg /5cc
How much do you give?

How much do you pour?

1. The authorized prescriber orders 500mg of Carbamazepine Liquid for a consumer. You have 100mg / 5cc of the medication on hand.

How much do you pour? _____

2. The authorized prescriber orders 400mg of Robitussin liquid for a consumer. You have 200mg / 5cc of the medication on hand.

How much do you pour? _____

3. The authorized prescriber orders 750mg of Amoxicillin Liquid for a consumer. You have 250mg / 5cc of the medication on hand.

How much do you pour? _____

4. The authorized prescriber orders 300mg Dilantin Liquid for a consumer. You have 100mg / 5cc of the medication on hand.

How much do you pour? _____

5. The authorized prescriber orders 300mg of HCTZ Liquid for a consumer. You have 50mg / 5cc of the medication on hand.

How much do you pour? _____

6. The authorized prescriber orders 120mg of Zoloft Oral Concentration for a consumer. You have 20mg / 5cc of the medication on hand.

How much do you pour? _____

7. The authorized prescriber orders Depakote 1000mg for a consumer. You have 250mg tabs of the medication on hand.

How many tabs do you pour? _____

8. The authorized prescriber orders Lasix 60mg for a consumer. You have 20mg tabs on hand.
How many tabs do you pour? _____
9. The authorized prescriber orders Neurontin 300mg for a consumer. You have 600mg tabs on hand.
How many tabs do you pour? _____
10. The authorized prescriber orders Lithium 600mg for a consumer. You have 300mg/5cc of the medication on hand.
How much do you pour? _____
11. The authorized prescriber orders Indocin Susp 75 mg for a consumer. You have 25mg/5cc of the medication on hand.
How much do you pour? _____
12. The authorized prescriber orders Pen-V-K 750mg for a consumer. You have 250mg/5cc of the medication on hand.
How much do you pour? _____

Complete the Abbreviations

1. NPO _____
2. HS _____
3. qid _____
4. Twice a Day _____
5. OU _____
6. sl _____
7. By Mouth _____
8. gtt _____
9. Left eye _____
10. q _____
11. every 4 hours _____
12. supp _____
13. AD _____
14. q2H _____
15. 4 times a day _____
16. c _____
17. Stat _____
18. Once Daily _____
19. Both Ears _____
20. cc _____
21. TBSP _____
22. mg _____
23. Right Eye _____
24. tsp _____
25. ounce _____
26. NKA _____
27. PR _____
28. ss _____
29. TID _____
30. Both ears _____
31. Liquid _____
32. NKDA _____
33. AC _____
34. D/C _____
35. Every other day _____
36. PRN _____
37. drops _____
38. after meals _____
39. AS _____
40. cap _____
41. one _____
42. MAR _____
43. ml _____
44. Rx _____

Session 2

1. The “Five Rights” and the “Rule of Three”
2. What are authorized prescriber orders.
3. Rx showing complete authorized prescriber orders
4. Examples of printed authorized prescriber orders and kardex
5. Steps in Proper Administration of Medication
6. Current authorized prescriber orders
7. Quick Check for Administration
8. Medication Administration Responsibilities
9. Labeled & Unlabeled Uses

Module Objectives

At the end of this module, the student will be able to:

- Discuss actions to take with each of the 5 rights associated with a medication order.
- Describe how to implement the rule of three.
- Identify 4 people who can write a medication order.
- List all the components which must be in a medication order for it to be complete.
- Demonstrate the 8 steps in the proper administration of medications.
- Explain the difference between labeled and unlabeled uses of medication.

Discussion of the “Five Rights” and the “Rule of Three”

The Five Rights:

1. Right Person (**Consumer**)



- Use a photograph or ask staff that know the person
- Ask the person to tell you their name

2. Right Time (**Time**)



- Best practice is to give the medication at the time ordered.
- Check MAR at the start of each shift to see if medications are to be given at the designated med times. This can change daily.

3. Right Medication (**Drug**)



- Watch for look or sound alike medications
- Don't give someone else's medication to another person.
- Check for expiration dates and destroy expired medications

4. Right Dose (**Dosage**)



- Check the MAR or Kardex and the authorized prescriber orders (if appropriate) - see below
- Check label on the medication to see the right strength of medication is listed.

5. Right Route (**Site**)



- | | | |
|-----------|--------------------------|--------------|
| • Oral | • Otic (ear) | • Vaginal |
| • Topical | • Optic/Ophthalmic (eye) | • Sublingual |
| • Nasal | • Pulmonary | |
| • Buccal | • Rectal | |

C- Consumer T- Time D- Drug D-Dose S- Site (Route)

The Five Rights and Rule of Three continued

C – Consumer ~ Right Person

T – Time ~ Right Time of the Day

D – Drug ~ Right Drug

D – Dose ~ Right Amount of Medication

S – Site (route) ~ Right Route into the Body



The 5 Rights must be checked 3 times before the medications are administered.

This is known as the Rule of Three

This is done by checking the information on the blister/bubble pack against the information on the persons Kardex.

Check the 5 rights once when you take the medication out of the closet

Check the 5 rights a second time as you are preparing the medication.

Check the 5 rights a third time before you administer the medication.

All three checks are completed for a single medication prior to pouring the next medication for the same consumer

Failure to follow these steps is a medication error.

CANDY

LOT: 56423698
EXP: 04/03/2012

QTY 30

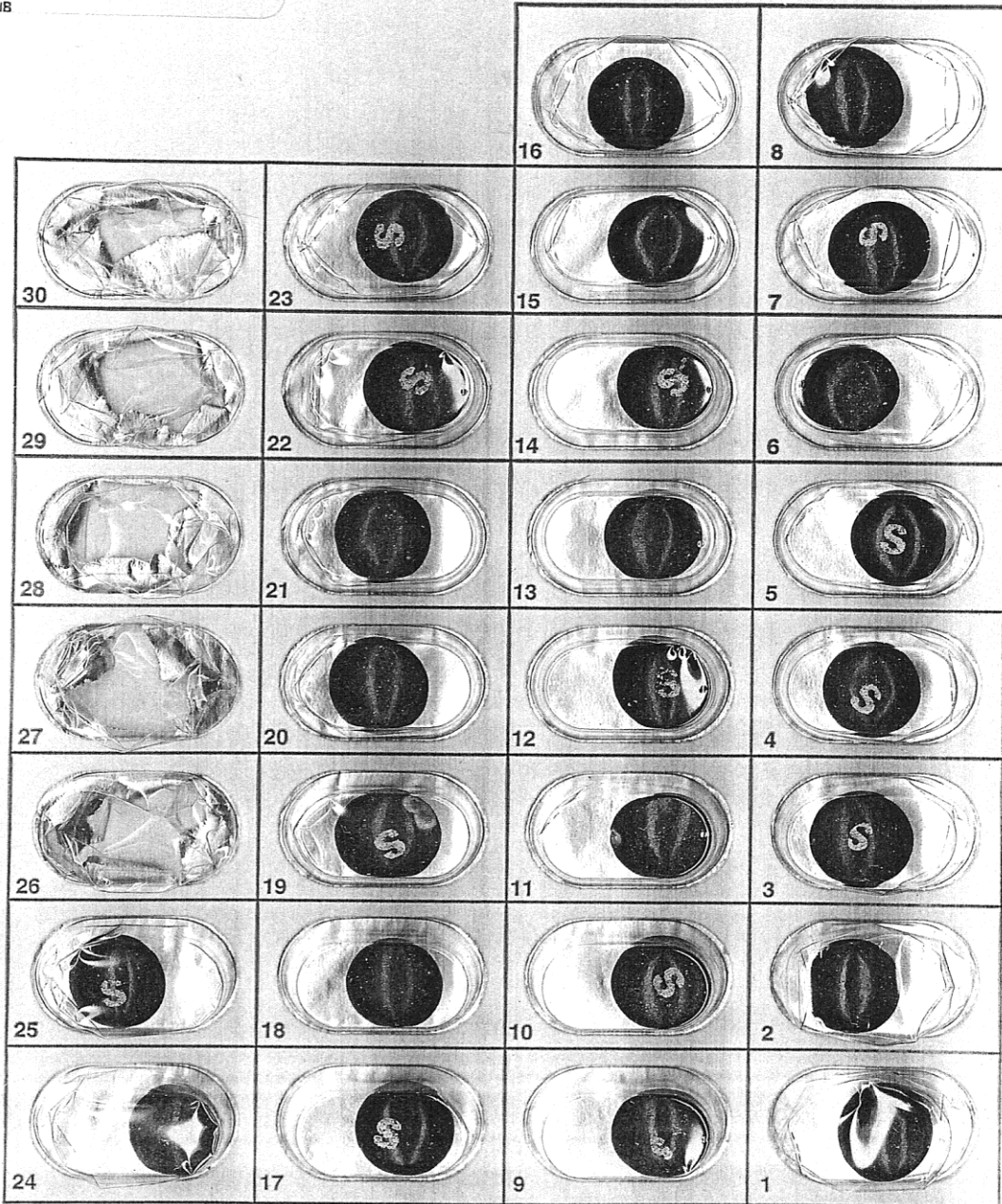
OMNICARE OF CONNECTICUT
MFG BY:
PKG BY ZMP 04/04/11



CANDY
18

C

Carter, Mary Lou RX#32865C
Lorazepam 1mg
PO q HS
Dr. Joy Smith



An Omnicare Company

MEDICATION ADMINISTRATION RECORD

QS/ 1 PHARMACY SYSTEM FORM A03

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Ativan 1mg PO qHS (lorazepam 1mg)		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	8 pm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Dilantin 200mg PO BID (phenytoin 200mg)		START										STOP																				
	8 am	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	8 pm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Tylenol 500mg PO q4h PRN for back pain		START										STOP																				
	P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

P = PACKAGED R = REFUSED LOA = LEAVE OF ABSENCE DP = DAY PROGRAM H = HOSPITALIZED

Month of			
PHYSICIAN	Dr. Joy Smith	TELEPHONE NO.	860-222-1313
ALT. PHY.		ALT. TELEPHONE	
ALLERGIES	NKDA	REHABILITATIVE POTENTIAL	
DIAGNOSIS	Seizure disorder, Anxiety Disorder	ADMISSION DATE	
MEDICAID NUMBER	MEDICARE NUMBER	VERIFICATION	
		BY:	
		TITLE:	
PATIENT	Mary Lou Carter	SEX	DATE OF BIRTH
		F	07-28-1985
		PATIENT CODE	ROOM NO.
		BED	FACILITY CODE

Authorized Prescriber orders

- **What are they?** An order from an authorized prescriber is the essential document for administering medications. It tells you how the meds are to be given. You can also think of it as your “permission slip” to administer medications. But, these orders cannot be faxed from the group home to the Pharmacy.
- **Orders must be legible.** It should be reviewed **prior to** leaving the authorized prescriber’s office or immediately upon receiving a fax to ensure that all components of the order are present and legible.
- **When to refer to an authorized prescriber’s orders?** Authorized prescriber’s orders do not need to be reviewed at every medication pass but should be checked at certain times. Orders should be compared to the MAR and pharmacy label when a new medication has been prescribed, at the beginning of each month when the printed MARs arrive from the pharmacy and if staff have been off shift for multiple days.
- **How to obtain the authorized prescriber’s signature:** It can be done electronically, by fax, or pen and paper.
- **What is a complete order?** A complete authorized prescriber’s order must contain the following information: the 5 Rights (C,T,D,D,S) the authorized prescriber’s signature and expiration date.
- **An expiration date:** When the order is no longer valid. Most orders are written for a maximum of 180 days (ICF Facilities for a maximum of 90 days) but, some orders are written for a lesser time. Example: Antibiotics may be written for 10 to 14 days. Eye Drops may be written for only 3 days. As soon as the number of doses in the order is complete the order is no longer valid even though the medication label says that the medication is good for 1 year. The last day a med may be given by the staff is by 11:59 pm on the day the med or order expires.
- **Who is considered an authorized prescriber that can give orders?**

the physician,



the APRN,



the Dentist,



the PA



- **Who can accept a telephone or verbal order?** A Nurse or a Pharmacist
- **PRN Orders:** If the order is a PRN (as needed) it must contain the reason for the medication to be administrated.

(↓ reason)

Examples: Motrin 400mg PO q 6hrs **PRN menstrual cramps** x180 days

Robitussin 10cc PO q 4hrs **PRN for cough** x 21 day

Tylenol 500mg PO q 4hrs **PRN for headache** x 180 days

This Rx (prescription) is a Complete Authorized Prescriber's Order

DEA# BG 1234567

Lic: # CT 7654321

Angela B. Goodfellow, M.D.
Best Health Care
1 Whichway St.
Iamnotsure, CT 06089
Phone: 123-456-7890 Fax: 123-456-7891

Name 1↓ *Bobbie Pinn*

Age 29

Address _____

Date 5-3-10 8↑

RX 3↓ *Keflex 250mg*

Disp: 30

4↓ 5↓ ↓2 7↓

Sig: Take one tablet PO Tid times 10 days

6↓

Number of refills 0

ABGoodfellow MD

Signature of Prescriber

X Brand Name Medically Necessary



A complete authorized prescriber's order contains the following

- 1. Client 2. Time 3. Drug 4. Dose 5. Route
- 6. Prescriber's Signature 7. Duration 8. Date

By law – If the authorized prescriber does not write "Brand Name Medically Necessary" or Equivalent, the Pharmacy must send the Generic form.

Complete or Incomplete

After finding each component in the order, check it off on the grid. If all components are checked off you have a complete order. In the testing situation the client's name and the authorized prescriber's signature is implied.

Identify the Complete order

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A. Ibuprofen 200mg PO x 90 days
- B. Ativan 2mg PO x 90 days
- C. Benadryl 25mg PO q hs PRN x 10 days
- D. Depakote 250mg PO QD x 90 days

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A. Lasix 1 tab PO q AM x 14 days
- B. Neurontin 600mg PO BID
- C. Tegretol 200mg PO x 180 days
- D. Tylenol 500mg PO qid x 180 days

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A. Ultram 50mg PO q4hrs PRN x 14days
- B. Lipitor 20mg PO q AM x 180days
- C. Digoxin 0.05mg Give 1 tab @ 8am x 180 days. Hold if pulse is ↓ 60
- D. Mellaril 100mg tid x 90 days

Please complete the grid and find the incomplete order for each

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A. Vasotec 5mg PO QD x 180 days
- B. Robutussin 1 tsp PO q4hrs PRN for Cough x 90 days.
- C. Cogentin 2 mg PO BID x 180days
- D. Wellbutrin SR 100mg PO x 90 days

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A. Mobic 15mg qd x 90 days
- B. Seroquel 25mg PO BID x90 days
- C. Glyburide 20mg PO q AM x180 days
- D. Haldol 5mg PO TID x 90 days

Answer	A	B	C	D
Client				
Time				
Drug				
Dose				
Site (route)				
Expiration				
PRN				
REASON				

- A Motrin 600mg PO q6 hrs PRN for back pain x2 weeks
- B. Pen-V-K 500mg PO q6hr x 14 days
- C. Paxil 20mg daily x 90 days
- D. Dilantin 200mg PO BID x 180 days

MEDICATION ADMINISTRATION RECORD

QS/ 1 PHARMACY SYSTEM FORM A03

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Ativan 1mg PO qHS (lorazepam 1mg)		START 01-07-2015										STOP 04-06-2015																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	8 pm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Dilantin 200mg PO BID (phenytoin 200mg)		START 01-07-2015										STOP 07-04-2015																				
	8 am	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	8 pm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Tylenol 500mg PO q4h PRN for back pain		START 01-07-2015										STOP 07-04-2015																				
	P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
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		START										STOP																				
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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		START										STOP																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

P = PACKAGED R = REFUSED LOA = LEAVE OF ABSENCE DP = DAY PROGRAM H = HOSPITALIZED

Month of	February 2015		
PHYSICIAN	Dr. Joy Smith	TELEPHONE NO.	860-222-1313
ALT. PHY.		ALT. TELEPHONE	
ALLERGIES	NKDA	REHABILITATIVE POTENTIAL	
DIAGNOSIS	Seizure disorder, Anxiety Disorder		ADMISSION DATE
MEDICAID NUMBER	MEDICARE NUMBER	VERIFICATION	
PATIENT	Mary Lou Carter	SEX	F
		DATE OF BIRTH	07-28-1985
		PATIENT CODE	
		ROOM NO.	
		BED	
		FACILITY CODE	

Current Authorized Prescriber's Orders

What makes a current authorized prescriber's order?

The authorized prescriber's signature and date of that signature on the authorized prescriber's orders.

The client's authorized prescriber's orders must be signed every 180 days by an authorized prescriber. You must concern yourself with **3 dates** – the date that the authorized prescriber last signed the orders (start date), the date that they will expire (end date) and the present date (current date). When you locate the date that the authorized prescriber last signed the orders count forward 180 days.

	S	M	T	W	T	F	S
M		1	2	3	4	5	6
A	7	8	9	10	11	12	13
R	14	15	16	17	18	19	20
C	21	22	23	24	25	26	27
H	28	29	30	31			

	S	M	T	W	T	F	S
A					1	2	3
P	4	5	6	7	8	9	10
R	11	12	13	14	15	16	17
I	18	19	20	21	22	23	24
L	25	26	27	28	29	30	

	S	M	T	W	T	F	S
M							1
A	2	3	4	5	6	7	8
Y	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					

	S	M	T	W	T	F	S
J			1	2	3	4	5
U	6	7	8	9	10	11	12
N	13	14	15	16	17	18	19
E	20	21	22	23	24	25	26
	27	28	29	30			

As long as the present date is between those 2 dates, you have current orders.

	S	M	T	W	T	F	S
J					1	2	3
U	4	5	6	7	8	9	10
L	11	12	13	14	15	16	17
Y	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

	S	M	T	W	T	F	S
A	1	2	3	4	5	6	7
U	8	9	10	11	12	13	14
G	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

	S	M	T	W	T	F	S
S				1	2	3	4
E	5	6	7	8	9	10	11
P	12	13	14	15	16	17	18
T	19	20	21	22	23	24	25
	26	27	28	29	30		

Date authorized prescriber last signed orders: **March 9th**,

Today's Date – **June 20th**,

Date orders will expire – **Sept 3rd**

These orders are current!

If orders are not current, call your nurse!

Steps in Proper Administration of Medication

1. Wash hands
2. Assemble equipment
3. Compare authorized prescriber's orders with the MAR
4. Check med label against MAR 3 times prior to giving med
5. Identify the correct person
6. Administer medication
7. Check that the person has swallowed the medication (if appropriate)
8. Document

Additional information needed for proper med administration.

- **Know** the therapeutic effect and the side effects of each medication you are giving. If unknown, look it up in the reference book available. **Never give a medication without knowing what it is for!**
- **Check** the MAR to be sure medication has not already been given and signed off by other staff.
- **Check** the medication label three times. **(Rule of Three)**
 - When the medication is picked up. Check the label.
 - When the medication is poured out. Check the label.
 - Before the medication is administered. Check the label.

Clean up the area. Return equipment to proper place, wipe up any spills, wash hands. If a PRN was given, document the time and the effects (at the appropriate time) of the PRN drug on the back of the MAR. Lock medications in appropriate area.



Medication Administration Skills Practice

At the end of all the practices, the student will be able to help, both you and your partner prepare for the administration of medications.

Directions: The following is an example of what your instructor will use to evaluate your ability to safely give medications.

- You should use this form to evaluate your partner.
- As your partner completes each step successfully, mark an ✓ in the box. If your partner does not complete a step leave the box blank.
- If your partner performs an error while performing a step or forgets to perform a step in the process, write down your observations but do not interrupt the demonstration.

There are 3 phases to this practice:

- Preparation
- Administration
- Documentation.

To ready yourself for this skill practice you can:

- Review the Quick Check Sheet which shows the steps your partner must complete without cueing.
- If they miss a step and don't correct that step before completion of the practice they have not passed.
- You will document your observations on the form and indicate why they have not passed.
- Once your partner has completed his/her demonstration you can now trade places.

**If you do not pass your demonstration do not despair –
Practice Makes Perfect!**

Medication Administration Skills Practice

The employee must demonstrate the ability to prepare, administer and record the administration of medication by successfully completing the following items in this practice setting. Put a ✓ mark in each box to the right if your partner completes the step. If step is not completed leave box blank.
100% accuracy is required for passing.

Start of Shift

1st 2nd 3rd 4th 5th 6th

Checks communication log book.						
Checks MAR for changes.						
Completes Control Drug Count						

Preparation

Demonstrates good hand washing technique.						
Assembles appropriate equipment						
Compares authorized prescriber's orders with medication record						
Checks for current authorized prescriber's orders						
Identifies the correct person						

Administration

Compares medication label to MAR 3 times						
Prepares medications according to authorized prescriber's orders						
Administers the med properly						
Shows knowledge of how to check that the person has swallowed meds						
Calmly approaches tasks						
Allowed no distractions						
Keeps medication closet locked at appropriate times						

Documentation

Initials MAR where appropriate						
Signs signature to identify self						
Signs disposition if needed						
Cleans up area						
Leaves closet locked						

The participant must have check in all boxes to pass.

Initials of person completing the demonstration

--	--	--	--	--	--	--

Initials of person completing the evaluation

--	--	--	--	--	--	--

Quick Check for Administration

At the start of the Shift:

- ▶ **Check Log** (communication) Book
- ▶ **Check MARS** for Changes
- ▶ **Count** Control Medications

At the Time of Administration

- ▶ **Use** Good Hand Washing Technique
- ▶ **Assemble** appropriate equipment
- ▶ **Compare** authorized prescriber's orders with MAR (then put the authorized prescriber's orders aside)
- ▶ Complete the **Rule of Three**
(checking med label against MAR 3 times prior to giving med)
- ▶ Identify the **Correct Person**
- ▶ **Administer** Medication
- ▶ Check That the Person has **Swallowed**
- ▶ **Document**

Medication Administration Responsibilities, Including Labeled & Unlabeled Use

A. Know the medications you are giving:

- Know the **desired effect**
- Know any **side effects**
- Know if there are any **precautions and potential interaction**
- Know how to **look up** the information if not known.

An **unlabeled use** of a medication is when a medication, which is classified for use in the treatment of a certain problem, has been found, through use and research, to be useful for other disorders. Therefore, the medication is labeled for the use of its initial indication and not for its new use. Eventually, the FDA may label the medication to include both uses. There are many medications that have had an unlabeled use at one time or another.

Unlabeled medications:

- Are accepted as safe to use by the FDA
- Have the same special precautions, side effects and contraindications as indicated for the labeled use.
- Delegating nurse will inform of desired effect
- May be prescribed outside the usual dosages. This should be clarified by the delegating nurse.

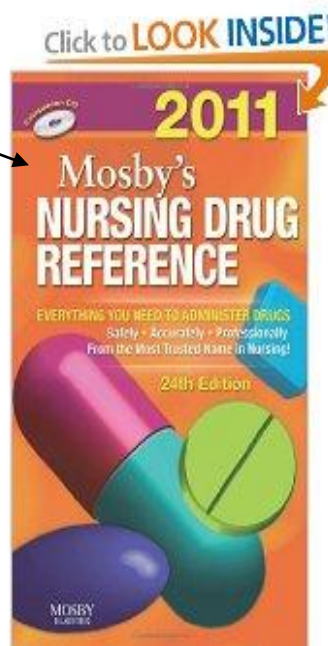
To understand **unlabeled use** you need to know what **labeled** use means. Labeled use is where the FDA has identified scientifically what problems a medication is useful in treating. When you want to know the uses of an over the counter medication, you can look on the back of the package and find all the information you need. When you have a prescription medication, you must look up the uses in a Drug Reference.

Medication Administration Responsibilities, Including Labeled & Unlabeled Use Continued

Here are 2 examples of where you can find the labeled uses of medications.

Drug Facts	
Active ingredient (in each tablet) Chlorpheniramine maleate 2 mg.....	PurposeAntihistamine
Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat	
Warnings Ask a doctor before use if you have ■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis ■ trouble urinating due to an enlarged prostate gland Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives	
When using this product ■ drowsiness may occur ■ avoid alcoholic drinks ■ alcohol, sedatives, and tranquilizers may increase drowsiness ■ be careful when driving a motor vehicle or operating machinery ■ excitability may occur, especially in children	
If pregnant or breast-feeding, ask a health professional before use. Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.	
Directions	
adults and children 12 years and over	take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
children 6 years to under 12 years	take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
children under 6 years	ask a doctor

Drug Facts (continued)
Other information ■ store at 20-25° C (68-77° F) ■ protect from excessive moisture
Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch



But the authorized prescriber can order any medication for any reason they see fit. This is your **Unlabeled Use** – using a medication for a reason not listed on the label or in the reference book. Since the authorized prescriber uses medications for so many different reasons, the reference book now has a section listed as “Investigational Use’ or “**Unlabeled Use.**” Example ~ A client is taking Tegretol but he does not have a diagnosis of seizures. Therefore the authorized prescriber may be using Tegretol as an unlabeled use. See the next page for an example from Mosby’s Nursing Drug Reference Book for Tegretol. Please refer to the double bolded area for investigational uses.

Medication Administration Responsibilities, Including Labeled & Unlabeled Use Continued

Know how to look up the information if not known.

carbamazepine (Rx)

(kar-ba-maz'e-peen)
Apo-Carbamazepine✳
Atretol, Cartyrol, Epitol,
Equetro, Novo-
Carbamaz✳,
Tegretol, Tegretol CR✳
Tegretol-XR

Func. class: Anticonvulsant

Chem.class; Iminostilbene
derivative

Do not confuse:

Tegretol/Toradol

Action: Exact Mechanism unknown;
Appears to decrease polysynaptic responses and block posttetanic potentiation.

Uses: Tonic-Clonic, complex-partial, Mixed seizures; trigeminal neuralgia, Bipolar disorder

Investigational uses: Diabetes Insipidus, neurogenic pain, schizophrenia, Psychotic behavior with dementia, Rectal administration, diabetic neuropathy, Restless leg syndrome

DOSAGE AND ROUTES

Seizures

- *Adult and Child >12yr.* PO 200mg Bid, may be increased by 200mg/day in divided doses q6-8h; maintenance 800-1200 mg/day maximum 1600mg/day (adult); max child 12-15 yr 1000mg/day; max child > 15yr 1200mg/day; adjustment is needed to minimum dose to control seizures; **EXT REL** give bid; **rectal administration of oral susp 200 mg/10ml or 6mg/kg as a single dosesusp 50mg qid; may increase by <100mg qwk; max 1000mg/day EXT REL** tabs daily-bid
- *Child <6yr.* PO 10-20mg/kg/day in 2-3 divided doses, may increase qwk

Staff unfamiliar with the medications can obtain information about the drug from the pharmacist, reputable internet sites, book store, agency nurse, agency reference books.

Trigeminal neuralgia

- *Adult:* PO 100mg bid with meals; may increase 100mg q12h until pain subsides, not to exceed 1200mg/day; maintenance is 200-400mg bid

Bipolar disorder

- *Adult: PO* (Equetro only) 200mg bid, may adjust dose by 200mg daily to desired response, max 1600mg/day

Available forms: Tabs, chewable 100, 200mg; tabs 200mg; ext rel tabs (XR) 100, 200, 400mg; oral susp 100 mg/5 ml; ext rel caps (Carbatol) 200, 300mg

SIDE EFFECTS

CNS: Drowsiness, dizziness, unsteadiness, confusion, fatigue, **paralysis**, headache, hallucinations, **worsening of seizures**, speech disturbance
CV: **Hypertension, CHF, dysrhythmias, AV block**, hypotension, aggravation of cardiac artery disease
EENT: Tinnitus, dry mouth, blurred vision, diplopia, nystagmus, conjunctivitis
ENDO: SIADH (elderly)
GI: Nausea, constipation, diarrhea, anorexia, vomiting, abdominal pain, stomatitis, glossitis, increased hepatic enzymes, **hepatitis**
GI: Frequency, retention, albuminuria, Glycosuria, impotence, increased BUN, **renal failure**
HEMA: **Thrombocytopenia, leukopenia, agranulocytosis, leukocytosis, aplastic anemia, eosinophilia**, increased PT
INTEG: Rash, **Stevens-Johnson syndrome**, urticaria, photosensitivity
RESP: Pulmonary hypersensitivity (fever, Dyspnea, pneumonitis)

Medication Administration Responsibilities Including Labeled & Unlabeled Use continued

B. Allow no distractions when preparing medication.

- Prepare one person's medication at a time to prevent errors
- Do not allow interruptions: answering the phone, conversations with others.

C. Do not give medications if labels cannot be read.

- Notify the appropriate persons when label cannot be read. (nurse and pharmacist)
- Pour liquids with the label facing the palm of your hand to prevent liquids from damaging the label.



D. Each person has his/her own supply of prescription medication.

- Do not use another person's medication even if the medication and the dose are identical.
- The client's personal resources pays for their medication, therefore it belongs to them.
- Federal Law prohibits the administration of prescription medication to anyone other than the individual identified on the label.

E. Identify the correct person to the end point:

- Use a Photo
- If no photo, ask a staff who has already worked with the consumer.
- Always say or ask their name.

F. Meds that need refrigeration:

- Keep temperature between 36-46 degrees
- Store meds in a separate locked box separate from food.



Medication Lookup

Staff Name: _____

1. **Trade** name of Medication _____

Generic name of Medication _____

Why is this Medication being **used**? _____

List 5 **Side effects** of this med:

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Consumer Teaching:
(Meaningful information for Staff)

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Is this med a Controlled Substance? Yes _____ No _____

2. **Trade** name of Medication _____

Generic name of Medication _____

Why is this Medication being **used**? _____

List 5 **Side effects** of this med:

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Consumer Teaching:
(Meaningful information for Staff)

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Is this med a Controlled Substance? Yes _____ No _____

3. **Trade** name of Medication _____

Generic name of Medication _____

Why is this Medication being **used**? _____

List 5 **Side effects** of this med:

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Consumer Teaching:
(Meaningful information for staff)

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

Is this med a Controlled Substance? Yes _____ No _____

Session 3

1. Site of Medication Action – Local vs. Systemic
2. Absorption of Medication as a Solid
3. How to Read a Prescription Drug Label
4. OTC Drug Label
5. PRN Medication Information
6. Documentation on MAR
7. Example of MAR – Front & Back
8. Directions for Transcribing Orders to the Kardex
9. Additional Directions for Transcription

Module Objectives

At the end of this session, the student will be able to:

- Describe the difference between a local and systemic effect of a medication.
- Identify the 5 steps involved in the absorption of medications as a solid.
- List 10 pieces of information which you should find on a medication label.
- Describe how to read an OTC label.
- Discuss the special considerations regarding administering PRN medications.
- Review the documentation needs specific to medications.
- Demonstrate how to accurately transcribe an authorized prescriber's orders.



Practice Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



Site of Medication Action - Local vs. Systemic

Medications enter the body through a variety of routes and, if the concentration of a drug is sufficient, the drug then enters the circulating fluids and changes cell function to treat disease.

Local effect—The effect of the medication is confined to the site of application.

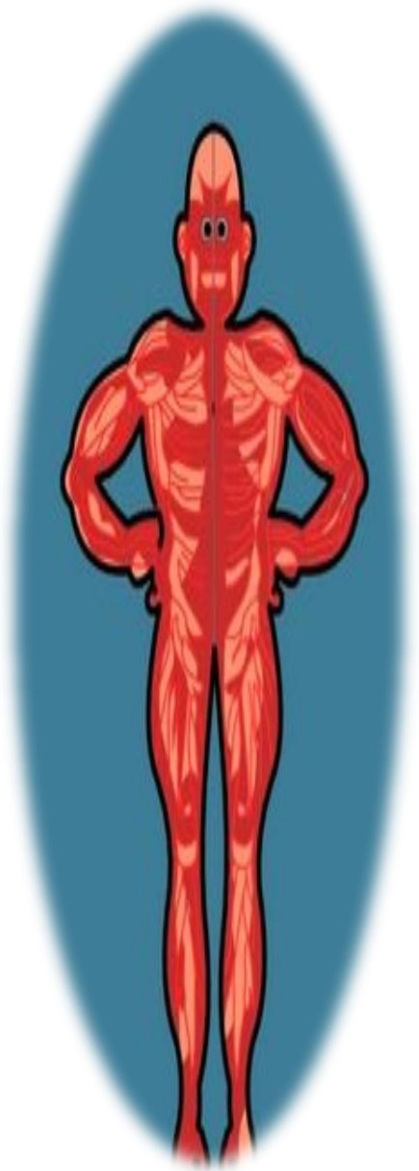
Medications may act at the site of application on the skin or mucous membrane. For example the effect produced by the application of an antiseptic to a small abrasion or the application of an ear drop to treat an ear infection.



Systemic effect: The effect of the medication involves the body as a whole rather than its parts. Medications that produce a systemic effect must be absorbed into the bloodstream and carried to the cells or tissues capable of responding to them. Systemic action is the action of a drug after it is absorbed.

Many medications taken orally are:

- Absorbed in the small intestine.
- The amount of medication that reaches the bloodstream depends on how much is absorbed through the GI tract.
- Some portion of a drug may be lost as it is digested.
- Enzymes in the GI tract break down drugs, as do bacteria that normally live there.
- Medications also interact with foods and beverages which can reduce or increase the amount absorbed.
- After being absorbed through the gut, it is broken down in the liver by enzymes.
- As the liver breaks down the drugs, it may produce chemical byproducts that are toxic. This is why taking too much of certain drugs or taking them too often can harm the liver.
- Whatever remains of a drug after the liver metabolizes it, enters the hepatic (liver) vein, which carries blood from the liver to the heart.
- The heart then pumps the drug molecules out into the general bloodstream, which carries the drug throughout the body to its eventual target organ(s) -- and to many other locations as well.
- Any molecules of the medicine that remain after traveling through the circulatory system eventually re-enter the liver via the hepatic artery, where the metabolic system can process them further.

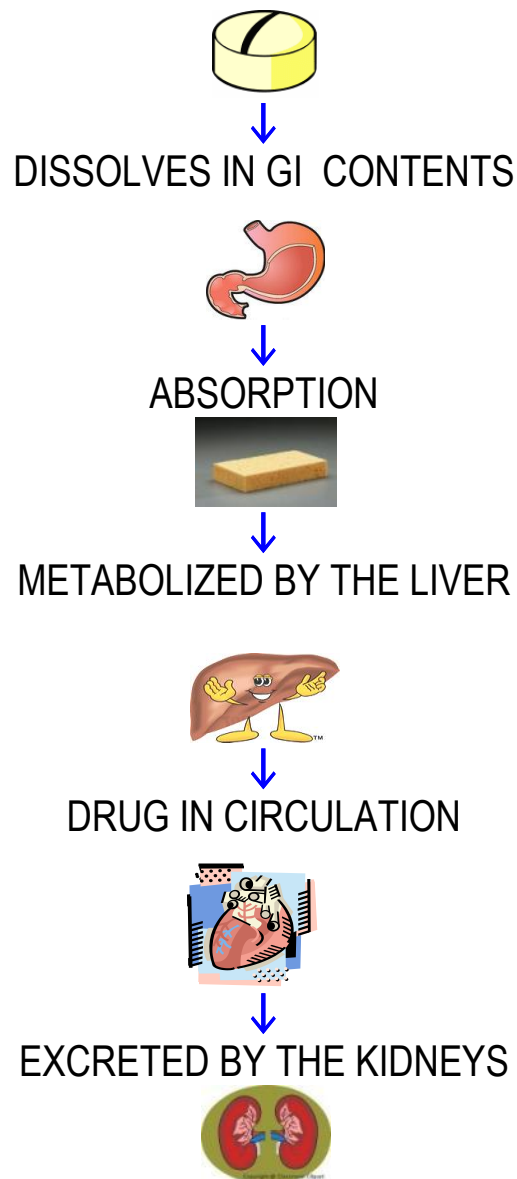


Site of Medication Action - Local vs. Systemic Continued

- The body excretes/eliminates water-soluble medications and their breakdown products (metabolites) primarily in the kidneys, passing the metabolites out of the body through urination.
- Some medications or byproducts of drug metabolism that were handled by the liver pass back into the digestive tract through bile and later exit the body in the feces.
- Medications may also leave the body in saliva, sweat, exhaled air and even a mother's breast milk.

SOLID MEDICATION

Absorption of medications administered as a solid:



How to Read a Drug Label

The image shows a sample drug label for Amoxicillin 500mg capsules. The label is rectangular with a white background and black text. It includes a pharmacy logo, pharmacy name and address, doctor's name, drugstore phone number, prescription fill date, patient name and address, drug name and strength, instructions, quantity, and a barcode. Callout boxes with lines pointing to specific parts of the label explain their meaning.

Pharmacy name and address points to: Local Pharmacy, 123 MAIN STREET, ANYTOWN, USA 11111

Number used by the drugstore to identify this drug for your refills points to: NO 0060023-08291

Person who gets this drug points to: JANE SMITH, 456 MAIN STREET ANYTOWN, US 11111

Instructions about how often and when to use this drug points to: TAKE ONE CAPSULE BY MOUTH THREE TIMES DAILY FOR 10 DAYS UNTIL ALL TAKEN

Name of drug and strength of drug points to: AMOXICILLIN 500MG CAPSULES

Number of refills before certain date points to: NO REFILLS - DR. AUTHORIZATION REQUIRED

Doctor's name points to: DR C. JONES

Drugstore phone number points to: (800) 555-5555

Prescription fill date points to: DATE 06/23/09

Don't use this drug past this date points to: USE BEFORE 06/23/12 SLF/SLF

Other text on the label includes: QTY, MRG, and a barcode on the right side.

OTC (Over the Counter) drug label:

Drug Facts

Therapeutic substance in drug

Active ingredient (in each tablet) **Purpose**
 Chlorpheniramine maleate 2 mg Antihistamine

Product type

Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:
 ■ sneezing ■ runny nose ■ itchy, watery eyes
 ■ itchy throat

Symptoms or diseases the drug treats

Warnings

When not to use this drug, when to stop taking it, when to see a doctor, and possible side effects

Ask a doctor before use if you have
 ■ glaucoma
 ■ a breathing problem such as emphysema or chronic bronchitis
 ■ trouble urinating due to an enlarged prostate gland

Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives

When using this product

- You may get drowsy ■ Avoid alcoholic drinks
- Alcohol, sedatives, and tranquilizers may increase drowsiness
- Be careful when driving a motor vehicle or operating machinery
- Excitability may occur, especially in children

If pregnant or breastfeeding, ask a health professional before use.

Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.

Directions

Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
Children 6 years to under 12 years	Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
Children under 6 years	Ask a doctor

Read carefully: how much to take, how often to take it, and when to stop taking it

More information on how to store the drug

Other information Store at 20-25° C (68-77° F)
 ■ Protect from excessive moisture

Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

Other things in the drug, such as colors or flavorings

Source: U.S. Department of Health and Human Services

Orders - Correct or Incorrect

The consumer's name and doctors signature is implied.

1. Ativan 2mg PO TID x 90 days _____
2. Paxil 1 Tab PO qhs x 90 days _____
3. Dilantin 90mg BID x 180 days _____
4. Neurontin Oral Sol 250mg / 5mls BID x 90 days _____
5. Digoxin 0.25mg PO qam x180 days. Hold if pulse is below 60 _____
6. Percocet 500mg PO q4hr PRN x 21 days _____
7. ZPack 2 Tabs to start, then1 tab PO qd x 4 days. _____
8. Depakote 500mg PO qid _____
9. Robitussin 1 tsp PO q4hrs PRN for cough x14 days _____
10. Miralax 1 packet in 8 oz. cold water TID x 90 days _____
11. HCTZ 150mg PO qam x 180days _____
12. APAP 500mg - Give 2 tabs PO BID x 30days _____
13. Multivitamin 1 Tab PO qam x 180 days _____
14. Lithium 300mg - Give 1 tab PO q hs x 7 days, then give 1 tab PO BID

PRN Medication Information

What does it mean to give a PRN Medication?

- PRN means – when needed.
- This is not a scheduled medication.
- The client has to exhibit necessary symptoms as ordered by the authorized prescriber to receive the medication.
- There is no “Hour Window”
- The medication can only be given for the reason it was ordered.
- A PRN is charted on the front of the MAR with the time of administration and staff initials also on the back for outcome.
- If outcome is not charted it is a med error.
- The nurse must be called before a PRN is given.
- The authorized prescriber orders at specific time intervals. ie: q4hrs PRN, q 3 days.
- When a PRN is given, the exact time of administration is charted and a redose cannot be given sooner than the ordered time.
Example: If a prn medication is given at 2:27 pm and it is ordered q4 hrs, you can not give another dose of medication until 6:27pm.
- Psychotropic medications cannot be prescribed as a PRN.



I have a headache.
Can I have something?

Documentation on MAR

Medication Administration Record = MAR = Kardex

The purpose of a kardex is to keep track of the medications that are administered.

- Each block will contain the transcription of one medication.
- The numbers across the top indicate the days of the month.
- The pharmacy will send you new MARs each month for all for your clients.
- The small squares are where your initials are inserted after the medication is administered.
- The kardex must be checked by someone from your agency each month for accuracy.
- There will be an area for you to put your signature to identify **your initials**, it might be on the bottom, back or top.
- If a medication is refused or given outside defined instruction, **circle** on the front and document on the back of the MAR.

Back of MAR / Kardex

The back of the kardex is where you put all of your additional documentation.

It is used when:

- a **PRN is given**.
- a med has been **refused**
- an **error is discovered** or occurs
- a med is **outside of the window** (time when it was supposed to be given.)
- a med is charted in the **wrong place**
- a med is **not given** for some other reason

Directions for Transcribing Dr's Orders to the Kardex

1. Call nurse to alert her/him of new order.
2. Make sure Rx gets to the Pharmacy according to your agencies policies and procedures. Know reason for med and its side effects.
3. Transcribe from the Doctor's order NOT the Pharmacy label. The doctor's order always rules everything else.

Order 7-04-08 @ 11:00AM

Klonopin 0.5mg PO TID x 10 days Dr. Joy Smith

4. Write the start date on the Kardex.

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
		START 7-4-08 STOP																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

5. On the Kardex, write exactly what the doctor has written on his order.

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
<i>Klonopin 0.5mg PO TID x 10 days (clonazepam)</i>		START 7-4-08 STOP																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

6. You must take into consideration what time the Pharmacy will be delivering the medication. That will determine what time you give the first dose. (In this case the med will be delivered at 2:00PM.)

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<i>Klonopin 0.5mg PO TID x 10 days (clonazepam)</i>		START 7-4-08 STOP																													
	8A																														
	4P																														
	8P																														

7. Draw an arrow from the first day of the month up to the day and time you are going to start the medication. Do that for each time frame.

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<i>Klonopin 0.5mg PO TID x 10 days (clonazepam)</i>		START 7-4-08 STOP																													
	8A																														
	4P																														
	8P																														

8. Draw a bracket in front of your start days.

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<i>Klonopin 0.5mg PO TID x 10 days (clonazepam)</i>		START 7-4-08 STOP																													
	8A																														
	4P																														
	8P																														

9. Count out your doses. (Three times a day for 10 days would be 30 doses) Then draw a bracket at the end of the time of the order.

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
	BA	→																																
	4P	→																																
	8P	→																																

10. Enter the stop date on the Kardex

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP 7-14-08		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	BA	→																															
	4P	→																															
	8P	→																															

11. Then draw an arrow from the end of the order to the last day of the month.

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP 7-14-08		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	BA	→																															
	4P	→																															
	8P	→																															

12. Initial that you have done the transcription (according to your agencies P&P's)

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP 7-14-08		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	BA	→																															
	4P	→																															
	8P	→																															

13. Have another med cert person check the transcription and initial.

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP 7-14-08		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	BA	→																															
	4P	→																															
	8P	→																															

14. Start medication as ordered.

15. When the course of medication has been completed, write D/C and the date in the remaining blocks on the Kardex. Next, yellow out the order with the exception of the staff initials.

Klonopin 0.5mg PO TID x 10 days (clonazepam)	START 7-4-08 STOP 7-14-08		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	BA	→	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
	4P	→	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
	8P	→	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA

Addition transcription notes: If the new order is just a change in dose it is still treated as a different order. The existing order will be D/C'd and the new order transcribed.

Method for transcribing an authorized prescriber's order to the Kardex.

5/3 Keflex 250mg PO tid x 7 days

Dr. Angela B. Goodfellow

Start	Re-order	Medication, dose, route, frequency, duration	Exp date	Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14			
5/3		Keflex 250mg (Cephalexin 250mg) Give 1 tab PO TID x 7 days	5/10	7A	→	→	→									←	←	←	←		
				3P	→	→	→											←	←	←	←
				11P	→	→											←	←	←	←	←

1 2 3 4 5 6 7 8

1. Write in start date.
2. Copy order directly from what the authorized prescriber has written.
3. Determine what times of the day you will be giving the medication.
4. Fill in those times on the kardex. Remember an antibiotic has to be given equal distance throughout the day. Bid = q12 hours, Tid = q8 hours, Qid = q6 hours
5. Determine what time you will be giving the first dose.
6. Draw a bracket in front of the days you will be starting the med.
7. Count out your doses – 3 times a day times 7 days will equal 21 doses or the number of pills the pharmacy will send you.
8. Draw a corresponding bracket at the end of the course of medication.
9. Write in your stop or expiration date.
10. Put your initials in the date column block that the transcription has been completed
11. Have another non-licensed personnel med staff check the transcription to verify it is correct and have them also initial the date column block. It does depends what kind of kardex your agency uses as there may be no date column. If not check with your nurse as to where the initials are to be placed.
12. Start the medication.
13. When all meds have been given, write D/C and date in remaining blocks of the month. Then yellow out according to your agencies policy.

**On the attached kardex,
transcribe
all four of the following orders .**

Date	Order
5-1	Juan has a seizure disorder. The authorized prescriber has prescribed Tegretol 200mg PO BID x 180 days at 8 am and 8 pm.
5-5	Juan has bronchitis. The authorized prescriber has ordered Keflex 500mg PO Bid x 7 days at 8 am and 8 pm.
5-10	Juan has fallen and hurt his right ankle. The authorized prescriber orders Motrin 400mg PO q6hr PRN for right ankle pain x 14 days. Juan is asking for medication at 2:15 pm on 5-12.
5-14	Juan's seizures have increased. The authorized prescriber just changed his order from Tegretol 200mg BID to 200mg PO q 8am and 300mg q 8 pm x14 days.

MEDICATION ADMINISTRATION RECORD

QS/ 1 PHARMACY SYSTEM FORM A03

MEDICATIONS	HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
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P = PACKAGED R = REFUSED LOA = LEAVE OF ABSENCE DP = DAY PROGRAM H = HOSPITALIZED

Month of		
PHYSICIAN		TELEPHONE NO.
ALT. PHY.		ALT. TELEPHONE
ALLERGIES		REHABILITATIVE POTENTIAL
DIAGNOSIS		ADMISSION DATE
MEDICAID NUMBER	MEDICARE NUMBER	VERIFICATION
		BY:
PATIENT	SEX	DATE OF BIRTH
	PATIENT CODE	ROOM NO.
	BED	FACILITY CODE
	TITLE:	

Homework

These orders are to be transcribed to the kardex.

Authorized prescriber orders for:

Client: Candy Apple

Allergic to: Strawberry NKDA

Any Place, USA

Diagnosis: Diabetes, Constipation

Medication, Dose, Route, Frequency
Glucophage 500 mg po bid @ 8:00 am & 5:00 pm
Colace 100 mg 1 Tab po qAM

Above orders are in effect for 180 days unless otherwise noted

Authorized prescriber's signature and date: *May Skitbetter MD* _____
date



MEDICATION ADMINISTRATION RECORD

QS/ 1 PHARMACY SYSTEM FORM A03

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MEDICATION PROGRESS NOTES

DATE	TIME GIVEN	MEDICATION & DOSAGE	INJ. SITE	REASON	RESULTS OR RESPONSE	TIME NOTED	NURSE'S SIGNATURE / TITLE

INITIALS	SIGNATURE	INITIALS	SIGNATURE	INSTRUCTIONS	
				1. INITIAL APPROPRIATE BOX WHEN MEDICATION GIVEN 2. CIRCLE INITIALS WHEN MEDICATION REFUSED 3. INDICATE INJECTION ROUTE 4. STATE REASON FOR REFUSAL OF MEDICATION 5. STATE REASON AND RESULT FOR PRN MEDICATIONS	
				INJECTION SITE CODES	
				1 RIGHT DORSAL GLUTEUS	5 RIGHT LATERAL THIGH
				2 LEFT DORSAL GLUTEUS	6 LEFT LATERAL THIGH
				3 RIGHT VENTRAL GLUTEUS	7 RIGHT DELTOID
				4 LEFT VENTRAL GLUTEUS	8 LEFT DELTOID
				9 RIGHT UPPER ARM	10 LEFT UPPER ARM
				11 RIGHT ANTERIOR THIGH	12 LEFT ANTERIOR THIGH

Session 4

1. Routes, Forms, and Techniques

a. Oral Medication

* Dysphagia

b. Pulmonary Medications

c. Otic Medications

d. Optic/Ophthalmic

e. Topical

f. Nasal

g. Rectal

h. Vaginal

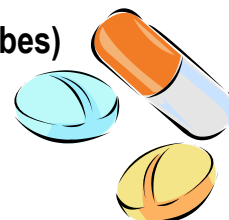
2. When not to give Medications

At the end of this session, the student will be able to:

- Discuss the advantages and disadvantages of the following routes of medications: tablets/capsules (enteric coated, time released, scored, sprinkles), liquid medications, pulmonary inhalant medications, vaginal medications, rectal medications, otic medications, ophthalmic medications, lotions/creams/ointments, nasal medications.
- Explain the procedure for administering the medications routes identified above (tablets, sublingual/buccal, liquids, sprays, inhalers, suppositories.
- Describe the difference between suspensions, syrups, and elixirs.
- Explain the relationship between dysphagia and medication administration.
- List 2 types of tablets/capsules that can never be crushed.
- List 3 tools you can use to crush medications.
- Identify 7 times when you should not give a medication.

Routes, Forms and Techniques

Oral Medications (Tablets, liquids, sublinguals, G-Tubes and J-Tubes)



Tablets

- Consist of compressed powder containing the drug/medication.
- May take 30 to 60 minutes for the medication to work.
- Are safe, easy to use and the least expensive form of medications.
- Advantages
 - Can be pumped out of the stomach (gastric lavage) if overdose occur
 - Easy to administer, inexpensive
- Disadvantages
 - not good in an emergency
 - taste can be unpleasant
 - absorption is unpredictable because we are all different

Tablets Enteric Coating

- Hard shell applied to protect the stomach from irritation and so it will pass the stomach and dissolve in the intestines. **DO NOT CRUSH!**
- Advantage
 - Will not cause stomach upset
- Disadvantage
 - CAN NOT BE crushed or chewed (will remove the protective coating and stomach irritation can occur.)

Tablets Time Released

- Released into the system over a period of time.
- Advantages:
 - Decreases the number of times per day the med needs to be taken.
 - Drug is made to dissolve over a period of time.
 - Effects last longer.
- Disadvantage
 - **DO NOT CRUSH**—can cause overdose by releasing all the medication at one time.



Capsule & Kapseal



- Medication in a gelatin shell capsule that cannot be opened is a Kapseal.
- Cannot be crushed but can be instructed by RN to open and put on food—i.e. applesauce

Scored



- Tablet with an indentation down the center
- Can be broken exactly in half.
- Use a pill cutter, knife or the edge of a spoon to cut in half
- Unused half must be destroyed.
- If half a pill is required for ongoing use, the pharmacy will usually provide you with pills already split.

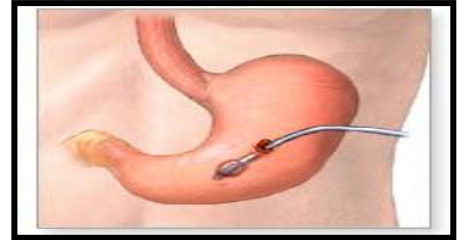
Routes, Forms and Techniques continued

Sprinkles

- Beads inside a capsule. Capsule may be opened and placed on food.
- DO NOT crush.
- DO NOT chew.

G-Tubes and J-Tubes

- Requires additional training from your nurse.
- Tubes are placed into the stomach.
- This is how the person receives medications and food.



Types of Liquids

Suspension

- A liquid which has particles in it.
- Shake the container well so the particles will separate.

Syrup

- Prepared with sugar.
- Diabetics need no added sugar

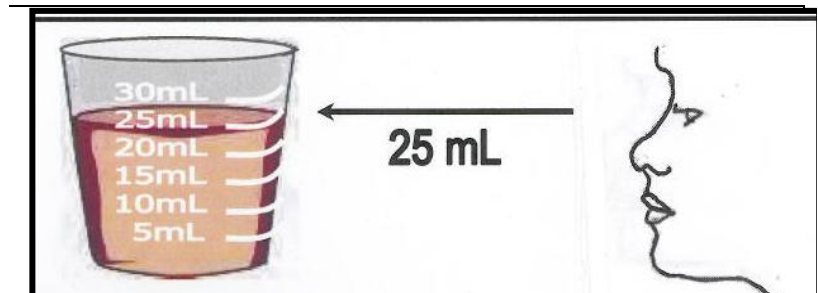


Elixir

- Made with sugar and alcohol.
- Should not be given to people with alcohol addiction.
- Alcohol may interact with other medications.

When pouring a liquid:

- the cup should be on a flat surface
- at eye level
- the label towards your palm.



Routes, Forms and Techniques continued

PO Administration Procedure

- **Gather** equipment needed before starting.
- To **avoid** contamination, do not touch the medication.
- **Approach** the person gently and explain the procedure to gain their cooperation.
- The person should be in a **comfortable** position with head elevated to prevent aspiration.
- Be sure the person **swallows** the medication as the client may hold it in their mouth. Always check to make sure that they have swallowed it.
- **Offer** adequate fluids to dilute the medications and rinse the esophagus.
- **Do not** “force” the person who refuses.
 - Wait a few minutes and offer the medication again.
 - If the person continues to refuse, notify the nurse.
- **Document** on the MAR/kardex.
- **Remember**—if a medication has to be given on an **empty stomach**, it must be given 1 hour before OR 2 hours after a meal.

Sublingual

- Medication is placed under the tongue.
- The person should be NPO (nothing by mouth) for several minutes.
- Advantage:
 - Absorbed directly into the bloodstream
 - Good in emergencies.
- Disadvantage:
 - Unpleasant taste
 - May irritate lining of the mouth



Buccal

- Medication is placed between the cheek and the gum.
- Advantage:
 - Absorbed directly into the bloodstream
 - Good in emergencies
- Disadvantage:
 - Unpleasant taste
 - May irritate lining of mouth



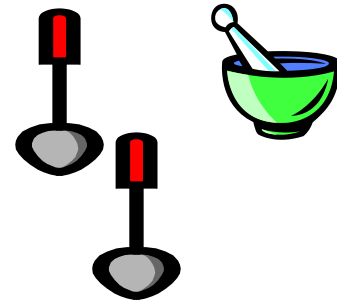
Sublingual and Buccal Administration Procedure

- Have the person take a sip of water. It should be swallowed or spit out. (adds moisture to mouth)
- Place the tablet under the tongue or between the cheek and the gum depending on the route.
- Instruct the person to:
 - Close the mouth.
 - Not to chew or swallow until the tablet is completely dissolved.
 - Allow time for the absorption of all the medication.
- Person should not eat, drink, or rinse their mouth for several minutes after the tablet is dissolved or gel is administered.

Routes, Forms and Techniques continued

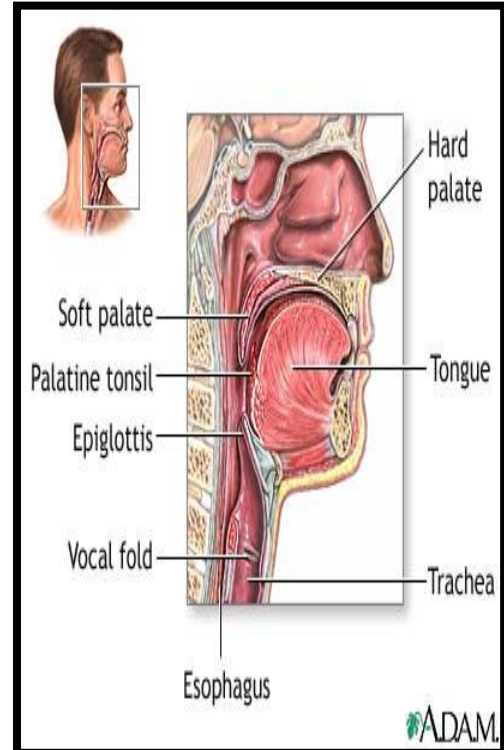
Crushing Medications

- **Use** a pill crusher, mortar & pestle or two spoons.
- You need an authorized prescriber's **order** to crush a medication.
- **Remove** all medications from the device.
- Enteric coated & time released medications should **NEVER** be crushed.
- **Dysphasia** always has to be **considered** if the person is on an altered diet.



Dysphagia (definition): difficulty in swallowing or the inability to swallow.

- Can be **caused by** any condition that weakens or damages the muscles used for swallowing.
- If authorized prescriber orders a liquid diet, staff must **identify the consistency of food**.
 - Some cases may require use of thickening agent to ensure proper consistency.
 - A thickening agent is a powder that can change the form of liquids.
 - Even if on a liquid diet, medications may be given in their original form if there is an authorized prescriber's order to do so.
- Individuals with **neuromotor problems** have many risk factors which increase their chances of accidental aspiration.
- They can have **problems with** jaw, tongue and facial muscles and medications

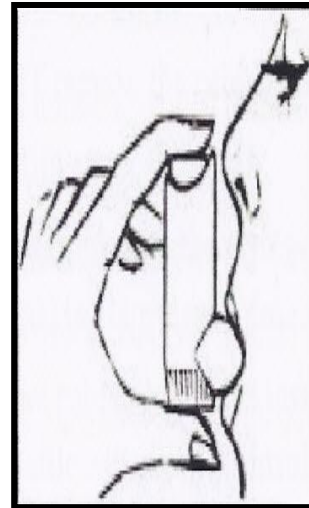


Routes, Forms and Techniques continued

Pulmonary Forms of Medications: Metered Dose Inhalers, Dry Inhalers, Nebulizers

Metered Dose Inhaler

- Delivers medication through a small hand held aerosol canister.
- Advantages:
 - Medication is absorbed directly into the lungs.
 - Good in emergencies if a rescue inhaler.
 - Local & systemic effect
- Disadvantages
 - Can increase heart rate
 - Can cause tremors
 - Can cause hyperactivity and restlessness.
 - Has unpleasant taste
 - Difficult to administer correct dose



Spacer

- A cylinder that fits onto the mouth piece of the inhaler.
- Allows medication to be breathed in slower.



Dry Powder Inhaler

- Must breathe medication deeply into lungs
- All dry powder inhalers are different
- Advantages:
 - Difficult to use during asthma attack but works quickly.
- Disadvantages:
 - Can increase heart rate
 - Can cause hyperactivity
- **This is a task that needs additional training.**



Nebulizer

- Used if inhaler is not effective.
- Larger devices with a medicine cup attached.
- Medication is placed in the cup.
- Run by electricity or battery.
- Connected to compressor that atomizes medication.
- Uses mouth piece or mask to breath in the mist.
- Takes about 10 minutes.
- Need to remain with the individual during administration.
- **This is a task that needs additional training.**



Routes, Forms and Techniques continued

Pulmonary Inhalants Administration Procedure

Purpose: To deliver aerosolized drug directly into the lungs via the mouth.

Action: The surface area of the lungs absorb the medication almost immediately.

Effects: Effects are both local and systemic.

Procedure:

- **Wash your hands** before and after administration.
- **Prepare the person** for the procedure.
- Always **be sure** the canister is not empty and is not punctured.
- **Follow the directions** for the specific type of inhaler.
- Ask the person to **exhale** completely and **inhale** deeply while you are dispensing the medication.
- Instruct the person to **hold their breath** for several seconds and then exhale slowly.
- **If 2 puffs** are to be administered, **wait at least one minute before** administering the second puff. (allows for the maximum absorption of medication and recovery time for the person)
- Provide a **mouth rinse after** the medication is given.
 - The person should “rinse and spit”
 - This will remove the medication from the mouth as the taste may be unpleasant.
 - If the person is unable to do this, use a mouth swab to clean out the mouth.



Routes, Forms and Techniques continued

Otic form of medication – Liquid

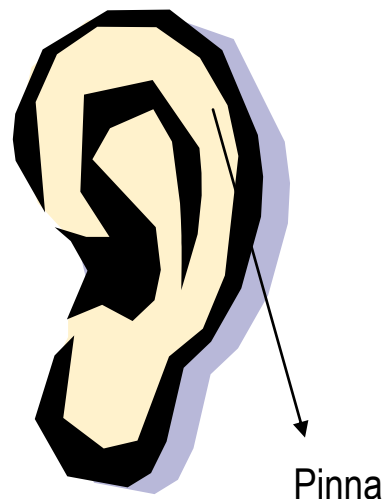
Otic medications

- Applied to the ear.
- Medication is dissolved or suspended in a liquid.
- Has a local effect.



Otic Administration Procedure

- **Always** begin with a clean ear by removing any discharge from the outer ear.
- **NEVER INSERT COTTON TIPPED SWABS INTO THE EAR.**
 - Discharge may be pushed into the canal.
 - Avoids injury to the ear drum.
- **Warm** the solution to body temperature by holding the container in the palm of your hand.
 - Do not place container in hot water or in the microwave.
 - Cool drops cause dizziness, nausea or possible pain.
 - Overheating drops will cause injury.
- **Place** the person in a comfortable, sitting or lying position with the ear to be treated up.
 - Gently pull the Pinna of the ear (This process straightens out the ear canal.)
 - Up and back for an adult.
 - Down and back for a child less than three years old.
- **Position** the tip of the dropper near but not inside the ear canal.
 - Do not allow the dropper to touch the ear. This will avoid contamination.
- **Place the prescribed number** of drops against the side of the ear canal.
- Have the person **remain** positioned with treated ear up for 3-5 minutes so the drops will remain in the ear canal.
 - **DO NOT** place a cotton ball into the ear after instilling drops unless specifically ordered to do so.
- **If ordered**, instill medication in other ear after approximately 5 minutes.



Routes, Forms and Techniques continued

Optic/Ophthalmic forms of medications – Liquids and Ointments

Eye (Optic/Ophthalmic) medications

- Advantages
 - Produces a local effect on the eye
- Disadvantages
 - Cooperation of the person may be hard to obtain.
 - Some meds may burn.
 - Ointments will temporarily blur vision.



No it doesn't connect to an X-Box

General Information for both forms

(Liquids and Ointments)

- Wash hands before and after administration.
- Apply gloves.
- Can be difficult to administer
- Gently pull down the lower lid to form a pocket.
- Ask the person to look up and away,.



I think your intraocular pressure is very high.

Eye Liquid Administration Procedure

Medication is dissolved or suspended in liquid carrying agent.

Can cause a burning sensation.

- Remove any debris or crusting from the eye by gently cleansing the eye from the inner corner to the outer corner. (It is best to have the person sitting or lying down for safety.)
- Have the medication opened and a tissue in your hand.
- Tilt the head backward slightly.
- Have the person look up & away. (May need to use distraction if the person is unable to follow directions.)
- Gently pull down the lower lid to form a small pocket.
- Hold the dropper close to & directly over the eye. **DO NOT TOUCH THE DROPPER OR ALLOW THE DROPPER TO TOUCH THE EYE.** (You could injure or contaminate the eye.)
- Gently place the prescribed number of drops, one at a time, into the lower lid pocket.
- Have the person close the eye gently and turn head toward the side of the treated eye. (Helps to prevent cross contamination of eyes)
- Remain with the person a few minutes.



Routes, Forms and Techniques continued

Optic/Ophthalmic forms of medications – Liquids and Ointments continued.

Eye Ointment Administration Procedure

Ointments will temporarily blur vision so stay with client.

Medication is in a water soluble base.

- Remove any debris or crusting from the eye by gently cleansing the eye from the inner corner to the outer corner. (It is best to have the person sitting or lying down for safety.)
- Have the medication opened and a tissue in your hand.
- Tilt the head backward slightly.
- Have the person look up & away. (May need to use distraction if the person is unable to follow directions.)
- Gently pull down the lower lid. Do not touch the tip of the tube or allow the tip of the tube to touch the eye or eyelid. (prevents injury and contamination)
- Gently squeeze the tube to place a thin ribbon of medication beginning at the inner corner of the eye and moving to the outer corner.
- Ask the person to close their eye gently and to roll the eye. The eye should not be rubbed. You may need to stimulate eye rolling if the person is unable to follow directions. To do this, gently cover treated eye and have the person follow an object with untreated eye.
- Remain with the person for a few minutes due to blurred vision.
- Have the person avoid activities that require clear vision.



Bacterial Pink Eye Infection



Routes, Forms and Techniques continued

Topical Forms of Medication (applied to the skin) Lotions, Creams, Ointments, Powders, Aerosols and Transdermals

Lotions

- Emulsions or suspensions in oil or water.
- Easy to apply on clean, dry skin. (wear gloves)
- Severe reactions rare.
- Dose is difficult to assess. Shake before using.
- Apply by patting on. Has a local effect.



Creams & Ointments

- Severe reactions are rare.
- Dose is difficult to assess.
- Easy to apply on clean, dry skin (wear gloves)
- Apply with clean dry gauze with light smooth strokes. Has a local effect.
- Do not massage.
- No dressing unless ordered.



Powders

- Severe reactions are rare.
- Dose is difficult to assess.
- Easy to apply on clean, dry skin. Local effect.
- Caution that none of the particles are inhaled.
- Too much powder causes caking and irritation.
- Put powder on glove or gauze to apply.
- Do not shake over area unless specifically instructed.



Athlete's foot

Aerosols

- Severe reactions are rare.
- Dose is difficult to assess.
- Easy to apply on clean, dry skin. Local effect.
- Spray from a distance of 6 to 10 inches.
- Shake well before using.
- If it is used on the feet, spray it between toes.
- Do not use near heat, open flame or while smoking.
- Do not inhale the powder particles.



Transdermals

- Severe reactions are rare but may irritate skin.
- Unit dose is medication that is delivered through the skin via an adhesive patch. Systemic or local effect.
- Easy to apply to clean, dry skin. (wear gloves)
- Never apply to scarred, callused or broken out skin.
- Rotate site. (Document date, time, and site)
- Always remove previous patch.



Patch must be folded on itself after removal to avoid exposure to medication.

Routes, Forms and Techniques continued

Nasal Forms of Medications – Mists/sprays, drops

Mists and Sprays

- Advantages
 - Offer quick relief.
 - Easy to use.
- Disadvantages
 - Prolonged use can cause rebound congestion & chronic swelling of mucous membranes when stopped.
 - Client cooperation.
- Procedure
 - Have person clear their nostrils by gently blowing nose.
 - Press a finger against the side of the nose to close the other nostril.
 - Instruct the person to breathe in through the nostril while activating the device.
 - Repeat on the other side.
 - Do not blow nose at this time.
 - Clean tips to the spray, pump or inhaler with hot water after use.



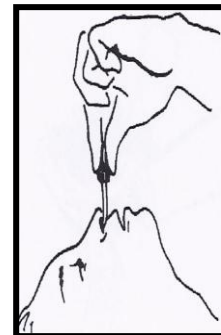
Nasal Spray



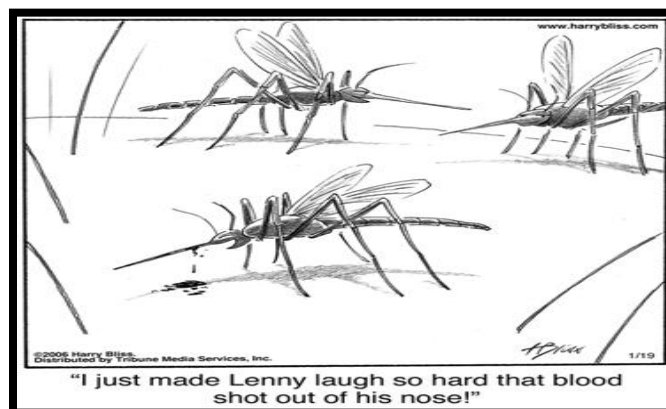
Metered Spray Dose

Nasal Drops

- Advantage
 - Able to direct the drops to a specific area.
- Disadvantage
 - Client cooperation.
- Procedure
 - Place the person in an upright position with head tilted back.
 - Never insert the dropper more than 3/8" into the nostril.
 - Do not allow dropper to touch the nose.
 - Keep head tilted for 3-5 minutes to prevent loss of medication.
 - Do not blow nose at this time.
 - Clean dropper after use.



Nasal Drops



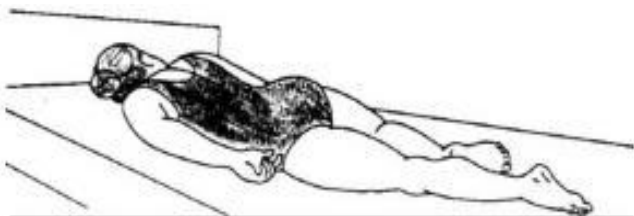
Routes, Forms and Techniques continued

Rectal Forms of Medications – Suppositories and Liquid Enemas

Suppositories

- Given via the rectum or PR
- Medications are made of cocoa butter and medication
- Melt at body temperature (98.6 degrees F)
- Acts in 15 – 30 minutes.
- This task requires additional training.
- Be aware of the need for privacy with the administration of a suppository and potential sexual abuse issues.

- Advantages
 - Can be given to someone who is unconscious or vomiting
- Disadvantages
 - Cannot be used if the person has lower bowel disease or diarrhea.
 - Can be embarrassing to both the giver and the receiver
 - Person must be able to retain the suppository.
 - Can be messy.
- Procedure
 - Put on gloves.
 - Take suppository out of wrapper and place in med cup till ready to use.
 - Apply lubricant to both your gloved finger and the suppository.
 - Insert while the person is in the Sim's position (lying on the left side with the right leg bent up and over the left leg.)
 - Lift cheek and expose the anus.
 - Insert in the anus approximately 3-4 inches.
 - Ask the person to lie in bed for 10 -15 minutes before getting up.
 - Wash hands after removing gloves.



Sim's Position



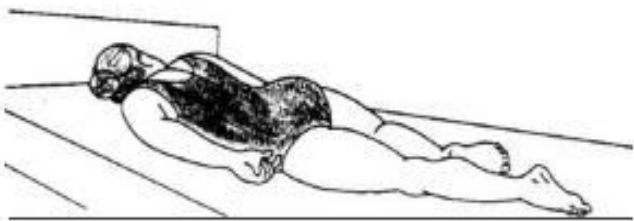
Insertion of rectal suppository

Routes, Forms and Techniques continued

Rectal Forms of Medications – Suppositories and Liquid Enemas

Enemas

- Medications are dissolved or suspended in a liquid solution.
- Acts in 15-30 minutes.
- Be aware of the need for privacy with the administration of a suppository and potential sexual abuse issues
- This task requires additional training.
- Advantages for both forms:
 - Can be given to someone who is unconscious or vomiting
- Disadvantages for both forms:
 - Cannot be used if the person has lower bowel disease or diarrhea.
 - Can be embarrassing to both the giver and the receiver.
 - Person must be able to retain the enema for a short period.
 - Can be messy.
- Procedure:
 - Put on gloves.
 - Apply lubricant to the enema tip.
 - Insert while the person is in the Sim's position (lying on left side with the right leg bent up and over the left leg)
 - Lift cheek and expose the anus.
 - Insert the enema in approximately 3-4 inches.
 - Ask the person to lie in bed for 10 – 15 minutes before getting up.
 - Wash hands after removing gloves.



Sim's Position



Frankly I don't enjoy prostate exams any more than you do!

Routes, Forms and Techniques continued

Vaginal Forms of Medication –

Liquid in form of Douche, Creams, Foams, Gels, Suppositories and Tablets

Vaginal Medications

- All meds are administered in the dorsal recumbent position.
- Use applicators for creams, gels foams and tablets.
- This task requires extra training by nurse.
- Advantages
 - Local effect
- Disadvantages
 - Can be embarrassing for the person and caregiver.
 - Should be administered by female staff if person is not able to self-administrate.
 - Person must co-operate with administration.

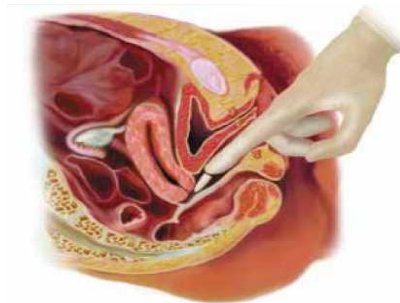


Procedure for the administration of vaginal medications

- Prepare all equipment in advance.
- Remove wrapper, fill applicator and lubricate if necessary.
- Ask the person to empty her bladder before starting the procedure.
- Ask the person to lie on her back with knees bent and feet flat on the bed.
- Keep her covered well, expose only the perineum.
- Ask her to let her knees fall to the side to expose the vagina.
- Expose vaginal opening with thumb and index finger of one hand. Follow the manufacturer's instructions on inserting the medication into the vagina.
- If applicator is used, do not force into vagina. This will prevent injury.
- Ask the person to remain lying down for at least 30 minutes after insertion.
- She may wear sanitary pad after insertion but not a tampon as a tampon will absorb the medication.



Dorsal recumbent position



When not to give a medication

- **If** the label is missing or cannot be read.
- **If** there are no signed orders present.
- **If** there is a change in the level of consciousness, vomiting, seizures or shortness of breath.
- **If** you are outside the hour window.
- **If** the person refuses.
- **If** you have the wrong form of the medication.
- **If** any of the 5 rights are missing or violated.



Medication Administration

Seek-a-word

S	F	F	E	E	R	S	L	A	I	R	E	T	A	M	R	E	H	T	A	G	O
R	E	U	H	O	U	R	W	I	N	D	O	W	A	S	H	H	A	N	D	S	N
E	N	S	J	V	C	O	U	N	T	C	O	N	T	R	O	L	S	Y	I	M	K
D	W	E	O	F	L	D	A	L	N	W	B	D	A	A	D	I	P	B	H	Z	S
R	D	P	N	D	N	O	P	D	E	S	X	Z	W	O	G	N	H	E	K	T	T
O	C	I	Y	X	R	T	C	Y	M	O	K	H	D	N	E	I	E	O	T	I	H
E	O	C	O	F	C	U	C	K	U	I	F	J	A	U	E	T	N	N	O	F	G
H	V	T	L	M	I	T	G	U	C	Q	N	T	T	G	K	I	E	M	I	T	I
T	Q	U	G	I	H	T	S	S	O	L	U	I	H	V	B	A	A	V	I	H	R
K	A	R	P	N	E	G	N	C	D	R	O	G	S	R	B	L	R	O	Y	W	E
C	L	E	P	P	C	N	R	E	E	W	O	S	I	T	E	S	B	D	Y	J	V
E	E	M	P	C	C	Z	T	Z	D	Z	R	V	E	K	E	E	T	X	E	Q	I
H	Q	M	C	U	R	R	E	N	T	I	O	Y	K	T	V	R	A	N	H	X	F
C	V	O	K	C	A	P	R	E	T	S	I	L	B	K	C	E	H	C	S	G	I

1. You need to give meds at the appropriate _____.
2. The amount of mg's is the _____.
3. The medications you give are also known as _____.
4. How you take the medication is the _____.
5. The _____ is checking the blister pack against the label 3 times before you give the medication.
6. The authorized prescriber's orders must be _____ or you cannot give the meds.
7. CTDDS is known as the _____.
8. The best way to identify a consumer is to _____ a _____.
9. One of the 1st things you do when you come on duty is _____.
10. Before you prepare meds you must _____. Don't forget to sing Happy Birthday to yourself.
11. You must _____ before you give meds. Remember that Pen!
12. _____ one time then put aside.
13. You have to _____ the _____ 3 times before you give the meds.
14. If you are outside of the _____ the nurse can give you permission to administer the meds.
15. If you don't _____ it did not happen.
16. Put your _____ on the Kardex to identify your _____.
17. The MAR is another name for the _____.
18. Use a photograph to _____ the person before you _____ the medications to the _____.
19. You must _____ the _____ that holds the medications.

Seek-a-Word

1. time
2. dose
3. drugs
4. site
5. rule of three
6. current
7. five rights
8. use picture
9. count controls
10. wash hands
11. gather materials
12. check md orders
13. check blister pack
14. hour window
15. document
16. signature, initials
17. kardex
18. identify, administer, client
19. lock closet



Practice Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



Session 5

1. Special considerations for People with Developmental Disabilities
2. CNS Medication Classifications
3. CNS Stimulants
4. CNS Depressants
5. Medication Classifications and Major Side Effects
6. Program Review Committee
7. Four Classifications of Psychotropic Medications
 - a. Antianxiety
 - b. Antidepressant
 - c. Antipsychotics
 - d. Mood Stabilizers and Anticonvulsants
8. Quick Study Guide
9. Medication Classifications for Medical Conditions

Module Objectives

At the end of this module, the student will be able to:

- Define the term medication classification.
- Discuss the role of the following medication classifications in relation to how they work in the body:
 - CNS Stimulants
 - CNS Depressants
 - Psychotropic medications
 - Anticonvulsants/Antiepileptics
 - Antibiotics
 - Antihistamines
 - Antitussives
 - Expectorants
 - Bronchodilators
 - Histamine blockers
 - Antacids
 - Vasodilators
 - Anticoagulants
 - Cholesterol lowering
 - Antihypertensives
 - Diuretics
 - Antiarrhythmics
 - Cathartics
 - Hormonal medications
 - Antiparasitics
 - Osteoporotics
- Explain 5 key side effects associated with anti-psychotic medications.



Practice Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



Medication Classifications

Special Considerations for Individuals with Developmental Disabilities

When observing medication effects for persons with Developmental Disabilities remember:

- They have neurological abnormalities that affect the functioning of the brain, spinal cord, and nervous system.
- These abnormalities can impact intelligence and learning and can also cause problems such as behavioral disorders, speech or language difficulties, seizures, and movement disorders.
- They are more likely than the general population to have behavioral disorders.
- Many medications, including anti-cholinergic, steroids, and some cardiac medications have behavioral side effects including insomnia, nightmares, sedation, agitation, irritability, restlessness and psychosis which may be mistaken as a neurological issue associated with their disability.



Medication Classifications

Central Nervous System (CNS) Medication Classifications

Central nervous system medications work on the brain and spinal cord. Medications are classified by the effects they have on the body and mind.

CNS Stimulants

Medications that increase the activity of the brain & spinal cord.

CNS Depressants

They are medications that can be used to slow down brain activity.

Analgesic

Are medications that are used to relieve pain without causing loss of consciousness.

Hypnotics

Medications that are used to produce sleep.

Sedative

Medications used for their calming effect

Medication Classifications continued

Central Nervous System (CNS) Medication Classifications

CNS Stimulants

CNS stimulants

- Medications that ↑ the activity of the brain and spinal cord.
- Most stimulants help people focus on the tasks they are doing more effectively.



CNS Depressants (Analgesics)

Analgesics

- Used to relieve moderate to severe pain without causing loss of consciousness.
- Can be controlled or non-controlled.
- Can produce stupor, coma or convulsions in large doses.
- There are 3 categories of analgesics:
 - Narcotics
 - non-narcotics
 - non-steroidal anti-inflammatories (NSAID)



Analgesics—Narcotics

- Can be habit forming.
- Have properties similar to Morphine
- Controlled by the federal government due to their potential for abuse and addictive qualities.
- Control narcotics are counted at the beginning of shift, end of shift and if keys are given to another staff person during shift.
- Examples: Vicodin, Percocet



Analgesics—Non-narcotics

- Typically OTC (over the counter) pain relievers
- Examples: Tylenol, Aspirin



Analgesics—Non-Steroidal Anti-inflammatories

- Known as NSAIDs
- Examples: Motrin, Indocin



Medication Classifications continued

Central Nervous System (CNS) Medication Classifications

CNS Depressants (Hypnotics, Sedatives)

Hypnotics

- Used to produce sleep when sleep should normally occur.
- Can be habit forming if taken for long periods
- Examples: ambien, sonata, lunesta, restoril, halcyon

Sedatives

- Used to calm and relax a person
- May be used prior to medical appointments
- Side effects can be lethargy (extreme tiredness), unsteady gait.
- Fall precautions need to be initiated if prescribed.
- Examples: Ativan, Xanax, Valium
- Can have addictive potential



Medication Classifications continued

Psychotropic Medications and Program Review Committee

Psychotropic Medications

- Medications used to control or modify behavior.
- Have the potential for severe and debilitating side effects and adverse effects.
- Vigilant monitoring by staff for side effects is required as they can occur early when starting on the medication as well as years into taking the medication.
- Historically were overused or used inappropriately to control behavior.
- Due to historical history, the Program Review Committee (PRC) was formed.

Program Review Committee (PRC)

- This committee is specific to reviewing the programs of everyone on psychotropic medications who have a developmental disability.
- They oversee that psychotropic medications are not overused or used inappropriately to control behaviors.
- The purpose of the committee is to keep the DDS consumer from being over medicated, restrained unnecessarily and to assure their treatment is medically appropriate.
- They accomplish this by reviews of medical files and authorized prescriber's orders to ensure they are not at risk for becoming over medicated.
- Mandated members of the committee are:
 - Facilitator—keeps the meeting on schedule
 - Psychiatrist—reviews medications and can make recommendations.
 - Psychologist—reviews behavior plan and can make recommendations.
 - Human Rights Advocate—makes sure the consumer's human rights are not being violated.
- Other people may attend this committee meeting to provide additional information. An example would be a behaviorist, the home psychologist, nurse, etc.

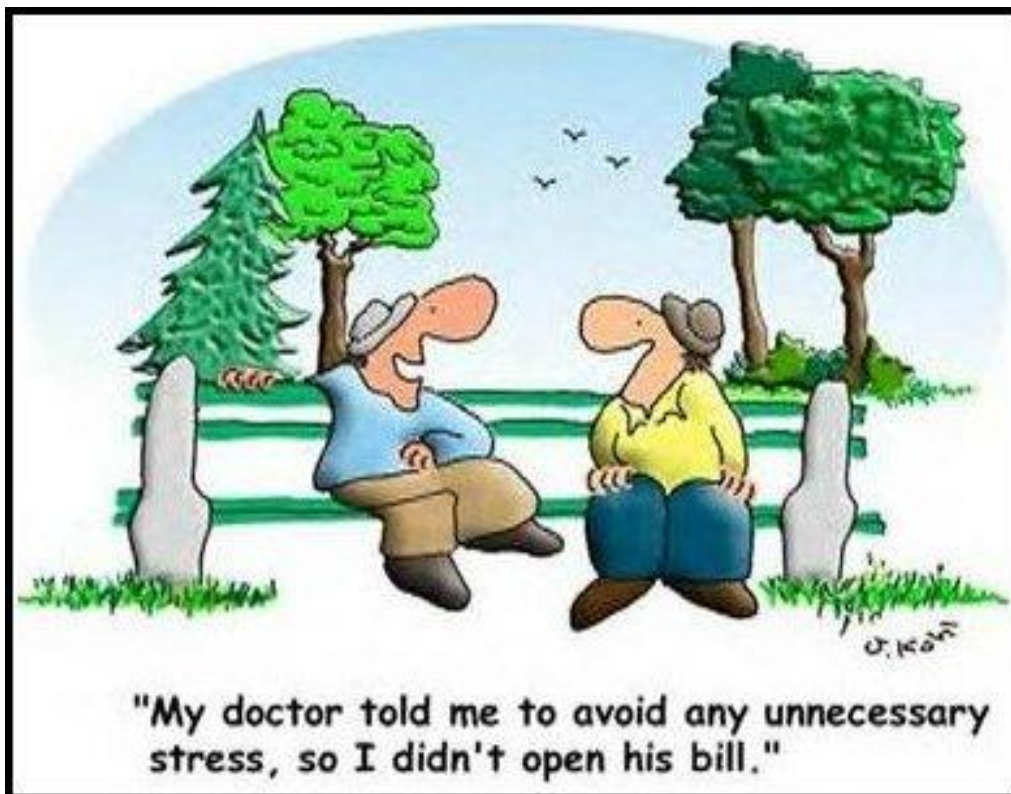


Four classifications of psychotropic medications

Anti-anxiety, Anti-depressants, Anti-psychotics and Mood stabilizers.

Antianxiety/Anxiolytics

- Anxiety
 - Common emotion almost everyone experiences sometime during life
 - May be mild to severe.
 - mild anxiety: vague feeling of uneasiness or irritability
 - Intermediate anxiety: apprehension of danger or dread
 - Severe anxiety: panic and terror
- Symptoms of anxiety
 - Diarrhea
 - Urinary frequency
 - Rapid heart rate
 - Difficulty breathing
- This medication group treats anxiety, tension and nervous disorders. (also sometimes called tranquilizers)
- Best treatment: combination of anxiolytic and counseling.
 - Medications are effective for relief of acute anxiety.
 - Medications may relieve symptoms but not the cause
 - May be habit forming or have abuse potential.



Four classifications of psychotropic medications continued

Antidepressants

elevate mood, increase physical activity, increase mental alertness
(3 categories of antidepressant medications)

➤ Tricyclics

- Advantages
 - Good safety record
 - Do not cause addiction
- Disadvantages
 - May have mild withdrawal symptoms

➤ Monoamine oxidase inhibitors (MAOI)

- Treat depression by acting on the neurotransmitters of the brain.
- Special precautions
 - Use with caution with cardiovascular or liver disease
 - Significant food restrictions—Cannot eat foods high in tyramine.
 - Typical high tyramine foods are ones that have been aged or cured (i.e. cheese, lox, pickled herring, alcoholic beverages like beer, wine, whiskey
 - If foods high in tyramine is ingested could cause a hypertensive (high blood pressure) crisis.

➤ Atypical antidepressants

- Includes the SSRI group (Selective Serotonin Reuptake Inhibitors)
- How they work not completely understood.
- Similar to tricyclics in action but not chemical composition.



Four classifications of psychotropic medications continued

Mood Stabilizers

Medications used to stabilize a person's mood.

➤ Bipolar disorder (also called manic depressive disorder)

- A psychiatric disorder, characterized by episodes of severe mania (elation and hyperactivity) and severe depression (slowing down, loss of interest) that can interfere with normal functioning.
- Exact mechanism of action is not known but is believed to alter the metabolism of norepinephrine in the brain.
- Lithium
 - Normal intake of salt and fluids should be monitored.
 - Can develop **lithium toxicity**. Symptoms are:
 - Diarrhea
 - Vomiting
 - Drowsiness
 - muscular weakness
 - ataxia (difficulty walking).
 - If symptoms of lithium toxicity develop, notify RN or take to emergency room if symptoms are severe.
 - Blood levels need to be done routinely.
 - Photosensitivity is common. Make sure your individuals use sunscreen, wear sunglasses and a cap—summer or winter.
- Some additional medications used as mood stabilizers (note these medications may also be used to control seizures. Your nurse should instruct you as to what purpose the consumer is receiving these medications) Blood levels need to be done routinely.
 - divalproex (Depakote)
 - carbamazepine (Tegretol)
 - lamotrigine (Lamictal)
 - valproate (Depakene syrup)



Medication Classifications continued
Four classifications of psychotropic medications continued
Antipsychotics/Neuroleptics

➤ **Purpose:**

- Treats psychosis: psychiatric disorder characterized by deterioration in personality, loss of contact with reality, hallucinations, and/or delusions. Person loses the ability to function, communicate with others or meet the ordinary demands of life.
- Treat Schizophrenia: Psychiatric disorder characterized by thought disturbances, delusions and hallucinations.

➤ **Medication examples** in this group (there are more medications than the ones listed here)

halperidol (Haldol)

ziprasidone (Geodon)

Quetipine (Seroquel)

risperidone (Risperdal)

➤ **Key facts**

- When taken on a regular basis, eventually saturate brain & fatty tissue
- Excreted through the body very slowly
- May be detected in the urine several months after discontinued use.
- Anticholinergic meds helpful in treating early onset symptoms only but may cause dry mouth and constipation.
- Photosensitivity is a common side effect for all anti-psychotics. Make sure your consumers are:
 - Using sunscreen
 - Wearing sunglasses
 - Wearing a hat



Medication Classifications continued
Four classifications of psychotropic medications continued
Antipsychotics/Neuroleptics

- **Five major side effects** of antipsychotics/neuroleptics—Notify RN is seen
- **Early onset** side effects: Typically 5-60 days after starting medication.
 - **Akathisia**—restlessness, feeling of muscle quivering, inability to remain still
 - **Parkinsonism**—tremors, shuffling gait, rigidity, resembles Parkinson's disease
 - **Acute dystonia**—muscle spasms of various small muscle groups (face, mouth, neck, eye)
 - **Late onset** side effects: generally occur after 3 to 6 months of regular use
 - **Tardive Dyskinesia**—abnormal involuntary movements of the lips, tongue, and jaw as well as blinking, frowning, twitching/jerking movements of the arms and legs.
 - May be irreversible, even after the medication is stopped.
 - Occurs more frequently in older people.
 - Early recognition is essential to person's well being.
 - Only way to avoid TD is not to use the drug.
 - **Neuroleptic Malignant Syndrome (NMS)** (from Journal for Nurse Practitioners 2006: 2; 460-463)
 - Onset from day to months after starting med but typically seen in 30 days of starting treatment.
 - Symptoms: muscular rigidity, **fever**, Parkinsonian like symptoms (dysphagia, diaphoresis, tachycardia, blood pressure fluctuation, tremors, altered mental status, urinary incontinence) see next line--

F(fever) E(encephalopathy) V(vitals unstable) E(elevated enzymes) R (rigidity of muscles)

Requires emergency care!



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Quick Study Guide to Psychotropic Medications

Anxiolytics

or

Antianxiety or Minor tranquilizer

Treats – Tension, anxiety, nervousness
Needs counseling to address the reasons of anxiety

Also Used for – Pre-sedation for Medical Appt., MRI's, Dental Appt., etc.

Hypnotics – Medications used as a pre-medication for medical appointments. But, if used long term for sleep then it needs PRC approval. Example - Chlorhydrate

Mood Stabilizers

Treats – Bipolar Disorder

Meds of Choice –

1. Lithium – Watch for toxicity.
Signs of Toxicity are –diarrhea, vomiting, drowsiness, muscular weakness, ataxia
Blood levels done routinely.

Needs sunscreen, cap and sunglasses in summer or winter!

2. Depakote – Is an anticonvulsant that is also used for Bipolar Disorder.

Blood Levels need to be done routinely.

Antipsychotics

or

Neuroleptic or major Tranquilizer

Treats – Psychosis - side effects vary according to medication.

AIMS test at onset of med then q 6 months.

Side effects divided into Categories –

EARLY ONSET, LATE ONSET and another that can occur at ANY TIME.

Early Onset side effects – akathisia, parkinsonism, acute dystonia. 5 to 60 days after onset of medication. Akathisia & Parkinsonism can be treated with Anticholinergics.

Late Onset side effects – Tardive Dyskinesia. 3 to 6 months after onset of medication. Exhibited by Abnormal Involuntary Movements. No treatment.

Neuroleptic Malignant Syndrome – Fever, catatonia, unstable blood pressure. 10% mortality rate. **This is a Medical Emergency.**

Don't Forget Sunscreen!

Antidepressant

Treats – Depression

3 Types –

1. MAOIs – Acts by working on the neurotransmitters of the brain
Needs low tyramine diet.

2. Tricyclics – Good safety record

3. Atypical – Includes SSRI's

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Medication Classifications continued

Anti-convulsants/Anti-epileptics

➤ **Purpose:** Used to treat seizure disorders.

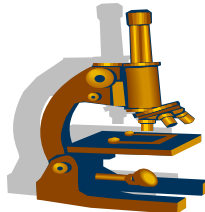
- A seizure is a brief, temporary malfunction of the electrical system of the brain.
 - Includes excessive discharge of electrical energy between brain cells.
 - Clinical symptoms
 - Convulsion
 - Tremors
 - Loss of consciousness
- Focus of anticonvulsant medication is seizure control with the ultimate goal of absence of seizures.

➤ **General information**

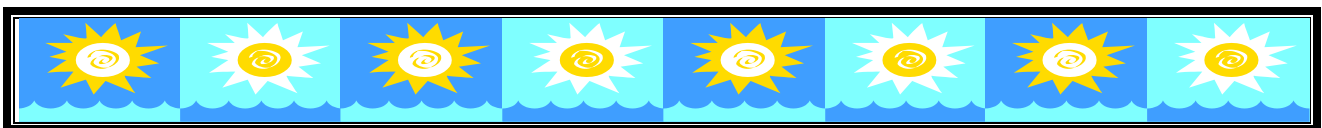
- Sometimes necessary to use a combination of these medications for best results.
- Approximately 50% of individuals with Developmental Disabilities have seizure disorders.
- Dose related neurological side effects of these seizure medications can be:
 - Increased somnolence (sleep)
 - Lethargy (tiredness)
 - Altered gait (walk)
 - Memory loss
 - Break through seizures.
- Dosing considerations
 - Must be taken on a timely basis
 - Doses should be evenly spread out during the 24 hour period.
 - Missed doses could result in ↑ seizure activity.



- Lab blood work (amount of anticonvulsant medication in the body is measured)
 - Day of test, individual should not take their dose of med prior to blood work.
 - Confirm with the RN when the dose should be administered.



- This classification of medications makes people photosensitive. Use sunscreen, sunglasses and hats when the individuals are going outdoors—summer or winter



Medication Classifications continued

Medications for Medical Conditions

Antibiotics

➤ Purpose:

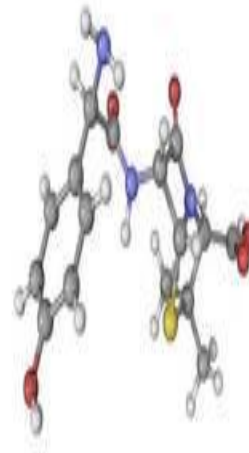
- Designed to destroy or prevent the growth of bacterial infections
- Acts by killing (bactericidal) or inhibiting the reproduction of bacteria (bacteriostatic)

➤ Precautions:

- Take cautions with allergies as antibiotics have a high risk of allergic reactions.
- Can increase photosensitivity. Use sunscreen if needed.

➤ General considerations:

- Must be taken until the prescription is finished.
- Must be taken exactly as prescribed.
- Check to see if medication needs to be given with food or on an empty stomach.
- Doses must be given evenly spaced throughout the day
- Follow storage instructions (some require refrigeration)
- Never use after the expiration date



Medication Classifications continued

Medications for Medical Conditions

Antihistamines

- Purpose: Used to reduce the symptoms of allergic reactions
Examples: Benadryl, Zyrtec, Claritan

Antitussives

- Purpose: Suppresses cough reflex
Examples: Robitussin, Phenergan with Codeine

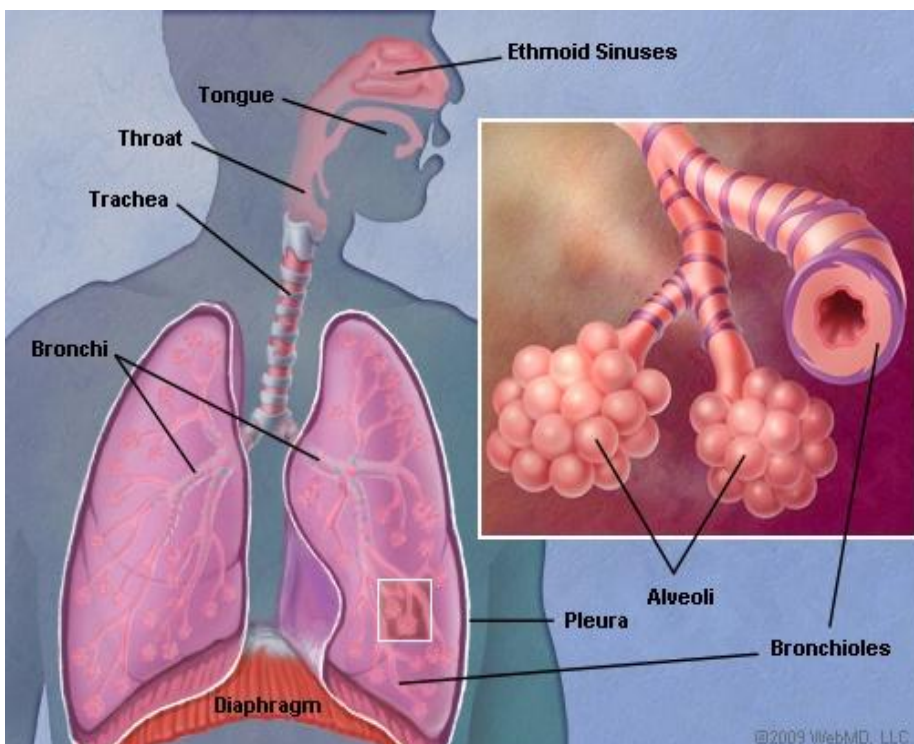
Expectorants

- Purpose: aids in removal of secretions of the throat or lungs
- Example: Mucinex, Robitussin Chest Congestion

Bronchodilators

- Purpose: Used to open the bronchial tubes which open air passages to the lungs to increase the flow of air.
- Health Disorder: Asthma
 - Inflammation of the breathing passages.
 - can cause shortness of breath, tightness in the chest, wheezing, difficulty breathing.
 - Triggers can be quality of air breathed, smoke, cold and URI

Example: Ventolin, Serovent



Medication Classifications continued

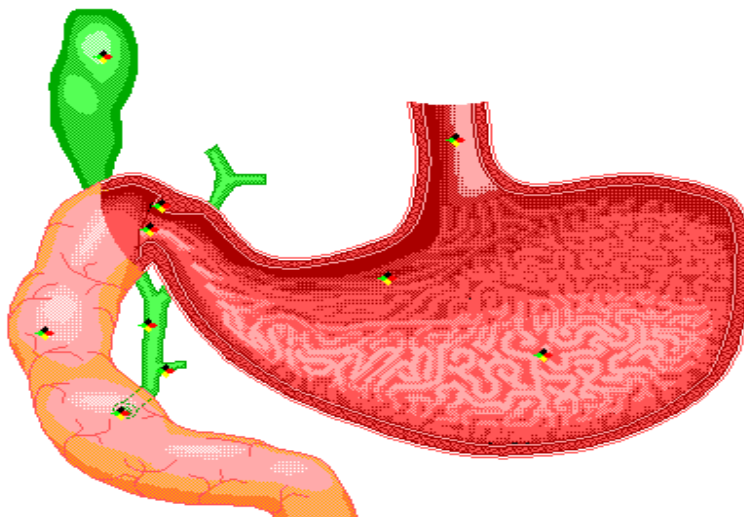
Medications for Medical Conditions

Histamine Blocker

- Purpose: medications that help prevent the production of stomach acid.
 - ↓ the process of absorbing food for nutrition
 - Slows down the process of medication metabolism keeping more medication in the system which could lead to med toxicity.
- GERD (gastroesophageal reflux disorder)
 - Contents of the stomach back flow up into the esophagus.
 - One key reason for ordering this category of medications
- Medications that can make GERD worse:
 - Smooth muscle relaxants (like bentlyl)
 - Opioids (like MS Cotin, darvon)
 - Calcium channel blockers (like Norvasc, Cardizeum)
 - Theophyllin
 - Caffeine.
- Proton Pump Inhibitors
 - Medications for GERD that ↓ gastric acidity thus reducing the acidic environment in the stomach
 - By reducing acidic environment (acidity helps to kill bacteria that get into the stomach) can cause increased risk of pneumonia
 - Examples: Prilosec, Prevacid, Nexium

Antacids

- Purpose:
 - Medications that counteract the acid in the stomach.
 - Medications don't block the stomach from making acid but makes the stomach acid less acidic.
 - Examples: Mylanta, Maalox, Tums



Medication Classifications continued
Medications for Medical Conditions

Medications that work with the Cardiovascular System

Cardiovascular disease (definition)

- conditions or diseases of the heart and blood vessels in general.

Examples of cardiovascular diseases

- coronary artery disease (CAD)
- congestive heart failure
- stroke
- angina (chest pain)
- hypertension (high blood pressure)

Some medications may have **special instructions** (i.e. take pulse or blood pressure prior to giving medication.)



Medication Classifications continued
Medications for Medical Conditions
Medications that work with the Cardiovascular System

➤ There are 7 classifications of medications in this category

○ **Diuretics**

- Helps remove excess fluid from tissues.
- Best given in the morning so sleep is not disturbed
- Along with the fluid, can lose potassium from the body.
 - Give foods high in potassium
 - Banana, orange juice
 - potato skin, leafy vegetables
 - dark green vegetables



- Example: lasix, hydrochlorothiazide, spironolactone

○ **Antiarrhythmics**

- Medications used to help the heart beat a normal rhythm.
- Example: Pronestyl, Norpace, Cardioquin

○ **Anticoagulants**

- Used to prevent or decrease blood clot formation
- **Precaution:** watch for bruising, nose bleeds
- Antagonistic effect when given with Vitamin K
- Example: Coumadin, Miradon

○ **Cholesterol lowering medications**

- Lowers the level of cholesterol in the arteries/blood
- Check directions. Many may not be taken with grapefruit or grapefruit juice
- Example: Lipitor, Zocar, Mevacor

○ **Vasodilators**

- ↑ blood supply to tissues with a poor blood supply by dilating vessels.
- Example: Loniten, Apresoline

○ **Antihypertensive**

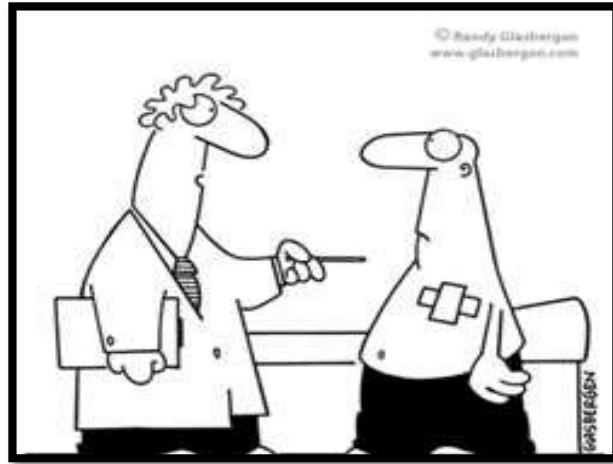
- Lowers blood pressure
- Example: Accupril, Cogard, Cardizeum, Tenex
- Considerations: monitor blood pressure as directed.

○ **Digitalis preparation**

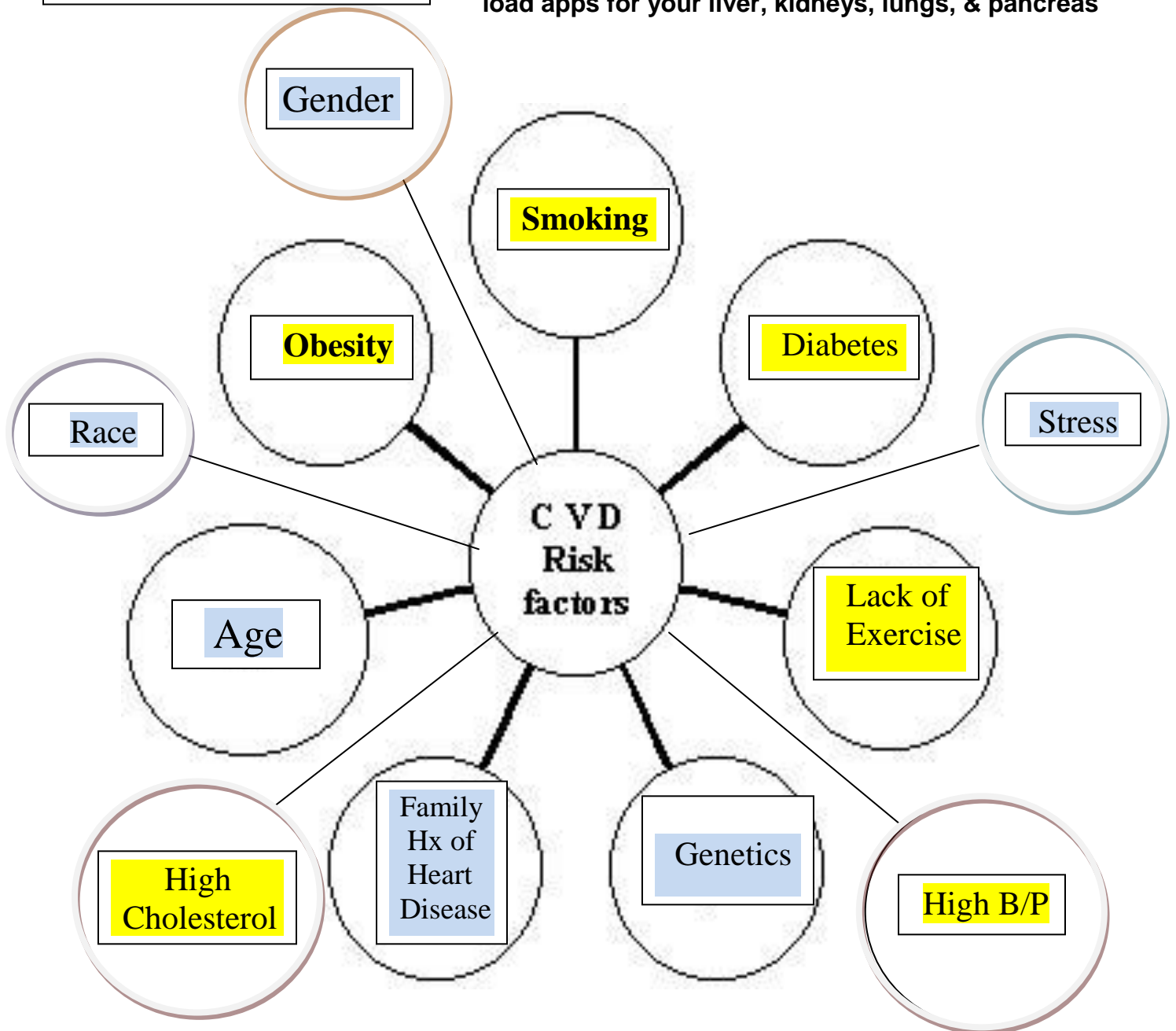
- Slows the beat and strengthens the heart
- **MUST** take pulse before giving. Do not give if pulse under rate of 60.
- **Signs of Digitalis Toxicity:** loss of appetite, nausea, vomiting, confusion, depression, irregular pulse, vision changes (blurry)

CVD - Cardiovascular Disease Risk Factors

Which factors can be changed and which cannot?



It's a pacemaker for your heart, plus you can download apps for your liver, kidneys, lungs, & pancreas



Medication Classifications continued

Medications for Medical Conditions



Constipation

- Definition: Decrease in the frequency of stool or difficulty in the formation or passage of stool.
- Common causes or things effecting the ability of the GI system to function properly for persons with developmental disabilities:
 - Not enough fiber or liquids in the diet
 - Lack of exercise
 - Medications
 - Pain medications (especially narcotics)
 - Antacids that contain aluminum and calcium
 - Antihypertensive medications
 - Antispasmodics
 - Antidepressants
 - Antipsychotics
 - Iron supplements
 - Diuretics
 - Anticonvulsants
 - Long term laxative use without proper fluid intake
 - Certain diseases
 - Postural patterns (way you sit)
 - Extension or Flexion asymmetrical
 - Immobility
 - Dysphagia secondary to neurological problems

Cathartics/Laxative

- Medications that induce defecation or bowel movements.
- Examples: Dulcolax, Milk of Magnesia
- Steps to follow:
 - RN will consult with the authorized prescriber for a bowel regime.
 - Order will be obtained for the laxative of the prescriber's choice
 - i.e. Milk of Magnesia 30 cc po q 3 night if no BM during that time.
 - Accurate documentation of the BM pattern needs to be done so medication can be given properly. (Bowel Movement record **must** be accurate)
 - Additional orders you might see are for
 - Fiber tabs
 - Increased fluids
 - Increased exercise

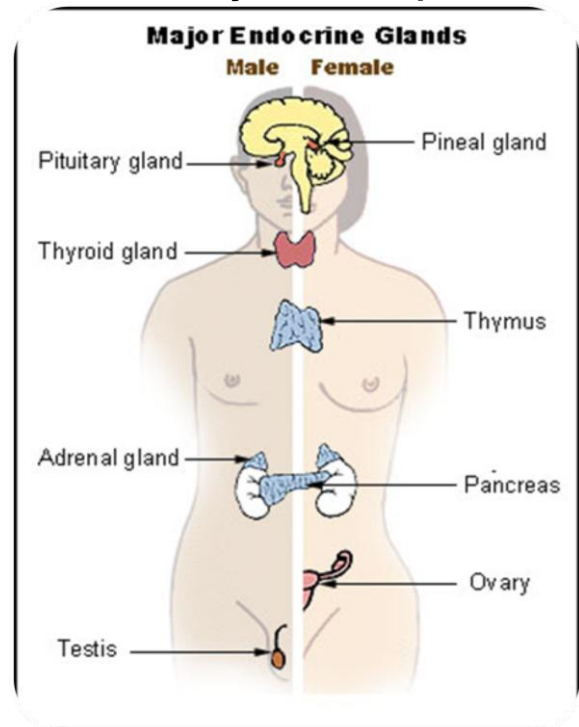
Medication Classifications continued

Hormonal Medications

Hormonal Medications

- Medications used to replace hormones that the body does not produce.

The chart to the right shows the major endocrine glands in our body for which some medications might be prescribed to help perform the function they are supposed to do.



Diabetes

- A chronic (lifelong) disease marked by high levels of sugar in the blood.
 - Insulin is a hormone produced by the pancreas to control blood sugar.
 - Can be caused by too little insulin, resistance to insulin or both.
 - Type 1—Known as Juvenile Diabetes
 - Type 2—Known as Adult Onset
 - Symptoms
 - Increased thirst
 - Increased urination
 - Excessive hunger
 - Weight loss
 - Treatments
 - Diet and exercise
 - Oral medications such as
 - Glucophage
 - Glucotrol
 - Injectable forms would be insulin.
- Certified Non-licensed personnel can never give injectable medication



"I think diabetes is affecting my eyesight. I have trouble seeing the consequences of poor food choices."

Medication Classifications continued

Hormonal Medications continued

Hypothyroidism

- A condition where the body lacks sufficient thyroid hormone.
- Purpose of the thyroid gland is to “run the body’s metabolism.”
- Cause: autoimmune thyroiditis (inflammation of the thyroid gland caused by the person’s own immune system)
- Symptoms if hormone is not sufficiently present in the body:
 - Weight gain
 - Dry skin
 - Yellow skin
 - Mood changes (usually depressed)
 - Hair loss
 - Swelling of extremities
 - Hoarse/raspy voice
 - Constipation
 - Fatigue/tiredness
 - Slower speech/trouble with remembering things

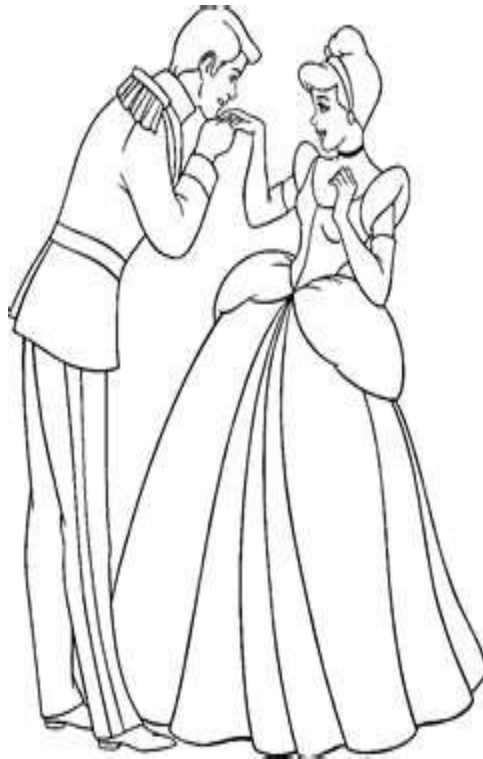


Medication Classifications continued

Hormonal Medications continued

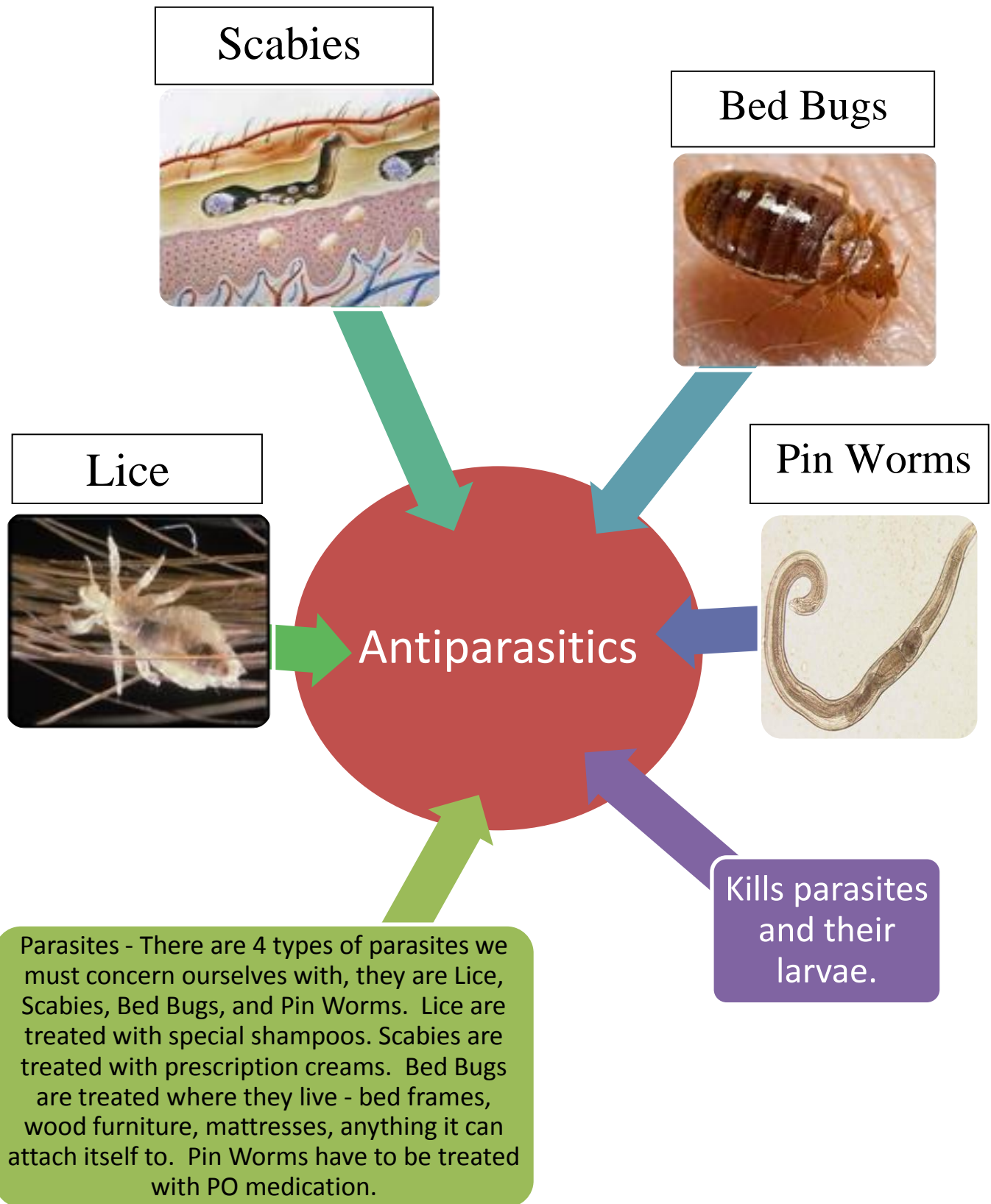
Sex hormone

- **Steroid** that control sexual maturity and reproduction
- **Produced** mainly by the endocrine glands
 - In females in the ovaries they produce estrogen & progesterone
 - In males in the testes they produce Testosterone
- **Sex hormones**
 - Synthesized from cholesterol & other compounds
 - Secreted throughout our lifetimes at different levels.
 - Increased at puberty
 - Normally decreases with old age
- Medication **examples**
 - Females: birth control pills, premarin, depo provera, estrogen
 - Males: Testosterone (comes in the form of gels or injections)



Medication Classifications

Parasites



Medication Classifications

Osteoporotics

Osteoporotics

➤ Osteoporosis:

- Condition characterized by weak and brittle bones which can break easily
- People with developmental disabilities may be at a general increased risk due to damage to movement centers of the brain which results in abnormal coordination of muscle action affecting the health of bones and muscles.
- At high risk/increased risk:
 - People with Prader-Willi syndrome
 - May have lower tone and movement of oral-facial muscles due to lower levels of sex hormones which help maintain strong bone.
 - People with PKU disorder
 - cannot have any products or foods that come from animals.

➤ Purpose of medications: increase bone strength/density

➤ Examples of medications:

- Calcium supplements
- Fosomax
- AcetoneI
- Reclast

➤ Precautions:

- Take with 6-8 ounces of water.
- Do not lie down for 30 minutes after taking.
- Nothing to eat or drink for 30 minutes after taking the medication
- Report chest pain or difficulty swallowing.
- Increased risk for upper GI (gastro-intestinal) bleeding.

Factoid FYI only - People with Prader-Willi Syndrome may have unusual reactions to standard dosages of medications and anesthetic agents. Use extreme caution in giving medications that may cause sedation: prolonged and exaggerated responses have been reported.



Medication Classifications Matching Skill

Match the medication classification listed in Column B with its description in Column A	
Column A	Column B
___ Used for its calming effects.	A. Anxiolytics
___ Used to increase blood supply to poorly perfused (poor blood supply) tissues.	B. Neuroleptics / Anti-psychotics
___ Used to control seizure disorders.	C. Diuretics
___ Induce defecation/bowel movements.	D. Anti-epileptics
___ Used to treat anxiety, tension, nervousness.	E. Antibiotics
___ Suppresses cough reflex.	F. Hypnotics
___ Treat psychotic behavior	G. Sedatives
___ Used to treat depression.	H. Anti-tussives
___ Treat high blood pressure.	I. Anti-hypertensives
___ Medications that treat Bipolar Disorders	J. Cathartics
___ Rids the body of excess fluid.	K. Anti-depressants
___ Used to produce sleep.	L. Analgesics
___ Relieve pain without producing a loss of consciousness.	M. Mood stabilizers
___ Designed to destroy or prevent the growth of bacteria.	N. Vasodilators



Practice Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



Session 6

1. Always Chart with the Court in Mind
2. Medication Errors – What Do You Do
3. Objective vs Subjective
4. 255m – Medical Incident Report
5. Classification of Medication Errors
6. What is a Dose
7. Multiple Dose & Single Dose
8. LOA Sheet
9. Destruction of Medications
10. Destruction Sheet
11. Role of Non-Licensed Personnel

At the end of this module, the student will be able to:

- Discuss 9 things you should always do when documenting since the chart is a legal court document.
- Identify who should be called regarding any medical/medication errors.
- List the 9 things you should never do when documenting.
- Explain the difference between an objective and subjective statement.
- Describe the process to follow if you find or are involved with a medication error.
- Discuss the difference between a class A, B and C medication error.
- Give an example of what is meant by a dose of medication.
- Explain options available if multiple doses of medications are required during an LOA.
- Identify the steps to take for a single dose LOA.
- Review the process for transferring medications between the home and other work/day service or staffed facility.
- Explain the process for destroying non-controlled and controlled medications.
- Discuss 8 key points involved in the role of the non-licensed personnel staff regarding medications.



Practice Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



You must always chart with the court in mind!



Notes must be **legible**, written with **clarity**, using proper **identification**, and be **descriptive**. You should always chart **objectively** (what you see, hear, feel, and smell). If you chart what the person tells you- eg; how they feel, that would be charting **subjectively**. Remember, DDS can come into your house at any time and look at all your books, files, etc. Therefore you must make sure what you write is the “truth and nothing but the truth”. **A client’s record is a legal document.**

Always

- | | |
|--|--|
| ➤ use black or blue ink | ➤ describe situations clearly |
| ➤ write legibly | ➤ initial on MAR |
| ➤ Fill out 255m in 24 hours | ➤ document any PRN's with effect |
| ➤ note time & date of documentation | ➤ 2 checks for newly transcribed orders |

Call Nurse Regarding any Errors

☠️ Never ~

- | | |
|---|---|
| ☠️ use white out or erase | ☠️ use vague terms |
| ☠️ try to obliterate the mistake | ☠️ use unapproved abbreviations |
| ☠️ take a telephone or verbal order from a doctor | ☠️ leave a blank space for someone else to use |
| ☠️ chart subjectively — <u>only chart if</u> the person experiencing the feeling knows – i.e. pain | ☠️ use one person’s name in another person’s notes |
| ☠️ rewrite a note to cover up an error | |

Remember – If it is not charted, it did not happen!

Objective vs. Subjective

As a direct care staff you must have good observational skills. You will be required to report all of your observations. All **reporting** must be done **objectively**.

Objective information is:

Observable: able to be seen, heard or touched, smelled, tasted

factual

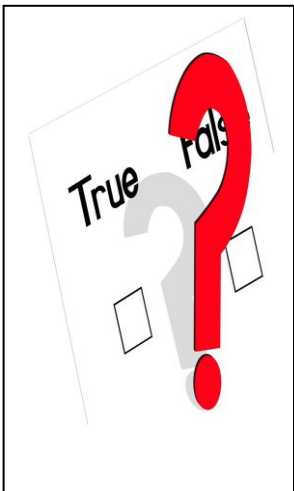
able to be counted

able to be described

able to be imitated

the same from multiple reporters

as close to truth as we can get



Subjective information is:

Something that only the person experiencing it can truly know.

opinion

interpretation

assumption – You can assume

the person has stomach pain because you can see him holding his stomach and crying,

BUT you cannot see the pain.



Medication Administration

True / False Answer Sheet

1. To administer ear drops you pull the pinna down and back for an adult. _____
2. Oral medications take 30-60 minutes to work. _____
3. You always put a cotton ball in the ear after administration. _____
4. The Sims position is for the administration of vaginal meds. _____
5. You can warm ear medication by rolling the container in your hand. _____
6. Lotion is applied using light smooth strokes. _____
7. When using ointment for the eyes ask the person to gently massage eye. _____
8. The consumer should rinse their mouth after using inhaler. _____
9. An enteric coated tablet should be crushed before giving. _____
10. Sprinkles should never be chewed. _____
11. Transdermal medications are absorbed through the skin. _____
12. To give medications on a empty stomach, administer 1 hour before or 2 hours after the meal. _____
13. To administer nose drops place the dropper ½ inch into the nostril. _____
14. Sublingual medication absorbs into tissues slowly. _____
15. Syrups can be given to anyone since they are so effective. _____
16. If 2 puffs are ordered from an inhaler do both very quickly so the medication can get into the lungs. _____
17. If you must break a pill in half save what you don't use and administer it for the next dose. _____
18. Prolonged use of a nasal mist can cause rebound congestion when stopped. _____
19. Your house manager will instruct you on how to administer meds via G- tube. _____
20. Giving any medication is a Nurse delegation. _____

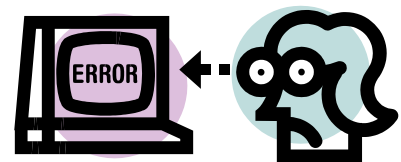
Medication Errors – What Do You Do?



If a medication error does occur:

- The first thing you do is **call your nurse**.
 - Be prepared to follow her instructions and/or your agencies policies.
- **Fill out a 255m** (a medication incident report)
 - **MUST** be done within 24 hours and submitted to DDS.
- If the consumer must go to the hospital due to the error
 - DDS must be notified within 48 hours.
- When there is a med error
 - monitor the person closely for any adverse effects.
- Agency policy will be followed for corrective action in the event a staff makes more than 3 med errors during a one-month period.
- If a consumer refuses a medication, this is not a medication error.
 - You would fill out a 255 Incident Report to document the incident.
 - Do not fill out a 255M.

**When charting never erase or use “white-out” on mistakes.
Simply draw a single line through error, date and initial.**



State of Connecticut DDS – Medication Error Report - 255m

1 - Client Name*: _____ **DDS#:** _____ **DDS Case Mgr Name:** _____

Med Error(s) **Initial incident** Date: / / Time: : : Am Pm

Med Error(s) **Corrected** Date: / / Time: : : Am Pm

Responsible **Provider:** _____ Date of this **Report:** / /

Responsible **Program*:** _____ Res, Day, Other Rdid#: _____

If **not** directly at responsible program*: COMmunity, Fam Home Visit, RECreation/leisure, VEHicle, OTHer: _____

2 - Unusual: Medication Error Type* (check one only)			
<input type="checkbox"/> Med Charting Error	<input type="checkbox"/> Med Transcription Wrong Dose	<input type="checkbox"/> Med Transcription Wrong Time	<input type="checkbox"/> Med Wrong Medication
<input type="checkbox"/> Med OMission	<input type="checkbox"/> Med Transcription Wrong Med	<input type="checkbox"/> Med Wrong Client	<input type="checkbox"/> Med Wrong Route
<input type="checkbox"/> Med Order Expired	<input type="checkbox"/> Med Transcription Omission	<input type="checkbox"/> Med Wrong Dose	<input type="checkbox"/> Med Wrong Time
<input type="checkbox"/> Med Transcription Wrong Client	<input type="checkbox"/> Med Transcription Wrong Route	<input type="checkbox"/> Med OTHer Error: _____	

3a – Errors	Dose*	Error Description*	Start Date*	Total
Medication/Treatment*	Time*		Last Date*	Errors
	: <input type="checkbox"/> Am <input type="checkbox"/> Pm		<u> </u> / <u> </u> / <u> </u>	
	: <input type="checkbox"/> Am <input type="checkbox"/> Pm		<u> </u> / <u> </u> / <u> </u>	
	: <input type="checkbox"/> Am <input type="checkbox"/> Pm		<u> </u> / <u> </u> / <u> </u>	
	: <input type="checkbox"/> Am <input type="checkbox"/> Pm		<u> </u> / <u> </u> / <u> </u>	

3b - Reason/Explanation for error:

Copies attached: Medication Administration Record(s), Physician Order(s), Other: _____

If Dose **Rescheduled**: Original Date / / Original Time : : Am Pm Rescheduled Date / / Rescheduled Time : : Am Pm

Medical **Treatment** Required (due to Med Error)?: Yes No (if yes, a client incident report #255 must also be completed)

Nurse/Medical **Notified**, Name: _____ Date: / / Time: : : Am Pm

Name of the **PERSON RESPONSIBLE** for the **ERROR** written on the bottom of the **SUPERVISING RN COPY ONLY!!**

Reporter's **Name/title:** _____

Reporter's **Relationship** to client: Family, Abuse / Neglect suspected?: Yes No, if "yes"; **Reported:** / / to: _____

Self, Staff, Other: _____ **Person Completing form Signature:** _____

4 - Administrative Review/Follow-Up			
Prescriber Notified: Name: _____ Date: <u> </u> / <u> </u> / <u> </u> Time: <u> </u> : <u> </u> : <u> </u> <input type="checkbox"/> Am <input type="checkbox"/> Pm			
Guardian/advocate Notified (as appropriate): _____ Date: <u> </u> / <u> </u> / <u> </u> Time: <u> </u> : <u> </u> : <u> </u> <input type="checkbox"/> Am <input type="checkbox"/> Pm			
Review	Comment	Signature	Date
Primary Care Nurse			
Staff Supervisor			
RN Supervisor			
Other:			
<input type="checkbox"/> Error due to Staff Action/Inaction, <input type="checkbox"/> Omission Unavoidable (late returning from family home, etc), <input type="checkbox"/> Other: _____			

Client file, DDS data entry, Supervising RN (*)=CAMRIS fields, CAMRIS entered on / / by: (rev 7/24/09 th)

5 - Name(s)/Title(s) alleged to be Responsible for error(s), or write "UnKnown":	

Classification of Medication Errors

Class A - Documentation Errors



Failure to document according to procedures.



Failure to submit required documentation relative to medication errors.



Failure to order/document all medications ordered from pharmacy.



Failure to secure/maintain keys according to established procedures.

Class B – Violation of Rights

Violation of any of the 5 Rights (i.e. proper med, dose, time, route, or client)



Errors in time generally mean med given more than 1 hour before or after the scheduled time ordered or a PRN med given too early.



Use of prohibited techniques (i.e., unlicensed staff taking verbal orders, improper storage or destruction of medications).

Class C – Most Serious Errors



Errors resulting in death or serious injuries to a consumer (i.e., hospitalization, injury requiring medical treatment)



Falsification of records and/or certification paper work.



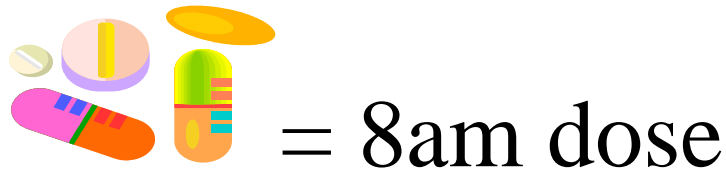
Administration of medication when certification has expired or has been suspended.

Corrective action will be taken if three (3) errors are made within 30 days from the first error. With each error there must be a retraining

A Dose of Medication

A dose is the amount of medication to be administered at one specific time. It makes no difference how many pills you take, just the time of the day that you take the medication.

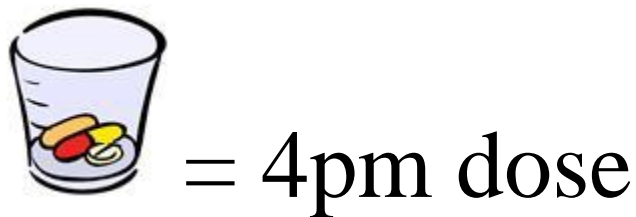
A client takes 5 Medications to be given at 8am that is the 8 am **dose**



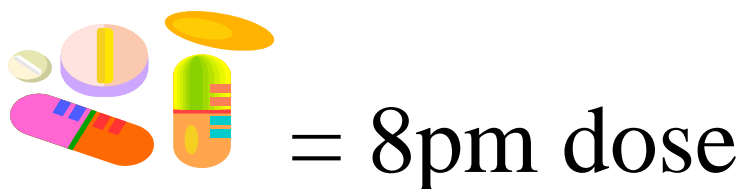
He also has 1 Medication to be given at Noon that is the noon **dose**.



There are 3 Medications to be given at 4pm that is the 4 pm **dose**.



There are 5 Medications to be given at 8pm that is the 8 pm **dose**.



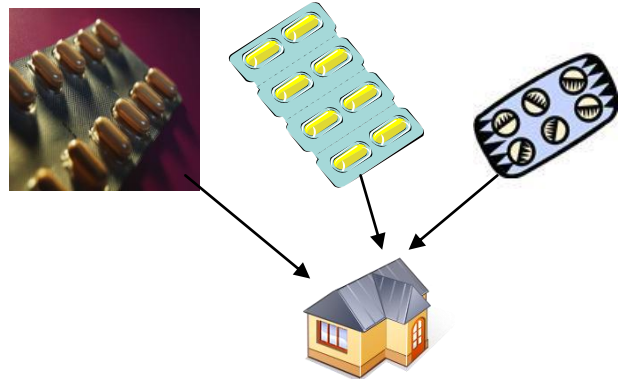
Multiple Dose of Medication
to be administered in locations
other than the person's home
Leave of Absence/LOA Policy

When **multiple doses** of a given medication are required to be administered to an individual at a location other than their home, one of the following procedures shall be followed:

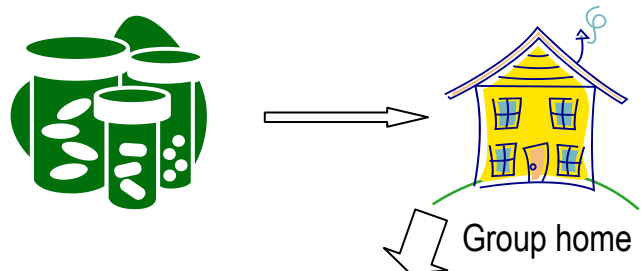
- An authorized prescriber may write a separate Rx in the required number of doses and give that prescription to the person authorized to give the medication at another location.



- Each medication container stored in the home for individual's may be transported to the other location and/or given to the person's authorized to administrator medications at that location. An LOA sheet will accompany the medications.



- A separate pharmacy, or manufacturer, packaged and labeled medication container may be kept at each location.



Other location
(such as family home or family vacation)

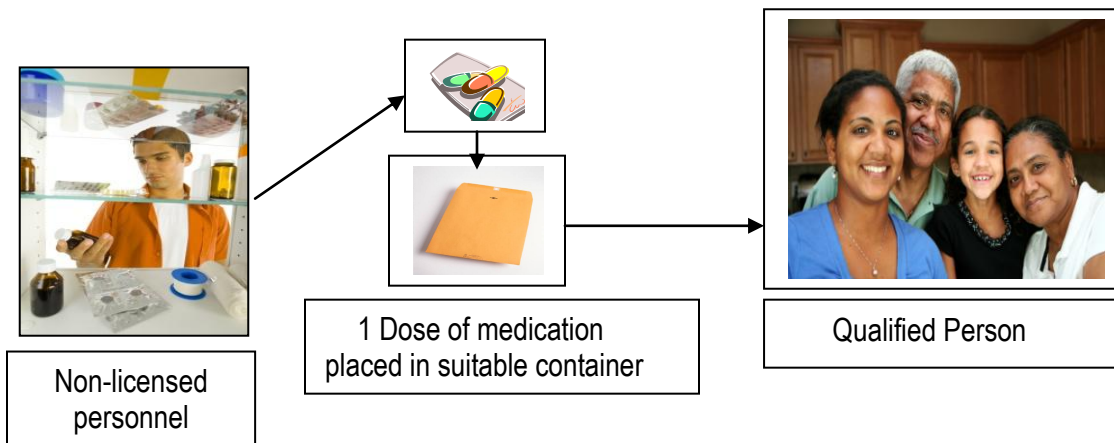
Single Dose of Medication

to be administered in locations other than the person's home

Leave of Absence/LOA Policy

When a single dose of medication is required to be administered to an individual at a location other than their home (**not including work/ day service**):

- Certified non-licensed personnel will place the single dose in a suitable container (small manila envelope) and ensure that it is given to the person authorized to administer the medication at the other location.



- The container **must be labeled** with the individual's name, the name of the medication, strength and the scheduled time, date, and route for administration.



- Only certified non-licensed personnel are permitted to prepackage medications.

Medications being transferred from home to work / day service or other staffed facility

When medications are required for an individual at an alternate staffed location, i.e. work, day service, camp, the following procedure will be followed;

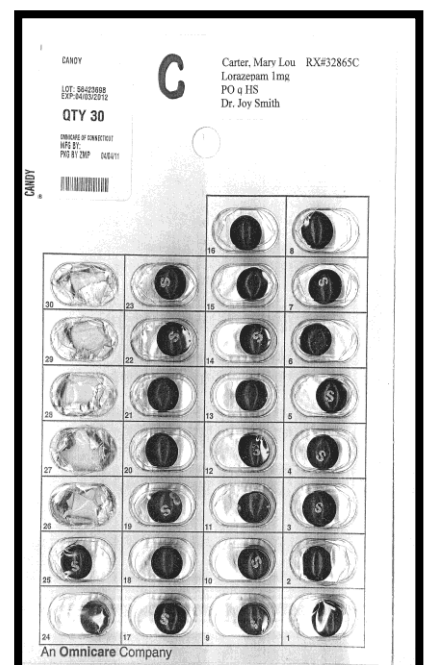
- Certified Non-licensed personnel may pre-package a single dose as described previously



- A separate pharmacy or manufacturer labeled container is required for multiple doses of medication\

General information for transfer of medications from med certified staff to med certified staff.

- Only certified non-licensed personnel may transport these medications.
- Security of these medications is the responsibility of the transporting staff until they are accepted at the alternate site.
- Only certified non-licensed personnel are permitted to accept medications.
- A transfer of responsibility form must be completed and signed by the person sending and receiving the medications.



**Medications to be administered by
Certified Non-licensed personnel
on a Recreation Trip/ Outing**



- If a staff person is taking the individual on an outing that will require only one dose of medication to be given, they may prepackage one dose of medication, as described previously.
- **Certified Non-licensed personnel who prepackages the medication must be the person who administers the medication.** The only exception to this is in facilities where licensed nurses routinely give the medications. In those facilities the licensed nurse may package the one dose and give it to the certified non-licensed personnel to administer.
- If more than one dose of medication is required for the outing then pharmacy labeled containers must be taken on the outing along with the MAR.
- Security of the medications must be maintained at all times when on the outing
- Your agency will instruct you in the manner in which they want the documentation of the administration to occur.

Transfer of Responsibility for Security & Administration of Medication

Consumer's Name: _____

Medication, Dose, and Special Instructions*	Prescription #	Amount of medication released	Amount of medication returned

Attach additional sheets as necessary

* Indicate if medications must be altered to meet consistency requirements

My signature indicates that I have reviewed the above information with the responsible person to whom I am releasing the medication and it is correct.

Signature of Person Releasing Medication

Date of release of medication

Time of Release

My signature indicates that I have received the medications for the identified consumer, in the amount listed above, that I understand the administration requirements, and that I assume full responsibility for:

- the secured transfer of medication from one site to another
- the security and the administration of the medication during the time the person is in my care

Signature of Person Receiving Medications

Return of Medications

My signature indicates that I am returning the above medication(s) in the amount identified

Signature of person returning medication(s)

My signature indicates that I have received the medication(s) in the amount identified.

Signature of Person receiving medication(s)

Date of medication return

Time of Return

Destruction of Medications

There are many reasons why medications have to be destroyed ~ client refusal, order expired, efficacy expired, unable to read label, spoiled, or client allergy. Whatever the reason, the state has regulations and protocol for destruction.

- **To destroy a medication** you must always have **2 people** ~ one to destroy and one to witness. (Check with your agency to see if a nonmed certified staff can be a witness.)
- A special destruction sheet must be filled out and signed by both parties.
- All medications are flushed down the toilet or disposed of in the garbage disposal or sink. Some pharmacies will do the destruction for you.

For controlled medications an RN with a staff person as a witness does the destruction.



Caution!

Do not sign the destruction sheet until you have seen the medication destroyed.

The Role of the Certified Unlicensed Personnel

The DDS Certified Non-licensed Personnel must remember

- Have respect for the job that you are doing.
- Administering meds will be one of the most important things you will ever be asked to do
- Always err on the side of caution.
- The consumers well being always comes first
- If the medication was not given during the hour window,
 - circle your initials
 - explain on the reverse side why the medication was not given or follow your agency policy/procedures for reporting and documentation.
- **Never leave the medication cabinet unlocked.** Each time you leave the area, **lock the cabinet.**
- If the person is unable to take the medication at the time it is poured, the medication must be labeled with the person's name, the medication, the dose, and time of administration, and your initials. It must be locked up in the medication cabinet until the person is ready to take the medication. **If not taken within one hour of the prescribed time, notify the agency nurse, destroy the medication(s) if ordered to do so, and document per agency policy.**



“Examples of Prohibited Practices”

1. No pre-pouring.

- a. Example: You are working 11-7am, things are quiet. You decide to get all your meds ready for the AM.
- b. Reason: This is **incorrect**. You can only prepare one persons meds at a time and they should be prepared no soon than 1 hour before administration.

2. Medications are only to be used by the consumer.

- a. Example: A staff has a terrible headache. They do not have any pain relief medication with them. One of the consumers has a stock bottle of Advil with a PRN order. Can you use that medication for staff?
- b. Reason: No. Under no circumstances are you to use a consumers meds for anyone else except the designated consumer.

3. Access to med closet keys and codes

- a. Example: Another non-med cert staff member wants to get a topical medication out of the med cabinet.
- b. Reason: No. You do not give them the code or key. Only med cert staff should have access to the med closet keys or codes. The codes should not be posted on the bulletin board or any other place that is accessible to consumers or non med cert staff.

4. You must be on paid duty to administer medications.

- a. Example: You are on vacation and the group home that you work is having a party, they ask you to come. Can you administer meds while you are there?
- b. Reason: No. You cannot handle any meds while you are there. Even though you have given those meds a hundred times, you are there in the capacity of a guest – not a staff





Practice

Session



Practice Makes Perfect

Practice
Again



Practice, Practice, Practice



Session 7

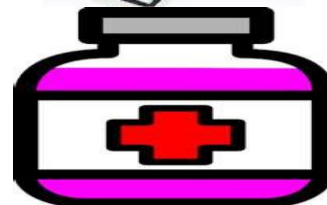
1. Exam (45 minutes) and review
2. General Instructions for Safe Medication Administration
3. Medication Therapy and the Elderly
4. How Medications get to the Sites
5. Random Medication Facts
6. Pharmacy Facts
7. Don't Forget
8. Considerations for Developmental Conditions
9. Agency Specific Information

At the end of this module, the student will be able to:

- Discuss the 9 things to remember for safe medication administration.
- Explain how body composition, GI Function, Hepatic function and kidney function can impact medication therapy in the elderly.
- Identify the impact having a diagnosis of Down's Syndrome can have on a person's general health needs.
- Review the process of storing medications for person's who self-administer medications.
- Give an example of how external and internal medications should be stored.
- Review the steps to take if a person does not take their medications at the time for which they are scheduled.
- Discuss the process of how medications can get to a site.
- Review the pharmacy facts regarding medications:
 - Pre-printed med kardex
 - Written orders
 - Staff who can accept medications & associated responsibilities
 - Process regarding OTC medications
 - Documentation on Receipt and Disposition form.
 - Persons who can alter a med label.
- Review the "Don't Forget" facts related to the medication process.

General Instructions for Safe Medication Administration

- Before administering any medication **Wash Hands** thoroughly with soap and water.
- Read order carefully - if any questions call your nurse.
- If the client exhibits any side effects (ie: skin rash, hives, swelling of the face or restlessness) call your nurse. If there is difficulty breathing call 911.
- Make sure you identify all of the client's allergies and if they have an auto injectable epinephrine device order.
- Prescription medications are never shared.
- Even OTC medications need to be labeled and an order from the authorized prescriber.
- If a client says "These aren't my meds," take the time to double check.
- Check expiration dates.
- Keep medications in the refrigerator only if they are clearly marked "Store in the Refrigerator" or "Refrigerate"
- If the medications are not the same size or color as usual, call the pharmacist.



Special considerations for medications and the elderly:




- Physiological changes occur as people age that may change how their body is able to utilize the medications they take.
- These changes may alter the amount of a medication dosage they need to take or change their reactions causing some common adverse reactions.
- With aging, there are age-related changes which may alter the therapeutic and side effects of a medication.
- Examples of Physiologic Changes Due To Age:
 - **Body Composition:** Proportions of body fat, lean tissue, and water in the body change as they age. The proportion of body fat tends to increase. Although different from person to person, these changes can effect how the drug is distributed in the body.
 - **GI Function:** There is a decrease in gastric acid secretion and the peristalsis (movement of the intestines) slows down. This also decreases the GI motility and accounts for the slower emptying of the stomach's contents and the movement of intestinal contents through the entire GI tract.
 - **Hepatic Function:** The blood flow to the liver is diminished as we age causing the liver's ability to metabolize (break down) certain medications to decrease. A decreased hepatic (liver) function can also lead to increased risk of drug toxicity or dangerous levels of the medication in the body.
 - **Kidney Function:** Even though kidney function can be sufficient to eliminate excess water and waste, it can be difficult for the body to eliminate certain medications. If the kidney's ability to excrete the drug is decreased, high concentrations in the blood may occur.
- Things to consider when administering medications to the elderly:
 - Many people think that lethargy and confusion are a normal part of the aging process. This is not so. Most often this can be attributed to an adverse medication effect or over medicating.
 - Nutrition is very often deficient in the elderly. Good nutrition is essential.
 - Adverse drug effects occur almost twice as many times in the elderly than in younger people.
 - All medications, **including** over-the-counter medications, should always be included in a medical history taken by the authorized prescriber or nurse.
 - Due to loss of teeth (edentulous) and dentures, the elderly may be prone to dysphagia. Medication forms may need to be altered to accommodate administration

People with Down's syndrome may have mental and physical aging up to twenty years beyond the chronological (actual) age, therefore, the same precautions of administering medications to the elderly must be considered. People with Developmental Disabilities can experience an alteration in the metabolism of a medication.

Here is a picture of an older woman out for some sun. Let's review some of the changes in her body.

- Because of the changes in her **Body Composition** she has on a hat and coat. Proportionately she has less body fat to keep her warm, but remember that everyone is different.



- You can't see it but her **GI Function**  has decreased. Why? Her appetite may not be as good as it used to be and all gastrointestinal movement has slowed down.
- **Hepatic (Liver) Function**  has also decreased, so meds and food are not being metabolized (broken down) as they should be.
- The decrease in **Kidney Function**  will prevent medication from being eliminated from the body. This can cause toxicity (dangerous levels of medication levels in the body).

Fact to remember – Due to the good health care our consumers receive they are living longer and healthier lives. But that means our population is aging and we must be mindful of what problems increased age can bring.

Random Medication Facts

- **Never** give a medication that someone else has poured
- Medications for those persons who self-administer shall be stored in a manner that makes them inaccessible to others. The supervising nurse can make determination about the specifics. See agency policy on self administration of medications.
- **Internal** medications and **external** medications must be **stored separately**.
- If the person is unable to take the medication at the time it is poured, the medication must be labeled with the person's name, the medication, the dose, and time of administration, and your initials. It must be locked up in the medication cabinet until the person is ready to take the medication.
- **If not taken within one hour of the prescribed time:**
 - **notify** the agency nurse for further instructions
 - **destroy** the medication(s) if so instructed
 - **document** on the MAR and other agency required documents.
- A **new order** is entered into the Medication Administration Record (MAR) by certified staff immediately after approval received from the RN. The outcome should be the person receives the medication on time.



How Medications get to the Sites

When an authorized prescriber writes an order,
the first thing that has to happen is it must get to the Pharmacy

The **authorized prescriber** can:

- Give the staff a prescription and order after the person's exam.
- Call the order in to the pharmacy.
- Fax/electronically send the order to the pharmacy.



A **staff member** can:

- Take the prescription to the pharmacy.
(Must have original for group home.)



The pharmacist checks the prescription and fills the order.



The **certified staff** can:

- Pick up the medication at the pharmacy after the authorized prescriber has called or electronically sent the prescription to the pharmacy.
- If med certified staff dropped off the prescription, they can wait until the prescription is filled then take it back to the home. **Remember** only certified med staff can pick up a medication at the pharmacy and transport it to the home.



Fact:
An order cannot be faxed
from the home or a day program
to the pharmacy.



Pharmacy Facts

- The residence will receive preprinted authorized prescriber orders along with matching kardex every month.
- Certified staff cannot give a medication unless they have the written order.
- Staff must be med certified to accept meds when delivered from the pharmacy.
- Certified staff must sign the delivery receipt. The person signing **must always** make sure that everything listed on the receipt is in the delivery.
- Certified staff must verify meds delivered by checking the label against the authorized prescriber's orders then store them properly.
- All medications, even OTC (over the counter) medications, must have a label. OTC medications can simply say "Check original authorized prescriber's order"
- Call the pharmacy if you have any questions regarding medications.
- Colors and shapes of medications can change.
 - The pharmacy will purchase from the least expensive vendor.
 - If the medication has changed, there should be a label on the medication telling you that the color or shape has changed.
 - If there is any doubt, check with the pharmacy.
 - Notify the RN if any change in response to medication seen when changes in color or shape occur.
- Always check medications for their expiration dates.
- The pharmacy will usually send you the "Receipt and Disposition" form when they send a controlled substance.
- The pharmacy may label the control blister pack in some way to make you aware.
- Only the pharmacy can change, write on or alter a label.
- Staff can ask the pharmacy to send/fax you information sheet with each new medication.

Don't Forget

- After you count the controlled meds **Don't Forget** to sign the Shift to Shift sign off sheet.
- Scheduled meds have an hour window. **Don't Forget** you can give the medication 1 hour before the time and up to 1 hour after the scheduled time.
- **Don't Forget** to call your nurse if you are outside of the administration window. The nurse is the only person that can give you permission to give the meds.
- All medications must be stored in their original containers – **Don't Forget.**
- Only those authorized to administer medication can have access to the med cabinet and **Don't Forget** that includes medication keys or codes.
- **Don't Forget** to get an authorized prescriber's order before you crush a medication.
- When using an applicator for nose and vagina - **Don't Forget** to clean it after every use.
- Never leave the medication cabinet unlocked. **Don't Forget** - Each time you leave the area, lock the cabinet.
- **Don't Forget** to carry your certification card with you whenever you are responsible for passing medications. You cannot administer medications without a valid certification card in hand.



Disorders/Syndromes often found in people with Developmental Disabilities

Not required to be known for the test.

Cerebral Palsy-- May have some of the following characteristics: altered muscle tone, some level of MR or learning disability, visual disturbances, seizure disorders, feeding problems/dysphagia, respiratory complications, cardiovascular risks.

Down syndrome-- May have some of the following characteristics: MR, heart defects, ophthalmic problems, hearing loss, hypothyroidism, obesity, gum disease or malocclusion, various skin conditions, partial dislocation of the upper spine, early Dementia/Alzheimer's Disease

Fragile X Syndrome-- May have some of the following characteristics: hyperactivity/impulsivity, ADHD, aggression/anxiety, spectrum of Autistic like functioning, mild to moderate MR, orthopedic problems, dental crowding and malocclusion. Recurrent sinus infections and otitis media are also common.

Prader-Willi Syndrome-- May have some of the following characteristics: Mild to Moderate MR. Will have thick viscous saliva which contributes to dental caries and speech articulation defects, temperature control problems a high pain threshold (May scratch and pick at their skin to the point of self-injury), hypotonia which may result in scoliosis or kyphosis, eye muscle problems, and obesity due to hyperphagia/lack of satiety. School Nursing: A Comprehensive Text, Janice Selekmán Editorial

Angelman syndrome-- May have some of the following characteristics: Insomnia (inability to sleep or prematurely ended sleep interrupted by periods of wakefulness--can be caused by anxiety). It's common for people with this syndrome to have abnormal sleep-wake patterns and to need less sleep than normal. In some cases, medication and behavior therapy may help control sleep disorders.

Factoids:

- Most medications are tested on a healthy adult male population. Medications are not usually tested on children, the elderly, the disabled, or women.
- Many DDS consumers have multisystem involvement and are on multiple medications which when given together can increase side effects on already compromised body systems.



Conversions

Please enter **all** answers that apply

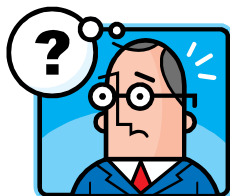
1. 5cc = _____
2. 3 tsp = _____
3. 1oz = _____
4. 15mls = _____
5. 30cc = _____
6. 2 TBSP = _____
7. 1ml = _____
8. 2 tsp = _____
9. 25 ml = _____
10. 60cc = _____
11. 1TBSP = _____
12. 10 cc = _____
13. 240 ml's = _____
14. 6 tsp's = _____
15. 1 cup = _____

Agency Specific Information

Know Your Agencies Policies & Procedures

Find out/questions to ask:

- How are medication errors calculated?
- How your agency gets Rx's to the pharmacy?
- What symbols are used on the MAR to signify refusal, day program, in hospital, vacation?
- Where does your house keep the Control Count Sign-in Sheet?
- Who accepts meds when there is a non-certified person on duty?
- At your agency, can non-certified staff witness the control count or a medication destruction?
- Do you need to initial the blister packs after the medication has been popped?
- Who reorders the medications?
- What is the process for re-ordering medications?
- Who audits the Kardex?



Session 8

1. Glossary

Glossary

1. **Abbreviation** – Short form or symbol used in place of complete term or word.
2. **Absorption** – Movement of medication from the stomach or intestines into the blood stream.
3. **Acute illness** – Sickness that begins quickly and lasts only a short time.
4. **Administer** – To give a properly dispensed medication according to an authorized prescriber's order.
5. **Adverse Effect** – Unexpected and possibly serious or life-threatening effects of a medication.
6. **Akathisia** – Motor restlessness, inability to sit still.
7. **Allergic Reaction** – A specific adverse reaction that may cause skin rashes or hives, watery eyes or runny nose and may lead to difficulty breathing.
8. **Analgesics** – Medication to relieve pain.
9. **Anaphylaxis** – A severe, potentially life threatening allergic reaction that requires immediate emergency medical care.
10. **Antacids** – Medications that reduce acid in the stomach.
11. **Antagonistic** – The interference of two or more substances that decreases the effect of the medication. One medication decreases the effect of another medication.
12. **Anti-anxiety medications** – Medications used to treat anxiety, tension and nervousness. Also called anxiolytics.
13. **Antiarrhythmic** – Corrects irregular heart rhythm.
14. **Antibiotics** – Medications used to treat infections caused by bacteria.
15. **Anticoagulant** - A drug used to prevent abnormal blood clotting.
16. **Anti-cholinergic medications** – They treat the muscle movement disorders seen with antipsychotic medications.
17. **Anticonvulsant** – Medications that are used to control seizures.
18. **Antidepressant** – Medication used to treat depression.

19. **Antihistamines** – Medications that reduce symptoms of allergies.
20. **Antipsychotic medications** – Treat psychotic conditions. Also known as neuroleptics.
21. **Antipyretic** – Medications that reduce a fever.
22. **Anti-tussives** – Medications that suppress the cough reflex; stop a cough.
23. **Anus** – The opening at the end of the digestive tract. (rectum)
24. **Anxiolytic** – A drug used to treat anxiety. See anti-anxiety medication definition.
25. **Aspiration** – When food or fluid is accidentally drawn into the lungs.
26. **Ataxia** - A decrease in coordination when walking.
27. **Bronchi** – The tubes in the respiratory system between the throat and the lungs.
28. **Bronchodilator** – Medication that opens constricted airways.
29. **Cardiovascular medications** – Treat heart (cardiac) and blood pressure problems.
30. **Cathartic** – A drug used for constipation. Assists in emptying the bowel.
31. **Chemical Name** – The formula used to produce the medication.
32. **Constipation** – The inability to empty the bowel.
33. **Chronic illness** – Sickness or disease that is of long duration. It cannot be cured and will not go away.
34. **Compliance** – Follow direction or a plan of care.
35. **Concentration** – The number of mg per unit of medication. Example: Tylenol 325mg per tablet.
36. **Controlled Medication** – medication determined by the Drug Enforcement Agency (DEA) to have a potential for abuse or addiction.
37. **Controlled medication count** – Required process during which the oncoming certified staff count all the controlled medication with the off going certified staff to ensure that the correct amount of controlled medication that is in supply is documented and correct.
38. **Convulsion** – A seizure, loss of consciousness and involuntary muscle movements.

- 39. Cubic centimeter (cc)** – A metric measurement used for measuring medications.
- 40. Decongestants** – Medication that relieve congestion in the sinuses and nasal passages.
- 41. Desired or Therapeutic effect** – The medication works as it was intended and provided a benefit.
- 42. Dose** – The amount of medication to be administered. Dose can be expressed in milligrams (mg)
- 43. Drug to Drug interactions** – One or more drug affects another drug in the body.
- 44. Drug to food interaction** – The presence of food in the stomach that affects the absorption and the effect of the medication.
- 45. Dyskinesia** – Involuntary movement
- 46. Dysphasia** – Difficulty swallowing.
- 47. Dystonia** – Impaired muscle tone
- 48. Edema** – Swelling of the tissues of the body.
- 49. Enteric coated medication** – Tablets that have a special outside layer to prevent the medication from dissolving in the stomach.
- 50. Enteral** – Within or by way of intestines.
- 51. Enteric** – Pertaining to the small intestines.
- 52. Expired Medication** – Medication that can no longer be guaranteed as safe and effective since either chemical breakdown or contamination may have occurred by this date.
- 53. Expectorants** – Medications that promote coughing by loosening mucous in the lungs.
- 54. The Five Rights** – Five pieces of information necessary to administer medication correctly. The five rights include: Consumer, Time, Drug, Dose, Site (Route)
- 55. Gastric** – Pertaining to the stomach.
- 56. Gastrointestinal** – Pertaining to the digestive system. Abbreviated as GI system.
- 57. Generic name** – The short chemical name of a drug. Usually a lower case letter is used.
- 58. Gingival hyperplasia** – Overgrowth of the gums surrounding the teeth.

- 59. Histamine** – A chemical produced by cells when exposed to allergens.
- 60. Hormone** – A substance produced by glands in the body.
- 61. Hypertension** – High blood pressure
- 62. Hypnotics** – Medications that promote sleep.
- 63. Hypoglycemic** – A medication to increase the production of insulin by the pancreas.
- 64. Hypotension** – Low blood pressure.
- 65. Ineffective** – The absence of a desired effect, after allowing sufficient time for the medication to work.
- 66. Insulin** – A hormone produced by the pancreas that is needed for the breakdown of sugars.
- 67. Internal Medications** – Medications that are swallowed. (PO meds)
- 68. Labeled use** – Medications prescribed for its FDA approved use.
- 69. Lavage** – The cleaning out or irrigation of an organ (stomach pumping)
- 70. Laxative** – Medications that promote bowel movements or prevent constipation.
- 71. Lethargy** – An overwhelming feeling of exhaustion.
- 72. LOA** – Leave of Absences
- 73. Medication Administration Record (MAR)** – The form on which you will document that you have administered a medication. It must include the 5 rights
- 74. Metabolism** – Process of breaking down medication so that it can be eliminated from the body. Metabolism often occurs in the liver.
- 75. Metered Dose Inhaler** – Inhaled aerosol that gives a one measured “puff” of medications at a time.
- 76. Milliliter** – A metric measurement used for measuring medications, same as cc.
- 77. Monoamine oxidase inhibitor** – A type of drug used to treat depression. (MAOI)
- 78. Mood Stabilizers** – Medications used to treat mood disorders such as bipolar disease.

- 79. Nebulizer** – A machine which turns liquid medication into a fine mist that is breathed in through a mask or mouth piece.
- 80. Neuroleptic** – Medications used to treat psychosis.
- 81. No Effect** – A medication does not produce any desired effect.
- 82. Objective description** – Noting what was seen, heard, physically felt, or smelled.
- 83. OTC medication** – Acronym for over-the-counter medication.
- 84. Parasitic** – A drug used to treat parasites.
- 85. Perfusion** – the ability of blood to flow to organs and tissues carrying oxygen and nutrients.
- 86. Pharmacology** – The study of medications and their action on the body.
- 87. Pinna** – The outside of the ear.
- 88. Potassium (K)** – A mineral needed for the nerve impulses and muscle contraction in the body, works with chloride.
- 89. Psychosis** – A mental disorder causing disorganization, distortion, and decreased mental capacity.
- 90. Psychotropic medications** – Medications used to treat psychiatric disorders. They affect the central nervous system, how the brain thinks and affects emotions and behaviors.
- 91. Pulmonary** – Pertaining to the lungs.
- 92. Rebound congestion** – Occurs with the long-term use of nasal decongestants. The membrane swelling returns when the medication wears off.
- 93. Route** – The way a medication enters or is applied to the body.
- 94. The Rule of Three** – Comparing the MAR and the pharmacy label three times before administering the medication.
- 95. Sedative** – A medication used for its calming effect.
- 96. Serotonin** – A chemical in the brain.
- 97. Scored** – Tablets that may be split in half to obtain exactly half a dose. The score is a groove in the center of the tablet.

98. **Side Effect** – Predictable, expected unintended effects. Many are mild and will go away once the body adjusts to the medication.
99. **Sodium (NA)** – An electrolyte needed to maintain fluid balance in the body.
100. **Spansule** – A capsule containing a drug that is time released.
101. **Stimulants** – Medications that increase attention span and decrease hyperactivity.
102. **Subjective** – What a person tells you about how they feel.
103. **Sublingual** – Under the tongue.
104. **Suppository** – A medication in a cocoa butter base that melts at body temperature when inserted into the vaginal or rectal opening.
105. **Sustained release** – Enter the blood stream over an extended period of time
106. **Synergistic** – The affect of a combination of two or more substances that enhance or increase their desired effect
107. **Tardive dyskinesia** – Late onset involuntary movement disorder
108. **Therapeutic** – Desired effect
109. **Time frame for medication administration** – One hour before to one hour after the identified time for medication administration. (Does not include PRN medications)
110. **Tolerance** – The decreasing effect of an established dose of medication due to prolonged use of that drug.
111. **Trade name** – The marketing name the pharmaceutical company gives a drug. Usually indicated with an upper-case first letter in the name.
112. **Transcribe** – To copy an authorized prescriber’s order on to a MAR.
113. **Transdermal (patch) medication** – Medication in a patch that is worn on the skin. The medication is absorbed from the patch through the skin.
114. **Tremor** – Persistent rapid movement of body parts.
115. **Tricyclic** – A medication used to treat depression.
116. **Tyramine** – A digestive enzyme that interacts with MAOIs.

- 117. **Unlabeled use** – Medication prescribed for a use that has not been approved by the FDA.
- 118. **Vaccine** – A substance introduced into the body that prevents the person from getting the disease.
- 119. **Vasodialator** – A medication that increase blood flow.
- 120. **Vertigo** – Severe dizziness.