

MONROE COMMUNITY MENTAL HEALTH AUTHORITY



Medication Refresher Training

Instructors: Jeannette Rodenbeck, RN

Lori Boucard, RN

Amy Lewis, RN

Jacob Moore, RN, BSN

Andy Earl, RN

1

BEFORE ADMINISTERING MEDICATION

SAFETY is the prime concern when administering medications.

As direct care staff you are responsible for knowing and understanding all of the medication administration **policies and procedures**.

Most errors in administering medications can be traced back to failing to follow the safe administration policies and procedures.

As the direct care provider, you are the last person to verify accuracy before a medication is taken. This is a very important responsibility.



2

BEFORE ADMINISTERING MEDICATION

Before administering medications, make sure you understand the following about each medication:

- Drug's Purpose or Therapeutic Effect
- Strength
- Dose
- Route
- Time
- Side Effects/Adverse Effects
- How to Document Administration Correctly

If you have questions regarding safe administration of any medication, the information must be obtained from the Medical Prescriber, Nurse, Pharmacist, or Approved Medication Reference Book.

3

3

NON-PRESCRIPTION MEDICATIONS



- Direct care staff **DO** need a prescription to administer **ALL** medications, including non-prescription/OTC medications to consumers.

4

4

PRESCRIPTION MEDICATIONS



Scheduled or Controlled Medications:

- Require special handling procedures for storage and administration, such as double locking and witnessed wastes.
- Your employer is responsible for having specific policies and procedures in place to protect these medications that you must follow.

5

5

HOW MEDICATIONS AFFECT THE BODY:

- **Local action**
 - is a result from directly applying a drug to a tissue or organ. Only a limited area is affected.
 - **Example:** antibiotic ointment to a cut on your arm
- **Systemic action**
 - is a result from when the medication circulates in the bloodstream and is carried to the cells capable of responding to them. The medication affects the whole body.
 - **Example:** oral antibiotic for kidney infection will enter the digestive system and **then travel in the bloodstream to all the cells**, including those in the kidneys.

6

6

HOW MEDICATIONS AFFECT THE BODY

- **Therapeutic Effect (Desired Response):**
 - Means obtaining the **DESIRED** response of the medication on the body system for which it was prescribed.
 - The therapeutic effect of Tylenol (acetaminophen) is to relieve pain and/or fever.
- **Side Effect (Unintended Response):**
 - Describes any response to a medication other than for which it was prescribed. It is an **UNINTENDED** effect.
 - Example: Benadryl ordered for allergies to relieve nasal congestion can cause drowsiness as a side effect.
 - Document and Report all suspected side effects to the prescriber, nurse or psychiatrist as soon as they are observed.

7

7

HOW MEDICATIONS AFFECT THE BODY

- **Adverse Effect**
 - Means a side effect of the medication that is potentially **HARMFUL**.
 - If an adverse effect develops the medication should not be taken again.
 - An adverse effect is often a serious allergic response to the medication that can affect the whole body.



8

8

HOW MEDICATIONS AFFECT THE BODY



■ Adverse Effect

- It may be as minor as a rash or as serious as interfering with breathing or **anaphylactic shock**.
- If you suspect someone is having an allergic reaction to a medication, monitor him closely for:
 - increased irritability
 - breathing difficulty
 - changes in the pulse
 - If these symptoms are present call 911 and institute the emergency response plan for your facility. This is a medical emergency and could result in death if not treated immediately.
- If a client experiences anaphylactic shock, he is allergic to the medication and should never receive it again. If it is found that a client is allergic to a medication, it must be **documented in his record**.

9

9



EFFECTS OF MEDICATIONS

- You are responsible for observing, recording, and reporting any unusual reactions or effects from the medications you give out.
- **Document anything out of the ordinary in the chart & report it to the physician ASAP**
- Be prepared to perform life saving measures (CPR, first aid, rescue breathing) if an adverse effect occurs

10

10

RECOGNIZING SIGNS OF ILLNESS OR BEHAVIORAL CHANGES

- As a direct care provider, you are responsible for observing, recording, and reporting any changes in your consumer's physical condition and behavior.
- An acute or worsening illness, side effect, or adverse effect needs to be recognized so that the consumer can receive appropriate care.
- Always report what you observe and also any verbalized symptoms and complaints of the consumer.
- You have day to day contact with a consumer and will be the best person to notice if anything changes in a consumer's health or behavior.
- Deciding the meaning of a sign or symptom is not your responsibility, but **recognizing it, reporting it, and making sure that the consumer receives the proper care is your responsibility.**



11

RECOGNIZING SIGNS OF ILLNESS OR BEHAVIORAL CHANGES

The following are signs and symptoms that will also help you identify health/behavioral problems:

- Change in dietary habits, an increase or decrease in appetite.
- Change in sleep pattern, an increase or decrease or interrupted sleep pattern.
- Changes in vital signs; an increase or decrease in body temperature, pulse, respiration or blood pressure.
- Change in body odor: breath, perspiration, urine or stool
- Changes in elimination (consistency, color and/or odor of urine and stool, increase, decrease or absence of urine or stool).
- Change in level of consciousness (confused, stuporous, dizzy, fainting, coma or convulsion).
- Change in weight (significant increase or decrease)



12

RECOGNIZING SIGNS OF ILLNESS/BEHAVIORAL CHANGES

- Change in body or limb movement (shaking, tremors, jerking, stiffness, paralysis, unsteadiness, staggering).
- Changes in breathing (difficulty breathing, rapid, slow, wheezing, gasping, coughing or sneezing).
- Change in the digestive process (nausea, vomiting, diarrhea or constipation).
- Injury to the body (bruises, cuts, punctures, abrasions, swelling or pain).
- Discharge (drainage) from any body opening or of the skin.
- Changes in the skin:
 - Color: pale, flushed, cyanotic (blue), blotchy (reddish spots), jaundice (yellow).
 - Condition: dry, clammy, cold, hot, increased perspiration, rash, itchy

13

13

ANTIPSYCHOTIC MEDICATION SIDE EFFECTS

TARDIVE DYSKINESIA

Is a movement disorder that results in unusual and uncontrollable movements.

- Most often occurs around the tongue, mouth, or face – grimacing, tongue protrusion, lip smacking, pursing, or puckering
- Rapid eye blinking, upward gaze
- Rapid movements (jerking and twisting) of arms, legs, trunk
- Impaired finger movements – like playing piano or guitar

Seen most often after long term treatment with older antipsychotic medications – Haldol, Prolixin, Mellaril, Thorazine

Higher incidence of TD in women, risk increases with age

There is no way to determine if somebody will develop TD

Early detection is key - the Dr. or RN does an Abnormal Involuntary Movement Scale (AIMS) test every 3 months – call right away if symptoms appear.

There are 2 meds that may help control TD – Austedo and Ingrezza

14

14

ANTI-PSYCHOTIC MEDICATION SIDE EFFECTS

Neuroleptic Malignant Syndrome (NMS):

is a potentially fatal disorder characterized by:

- Muscle rigidity (stiffening) – first symptom, can quickly become severe
- Fever
- Sweating
- High/Unstable blood pressure
- Muscle tremors
- Confusion, delirium, and sometimes coma
- Symptoms rapidly progress and peak in less than 3 days
- **Call 911, if you suspect NMS. It is a Medical Emergency.**
- NMS is caused by antipsychotic use. Both older and newer meds can cause NMS.
- The higher the dose and faster the titration, the more likely NMS is to develop. It often occurs within 2 weeks of starting the drug, but MAY develop at ANY TIME.

15

15

AGRANULOCYTOSIS

Agranulocytosis is a condition marked by a decrease in the number of infection-fighting white blood cells. This can leave a person prone to infection.

- **Clozaril, or Clozapine (Fazaclo)**, is the antipsychotic most commonly linked to the potentially serious adverse effect of Agranulocytosis. Consumers who take Clozaril are **required** to have lab monitoring of their Absolute Neutrophil Count (ANC) in order to get their medication. Frequency of labs may be weekly to monthly.
- Support staff are responsible for taking consumers to their lab draws on time so that they can obtain their medication.
- Pharmacy will not dispense refills of medication unless labs have been completed on time as ordered.
- **“No Blood, No Drug”**

16

16

CLOZARIL, OR CLOZAPINE (FAZACLO)

▪ Doses are NOT to be missed!!

- **If a dose is missed, for any reason, the prescribing doctor is to be contacted immediately for instructions on how to proceed. Your supervisor is to be notified and an Incident Report is to be completed.**
- **If a dose is missed and the prescribing doctor is not available, immediately contact a Pharmacist for instructions on how to proceed. Your supervisor is to be notified and an Incident Report is to be completed.**
- Other adverse effects of Clozaril include an increased risk of seizure activity, hypotension with related dizziness, drooling, weight gain, hypertension, tachycardia. Report all adverse effects to RN or MD.

17

17

MEDICATION SIDE EFFECTS

- You are responsible for knowing some basic information (desired effects, side effects, special considerations) about common medical conditions and the medications prescribed to treat these conditions.
- These conditions and medication categories include:
 - Cardiovascular (Heart) Conditions and Medications
 - Anti-seizure Medications
 - Pain Medications
 - Diabetes Medications and Signs of Hypoglycemia
- Attached Appendix titled **Medication Side Effects and Special Concerns** that covers these medications and the information that you are responsible for learning.

18

18

REMINDERS



- Any medication given must have a valid prescription, even if it's over-the-counter
- **All medications that a client receives must be prescribed/ordered by a prescriber, even if it's over-the-counter**
- All medications must have a pharmacy label, even if it's over the counter
- All medications must be documented on the Medication Administration Record (MAR), even if it's over-the-counter

19

19

LEGAL & ETHICAL ISSUES



- **NEVER FORCE SOMEONE TO TAKE MEDICATION...RESIDENTS HAVE THE RIGHT TO REFUSE.**
- **What to do if a consumer refuses their medication:**
 - First counsel the consumer on the medication's purpose and importance.
 - Ask about and explore reasons why they are refusing – it could be fixable, such as a pill is hard to swallow. Contact the CMH RN with refusal reasons.
 - If the consumer does not want to discuss why he is refusing, or continues to refuse after discussion, wait 15 minutes and offer it again.
 - If the consumer still refuses, have another staff approach him about taking his medications 15 minutes later.
 - If none of the above work, **complete an Incident Report (IR)** and contact your supervisor and the CMH RN or prescribing Doctor's office.
 - Remember: **ALL** refusals must be reported & recorded appropriately

20

20

FORMS OF MEDICATION *INJECTIONS*

- THE ONLY INJECTIONS SUPPORT STAFF CAN BE TRAINED TO GIVE ARE INSULIN-BUT ONLY AFTER A TRAINING SPECIFIC TO YOUR CONSUMER.
- This class **DOES NOT** prepare or certify you to give injections.



21



THE SIX RIGHTS OF MEDICATION ADMINISTRATION

Observing the “**Six Rights**” is the required and safest way to administer medication, making it less likely for a medication error to occur.

22

THE SIX RIGHTS

The Six Rights Include:

- *Right Person*
- *Right Medication*
- *Right Dose*
- *Right Time*
- *Right Route*
- *Right Documentation*

23

23

THE SIX RIGHTS



▪ **Right Person:**

- In order to make sure that you have the **Right Person**, you have to positively identify the consumer.
- **When administering medication, TWO types of client identifiers are required.**
- **Staff MUST use at least TWO of the following** identifiers whenever administering medication(s) or treatment(s):
 - Recipient states their **Full Name** and staff compares the name to the Medication Administration Record (MAR).
 - Recipient states their **Date of Birth Date** and staff compares it to the Medication Administration Record (MAR).
 - **Picture ID** or recent photograph attached to the Medication Administration Record (MAR).
 - **Staff** who knows the individual identifies the recipient.

24

24

THE SIX RIGHTS



Right Medication:

- To ensure you administer the right medication you are required to follow the **THREE (3) Rule** – Check **EVERY** time that the:

- 1) Prescription (Doctor's Order)
- 2) Pharmacy Label on the prescription container
- 3) Medication Administration Record (MAR)

ALL match

- If you have any questions **DO NOT** give the medication and contact your supervisor, the pharmacy, and prescriber to clarify.

Copy of Prescription Order

Vincent Winthrop (Date of Birth: 2-2-1962) Date: March 5, Year
 Clonazepam 0.5 mg (Brand Name is Klonopin)
 Take one tablet by mouth twice a day
 Refills: 5 Quantity: 62 Tablets
 Doctor's Signature: *Dr. S. Davidson, MD*



Pharmacy Label

ABC Pharmacy
 20 Main Street, Any Town, MI 09111 Phone 555-555-1212
 Rx#: C284-9726 R.L. Smith, RPH
 Date: 3-5-Year Dr. S. Davidson, MD
 Vincent Winthrop [Date of Birth: 2-2-1962]
 clonazepam 0.5 mg (Brand Name is KLONOPIN)
 Take one tablet by mouth twice a day
 Refills: 5 Quantity: 62 Tablets
 *Discard this medication 1 year after date dispensed



THE THREE (3) RULE

To ensure that you administer the right medication you are required to follow the **THREE (3) RULE**:
 Check **EVERY TIME** that the following **THREE ALL MATCH**:

- 1) Copy of Prescription Order
- 2) Pharmacy Label on the Prescription Container
- 3) Medication Administration Record (MAR)

Do all three documents match? Yes or No

If All 3 match – you may then administer the med

(Yes, All Three Match)

March (Year) MEDICATION ADMINISTRATION RECORD

Prescription Date: 3-5-Year Generic: clonazepam Brand Name: KLONOPIN Strength: 0.5 mg Amount: 1 Tablet Route: By Mouth Dose: 0.5 mg Frequency: Twice a Day Doctor: Dr. S. Davidson, MD Special Instructions: None Transcriber's Initials: KB Date: 3-5-Year	<table border="1"> <thead> <tr> <th>Hour</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> <th>14</th> <th>15</th> <th>16</th> <th>17</th> <th>18</th> <th>19</th> <th>20</th> <th>21</th> <th>22</th> <th>23</th> <th>24</th> </tr> </thead> <tbody> <tr> <td>8 AM</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8 PM</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	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	8 AM	X	X	X	X	X																				8 PM	X	X	X	X	X																			
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																																																				
8 AM	X	X	X	X	X																																																																							
8 PM	X	X	X	X	X																																																																							
Name: Vincent Winthrop Date of Birth: 2-2-1962 No Known Drug Allergies	<table border="1"> <thead> <tr> <th>CODES</th> <th>Init</th> <th>Signature</th> <th>Init</th> <th>Sig</th> </tr> </thead> <tbody> <tr> <td>DP = Day Program</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LOA - Leave of Absence</td> <td>KB</td> <td>Kari Burke</td> <td></td> <td></td> </tr> <tr> <td>W - Work</td> <td>RN</td> <td>Reggie Newton</td> <td></td> <td></td> </tr> </tbody> </table>	CODES	Init	Signature	Init	Sig	DP = Day Program					LOA - Leave of Absence	KB	Kari Burke			W - Work	RN	Reggie Newton																																																									
CODES	Init	Signature	Init	Sig																																																																								
DP = Day Program																																																																												
LOA - Leave of Absence	KB	Kari Burke																																																																										
W - Work	RN	Reggie Newton																																																																										

Copy of Prescription Order

Michel Pierre [Date of Birth: 3-3-1970] Date: 07/01/ Year
 metoprolol 50 mg (Brand Name is LOPRESSOR)
 Take two tablets once a day in the morning by mouth
 Quantity: 124 Tablets Refills: 5
 HCP's Signature: *Dr. Green Apple, MD*



Pharmacy Label

ABC Pharmacy 20 Main Street, Any Town, MI 09111
 Phone: 555-555-1212
 RX# 978642 R.L. Smith, RPH
 Date Dispensed: 7-1-Year Dr. Gene Ackle, MD
 Michael Perren (Date of Birth: 6-6-1967)
 metoprolol 25 mg (Brand Name is LOPRESSOR)
 Take two tablets twice a day by mouth
 Refills: 5 Quantity: 124 Tablets
 *Discard this medication 1 year after date dispensed



THE THREE (3) RULE

To ensure that you administer the right medication you are required to follow the **THREE (3) RULE**:
 Check **EVERY TIME** that the following **THREE ALL MATCH**:
 1) Copy of Prescription Order
 2) Pharmacy Label on the Prescription Container
 3) Medication Administration Record (MAR)

Do all three documents match?

Should you administer this medication? Yes or No

What should you do?

- Call your supervisor
- Call the prescriber (doctor)
- Call the pharmacist
- Complete an Incident Report (IR)

July (Year) MEDICATION ADMINISTRATION RECORD

Prescription Date: 7-1-Year Generic: metoprolol Brand Name: LOPRESSOR Strength: 50 mg Route: By Mouth Amount: 1 Tablet Dose: 100 mg Frequency: Once a Day Doctor: Dr. Green Apple, MD Special Instructions: In the Morning Transcriber's initials: KB Date: 7-1-Year	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																				
	8 AM	X																																														
	<table border="1"> <thead> <tr> <th>CODES</th> <th>Init</th> <th>Signature</th> <th>Init</th> <th>Signature</th> </tr> </thead> <tbody> <tr> <td>DP = Day Program</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LOA = Leave of Absence</td> <td>KB</td> <td>Karl Burke</td> <td></td> <td></td> </tr> <tr> <td>W = Work</td> <td>RN</td> <td>Reggie Newton</td> <td></td> <td></td> </tr> </tbody> </table>																												CODES	Init	Signature	Init	Signature	DP = Day Program					LOA = Leave of Absence	KB	Karl Burke			W = Work	RN	Reggie Newton		
	CODES	Init	Signature	Init	Signature																																											
	DP = Day Program																																															
	LOA = Leave of Absence	KB	Karl Burke																																													
	W = Work	RN	Reggie Newton																																													

No, they do not match
 Do not administer the med



Copy of Prescription Order

Lucille Jones [Date of Birth: 6-6-1981] Date: April 7, Year
 divalproex sodium 125 mg (Brand Name is DEPAKOTE)
 Take one capsule two times a day by mouth
 Quantity: 62 Capsules Refills: 1
 HCP's Signature: *Dr. S. Harris MD*



Pharmacy Label

ABC Pharmacy 20 Main Street Any Town, MI 09111
 Phone: 555-555-1212
 RX# 756-4389 R.L. Smith, RPH
 Date: 4-7-Year Dr. S. Harrison, MD
 Lucella Jones (Date of Birth: 6-13-1990)
 divalproex sodium 250 mg (Brand Name is DEPAKOTE)
 Take two capsules once a day by mouth
 Quantity: 62 Capsules
 Refills: 1
 *Discard this medication 1 year after date dispensed



THE THREE (3) RULE

To ensure that you administer the right medication you are required to follow the **THREE (3) RULE**:
 Check **EVERY TIME** that the following **THREE ALL MATCH**:
 1) Copy of Prescription Order
 2) Pharmacy Label on the Prescription Container
 3) Medication Administration Record (MAR)

Do all three documents match?

Should you administer this medication? Yes or No

What should you do?

- Call your supervisor
- Call the prescriber (doctor)
- Call the pharmacist
- Complete an Incident Report (IR)

April (Year) MEDICATION ADMINISTRATION RECORD

Prescription Date: 4-7-Year Generic: divalproex sodium Brand Name: DEPAKOTE Strength: 250 mg Route: By Mouth Amount: 2 Capsules Dose: 500 mg Frequency: Two Times a Day Doctor: Dr. S. Harris, MD Special Instructions: None Transcriber's initials: KB Date: 4-7-Year	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																				
	8 AM	X	X	X	X	X	X	X	X																																							
	8 PM	X	X	X	X	X	X	X																																								
	<table border="1"> <thead> <tr> <th>CODES</th> <th>Init</th> <th>Signature</th> <th>Init</th> <th>Signature</th> </tr> </thead> <tbody> <tr> <td>DP = Day Program</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LOA = Leave of Absence</td> <td>KB</td> <td>Karl Burke</td> <td></td> <td></td> </tr> <tr> <td>W = Work</td> <td>RN</td> <td>Reggie Newton</td> <td></td> <td></td> </tr> </tbody> </table>																												CODES	Init	Signature	Init	Signature	DP = Day Program					LOA = Leave of Absence	KB	Karl Burke			W = Work	RN	Reggie Newton		
	CODES	Init	Signature	Init	Signature																																											
	DP = Day Program																																															
	LOA = Leave of Absence	KB	Karl Burke																																													
	W = Work	RN	Reggie Newton																																													

No, they do not match
 Do not administer the med



YOU MUST KEEP THE
MEDICINE IN THE
ORIGINAL CONTAINER
PACKED BY THE PHARMACIST.



YOU CAN **NOT** TAKE A MEDICINE
OUT OF ONE CONTAINER AND PUT
IT INTO A DIFFERENT CONTAINER

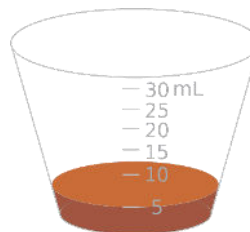
You must use a container that was packed by the pharmacist



29

THE SIX RIGHTS

■ Right Dose:



- The dosage of a medication is how much of the drug is given.
- The dose is usually measured in micrograms (mcg), milligrams (mg), grams (gm), or milliliters (ml).
- By definition, the strength of a medication and the dose of a medication are **not** the same thing.




30

Strength – Amount - Dose



Strength:

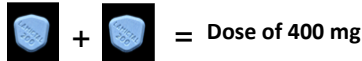
Strength is the “strength” of the individual tablet or capsule.
Strength is found on the pharmacy label next to the name of the medication.

RX# 139 R.L. Smith, RPH	ABC Pharmacy 20 Main Street Any Town, MI 09111 555-555-1212	Date Written: 12-18-Year Date Dispensed: 12-18-Year
Dr. S. Davidson, MD		
Vincent Winthrop [Date of Birth: 2-2-1962] lamotrigine 200 mg Tablet (Brand Name is LAMICTAL) Take Two Tablets in the Morning by Mouth Quantity: 62 Tablets Refills: 3		
		*Discard this medication 1 year after date dispensed

1 individual tablet of lamotrigine (LAMICTAL) contains 200 mg of medication.
Therefore, 1 individual tablet of lamotrigine (LAMICTAL) has the **Strength of 200 mg**.

Dose:


The “Dose” is the mcg, mg, mL, etc., of medication that you “ingest at one time”.
The above label states “Take Two Tablets” in the Morning by Mouth.
Therefore, the Dose will be 400 mg (200 mg Tablet + 200 mg Tablet = 400 mg)



31

31

Pharmacy Label

RX# 756-4389 R.L. Smith, RPH	ABC Pharmacy 20 Main Street Any Town, MI 09111 555-555-1212	Date Written: 4-7-Year Date Dispensed: 4-7-Year
Dr. S. Harrison, MD		
Lucella Jones (Date of Birth: 6-13-1990) divalproex sodium 250 mg (Brand Name is DEPAKOTE) Take two capsules once a day by mouth Quantity: 62 Capsules Refills: 1		
		*Discard this medication 1 year after date dispensed

What is the **Strength** of the individual capsule? **250 mg**
What is the **Amount** to be administered once a day? **2 Capsules**
What is the **Dose** to be administered once a day? **500 mg**


Strength:

Is the strength of the individual tablet or the individual capsule

Amount:

Is the physical quantity to be given at one time

Pharmacy Label

RX# 978642 R.L. Smith, RPH	ABC Pharmacy 20 Main Street Any Town, MI 09111 555-555-1212	Date Written: 7-1-Year Date Dispensed: 7-1-Year
Dr. Gene Ackle, MD		
Michael Perren (Date of Birth: 6-6-1967) metoprolol 25 mg (Brand Name is LOPRESSOR) Take two tablets twice a day by mouth Quantity: 124 Tablets Refills: 5		
		*Discard this medication 1 year after date dispensed.

What is the **Strength** of the individual tablet? **25 mg**
What is the **Amount** to be administered each time twice a day? **2 Tablets**
What is the **Dose** to be administered each time twice a day? **50 mg**

Dose:

Is the mcg, mg, mL, etc, that is ingested at one time

32

32



THE RIGHT TIME

- When a physician prescribes a medication, he/she will specify how often it is to be taken. Some meds must be administered only at very specific times of the day.
- Give the medicine as close as possible to the prescribed time. This ensures a steady therapeutic level of medication in the bloodstream so that the consumer receives the most benefit from the medication.

33

33

IF THE DOCTOR ORDERS A SPECIFIC TIME

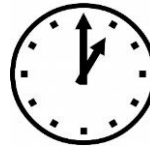
- If the doctor orders it at a specific time, such as 7:00 am, the order will state the time, the label will state the specific time, and the Medication Administration Record (MAR) is to state the specific time.
- However, you are allowed to give a medication up to 1 hour before or 1 hour after it is due.



34

34

THE RIGHT TIME



- If the medication order is written with approximate times, such as every 8 hours, **Scheduled Times** are to be written on the Medication Administration Record (MAR).
- AM, PM, HS are not scheduled times and are open to interpretation as to the meaning of the time – these are not to be written in place of scheduled times.
- Give the medication at the time scheduled on the Medication Administration Record (MAR).
- You can give the medication up to 1 hour before or 1 hour after it is scheduled.



35

RIGHT TIME



- If the scheduled time is missed and the prescriber has completed a “**Missed Medication Procedure Form**” then the medication(s) should be administered according to the Missed Medication Procedure Form.
- An Incident Report (IR) must still be completed.



36

THE SIX RIGHTS



RIGHT ROUTE

- The way a medication is administered into the body is called the route.
- **Major Routes of Medication Administration:**
 - Oral (by mouth)
 - Injectable (IM, SUBQ, or ID)
 - Topical (Direct application to a body tissue or organ, such as to the skin, eye, ear, or nose)
 - Rectal
 - Vaginal
 - Patch that is put on the skin for systemic absorption
 - Inhaler or inhalation therapy (for inhalation therapy-additional training is necessary)
- This training does **not** qualify you to give medications by injection or perform other procedures not covered

37

37

THE SIX RIGHTS:

Right Documentation






- Document **immediately after** administering the medication by initialing the Medication Administration Record (MAR).
- It should NOT be recorded ahead of time or at a later time.
- The person administering the medication **must be** the person who documents on the MAR.
- Failure to document correctly is a medication error.

38

38

STORING MEDICATIONS

- All medications must be stored in locked compartments/containers. 
- Refrigeration
 - Some medicines must be kept in the refrigerator. Check label.
 - If it requires refrigeration, you have to keep it in a locked in the refrigerator. 
 - If the power goes out, call the pharmacist to see if the medicine is still okay
- All other medicines must be kept between 68° and 86° degrees. 
- Keep them away from heat and moisture
- If you are delivering medicines on a hot day, keep them in a cooler in your car so they do not go over 86° degrees.

39

39

STORING MEDICATIONS



- **All** external medications (such as ointments, creams, lotions, powders, sunscreen, medicated shampoo, eye, ear and nose drops) must be stored separately from internal and oral medications. External medications must still be in a locked cabinet/container.
- Keys to the medication storage cabinet/container must be kept **on** the person assigned to medication administration on each shift. **Never leave keys out where someone might pick them up.**

40

40

MEDICATION ORDERS



- In order for the prescriber to prescribe the best medication for a client, the following types of information will be needed:
 - Complete medical record/health history
 - Complete list of drug allergies
 - Current month's medication list (Scheduled and PRN)
 - Medical & Dental diagnoses/conditions
 - Written observations of recent physical or behavioral changes
- It will be important for you to get to know each resident so that you can share information and relevant changes

41

41

TELEPHONE/VERBAL ORDERS

42



Only a licensed person can take medication orders over the phone.

Direct care staff **CANNOT** take phone orders for a **new medication** or a **change** in any existing medication order.

42

HOLDING OR DISCONTINUING MEDICATIONS



- There may be a reason for a medication to be held or discontinued (stopped completely). You **may hold** the medication (not give it) **or discontinue** it if instructed to do so by the physician, but you must still get a **written order** (the doctor may fax it to you), and document all instructions carefully.
- Make sure you repeat the order back to the physician for confirmation. Be sure you understand what you are instructed to do. Ask any necessary questions. Immediately write it down in the client's record. Write down the full name of the physician you talked to, his/her phone number, the date and time of order, what was instructed, and your signature. Inform all staff of the changes by communication book, in the medication record, and by verbal report. Notify your supervisor and nurse.

43

43

TELEPHONE NON-MEDICATION ORDERS AND TREATMENT ORDERS



- Direct care staff that have completed this course will be qualified to take **non-medication/treatment orders** from a prescriber over the phone.

- Checking vital signs
- Applying ice or heat packs
- Checking Weight



44

44



PHARMACY LABELS

- The pharmacy label contains important information from the prescription that you must have to safely and correctly give the medication.
- The pharmacy label should give at least as much information as the prescription.
- Med containers frequently have small stickers attached giving special directions for storage or administration (such as: take with milk, take on an empty stomach, refrigerate). Write those onto the MAR, they are very important.
- If the label says, "Take on an empty stomach", the medicine will not work if they just ate cheesy fries.
- If you are not sure what a sticker means, call the pharmacist, they love to explain this stuff.

45

45

PHARMACY LABELS


- All prescription containers MUST bear a label with AT LEAST the following information...
- LABELS MUST BE LEGIBLE and COMPLETE WITH:
 - *Pharmacy name, phone number, and address*
 - *Prescription number*
 - *Consumer's name (name of recipient)*
 - *Date prescription was most recently dispensed*
 - *Prescriber's name*
 - *Directions for use (Schedule of administration)*
 - *The name of the medication*
 - *Amount/Quantity dispensed*
 - *Strength of medication*
 - *Dosage of medication*
 - *Expiration Date*



46

46

What's Wrong with the Label?

<p>Happy's Pharmacy Shoppe 704-203-3371 Ext. 3339</p>	
<p>Caution: Federal Law prohibits transfer of this drug to any person other than patient for whom prescribed.</p>	
<p>5/20/Year Matt Damon, RPH Clooney, George H. (Date of Birth: 5-6-1961) Procardia XL 10 mg Tablet QTY 90</p>	
<p>*Discard this medication 1 year after date dispensed.</p>	


What's Wrong/Missing? Pharmacy Address, Prescription # (Rx#), Doctor's Name, Dispensing Instructions, Refills

109

47

47

What's Wrong with the Label?

<p>1001 S. Raisinville Rd. Monroe, MI 48162 704-203-3371</p>	
<p>Caution: Federal Law prohibits transfer of this drug to any person other than patient for whom prescribed.</p>	
<p>RX: 69877 4/10/Year Sara Dee (Date of Birth: 4-23-1942) TAKE BY MOUTH AT BEDTIME Ativan (lorazepam) Tablets QTY 30 REF 2</p>	
<p>*Discard this medication 1 year after date dispensed.</p>	

What's Wrong/Missing? Name of Pharmacy, Doctor's Name, Pharmacist's Name, Strength, Dispensing Instructions

111

48

48

TRANSCRIBING

- Before you can transcribe and pass any medication, you must have:
 - The medication in the original container supplied by the pharmacist
 - A correct and legible pharmacy label
 - A written prescriber's order (prescription)
 - Any additional instructions the prescriber or pharmacist has given you.
- You are now ready to transcribe...



49

49

TRANSCRIBING ONTO THE MEDICATION ADMINISTRATION RECORD

- The medication's written prescription, prescription label, and the Medication Administration Record (MAR) must be the same.
- **Remember the "THREE (3) RULE"**
- If there are any discrepancies, do not administer the medication, you must call your supervisor, prescriber and pharmacist for clarification, get the discrepancy corrected and complete an Incident Report (IR).

50

50

ABBREVIATIONS & SYMBOLS

Abbreviation	Meaning	Abbreviation	Meaning
BID	Two times a day	mg	Milligram
TID	Three times a day	ac	Before Meals
INS	Intranasal	ER	Extended Release
PO	By Mouth (Oral)	h	Hour
q	Every	AM	Morning
HS	Bedtime	PM	Afternoon
PRN	As Needed	gtts	Drops
OU	Both Eyes	mcg	Microgram

1) citalopram 40 mg, 1 tablet, once a day, PO

Name of Medication: **citalopram**
 Strength: **40 mg**
 Amount: **1 Tablet**
 Dose: **40 mg**
 Frequency: **Once a Day**
 Route: **By Mouth (Oral)**
 Special Instructions: **None**

3) Xanax 1 mg, 1 tablet, TID, PO

Name of Medication: **Xanax**
 Strength: **1 mg**
 Amount: **1 Tablet**
 Dose: **1 mg** (Dose is what is ingested at one time, not an entire day's worth)
 Frequency: **Three Times a Day** (Will be dosed with 1mg three times a day)
 Route: **By Mouth (Oral)**
 Special Instructions: **None**

2) divalproex sodium 250 mg ER, 3 tablets, BID, PO

Name of Medication: **divalproex sodium**
 Strength: **250 mg ER (Extended Release)**
 Amount: **3 Tablets**
 Dose: **750 mg (250 mg + 250 mg + 250 mg)**
 Frequency: **Two Times a Day**
 Route: **By Mouth (Oral)**
 Special Instructions: **None**

4) acetaminophen 325 mg, 2 tablets, every 4-6 hours PRN, for headache, fever, PO

Name of Medication: **acetaminophen**
 Strength: **325 mg**
 Amount: **2 Tablets**
 Dose: **650 mg (325 mg + 325 mg)**
 Frequency: **Every 4-6 Hours As Needed**
 Route: **By Mouth (Oral)**
 Special Instructions: **For Headache, Fever**



51

TRANSCRIBING: Discontinuation Order

**March 5, Year: 1:00 PM
Discontinuation Order**

Vincent Winthrop (Date of Birth: 02-02-1962)
 Date: March 5, Year
 Discontinue alprazolam (Brand Name is XANAX)
 Doctor's Signature: *Dr. S. Davidson, MD*



Discontinuation of an Existing Medication on the MAR

- Answers are written in **Blue**
- Draw a straight line from March 5th thru to March 31st
 - Write the full word, "DISCONTINUED", Discontinuation Date, Your Initials
 - Put your initials and your signature on the bottom of the MAR
 - Complete the Progress Note – Date of Discontinuation Order, Time of Discontinuation Order, Your Initials, Brief Description of Discontinuation Order, Add your initials to the Progress Note, Sign the Progress Note

March (Year) MEDICATION ADMINISTRATION RECORD

Prescription Date: 2-1-Year Generic: alprazolam Brand Name: XANAX Strength: 1 mg Amount: 1 Tablet Route: By Mouth Dose: 1 mg Frequency: Once a Day Doctor: Dr. S. Davidson, MD Special Instructions: At 8:00 AM Transcriber's Initials: KB Date: 2-1-Year	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		
	8 am KB KB RN RN KB		
DISCONTINUED 3-5-Year "Your Initials"			
Name: Vincent Winthrop Date of Birth: 2-2-1962 No Known Drug Allergies	CODES	Init	Signature
	DP = Day Program	YI	<i>Your Signature</i>
	LOA = Leave of Absence	KB	<i>Karl Burke</i>
	W = Work	RN	<i>Reggie Newton</i>

PROGRESS NOTE

Date	Hour	Initials			
3-5-Yr	1:00 pm	YI	Dr. Davidson discontinued Xanax (alprazolam) 1 mg		
Initials	Signature	Initials	Signature	Initials	Signature
YI	<i>Your Signature</i>				
KB	<i>Karl Burke</i>				
RN	<i>Reggie Newton</i>				



52

TRANSCRIBING: New Med on 3-5-Year at 1:00 pm
Answers are in **Blue**


3-5-Year Matching Pharmacy Label

RX# C284-9726 ABC Pharmacy Date: 3-5-Year
R.L. Smith, RPH 20 Main Street, Any Town, MI 09111
Phone: 555-555-1212

Dr. S. Davidson, MD


Vincent Winthrop [Date of Birth: 2-2-1962]
clonazepam 1 mg (Brand Name is KLONOPIIN)
Take One Tablet by Mouth Once Daily at 8 AM

Refills: 2 Quantity: 30 Tablets
*Discard this medication 1 year after date dispensed



3-5-Year 1:00 PM New Prescription Order

Vincent Winthrop [Date of Birth: 2-2-1962] Date: March 5, Year
clonazepam 1 mg (Brand Name is KLONOPIIN)
Take One Tablet by Mouth Once Daily at 8 AM
Refills: 2 Quantity: 30 Tablets
Doctor's Signature: *Dr. S. Davidson, MD*



March (Year) MEDICATION ADMINISTRATION RECORD

Prescription Date: 3-5-Year Generic: clonazepam Brand Name: KLONOPIIN Strength: 1 mg Amount: 1 Tablet Route: By Mouth Dose: 1 mg Frequency: Once a Day Doctor: Dr. S. Davidson, MD Special Instructions: At 8:00 am	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
	8 am	X	X	X	X																											

Transcriber's Initials: YI Date: 3-5-Year	CODES	Init	Signature
Name: Vincent Winthrop Date of Birth: 2-2-1962 No Known Drug Allergies	LOA = Leave of Absence	YI	Your Signature
	W = Work	KB	<i>Karl Burke</i>

Progress Note

Date	Hour	Initials	
3-5-Year	1:00 pm	YI	Dr. Davidson prescribed Klonopin (clonazepam) 1 mg once a day at 8:00 am
Initials	Signature	Initials	Signature
YI	<i>Your Signature</i>		
KB	<i>Karl Burke</i>		
RN	<i>Reggie Newton</i>		



WHEN NOT TO GIVE MEDICATION

There may be occasions when it is time to administer medications, BUT unusual circumstances require that you do **NOT** proceed.

- **If either of the following THREE required items are missing or illegible:**
 - **1) Written Prescription**
 - **2) Pharmacy Label**
 - **3) Medication Administration Record (MAR)**



- If the person shows a dramatic change in status: If the client is showing signs of seizure, unconsciousness, difficulty breathing, or other changes which appear to be life threatening, do not administer the medication. Follow the instructions given for reporting an emergency or life-threatening situation.
- If you have any doubt that you have the Six Rights of Medication (Right Person, Med, Dose, Time, Route and Documentation).



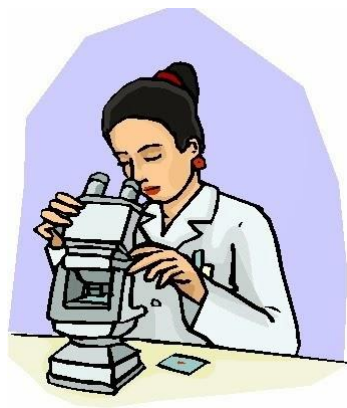
MEDICATION ERROR REMINDERS

- If an error does occur, it must be reported immediately to all three of these:
 - Your supervisor
 - The MCMHA Nurse or prescriber's office and
 - A written Incident Report (IR) to MCMHA.
- All other agency policies must be followed.
- If a wrong med or wrong dose was given, consult POISON CONTROL at 1-800-222-1222 to see if treatment is needed immediately.

55

55

LABORATORY VALUES



- After Hours procedure for CRITICAL LAB VALUES

56

56

AFTER HOURS PROCEDURE FOR CRITICAL LAB VALUES



- After Hours will be contacted only after 4:45 PM and after reasonable attempts have been made to contact the assigned prescriber, assigned nurse, and assigned clinician (CSM, Supports Coordinator).
- An agency prescriber who has received a lab value that is critical may contact After Hours staff. This will be of an emergent nature and the consumer will need to be contacted via phone or an outreach to the home if there is no phone.
- After Hours staff must attempt to make contact directly with the consumer who has the critical lab value. If the consumer is developmentally not able to understand, After Hours staff contacts the guardian or group home, and directs the consumer to go to the emergency room immediately. If the consumer refuses, After Hours staff works with the guardian and /or group home staff to assure that the consumer is taken to the emergency room.



57


PROTOCOLS FOR MEDICATION ADMINISTRATION



58

PROTOCOL FOR ADMINISTRATION OF TOPICAL MEDICATIONS



- **Wash hands. Put on non-sterile gloves.**
- Remove medication from the jar with tongue blade or cotton tipped applicators. DO NOT USE YOUR FINGERS.
- If you use your fingers, you will absorb some of that medicine into your own body.
- Insert applicator or tongue blade into container only once, NEVER RE-INSERT. 
- If you stick the applicator back into the container, you will put germs into the container.
- Use cotton tipped applicators, sterile gauze, or gloved hand to apply topical medications unless otherwise directed.
- **Remove gloves and wash hands.**
- **Document.**

59

59

PROTOCOL FOR ADMINISTRATION OF EAR DROPS

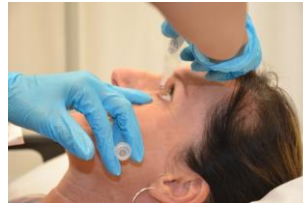


- **Wash hands. Put on non-sterile gloves.**
- Check the dropper tip for chips or cracks.
- If the drops are a cloudy suspension, shake well for ten seconds.
- Position the consumer with the affected ear up.
- Draw the medicine into the dropper.
- Do not touch the dropper against the ear or anything else to reduce the chance of contamination or ear injury.
- To allow the drops to run in, straighten the ear canal on an adult by pulling the ear up and back. (Child: down & back)
- Replace dropper and secure.
- Keep the ear tilted up for 3-5 minutes.
- **Remove gloves and wash hands, then Document.**

60

60

PROTOCOL FOR EYE DROPS



- **Wash hands. Put on non-sterile gloves.**
- Check the dropper tip for chip or cracks.
- Have the client lie down or tilt head back.
- With your index finger, pull the lower lid of the eye down to form a pocket.
- Draw the medicine into the dropper.
- Hold the dispenser with the opposite hand and place as close to the eye as possible, without touching it.
- Hold the dropper tip down all the time. This prevents the drops from flowing back into the bulb where they may become contaminated.
- Brace hand on forehead.
- Drop the prescribed amount into the pocket made by the lower lid.
- Avoid touching the eye with the dropper or anything else.
- Replace dropper and secure.
- Caution the person not to rub their eyes. Wipe off any excess liquid with a tissue.
- **Remove gloves and wash hands.**
- **Document**

61

61

PROTOCOL FOR ADMINISTRATION OF EYE OINTMENT



- **Wash hands. Put on non-sterile gloves.**
- Tilt head back.
- Hold the tube between your thumb and forefinger and place the tube as near to the eyelid as possible.
- Avoid touching the top of the tube against the eye or anything else.
- With your finger on the other hand, pull the lower lid of the eye down to form a pocket.
- Place the ointment into the pocket made by the lower lid.
- Have the client blink eye gently.
- With a tissue, wipe off any excess ointment.
- **Remove gloves and wash hands.**
- **Document**

62

62

PROTOCOL FOR ADMINISTRATION OF RECTAL SUPPOSITORIES

- **Wash hands.**
- Remove suppository from storage. Store suppositories in a cool place to avoid melting. Refrigerate them if so labeled.
- Explain to the consumer why the prescriber ordered the medication and the procedure.
- Provide privacy.
- Have the client remove their undergarments and lie on their left side with the lower leg straightened out and the upper leg bent forward toward the stomach. Cover exposed area with a towel or sheet. Do not give in a sitting position.
- Remove wrapper if present. **Put on disposable gloves.** Lubricate suppository, finger, and rectal opening with water-soluble lubricant (e.g. K-Y Jelly).
- Lift upper buttock to expose rectal area. Encourage the client to take several deep breaths to help relax.
- Insert suppository with finger until it passes the muscular sphincter of the rectum, about ½ to 1 inch in infants and 1 inch in adults. If not inserted past this sphincter, the suppository may pop back out.
- Hold buttocks together for a few seconds.
- Have the client remain lying down for about 15 minutes to avoid having the suppository come back out.
- **Remove gloves and wash hands.**
- **Document.**

63

63

PROTOCOL FOR VAGINAL SUPPOSITORIES

- **Wash hands** and remove suppository from storage. Store suppository in a cool place to avoid melting. Refrigerate them if so labeled.
- Explain to the consumer why the prescriber ordered the medication and the procedure.
- Select a private location with adequate lighting.
- Have the consumer remove undergarments, cover with a sheet or towel.
- Have the consumer lie on back with knees bent.
- Remove the wrapper if present.
- Put on gloves.
- Identify vaginal opening.
- Insert medication approximately two inches into vaginal canal, following the instructions on the pharmacy label.
- Ask the client to remain lying down for 15 minutes.
- **Remove gloves and wash hands.**
- **Document**

64

64

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Clients may also have medical conditions or diseases that need treatment with medication. Common problems are - heart conditions, seizures, pain, and diabetes.

Cardiovascular (Heart) Medications:

- ❖ **Digoxin (Lanoxin):** This drug increases the strength of the heart muscle contractions. Digoxin reduces heart failure symptoms. Monitor heart rate (*may have order to hold med if too low*).
 - Side effects – Dizziness, fainting, fast, pounding, or irregular heartbeat or pulse, slow heartbeat extreme toxicity, increased salivation, increased gag reflex, anorexia, nausea, vomiting, headache, drowsiness, weakness, faintness, visual changes (halo around lights), confusion.
- ❖ **Nitroglycerin:** Is used to prevent angina (chest pain) caused by coronary artery disease. This medicine is also used to relieve an angina attack that is already occurring.
 - Side effects – burning, crawling, itching, numbness, prickling, “pins and needles”, or tingling feelings, difficult or labored breathing, feeling faint, dizzy, lightheadedness, feeling of warmth or heat, flushing or redness of the skin, especially on the face and neck, headache, rapid weight gain or loss, wheezing.
 - Special concerns for administration – one tablet should be dissolved under the tongue or in the buccal pouch (cheek) at the first sign of an acute anginal attack (severe chest pain). The dose may be repeated approximately every five minutes, until relief is obtained. If the pain persists after a total of 3 tablets in a 15-minute period, prompt medical attention is recommended.
 - **During administration the patient should rest, preferably in the sitting position.**
 - Storage – keep in a dry, cool, dark place, keep in the prescribed bottle.
- ❖ **Anti-Coagulants:** Decreases the clotting (coagulating) ability of the blood. Sometimes call blood thinners, although they do not actually thin the blood. They do NOT dissolve existing blood clots. Used to treat certain blood vessel, heart and lung conditions, clot prevention.
 - Routs are often started as injections then transition to oral medication.
 - Frequent lab work must be done in order to obtain a therapeutic level of drug and dosing changes.
 - Vitamin K has the opposite effect and increases blood clotting. Clients taking anti-coagulants should avoid foods high in Vitamin K, such as spinach, kale, turnip greens, Swiss chard, and limit those foods moderately high in Vitamin K, such as raw broccoli, romaine, lettuce, green leaf lettuce, spinach and cooked Brussels Sprouts.
 - Examples: Lovenox (enoxaparin), Heparin, Coumadin/Jantoven (warfarin)
- ❖ **Statins** – Used to lower LDL (bad) cholesterol, raise HDL (good) cholesterol and lower triglycerides.
 - Side effects – muscle pain, fatigue and muscle weakness, liver damage, stomachache, diarrhea, constipation, flushing, rash, increased blood sugar, confusion.
 - Caution: The FDA warns on statin labels that some people have developed memory loss or confusion while taking statins.
 - Examples: Mevacor (lovastatin), Lipitor (atorvastatin), Crestor (rosuvastatin).

65

65

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Blood Pressure Medications and Side Effects:

All blood Pressure medications can cause blood pressure to go too low. CDC Guideline - Normal Blood Pressure is less than 120/80

Always check blood pressure before administering a blood pressure medication. Each individual should have physician orders as to what is too low of a blood pressure for that person since blood pressures may vary from person to person. If Blood Pressure is too low, call the prescriber's office for instructions.

- ❖ **Diuretics** – Flushing excess water and sodium from the body. Can cause too much flushing and make the kidneys off balance.
 - *Common Side Effects:* Increased urination, low sodium (hyponatremia), dizziness, headaches, increased thirst, muscle cramps, increased blood sugar, increased cholesterol, rash, joint disorders (gout), impotence, menstrual irregularities, breast enlargement in men.
 - Examples: Microzide/HydroDiuril/Oretic (hydrochlorothiazide), Lasix (furosemide), Lozol (indapamide), Midamor (amiloride).
- ❖ **Angiotensin-Converting Enzyme (ACE) Inhibitors** – These allow blood vessels to widen by preventing a hormone called angiotensin from affecting blood vessels.
 - Common Side Effects: Dry cough, persistent cough, increased potassium level (hyperkalemia), fatigue, rash, dizziness, headaches, sleep problems, rapid heartbeat
 - NSAIDs (ibuprofen, naproxen, aspirin, diclofenac, celcoxib, etc) decrease the effectiveness of ACE inhibitors. While taking an occasional dose of these medications shouldn't change the effectiveness of an ACE inhibitor, but avoid taking daily.
 - Can cause birth defects
 - Examples: Capoten (captopril), Qbrelis/Zestril (lisinopril), Altace (ramipril)
- ❖ **Angiotensin II Receptor Blockers** – These help blood vessels relax by blocking the action of angiotensin.
 - Common Side Effects: Headache, dizziness, lightheadedness, nasal congestion, back and leg pain, diarrhea
 - Can cause birth defects
 - Examples: Cozaar (losartan), Benicar (olmesartan medoxomil), Diovan (valsartan)
- ❖ **Beta Blockers** – These work by blocking certain nerve and hormonal signals to the heart and blood vessels, thus lowering blood pressure.
 - Common Side Effects: Fatigue, cold hands, headaches, upset stomach, constipation/diarrhea, dizziness, low heart rate or blood pressure.
 - Examples: Lopressor/Toprol XL (metoprolol), Corgard (nadolol), Levatol (penbutolol)

66

66

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Blood Pressure Medications and Side Effects continued . . .

- ❖ **Calcium Channel Blockers** – These prevent calcium from going into heart and blood vessel muscle cells, thus causing the cells to relax, which lowers blood pressure.
 - Common Side Effects: Constipation, headache, rapid heartbeat, dizziness, rash, drowsiness, flushing, nausea, swelling in the feet and lower legs.
 - Avoid grapefruit or grapefruit juice.
 - Examples: Norvasc (amlodipine besylate), Cardizem/Dilacor XR (diltiazem), Procardia (nifedipine)
- ❖ **Renin Inhibitors** – Renin is an enzyme produced by your kidneys that starts a chain of chemical steps that increases blood pressure. Meds work to slow down the production of renin, reducing its ability to begin this process.
 - Due to a risk of serious complications, including stroke, you shouldn't take Renin Inhibitors with ACE inhibitors or with ARBs (angiotensin receptor blockers)
 - Examples: Tekturna/ Rasilez (aliskiren)

Anti-Seizure Medications:

- ❖ Taken on a regular basis to prevent seizures from conditions such as Epilepsy.
- ❖ Examples of anti-seizure meds are Xcopri (cenobamate), Potiva (ezogabine/retigabine), Gabapentin (Neurontin), Lamictal (lamotrigine), Keppra (levetiracetam), etc.
 - Side Effects:
 - Mild – Fatigue, dizziness, weight gain, loss of bone density, skin rashes, loss of coordination, speech problems, memory and thinking problems.
 - Severe – Rare but include depression, suicidal thoughts and behaviors, severe rash, inflammation of certain organs – such as the liver.
 - Older anti-seizure side effects may include liver damage, nausea, vomiting, double vision, loss of coordination, drowsiness, headache
 - Examples of Older Anti-Seizure Med: Carbatrol/Tegretol (carbamazepine), Trileptal (oxcarbazepine), Dilantin (phenytoin), Depakote/Belvo/Convulex (valproic acid)
 - Special Concerns:
 - Take medications exactly as prescribed
 - Try to take at the same time each day
 - Do not miss doses

67

67

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Blood Pressure Medications and Side Effects continued . . .

- ❖ **Calcium Channel Blockers** – These prevent calcium from going into heart and blood vessel muscle cells, thus causing the cells to relax, which lowers blood pressure.
 - Common Side Effects: Constipation, headache, rapid heartbeat, dizziness, rash, drowsiness, flushing, nausea, swelling in the feet and lower legs.
 - Avoid grapefruit or grapefruit juice.
 - Examples: Norvasc (amlodipine besylate), Cardizem/Dilacor XR (diltiazem), Procardia (nifedipine)
- ❖ **Renin Inhibitors** – Renin is an enzyme produced by your kidneys that starts a chain of chemical steps that increases blood pressure. Meds work to slow down the production of renin, reducing its ability to begin this process.
 - Due to a risk of serious complications, including stroke, you shouldn't take Renin Inhibitors with ACE inhibitors or with ARBs (angiotensin receptor blockers)
 - Examples: Tekturna/ Rasilez (aliskiren)

Anti-Seizure Medications:

- ❖ Taken on a regular basis to prevent seizures from conditions such as Epilepsy.
- ❖ Examples of anti-seizure meds are Xcopri (cenobamate), Potiva (ezogabine/retigabine), Gabapentin (Neurontin), Lamictal (lamotrigine), Keppra (levetiracetam), etc.
 - Side Effects:
 - Mild – Fatigue, dizziness, weight gain, loss of bone density, skin rashes, loss of coordination, speech problems, memory and thinking problems.
 - Severe – Rare but include depression, suicidal thoughts and behaviors, severe rash, inflammation of certain organs – such as the liver.
 - Older anti-seizure side effects may include liver damage, nausea, vomiting, double vision, loss of coordination, drowsiness, headache
 - Examples of Older Anti-Seizure Med: Carbatrol/Tegretol (carbamazepine), Trileptal (oxcarbazepine), Dilantin (phenytoin), Depakote/Belvo/Convulex (valproic acid)
 - Special Concerns:
 - Take medications exactly as prescribed
 - Try to take at the same time each day
 - Do not miss doses

68

68

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Pain Medications

- ❖ All “Over the Counter” (OTC) medications for pain and prescribed medications for pain require a physician’s order prior to administering any type of pain medication. Pain medication prescriptions may be PRN (on an “As Needed” basis) or daily.
 - **NSAIDS** – (Non-Steroidal Anti-Inflammatory Drugs) Some can be purchased over the counter.
 - Examples: Aleve (naproxen), Motrin/Advil (ibuprofen), Aspirin (Bufferin, Bayer)
 - Side Effects: Bleeding and irritation in the stomach. This bleeding usually occurs after long-term use but can also occur with short-term use. Long-term use can also affect the kidneys (Black stool or blood in the stool is a late sign of stomach bleeding).
 - Examples of NSAIDS that need a prescription to purchase: Nalfon (fenoprofen), Ansaid (flurbiprofen), Indocin/Indocin-SR/Tivorbex (indomethacin), Toradol (ketorolac), Relafen (nabumetone)
 - **Acetaminophen (Tylenol)** – Can be found in many products for colds and flu as well as for pain.
 - Side Effects: Liver damage in high amounts or long-term use. Symptoms of liver damage are nausea and vomiting within 12-24 hours after taking acetaminophen.
 - **Persons should not take more than 3000 mg per day**
 - **Narcotics**
 - Examples: Morphine, OxyContin (oxycodone), Duragesic Patch/Fentora (fentanyl), Opana (oxymorphone), Methadose (methadone), Demerol (meperidine)
 - Side Effects: Addiction, constipation, breathing slowing, dry mouth, nausea, sedation, tremor
 - Special Concern: anyone taking narcotics should treat possible constipation by maintaining a high fluid intake, high fiber diet, and using stool softeners as directed by the prescriber
 - Routs: Oral, injections, patches – such as Fentanyl patches or lidocaine patches. Patches are only for use on skin, they come prepackaged and should be removed from the sealed package only when ready to use them. Place the patch on a clean, dry area of the skin on the chest, upper arm, back or according to the doctor’s instructions. Additional side effects for patches include redness at the site of the patch. Rotation of placement is suggested.

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Diabetes Medications

- Diabetes is a chronic disease of the body’s inability to produce or efficiently use fuel (blood sugar) from foods. The organs and especially the brain need blood sugar to function and survive. Therefore, persons with diabetes need medications to help the body use the foods they ingest for fuel. This medicine can be in the form of oral tablets or by injection.
 - Oral Medications can work in different ways:
 - Work by delaying carbohydrate absorption in the small intestine
 - Examples: Precose (acarbose), Glyset (miglitol)
 - Side Effects: Bloating, gas, diarrhea
 - Work by reducing insulin production in the liver
 - Examples: Glucophage/Glucetza/Riomet/Fortamet (metformin)
 - Side Effects: Diarrhea, upset stomach, gas
 - Improves the use of insulin in the muscles and fat cells
 - Examples: Avandia (rosiglitazone), Actos (pioglitazone)
 - Side Effects: Weight gain, Swelling
 - Help the pancreas make more insulin
 - Examples: Prandin (repaglinide), Starlix (nateglinide), Glucotrol (glipizide), Amaryl (glimepiride)
 - Side Effects: Nausea, Too low of blood sugar
 - **Insulin** – Insulin is given by direct care staff **only after the staff has gone through an insulin training approved by Monroe Community Mental Health Authority**
 - **This training DOES NOT prepare or certify you to give injections**

Short Acting Insulin	Works in 15 min	Peaks in 1 Hour	Lasts for 4-5 Hours
Intermediate Acting Insulin	Works in 30-45 min	Peaks in 2-3 Hours	Lasts for 6 Hours
Long Acting Insulin	Works in 2-4 Hours	Peaks in 10 Hours	Lasts 10-16 Hours

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Diabetes Medications Continued . . .

- ❖ **All diabetes medications can produce too low of blood sugar which can be a medical emergency if too low.**
 - This can happen if the client didn't eat the food he/she was supposed to eat, at the time he/she was supposed to eat it, if they are sick with fever, or if they do more physical activity than usual.
- ❖ **Goal Blood Glucose Levels** – 60 – 120 or individualized to the client. This is determined by a finger stick blood glucose check. Blood sugars should be checked according to the physician's orders – usually before or after meals, before the administration of diabetes medications or if low or blood sugar levels are suspected.
- ❖ **Concerns** – All finger sticks with the glucometer require a physician's order. Some people can be on a sliding scale for insulin, this is individualized and created by the physician. Documents all finger stick readings and the action taken according to the blood sugar readings.

- ❖ **Hypoglycemia (Low Blood Sugar) Signs and/or Symptoms:**
 - DROWSINESS
 - Dizziness
 - Faintness
 - Headache
 - Palpitations and/or Increased Heart Rate
 - Confusion and/or Change in Behavior - Irritability
 - Double Vision
 - Pale or Pallor Bleached Out
 - Chills or Sweating (Diaphoretic)
 - Shaking
 - Nervousness or Anxiety
 - Hunger
- ❖ When Hypoglycemia (Low Blood Sugar) is suspected or you observe signs of hypoglycemia, hold the oral medication, check blood sugar level and treat according to physician's order.



71

MEDICATION SIDE EFFECTS AND SPECIAL CONCERNS

Diabetes Medications Continued . . .

- ❖ **To Treat Hypoglycemia**
 - This can be an emergency! Call 911 if client is not able to take in fluids or able to eat and/or use Glucagon as directed.
 - When blood sugar level is below 60 (or what the physician orders as being too low), offer 4 ounces of juice or regular soda (not diet soda), a snack or use Glucagon as directed
 - Glucagon administered only after successful completion of Insulin Training
 - Recheck blood glucose after 15 minutes and repeat if necessary.
 - Continue to monitor for signs of low blood sugar.
 - Notify the physician for frequent blood glucose levels below 60.
- ❖ **Glucagon (Injection Route)**
 - It is an emergency medication used to treat severe hypoglycemia (low blood sugar) in patients with diabetes who have passed out or cannot take some form of sugar by mouth.
 - In order to administer Glucagon you must have successfully completed Insulin Training approved by Monroe Community Mental Health Authority (MCMHA)
- **This training DOES NOT prepare or certify you to give injections**



72

THANK YOU!



Thank you for your attention today.

You are helping consumers to lead safer and healthier lives.

Please let us know if you have any questions or concerns, and any feedback for this course.