By the end of this refresher course, the nursing assistant will be able to:

1. Identify the five rights of medication administration
2. Apply knowledge to patient situations involving medications
3. Demonstrate safety measures involved with medication administration.

The purpose of this course is to provide the clinician with a refresher course in assisting patients to take their medication. Safety measures will be presented along with general documentation information.

Space does not allow the inclusion of every applicable law for every state regarding the administration or the assisting of a patient to take their medications. It is the responsibility of the reader to know their state and facility regulations and apply them to their clinical situation.

Delegation is the handing over of specific tasks, usually to a subordinate. It is the assignment of authority and responsibility to another person to carry out specific activities or functions.

Medication administration is the assistance of a person in the ingestion, application, or inhalation, of medications including both prescription and non-prescription medications.

Assisting your patient to take their medications can be an important intervention in helping them to maintain or improve their current level of health. However, this important function is not without a vast amount of responsibility and should not be taken lightly.

First, you are responsible for helping to keep your patient safe. Never accept or agree to do something that you know is against facility or state regulations. It could endanger your patient, as well as bring professional ramifications for both you and the supervising RN and the facility. If you are uncomfortable with something, voice your concerns with the RN. If after discussing the situation you are still uncomfortable, seek the advice and clarification of a supervisor before proceeding. Some states do not allow nursing
assistants or other UAP (unlicensed assistive personnel) to give medications by certain routes such as nebulizers or injections. The RN is responsible for delegating in a proper manner, but if you feel incapable of performing a task for any reason or need more information, it is also your responsibility to speak up.

The first principle of medication administration is the principle of the five (or in this case six) rights. If you understand and practice these rights every time that you assist with medication administration you have gone a long way toward eliminating errors. The rights of medication administration are:

- **The right resident.** Always look for a form of identification for the resident such as an armband or picture in the chart. Ask the patient to tell you his name. Don’t ask the patient ‘Are you Mr. Jones?’ The patient may be confused and tell you yes if you ask him if he is Abraham Lincoln! Avoid distractions; a lot of activity or noise may cause you to make mistakes even if you know the residents well.

- **The right drug.** Compare the medication administration record (MAR) with the pharmacy label. If the two do not agree exactly, contact the RN for further assistance. Sometimes the pharmacy label may have the generic name and the MAR the brand name. Never assume they are the same medication verify with a drug book or check with the RN. Some medications have names that look and sound similar to other meds but are for vastly different purposes and can have fatal results if a mistake is made.

- **Right Dosage:** Compare the MAR to the pharmacy label. The two should match exactly. If not, contact the RN.

- **The Right Time:** Follow the facility’s time schedule or the specific time noted on the MAR. Medications should be given no earlier than 30 minutes before the scheduled time or 30 minutes after the scheduled time. If the directions on the MAR and the facility administration time differ, the time on the MAR takes priority. Some drugs have special instructions such as give before, after meals, or at bedtime. Some medications are PRN medications, meaning they are only given when needed. The MAR should give clear guidelines for the administration of these medications. If there is any doubt about the need for these medications, contact the RN.

- **Right Route:** Double-check the MAR to verify the route of drug administration. Review the MAR and Pharmacy label to be sure that they match. The oral route is the medication route most commonly used, but there can be other routes. If there is any question, contact the RN. Never administer medications by a route other than specified in the MAR.

- **Right record:** Make sure that the resident, pharmacy label, and the medication label all match. Initial the medication given at the correct time. Make sure that you sign the MAR at the bottom.
Common abbreviations that are used in writing orders for prescriptions and medication labels include:

- **ac**: before meals
- **Ad lib**: freely
- **AM**: morning
- **ASA**: Aspirin
- **BM**: bowel movement
- **BS**: blood sugar
- **bid**: twice a day
- **BP**: blood pressure
- **cap**: capsule
- ** éc**: with
- **cc**: cubic centimeters
- **de**: Discontinue
- **Disp**: dispense
- **DNR**: Do not resuscitate. This is a specific order not to revive a patient artificially if they succumb to illness. If a patient is given a DNR order, they are not resuscitated (no CPR) if they are near death and no code blue is called.
- **ec**: enteric coated
- **elix**: elixir
- **fl**: fluid
- **gtt**: drop
- **hs**: At hour of sleep, bedtime
- **HTN**: hypertension (high blood pressure)
- **L**: liter
- **Mg**: milligram
- **MAR**: medication administration record
- **ml**: milliliters
- **NTG**: nitroglycerine
- **npo**: Nothing by mouth. For example, if a patient was about to undergo a surgical procedure requiring general anesthesia, they may be required to avoid food or beverage several hours prior to the procedure.
- **O2**: oxygen
- **O.D.**: Right eye
- **O.S.**: Left eye
- **O.U.**: Both eyes
- **oz**: ounce
- **P**: Pulse, recorded as part of the physical examination. It is one of the “vital signs” and reflects the number of heart beats per minute.
- **pc**: after meals
- **po**: by mouth
- **Post**: after
- **PM**: evening
• **Pre**: before
• **prn**: as needed
• **q**: every
• **q am**: every morning
• **qd**: every day
• **qh**: every hour
• **q2h**: every 2 hours
• **q3h**: every 3 hours
• **q4h**: every 4 hours
• **qid**: four times daily
• **qhs**: every night or at bedtime
• **qpm**: each evening
• **qod**: every other day
• **R**: respirations
• **S**: without
• **SL**: sublingual
• **Sol**: solution
• **Ss**: one half
• **Stat**: immediately
• **Susp**: suspension
• **Syr**: syrup
• **Supp**: suppository
• **T**: temperature It is one of the "vital signs."
• **tab**: tablet
• **Top**: topically
• **tid**: three times a day
• **TPR**: temperature /pulse /respirations
• **tsp**: teaspoon
• **tbsp**: tablespoon
• **UA or u/a**: urinalysis
• **Ung**: ointment
• **VS**: vital signs (Temperature, pulse, respirations, blood pressure)
• **Wt**: weight

**Documentation**

Documentation could be called the 7th ‘right’ of medication administration. Whether medications are taken by a patient, the aide helps the patient to take the medications, or the nurse gives the medications, they must be properly documented on the MAR.

There are many reasons for the need for clear, concise charting. First the patient’s medical record is also a legal document and in a court of law, if it isn’t charted it wasn’t done. It is also the only way to be certain of clear communication between all members of a patient’s health care team and provides an up to date record of the patient’s status.
Pointers for documentation:

Never under any circumstance, chart a medication before it is given.

When giving PRN medications, always make sure that the reason for giving the medication is clearly documented. For example “Patient complains of headache”. If the patient’s symptoms seem in any way severe, unusual, or out of the ordinary notify the nurse. If your instinct tells you something is wrong, ask the patient a little more about how they are feeling. Taking a few extra moments, instead of just giving the medication and going on may save a life. For example, headache can be a sign of stroke.

Use neat legible writing. Do not erase or use white out. If you make a mistake draw a single line through the mistake so that it is still readable and initial beside the error and date it. Never attempt to erase an entry. Any attempts to alter charting will raise suspicion in a court of law.

Make sure that each entry is dated and timed.

A patient has the right to refuse to take medications. If the medication is refused it is vitally important that this be documented on the MAR and reported to the nurse. The same thing is true if the patient forgot to take their medications or you forgot to remind the patient to take their medication. Always document on a patient record in blue or black ink, no exceptions. Other colors of ink do not photocopy well if the medical record must be copied for medical, legal, or insurance purposes.

**Medication Administration Procedure**

Always wash hands before administering medications.

Check the patient’s medical record or MAR for any allergies before administering any medication. This should be done each and every time medication is administered or supervised. Do not rely on your memory.

Do not open or prepare medications until the patient is ready to accept it.

Do not prepare medications for more than one patient at a time.

Keep the medication in sight until it is administered.

Administer the medication as prescribed. If the medication is dropped or becomes contaminated, follow facility guidelines for disposal and documentation. Administer replacement dose to patient. Notify nurse of need for replacement dosage.

If a patient vomits their medication, contact the nurse.

**When a patient refuses medication**
When a patient refuses to take their medication, explain to the resident the importance of taking the medication. Encourage the resident to cooperate with medication regimens. You cannot force the resident to take medications. Remember, they have the right to refuse to take medications and treatments. If the patient still will not take the medication, notify the RN of the patient’s refusal and document the procedure you followed on the medical record.

**Documenting medication errors**

A medication administration error occurs when:

- The wrong medication is given to a patient
- Wrong patient is given a medication
- Wrong dosage of a prescribed medication is given.
- Medication is given at the wrong time or not at all
- Wrong route of administration is used
- Medication is not available
- Wrong form of medication is given (liquid for a tablet, etc.)

When a medication error occurs you must notify the RN immediately. Without alarming the patient, monitor the patient for reactions or undesirable effects. The medication error should be documented according to facility policy.

**Measuring and Recording Vital Signs**

There are certain times that the patient’s medication record will call for the monitoring of vital signs, for instance: Give Mr. Jones Clonidine 0.2mg for BP > 150/100. This order means that when Mr. Jones’ BP is greater than 150/100 the medication is given.

Another example: Mrs Webster has an order for Norvasc 20mg PO every day. Hold for BP < 100/80. You check Mrs. Webster’s BP and note it to be 90/70. You hold her Norvasc and document both the BP and the holding of the medication in the medical record.

A person’s temperature, blood pressure, pulse, and respirations will vary within any given 24-hour period. Factors that influence a person’s vital signs are sleep, anxiety, stress, activity, weather, noise, eating, medications, and illness.
Vital signs are measured and recorded to detect variations in bodily functions and to determine how well a person is doing with a given treatment. Normal vital signs vary from one resident to another. What is normal for that patient is the what that patient’s usual measurement is.

The vital signs are taken with the patient lying or sitting at rest unless otherwise noted in the patient’s medical record. Any vital signs that are outside the patient’s normal range should be reported to the RN immediately.

**Temperature**

Oral 96.6 to 98.6 degrees Documented as T 98.2 (OR) The OR in parenthesis designates that you took this reading orally or by mouth

Tympanic (T) 98.6 degrees Documented as T 98.4 (T) The T in parenthesis indicates that you took the measurement by ear (tympanic membrane or eardrum)

A rectal temperature is one degree higher than normal Documented as 99.4 (R)

An axillary temperature is one degree lower than normal Documented as 97.4 (A)

**Pulse Range**

60-90 beats per minute Documented as 70(P)

Apical (AP)
Femoral (F)
Radial (R)

**Respiration Range**

12-20 breaths per minute Documented as R 20

**Blood Pressure**

The ideal blood pressure for decreasing the risk of heart attack or stroke is 120/80.

Normal BP is below 130 (S) and below (85) diastolic.

Some typical medications that require vital sign checks include:

Digoxin—pulse
Procardia—blood pressure
Morphine – respirations
Tylenol- If given for fever check temperature. If given for pain/discomfort evaluate and document whether the medication is effective at relieving pain.

Common symptoms that would require that vital signs be checked include:
Dizziness – check blood pressure
Ankle swelling – check pulse and blood pressure
Chest pain- blood pressure, respiration, and pulse.

There are some times that a blood pressure cannot be taken in a specific arm, such as the same side as a breast removal, or an arm that has a hemodialysis access such as a fistula or an av graft. If a patient is paralyzed on one side, try to take the blood pressure in the non-paralyzed arm if possible. This information should be noted on the patient’s MAR.

For most indications, there are three cuff sizes: Child, adult, and thigh cuffs. The width of the cuff can affect the blood pressure reading. A cuff that is two narrow creates a falsely high reading. A cuff that is too wide will give a falsely low reading. A cuff that is two narrow will give and elevated reading. Use a child cuff for very thin patients and a thigh cuff for patients that are obese or have large upper arms.

When giving medications always be sure to give attention to the following:

Assure privacy and confidentiality of resident
- Give this task your full attention
- Never substitute one patient’s medication for another patient
- Assure the work area is clear and well lit
- Prepare medications for one resident at a time
- Ask the resident their name
- Check the resident’s medication record and check the resident’s picture on the health record/MAR
- Review the health/medication record for medication to be given
- Wash hands
- Explain the procedure to the resident
- Retrieve medication from secured storage area, checking label for name, medication, time, route, and dose
- Check the expiration date. Alert the RN if it is expired and do not give
- Check MAR/residents record for allergies
- Double-check the label and compare with the residents medication record. Read label for instructions
- Do not give the medication if it is contaminated
- Do not leave the medication unattended
- When finished giving the medication, store appropriately in a locked storage area
- Wash hands
- Record immediately per facility policy and procedure, the resident’s name, time, medication, dose, route, person administering the medication, and any unusual observations.
It is important to note that medications should not be crushed nor mixed with food or juice unless specified on MAR. Medications can be released all at one time if they are timed release and become crushed; causing an accidental overdose to the patient. Medications that are taken with juice may interact with the juice and cause adverse reactions. If you have any doubt about whether a medication can or should be crushed or mixed with juice or food; consult with the RN.

INTERACTIONS

Medicines can interact with:

- other medicines
- some foods
- some herbs
- lifestyle (alcohol, etc)

Allergies

A rash or a life threatening reaction can occur at anytime with any medication. Reactions can occur even if the patient has previously taken the medicine successfully. A severe form of allergy called anaphylaxis can happen when a person is exposed to medications, foods, or substances to which he or she is allergic. This type of allergic reaction calls for emergency treatment. The signs of anaphylaxis are:

- itching
- hives
- swelling of the throat
- trouble breathing (dyspnea)
- shortness of breath
- a drop in blood pressure
- irregular heart rhythm
- nausea
- vomiting
- abdominal cramping
- loss of consciousness
- death

Side Effects and Adverse Reactions
All medications have side effects, but these effects may not be exhibited in every patient who takes a medication because different people tolerate different medications differently. The most common medication side effects are nausea and vomiting. Some side effects can be troublesome and others can be life threatening. Some side effects can be eliminated or minimized by taking the medication with food, some side effects such as drowsiness may go away after the patient becomes accustomed to the medication. It is important to carefully observe patients for reactions to medications and notify the RN immediately for any symptoms. Some medication reactions called Adverse Drug Events are serious and can lead to severe medical conditions or death. Other medications can cause toxicity such as digoxin, which can be associated with visual changes, vomiting, and slowed heartbeat. Tinnitus or ringing in the ears is a potential sign of aspirin toxicity.

Medication Storage

Medications should be kept under lock and key at all times. This applies to all medications in the facility including over the counter (OTC) medications. The key must be kept on the person passing medications at all times. The person passing medications should not leave any medications lying on top of the medication cart. The person passing meds should prepare the patient’s dose of medication, keeping it in sight at all times, take it directly to the resident, and watch the resident take the medication. Medications should not be left at the beside. These are safety precautions that need to be taken to prevent a resident from obtaining and taking medications that are not for them.

Some medications may need to be refrigerated; others must be protected from light, while others must be kept at room temperature. Before returning meds for storage, make sure that all medications are secured by lock and that none need to be kept in the refrigerator or under special storage conditions.

Disposing of Medications

Medication vials and bottles should be routinely checked for an expiration date. Expired medications should be promptly disposed of following your facilities medication disposal policy. Medications that are missing labels or the label is illegible, and those that have been stopped by the doctor should be disposed of. Never use expired medication or give another residents medications to a different patient. The risk of error or adverse drug event is too great. Never dispose of medications in a trashcan, confused patients or small children could find the medications and become poisoned by them.

Infection Control

Principles of infection control and Universal precautions apply even when medications are being given. Always wash your hands before and after each patient contact and before beginning to prepare medications. Wear gloves when you may come into contact with blood and body fluids and when touching non intact skin. Wear gloves is not a substitute for handwashing, always wash hands before putting gloves on and when removing them. Never perform documentation while wearing gloves. Wear a waterproof
gown, mask, and goggles if you may become, splashed or sprayed with blood or body fluids.

**Medications and the Aging Process**

The normal processes of aging affect how medications are used by the body. As persons age kidney function naturally declines, this causes a decreased need for the amount of medication prescribed if specific medications are eliminated by the kidney. Medications do not leave the body as fast as they once did in the past. If a person with decreased kidney function becomes dehydrated, this can slow down the process of medications leaving the body even more, causing medications to build up.

Some medications are processed and eliminated from the body by the liver. As we age, liver size gets smaller and blood flow to the liver is less. This can lead to the build up of medications within the body.

Changes in the gastrointestinal system can also affect the amount of medication we need. The surface area of the small intestine is diminished, leading to decreased absorption. The pH or acidity of the stomach is greater which can affect absorption and the release of certain medications.

The amount of protein or serum albumin in our blood diminishes as we age. Medications can bind to these proteins in the blood. When a medication is bound it is not active, when the amount of albumin in the blood is decreased that means that more of the active drug is circulating in the body.

Total body fat in relation to total body mass increases as we age. For drugs that are bound to fat particles, this can mean that the body holds onto medications longer than it should and can result in side effects, toxic symptoms, or overdose.

The amount of body water found in the human system can be decreased as much as 15%. This can cause the body to retain more water-soluble medications than needed causing an overdose.

With elderly adults, there is much more likelihood of adverse reactions, more medication sensitivity, and increased risk of toxicity. Drug that are likely to cause problems in the elderly are nonsteriodal anti-inflammatory medicines (NSAIDS), heparin, long acting benzodiazepines, aminoglycosides, thiazides, warfarin, isoniazid and many antiarrhythmics. Drugs in the benzodiazepines may lead to more sedation that needed at the normal or usual dose. Drug-drug, drug-food, drug-lifestyle and drug-herb interactions increase in the elderly. The usual starting dosage for many medications used in elderly persons may be decreased by as much as 50% of the usual starting dose. Close monitoring of the elderly person for drug interactions, allergic reactions, side effects, and adverse events, as well as therapeutic benefits is essential.
Conclusion

Assisting a patient to remain healthy by helping them to take their medications correctly can be a rewarding experience. It can also be a dangerous one if the rules are not followed. Be sure to always follow your state and facility guidelines with regard to any role you have with medication assistance. Never do anything that that is against your state or facility policy, even if asked to do so by an RN. If you do and something happens you and the RN will have no defense in a court of law or with your state licensing board. It is not worth the risk to the patient or your license. When assisting with medications always stop and ask a supervisor if any questions arise.
1. The handing over of specific tasks usually to a subordinate is the definition of:
   A. ☐ Administration
   B. ☐ Evaluation
   C. ☐ Delegation
   D. ☐ Promotion

2. What is one of your main responsibilities in medication administration?
   A. ☐ Finishing the medications on time.
   B. ☐ Knowing the side effects of the medications.
   C. ☐ Transcribing the orders to the MAR.
   D. ☐ Keeping the patient SAFE.

3. What should you do if you are asked to do a task, but feel uncomfortable with it?
   A. ☐ Do it anyway.
   B. ☐ Not do it at all.
   C. ☐ Discuss it with the RN.
   D. ☐ None of the above.

4. Which of the following is not one of the medication rights?
   A. ☐ Right patient.
   B. ☐ Right day.
   C. ☐ Right record.
   D. ☐ Right drug.

5. What is the abbreviation that means the patient should remain fasting before a procedure?
   A. ☐ NPO
   B. ☐ OD
   C. ☐ OS
6. You are responsible for assisting with medications for the day. Mr. Jones vomits his medication. What is your next step?
   A. Give Mr. Jones a replacement dose of the medication.
   B. Do nothing.
   C. Contact the RN.
   D. Give Mr. Jones a PRN medication for nausea.

7. You are charting in the medical record and make a mistake. What should you do?
   A. Erase the mistake.
   B. Cover the mistake with whiteout.
   C. Draw a line through the mistake and date and initial it.
   D. None of these.

8. What steps can you take when a patient refuses to take their medication?
   A. Explain the importance of taking the medication.
   B. Encourage the patient to cooperate.
   C. Notify the RN and document the steps you took in the medical record.
   D. All of the above.

9. Which of the following is not a medication error?
   A. Giving the medication 30 minutes after it is due.
   B. The medication is not available.
   C. Giving the wrong form of the medication.
   D. Giving a medication by the wrong route.

10. A rectal temperature is:
    A. One degree lower than normal.
    B. One degree higher than normal.
    C. The same as an oral temperature.
    D. Taken in the ear.
11. Mr. Smith complains of pain in his chest. What is your next step?

☐  a. Call the RN.
☐  b. Give nitroglycerine.
☐  c. Check the blood pressure, pulse rate and respirations.
☐  d. None of the above.

Mrs. Burton has just returned from her dialysis treatment. Her AV graft is in her left arm. You want to take her blood pressure because you know that dialysis can make her hypotensive. Where do you obtain the blood pressure reading?

☐  a. In the thigh.
☐  b. In the left arm.
☐  c. You don't take it.
☐  d. In the right arm.

13. You are assisting the patient with taking medications when you notice that the medication has expired. What should you do?

☐  a. Dispose of the medications in the trash can.
☐  b. Alert the RN and do not give.
☐  c. Obtain new medications for the patient.
☐  d. None of these.

You are giving medicines when Mrs. Cook comes up to you and complains of itching. What could be the possible cause(s)?

☐  a. Anaphylaxis
☐  b. Medication side effects.
☐  c. She forgot to take her medications.
☐  d. None of these.

15. What are the signs of digoxin toxicity?

☐  a. Visual changes.
☐  b. Nausea
☐  c. Slowed heart rate.
☐  d. All of the above.

16. Which of the following is a sign of potential aspirin toxicity?
16. Which of the following is a sign of potential aspirin toxicity?

A. Vomiting
B. Sweating
C. Abdominal pain.
D. Ringing in the ears.

17. Which of the following age related process can affect how medications are used by the body?

A. Memory decline.
B. Decreased kidney function.
C. Decreased circulation.
D. Constipation.

18. What are the natural aging process related to liver function?

A. The liver size increases.
B. The liver size decreases.
C. The blood flow to the liver decreases.
D. Both B and C are correct.

19. As we age the amount of water in the body:

A. Increases
B. Decreases
C. Remains the same.
D. Changes it's chemical composition.

You are a medical assistant at Redwood Nursing Center. The RN in charge asks you to 20. give a patient their insulin. You know that your state guidelines prohibit you from giving injections. What do you do?

A. Inform the RN why you cannot give the injection.
B. Go ahead and give it anyway since you like the nurse.
C. Do nothing.
D. Call the doctor.