

LESSON 4
ADMINISTRATION OF
PREPARED INSTILLATIONS AND
TREATMENT

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ADMINISTRATION OF PREPARED INSTALLATIONS AND TREATMENT

1. Identify basic guidelines for administering medications:
2. Administration of Oral medications
3. Administration of Eye drops and ointment
4. Administration of ear drops
5. Administration of nasal drops and sprays
6. Administration of topical Administration
7. Administration of compresses and dressing
8. Administration of Vaginal products

9. Administration of rectal product.
10. Administration of soaks and sitz baths
11. Administration of oral hygiene products
12. Administration of transdermal patches.
13. Administration of inhalation products
14. Nebulizer treatment
15. Epi Pens

PERFORMANCE OBJECTIVE

Students will demonstrate understanding of administering medications by different routes.

Performance must be according to the skills competency checklist.

Upon completion of this chapter students will demonstrate understanding of the content by completing quiz with 80% accuracy

KEY TERMS

Enema

Handheld inhaler

Inhalation

Nasal

Nostril

Nebulizer

Ophthalmic

Optic

suppository

4.1 Identify Basic Guidelines for Administering Medications

INTRODUCTION: Regardless of the form of medication or the route by which it is administered, certain medication administration guidelines apply. The Medication Aide must learn and adhere to these guidelines at all times. Policies and procedures, storage, pharmacy vendors and facility guidelines will vary but the best practices of medication administration should always be applied.

'TOPICAL OUTLINE'

A. Basic guidelines for administering all medications

1. Know why the client is receiving the medication

2. Know the medication delivery system

a. vials c. unit dose

b. blister pack d. multi-dose

3. Verify each medication order
 - a. Written physician's order
 - b. Medication Administration Record (MAR)

4. Know the types of medication orders
 - a. Routine order
 - b. PRN
 - c. Single dose
 - d. Stat

5 Give only those medications ordered by an authorized prescriber

6. Read the pharmacist's label (3 times).
NEVER give by color-coding only!

7. Never give a medication if there is any question about the order.

8. Never give a drug if its normal appearance has been altered in any way.

9. Always check for ALLERGIES.
10. Take vital signs when indicated.
11. Check the expiration date on the medication label.

12. Practice aseptic technique.

Wash hands before and after administering a medication.

13. When administering oral medications, stay with the client until you are certain that the medication has been safely swallowed.

14. Document appropriately in the Medication Administration Record (MAR)

B. Preparing for a medication pass ("med-pass")

1. Put the Medication Administration Record (MAR) on the cart
2. Stock the cart:
 - a) Medication cart or cabinet
 - b) Disposable gloves
 - c) Paper cups
 - d) Paper towels & tissues
 - e) Small plastic measuring cups .
 - f) Hand disinfectant pump

- g. Drinking cups & straws
- h. Portable trash container (lined)
- i. Plastic spoons
- j. Blood pressure cuff / stethosc
- k. Tablet crusher
- l. Alcohol preps
- m. Magnifying glass
- n. Pen & paper

Note: Not all facilities use medication carts. The supplies listed should be made available to the Medication Aide regardless of how the medications are stored or which 'style' of administration system is used.

3. Fresh food supplies

- a. Pitchers of fresh (not iced) water and assorted juices.
- b. Fresh containers of applesauce and/or pudding.

c. Other specially required foods (sugar-free, etc).

Note: Use refrigerated items quickly and dispose of unused portions after each med-pass.

REMEMBER: WHEN IN DOUBT...DON'T!

4.2 Administer or Assist the Client With Self-Administration of Oral Medications

PERFORMANCE OBJECTIVE'

Assist with administration or administer oral medications in accordance with the HCP' s orders.

Performance must be documented as acceptable according to the skills competency checklist.

TOPICAL OUTLINE‘

Procedure to administer or assist the client to administer oral medications

1. Wash hands thoroughly
2. Identify the Right client and provide for client privacy.

- a. Identify the person to whom the medication is being given.
- b. If the client is not wearing an armband, there should be a recent picture in the client's MAR so identification can be verified.

Note: It is not unusual for the cognitively impaired client to answer to another name or to give the wrong name.

If there is no picture, confirm identification with another staff member.

3. Read the MAR and compare with the HCP orders.

4. Get the medication container from the cart/cabinet and read the label to verify the:

Right Client,

Right Drug

Right Dose

Right Route

Right Time.

5. Check the expiration date on the medication label

6. Compare the label with the instructions on the MAR. Read three times.

7. Pour the verified medication into the appropriate container

8. Place your initials in the appropriate box on the MAR (see special documentation requirements for PRN drugs in Chapter 5 and client refusal of medication in Chapter 6.)

9. If the medication is a Schedule II-V drugs, follow special documentation procedures.

10. Give the drug(s) to the client immediately with the recommended amount of fluids.

11. Stay with the client until he/she has swallowed the medication (check mouth PRN).

12. If the Medication Aide must leave out of visual range of the med cart to administer the medication; close the MAR and lock the cart or cabinet.

13. After administering, wash hands thoroughly with each resident.

14. Return to the cart/cabinet and proceed in the same manner to the next client.

15. Medications must be administered within a two-hour window unless otherwise specified.
16. When all medications are administered, dispose of unused foods or liquids, re-stock the cart with supplies, and clean and lock the cart or cabinet.
17. Observe client for any unpleasant or harmful effects from the medication and report observation to physician immediately.

B. General guidelines for administering oral solid medication:

1. If the client is receiving several medications at one med-pass put them all in one cup and allow the client to take them at the pace he/she wishes.

Note: If the client is frail or has difficulties swallowing, administer each pill separately to prevent choking.

2. It is best to take pills with a full glass of water but always check the HCP orders.

Note: Clients with a diagnosis of heart failure may be on a restricted fluid intake so it is very important to check the client's diet order for fluid restriction.

3.. If the client has trouble swallowing a pill, check with the HCP for other available forms of the medication. If no other form is available try the following:

4. Have client drink some water to moisten the mouth.

b. Removing dentures may help with swallowing. -

c. Don't rush the client

d. Give pills one at a time and follow with a drink of water.

4. DO NOT CRUSH or dissolve a tablet, caplet, capsule or other form of solid medication without an order.

5. A physician's order that states "May crush all meds" does not give permission to crush medications which are not meant to be crushed. DO NOT CRUSH

- a. enteric coated drugs,
- b. sustained released drugs
- c. drugs which are administered by dissolving in the cheek (buccal)
- d. drugs meant to dissolve under the tongue (sublingual).

6. When giving .a solid medication and a liquid medication at the same time, give the solid medication first and the liquid second.

Do NOT mix the solid medication with the liquid medication.

7. Do not mix medication with food or liquids such a juice or milk without requesting permission of the physician and obtaining a written order to do so.

8. If the client states that he/she has never taken the medication before or if the client questions the accuracy of a drug order, call the physician **BEFORE** administering the medication.

9. Administer solid oral medications only when you are sure that the Five Rights are being carried out.

10. Stay with the client until the medicine is swallowed. (Check the mouth if uncertain).

General guidelines for administering oral liquid medication

1. Unless instructed NOT to do so, shake the bottle well before pouring the medication
2. After removing the cap from the bottle, place it upside down on counter or table.

3. Use specially marked cups when pouring and measuring liquids.

Do not use eating utensils such as soup or dessert spoons to measure medication.

4. Place the measuring cup at eye level when pouring and measuring. (It is best to sit the cup on a level surface at eye level).

5. When pouring the medication, hold the bottle so that the label is covered with your hand., then wipe the top of the bottle after pouring to keep the label from becoming soiled or illegible.

6. If too much medication is poured into the medicine cup, throw the extra amount away. Do not pour the extra amount back into the bottle.

7. If giving two liquid medications at one time and one of the liquids is a cough syrup, give the cough syrup last.

The cough syrup is intended to coat and soothe the throat.

DO NOT MIX two liquid medications together.

Caution: When NOT to give medication:

a. If any of the following are missing:

- HCP order
- Medication Administration Record (MAR)
- Pharmacy label or illegible label

b. If the client exhibits significant change in physical or mental status.

c. If there is a question or any doubt about the five rights.

REMEMBER: WHEN IN DOUBT...DON'T!!

4.3 Administer or Assist the Client With Self-Administration of Eye Drops and Ointments

PERFORMANCE OBJECTIVE

Assist with administration or administer eye drops in accordance with the HCP orders.

Performance must be documented as acceptable on the skills competency form.

'TOPICAL OUTLINE

A. Procedure for safe administration of eye drops.

1. Provide for client privacy.
2. Verify medication order for accuracy on the MAR.
3. Wash hands.
4. Put on gloves
5. Use a clean tissue or sterile cotton pad to wipe the eyelid from inside to outside of eyelid, if crusting or drainage is present.

6. Position resident lying on his back or, if sitting, with head tilted back.
7. Shake medication bottle well, if required.
8. Remove cap from bottle and place on a clean, dry surface.
9. When bottle has a separate dropper, draw required amount of solution into dropper, holding dropper upright. If self-contained unit, invert bottle.
10. Use a gauze pad, gently pull down lower eyelid forming a 'pouch'.
11. Instruct client to look up. MAR.

12. Instill prescribed number of drops inside lower lid close to the outer corner of eye (or squeeze strip of ointment $\frac{1}{3}$ inch into pouch). 1 minute between drops and 5 minutes between 2 different kinds of drops.
13. Instruct the client to close eye slowly to allow for even distribution over surface of the eye.
14. Instruct client to avoid blinking and to keep eye closed for 1-2 minutes.

15. Apply gentle pressure to the inside corner of the eye with the index finger if medication is for glaucoma or inflammation or advise client to do so.

16. Do not touch tip of container to any surface.

17. Replace cap and check for tight closure.

18. When two or more different eye drops must be administered at the same time, allow a least a five-minute period between each medication.

19. Properly dispose of gloves and wash hands.

20. Document administration on

4.4 Administer or Assist the Client With Self-Administration of Ear Drops

mom Assist With administration or administer eye drops in accordance with the HCP orders. Performance must be documented as acceptable on the skills competency form.

A. Purpose of otic medications

1. Medications administered into the ear.
2. Used to treat ear infections, inflammation, and pain or to soften wax.

B.. Procedure for administering ear drops

- 1.. Provide for client privacy.
2. Verify medication order for accuracy with the MAR.
3. Wash hands.
4. Put on gloves if ears are infected or bleeding.
5. Make sure the medication is at room temperature
6. Position the client on his side with the unaffected ear facing downward and the affected ear facing upward.

7.. Use tissue or gauze pad to wipe.any secretions or drainage on the outside of the ear. Do not use a cotton swab or other sharp object.

8. When in container that includes dropper, remove cap from bottle and places upside down on a clean, dry surface.

9. If using a separate dropper, check dropper for cracks.

10. For an adult, straighten the ear canal by gently pulling the ear up and outward. For a child pulls the ear back and down.

11.. Drop the prescribed amount of medication onto the outer part of the ear canal and gently rotate to move medication into the ear canal.

12.. Remove extra medication with cotton ball.

13. Instruct the client to maintain position for 5 minutes to prevent medication from rolling back out of the ear.

14. If included in instructions, place cotton ball in clients ear.

15. Replace cap and check for tight closure
16. Properly dispose of gloves and wash hands
17. Document correctly in MAR

4.5 Administer or Assist the Client With Self-Administration of Nasal medication.

Assist with administration or administer nasal drops and sprays in accordance with the HCP's orders. Performance must be documented as acceptable on the skills competency form.

[TOPICAL OUTLINE]

A **Nasal medication**

Used to treat sinus infection, symptoms of seasonal allergies, pain or congestion due to colds

Usually these medications are best if they are administered by the client, especially the nasal sprays as they require hand/breathing coordination.

B. Procedures for administering nasal drops or sprays:

Nasal drops

1. Provide for client privacy & explain procedure.

Verify medication order for accuracy with the MAR. and• reads label 3 times. Wash hands.
Put on gloves.

Make sure the medication is at room temperature.

Instruct client to gently blow nose.

Instruct client to sit or lie down and tilt head back.

Drop prescribed number of drops into clients' nose.

Instruct client to remain in position for a few minutes.

Replace cap. Wash hands (properly dispose of gloves if wearing).

Document accurately on the MAR.

Nasal Sprays:

Follow steps 1 through 6 above.

Instruct client to hold head upright and slightly tilt head forward.

Instruct client to use finger to close nostril not receiving medication and to breathe in through his nose and out through the mouth.

4 Insert the spray nozzle no more than 1/4 inch into nostril with tip pointed to the back outer side of the nose.

Spray firmly & quickly.

Remove spray bottle and instruct client to tilt head back for several seconds to aid penetration of the drug.

Instruct client to avoid blowing nose for 15 minutes

Follow steps 10-12 above.

4.6 Administer or Assist the Client with Self-Administration of Topical Preparations

PERFORMANCE OBJECTIVE'

oft— Assist with administration or administer topical preparations in accordance with the RCP's orders. Performance must be documented as acceptable on the skills competency form.

'TOPICAL OUTLINE'

A. Administer creams and ointments

1. Provide for client privacy & explain procedure.
2. Verify medication order for accuracy with the MAR and read label 3 times.
3. Wash hands.
4. Put on gloves.
5. Apply thin film of cream, ointment or lotion to affected area using gloved. finger or cotton gauze.

6. Replace container top immediately.
7. Properly disposes of gloves and washes hands.
8. Documents correctly in MAR.

4.7 Administer or Assist the Client with Self-Administration of Compresses and Dressings

PERFORMANCE OBJECTIVE'

Em. Assist with administration or administer compresses and dressings in accordance with the HCP's orders.

Performance must be documented as acceptable on the skills competency form.

OPICAL OUTLINE]

A. Purpose of compresses and dressings 1.

Compresses are used to apply heat or cold to an injured areas of the body.

2. Compresses are sometimes done with special pharmaceutical compounds that are mixed by a pharmacist.

3. Heat opens blood vessels and cold closes blood vessels.

B. Proper administration of compresses

- 1.. Provide for client privacy & explain procedure.
- 2.. Verify medication order for accuracy with the MAR and read label 3 times.
3. Wash hands.
4. Put on gloves.
5. Follow RCP's order for preparing the compress solution.
6. Check the temperature of warm compress solution. Never exceed 110 degrees F or warm to the inner part of the upper forearm.

- 7.. Use gauze pad or a clean washcloth to as the compress
- 8.. Soak the compress in the prepared solution and squeeze lightly.
- 9.. Apply compress to affected area and note the time of application.
- 10.. Keep compress cold by changing every 2-3 minutes or by applying plastic over the compress, then an ice bag.

Reheat compress by dipping into solution approximately every 5-10 minutes and covering the compress with plastic wrap.
NEVER PLACE AN ELECTRIC HEATING PAD ON A COMPRESS.

12. Remove the compress in 20 minutes unless otherwise directed or:

- a. if the client complains of pain, or
- b. the area becomes reddened or client complains of numbness.

13. - Properly disposes of gloves and washes hands

4.8 Administer or Assist the Client With Self-Administration of Vaginal Products

PERFORMANCE OBJECTIVE'

pm. Assist with administration or administer vaginal products in accordance with the HCP's orders. Performance must be documented as acceptable on the skills competency checklist.

IT'OPICAL ouTuNE₁ A. Purpose of vaginal medications

Vaginal medications are administered directly into the vagina.

Administered to treat infection, relieve itching, control vaginal dryness, for symptoms of menopause or for birth control.

B. Procedure for administering vaginal medications

Vaginal suppositories

Provide for client privacy & explain procedure.

•
Verify medication order for accuracy with the MAR and read label 3 times.

Wash hands.

Put on gloves.

Encourage the client to urinate and/or move her bowels, if possible before administering suppositories or cream.

Position the client on her back with knees flexed and legs drawn toward chest.

Lubricate the tip of the suppository with a water-soluble gel (do not use petroleum gel).

Spread the labia and insert the suppository gently forward about 2 inches. Do NOT force.

Instruct the client to remain lying down for one half an hour after inserting the medication.

This allows the medication to begin to dissolve and work in the body.

Properly dispose of gloves and wash hands

Document correctly in MAR

Vaginal creams

Follow steps 1-6 above

If the applicator is not pre-filled, follow the directions on the package to fill the applicator.

Lubricate the tip of the suppository with a water-soluble gel (do not use petroleum gel).

Spread the labia and insert the suppository gently forward about 2 inches. Do NOT force.

Instruct the client to remain lying down for one half an hour after inserting the medication.

This allows the medication to begin to dissolve and work in the body.

Discard the applicator if it is disposable. If not, wash thoroughly in warm soapy water.

Properly dispose of gloves and wash hands

Document correctly in the MAR.

4.9 Administer or Assist the Client With Self-Administration of Rectal Products

PERFORMANCE OBJECTIVE'

R Assist with administration or administer rectal products in accordance with the HCP's orders.

Performance must be documented as acceptable on the skills competency checklist.

(TOPICAL OUTLINE'

A. Rectal medications

1. These medications are administered directly into the rectum.
2. They are used to treat illnesses and conditions, such as seizures, fever, nausea & vomiting, pain, and constipation.

3. Can be in the form of creams, gels, suppositories and enemas.

B. Procedure for administering rectal medications

Suppositories:

1. Provide for client privacy & explain procedure.
2. Verify medication order for accuracy with the MAR and read label 3 times.
3. Wash hands.
4. Put on gloves.

6. Position the client on the left side with the right leg flexed at the knee.
7. Remove the suppository wrapper
8. Moisten the suppository with water.
9. Insert into the rectum (approximately to the second knuckle).
10. Properly disposes of gloves and washes hands
11. Documents correctly in the MAR.

External creams

1. Follow steps 1-5 (Procedure for administering suppositories).
2. Bathe and dry rectal area.
3. Apply small amount of cream or ointment and rub in gently.
4. Properly disposes of gloves and washes hands.
5. Documents correctly in the MAR.

Internal creams, ointments

1. Follow steps 1-5 (Procedure for administering suppositories).
2. Attach the plastic applicator tube to the tube of cream or ointment.
3. Insert applicator tip into the rectum and gently squeeze tube to deliver medication.
4. Remove applicator tip from tube and wash with hot, soapy water.
5. Replace cap on the tube.
6. Properly disposes of gloves and washes hands.

7. Documents correctly in the MAR.

Enemas

1. Follow steps 1-5 (Procedure for administering suppositories).
2. Insert enema tip into rectum.
3. Allow all fluid to run into the rectum.
4. See RCP's order or package directions for instructions for specific enema products.
5. Properly disposes of gloves and washes hands.

6. Documents correctly in the MAR.

NOTE: The administration of enemas requires additional knowledge, skills, and clinical practice that are not addressed in this curriculum.- Instructors should emphasize this and warn students to **NEVER FORCE** rectal products, especially applicators for creams and enemas, as there is a danger of bowel perforation.

D. Special instructions for use of the EpiPen[®]

1. Never put your thumb, fingers or hand over the black tip
2. Do not remove the gray safety release until ready to use.
3. Do not use if solution is discolored or red flag appears in the clear window.
4. Do not place patient insert or any other foreign objects in carriers with the auto-injector as this may prevent you from removing the auto-injector for use.

Note: Most of the liquid (about 90%) stays in the auto-injector and cannot be reused.

However, the client has received the correct dose of the medication if the red flag appears in the window.

Never put your thumb, fingers or hand over the black tip. Accidental injection into hands or feet may result in loss of blood flow to these areas. If this happens, go immediately to the nearest emergency room.

E. Care and storage of the EpiPen[®]

1. Keep the EpiPen[®] available and ready for use at all times.
2. Store in a dark place at room temperature.
3. Do NOT refrigerate.
4. Note the expiration date on the unit.
Always have at least one unexpired unit on hand.

Note: It is important to make note of the date and reorder the pen before that date.

- 8.. Have the client take a drink of water to moisten the mouth.
9. Position the inhaler with mouth piece between the lips and pursed to make a seal around the mouth piece.
10. Instruct the client to breathe out prior to making a seal and inhaling.
11. Instruct the client to breath in slowly over 3 to 5 seconds as he (or you) press down on the inhaler.

12. Instruct the client to hold his/her breath for 10 seconds to allow the medication to penetrate deeply into the lungs then slowly exhale through the nose.

13. If additional puffs are ordered, wait at least one minute then repeat steps 7-10.

14. Rinse mouth after steroid inhaler.

15. Replace inhaler cap and store per facility policy.

16. Document administration according to facility policy.

Note: Metered dose inhalers should be cleaned at least weekly by removing the metal canister, rinsing the holding device under warm running water and allow to air dry, thoroughly.

Note: Read instructions that come with the inhaler to assure procedure is followed correctly.

4.10 Administer or Assist the Client With Self-Administration of Soaks and Sitz Baths

PERFORMANCE OBJECTIVE'

Assist with administration or administer soaks and sitz baths in accordance with the HCP's orders. Performance must be documented as acceptable on the skills competency form.

A. Assisting with soaks

B. 1. Purposes: a. To relieve pain

b. To cleanse

c. To speed healing

2. Pharmaceutical solutions may be ordered.

B, Procedure for assisting with soaks

1. Provide for client privacy & explain procedure.

2. Verify medication order for accuracy with the MAR and read label 3 times.

3. Wash hands.

4. Put on gloves.

- 5.. Prepare the soaking solution and check the water temperature with a thermometer or on your wrist. Water temperature should be between 105° to 110°F. Have the client check water temperature and adjust if necessary.
6. If adding a pharmaceutical solution, follow instructions on the solution label.
7. Immerse the body part in the solution. Pad the edge of the basin with a towel if needed.

8. Check the water temperature every 5 minutes and add hot water as needed to maintain temperature.

9. Check the reaction of the body part being soaked at least every five minutes and remove if skin reddens or if the client complains of pain, or numbness.

10. Soak for the prescribed time (usually no more than 20 minutes).
11. Remove the body part and dry thoroughly with a clean towel. NOTE: This is particularly important when soaking the feet of a diabetic client.
12. Dispose of soaking solution. (Follow facility policy).

13. Document procedure using facility guidelines. C Assisting with sitz baths.

1. Purposes:

a. To relieve pain (often for hemorrhoid-related pain).

b. To cleanse

c. To speed healing

2. Pharmaceutical solutions may be ordered.

D. Procedure for assisting with sitz baths.

1. Provide for client privacy & explain procedure.
2. Verify medication order for accuracy with the MAR and read label 3 times.
3. Wash hands.
4. Put on gloves
5. Prepare the soaking solution and check the

water temperature with a thermometer or on your wrist. Water temperature should be between 105° to 110°F. Have the client check water temperature and adjust if necessary.

6. If adding a pharmaceutical solution, follow instructions on the solution label.

7. Position client comfortably in the bath. **STAY WITH THE CLIENT** if the client is frail or cognitively impaired.

8. Have the client remain in the bath for the prescribed period of time (usually no more than 20 minutes).
9. Help the client from the bath, dry skin or provide a towel and assist with dressing.
10. Dispose of bath.
11. Document procedure according to facility policy.

Note: The client may have a disposable sitz bath which fits on the toilet seat. These are usually attached to a rubber bag containing warm water. If so, follow the instructions for use on the disposable product label

4.11 Administer or Assist the Client with Self-Administration of Oral Hygiene Products

'PERFORMANCE OBJECTIVE'

num— Assist with administration or administer oral hygiene products in accordance with the HCP

orders. Performance must be documented as acceptable on the skills competency form.

'TOPICAL OUTLINE

A. Guidelines for good oral care

1. Care of the mouth, teeth, gums and/or dentures performed at least twice daily
2. Best to provide after each meal.
3. Lack of oral care can result in serious problems such as gum disease.
4. An unhealthy mouth results in a decreased appetite and weight loss.
5. Poor oral hygiene resulting in an unhealthy mouth has been linked to a decreased life span.

B. Oral hygiene products

1. These are products used to:

- a. cleanse the mouth and teeth
- b. rid the mouth of germs and prevent oral disease

2. Commonly used oral hygiene products are:

- a. mouthwash
- b. tooth paste
- c. dental floss
- d. denture cleaning products.

C. How to use oral hygiene products

1. Read package labels and refer to HCP orders for amounts and frequency.
2. Follow procedures for providing oral care (brushing, flossing, denture cleaning) as learned in your required basic care course.

4.12 Administer or Assist the Client with Self-Administration of Inhalation Therapy Products

(PERFORMANCE OBJECTIVE

iffm— Assist with administration or administer inhalation therapy products in accordance with the HCP orders.

Performance must be documented as acceptable on the skills competency form.

TOPICAL OUTLINE

A. Assisting with inhalation products

1. Medications used to treat diseases of the respiratory tract may be administered by way of inhalation, into the lungs, through the mouth or nose.
2. Two most commonly used inhalers:
 - a. Handheld (metered dose)
 - b. Nebulizer Machine
3. Metered dose (handheld) inhalers are most common. They are small, portable, and require no special equipment to administer.

4. Nebulizer Treatments:

- a. Are used when a large amount of medication needs to be delivered to the lungs.
- b. Come in a liquid form and is measured into a nebulizer machine.
- c. The mist is heated or cooled and delivered through a face mask or mouth-piece.

B. Procedures for administering or assisting with administration of inhalation products.

Handheld inhalers (metered. dose):

1. Provide for client privacy & explain procedure.
- 2.. Verify medication order for accuracy with the MAR and read label 3 times.
- 3.. Wash hands.
4. Put on gloves if there is body fluid contact.
5. Warm the canister to hand temperature
6. Remove the cap and hold the inhaler upright.

7. If using the inhaler for the first time or after a prolonged period of time, test it by spraying into the air before spraying into the mouth.

B. Distribution — Second step

1. When the drug is moving into body fluids and tissues.
2. Some drugs penetrate certain tissues better than others and therefore are more effective on some parts of the body compared to others.

C. Metabolism — Third step

1. When the body is trying to rid itself of the drug it often needs to break it down before it can be eliminated.
2. Sometimes changed to a less potent form.
3. Affected by many factors including age and the existence of some chronic health conditions.

Example: An elderly adult cannot metabolize many drugs as quickly as the young.

If the drug is metabolized slower, it means that the drug will stay in the body longer and can have a longer effect.

Toxicity or a build-up of a drug can result if the body cannot metabolize the drug at an appropriate rate.

(More on this in Objective 7.1)

D. Excretion — Final step

1. Most metabolized drugs, after filtering through the kidneys, are excreted in the urine.

Age associated reduction in renal function is the most common reason for dose adjustment in the elderly. Kidney function declines with increasing age, so medications that depend on the kidney to get out of the body, may show toxicity if the dose is not adjusted appropriately.

2. Some drugs are excreted in feces or through expired air.

E. Factors that affect drug action

1. Physical factors

a. age

- Liver and kidney function may decrease with age and alter the body's ability to metabolize and excrete drugs.
- The very young and very old require age appropriate dosages.

C. Gender

- Women may react differently to certain drugs than men.
- All drugs should be administered with extreme caution in pregnant women.
- d. disease states
- Disease may impair organs necessary for metabolism and excretion.

Clients who must take a drug over a long period of time may develop a tolerance which requires increasing dosage. (Example: severe cancer pain may require stronger dosage of narcotic pain medication to achieve a therapeutic effect.)

e. genetic factors

- Each person's individual makeup causes slight differences in basic processes like metabolism and excretion which affects drug action.
- Some are more sensitive to a drug because they lack naturally occurring enzymes to metabolize the drug.

2. Psychosocial factors

a. Diet

Combining certain drugs with certain foods can alter the drug's effects. -

Example: effects of tetracycline are decreased when taken with milk products.

b. Exercise

- Increases muscle mass and circulation which may alter absorption.
- Strengthens the heart and improves circulation which may improve distribution or elimination of drugs.

c. Mental state

Could affect the success or failure of a drug because of failure to comply with the prescribe drug regimen.

Might produce a placebo effect. A placebo effect is when relief comes from the perception of the patient thinking that the drug provided relief.

For example, a patient might be convinced that a certain pill provides pain relief. In reality, it might be a sugar pill, but the patient "thinks" the pill brought relief.

d. past history of response to drugs

Many drugs have a time factor and should not be taken within a certain number of days or weeks from when another drug was discontinued.

One drug may speed, slow, or negate the action of another.

Over time a cumulative effect could cause toxicity.

3. Drug administration factors

a. dosage form

Drugs can come in more than one form.

Example: aspirin can be taken orally, rectally or topically. The steps in the process of absorption, distribution and metabolize may be altered when the dosage form is changed.

b. route of administration

Drugs are absorbed, distributed and metabolized differently when given by different routes. Example: an intravenous dose would act quicker than an intramuscular or oral dose of the same drug.

c. time of administration

Some drugs must be administered at certain times to get the desired therapeutic effect.

Example: antacids taken before meals to prevent indigestion.

Some drugs must be administered at certain times to prevent unwanted side effects that the drug might cause. Example: Fosamax[®] given in the morning in an upright position to prevent acid reflux

3.4 Facilitate Client's Awareness Of The Purposes And Effects Of Medications.

INTRODUCTION: It is important for the Medication Aide to respond appropriately to the client when he/she has questions about a medication. The purpose of this objective is to provide general information on the purposes and effects of medications which can be used to assist the clients to better understand their medications.

TOPICAL OUTLINE

A. Communicating with the client regarding purpose and effects of medication

1. The client has a right to know what medication he/she is taking and why.
2. The behavior, attitude and approach of the Medication Aide has an impact on the clients' attitude and behavior regarding medication compliance.

TOPICAL OUTLINE

A. Communicating with the client regarding purpose and effects of medication

The client has a right to know what medication he/she is taking and why.

The behavior, attitude and approach of the Medication Aide has an impact on the clients' attitude and behavior regarding medication compliance.

The Medication Aide should use every opportunity to help the client understand the purpose and effects of their medications.

B. Purpose of medication

1. Prevent illness (e.g.- vaccines)
2. Eliminate illness (e.g.- antibiotics)
3. Control disease (e.g.- insulin)
4. Relieve symptoms related to illness (e.g. - cough suppressant, aspirin)
5. Alter behavior (e.g. - tranquilizers, mood elevators)

C. Effects of medication

1. Desired (therapeutic) effect
 - a. Drug acts in the manner for which it was prescribed
 - b. Always observe closely when a client starts taking a new drug.
2. Undesired effect

a. Side effect — an unwanted action that does no harm to the body but may limit the usefulness of the drug

- Usually not therapeutically desirable
- Can occasionally be useful, (e.g.— sedative effects of a drug may help with sleep)
- Initial side effects may subside over time

b. Drug interaction is the effect which results from taking two or more drugs at the same time. Types of interactions:

One drug increases the effect of another (potentiate)

One drug decreases the effect of another (antagonist)

Two drugs combine to produce a new, different, unwanted effect.

c. Examples of most common unwanted effects:

- Rashes
- Blurred vision
- Diarrhea
- Confusion
- Vomiting
- Irritability
- Fainting
- Agitation
- Lightheadedness
- Lethargy
- Falling

Note: Unwanted effects in the elderly may be mistaken for normal aging or worsening of chronic disease. Therefore, must note what is normal for that individual patient.

3. No effect

a. If the client has no response, notify HCP.

b. Continuing the drug places unnecessary stress on the kidneys and liver.

c. Also represents unnecessary cost and no benefit for the condition being treated.

D. Drug dependency

1- Physical Dependency — one or more of the body's functions becomes dependent on the presence of a drug. Without it, the body does experience withdrawal symptoms.

2- Psychological Dependency — a mental or emotional craving for the effects produced by a substance. Without it, the body does not experience withdrawal symptoms.

E Drug Allergies

1. **Hypersensitivity** - the body's immune system mistakes the medication for a harmful substance.

2. **Symptoms of allergic reactions:**

a. Usually appear within the first few doses

b. Sometimes delayed and may occur over the course of the person's life

c. Observe for:

- Hives or rash
- Nausea and/or vomiting
- Itching
- Swelling, especially around the eyes

3. Anaphylaxis

a. Anaphylaxis is a severe allergic reaction, usually to a substance to which a person has become sensitized. Symptoms include:

- Difficulty breathing
- Difficulty swallowing
- Facial or tongue swelling

b. Treatment:

emergency intervention — 911

- May be treated with an injection of epinephrine. (See EpiPen[®] administration)

Observe & Report: Record known allergies in bold letters on the Medication Administration Record (MAR).

Always provide any history of allergies to pharmacist and other health care providers as appropriate. Notify physician immediately when signs of a drug allergy are observed.

3.5 Identify How To Use Drug Information Sources

INTRODUCTION: When a client requests information about medication education, the Medication Aide is responsible for assisting him. A pharmacist or the client's HCP are the best choices of licensed health care professionals to consult

Facilities are required to make reference materials available to persons who administer medications. It is important that Medication Aides know how to use these references.

A. Common drug reference sources

1. Physician's Desk Reference (PDR) - commonly used in HCP's offices.
2. United States Pharmacopeia Dispensing Information (USPDI)—commonly used by pharmacists
3. Nurses Drug Handbook -- commonly used by nurses
4. The Pill Book -- popular with the lay person

B. Using drug reference books

1. Information found in drug reference books:
 - a. **description** – what the drug is made of.
 - b. **action** – how the drug works.
 - c. **indications** – what conditions the drug is used for.
 - d. **interactions** – undesirable effects produced when drugs are taken with food or other drugs or disease states.

e. **contraindications** – conditions under which the drug should not be used.

f. **precautions** – specific warnings to consider when administering drugs to patients with specific conditions or diseases.

g. **adverse reactions** – unintended and undesirable effects.

h. **dosage and administration** – correct dose for each possible route of administration.

i. **how supplied** – how the drug is packaged and stored.

Note: The Internet is an excellent source of information but remind students to be CAREFUL to choose reputable sources. Consult a pharmacist for drug-related questions and/or questions about other appropriate sources of information.

2. When there is a question about a medication
 - a. The cardinal rule of medication is that when there is any doubt about the drug do NOT give the drug
 - b. Remember: WHEN IN DOUBT, DON'T!!
 - c. It is important to resolve an issue as timely as is possible.

TEST/QUIZ

PERFORMANCE

EVALUATION

1. Anaphylaxis is a severe allergic reaction to a substance that can be life threatening.

a. True

b. False

a. True

2. An *enema* is all of the following except:

- a. Given rectally
- b. A drug for clearing the bowel
- c. Does not require an order
- d. Requires an order

a. Does not require an order

3. EpiPen® is all of the following except:

- a. Can be given po
- b. Is an injection
- c. Is Epinephrine
- d. An emergency allergy treatment

a. Can be given po

4. *Inhalation therapy* is a breathing treatment used to treat respiratory disease.

a. True

b. False

a. True

5. *A metered-dose inhaler* is a stationary device used to treat diabetes.

a. True

b. False

a. False

6. *Nasal* means to administer by all of the following EXCEPT:

a. By way of the nose

b. A spray

c. Clear the lungs

d. drops

a. Clear the lungs

7. *Nebulizer* is a machine or hand held device used to administer medication into the lung.

- a. True
- b. False

a. True

8. *Ophthalmic* is related to the:

- a. Eye
- b. Ear
- c. Nose
- d. Mouth

a. Eye

1. 9. *Otic* is related to the:

a. Eye

b. Ear

c. Nose

d. Mouth

a. Ear

10. Suppository is administered:

- a. IM
 - b. PO
 - c. Nasal
 - d. Rectally or vaginally
-
- a. Rectally or vaginally

11. The “*Five Rights*” of medication administration include:

- a. the right drug, the right dose, the right doctor, the right time & right aide
- b. the right client, right drug, right room, right date, right dose
- c. the right client, right drug, right dose, right route, and right time.
- d. the right client, right drug, right dose, right pharmacy, and right time.
- a. the right client, right drug, right dose, right route, and right time.

12. Which of the following actions should the Medication Aide ALWAYS perform before administering medications:

- a. check the medication order for accuracy
- b. read the label 3 times
- c. wash her hands
- d. all of the above

a. all of the above

13. A “*routine medication order*” means that a drug is:

- a. administered as needed
 - b. administered while the resident is in standing position
 - c. administered on a regular basis until discontinued
 - d. all of the above
- a. administered on a regular basis until discontinued

14. When administering oral medications, the Medication Aide should:

- a. leave the drug in the cup at the bedside
 - b. always put the drug in the client's hand
 - c. stay with the client until the medication is swallowed
 - d. discard the drug if the client is not in the room
-
- a. stay with the client until the medication is swallowed

15. A “*stat*” medication order is one which is to be given

- a. every morning
- b. nightly before sleep
- c. immediately
- d. as soon as the Medication Aide has time

a. immediately

16. Which items should be included on a well-stocked medication cart.

a. paper medication cups

b. straws

c. disposable gloves

d. pill crusher

e. all of the above

f. none of the above

a. all of the above

17. The action which the Medication Aide must take if one of the five rights is unclear is “When In Doubt, Don’t”.

- a. True
- b. False

a. True

18. Three important steps to follow when administering eye medications are:

- a. read the label, warm drops, tell patient to squeeze eyes closed.
- b. wash hands, keep drops in refrigerator, have patient stand.
- c. read the label, wash hands (wear gloves), pull lower lid down and drop in outer aspect of the eye.
- d. only supervise patient self-administering.

read the label, wash hands (wear gloves), pull lower lid down and drop in outer aspect of

19. Three important things to remember when administering enemas or suppositories include:

- a. Place patient on left side with right knee drawn up.
- b. Wear gloves.
- c. Insert to approximately the 2nd knuckle.
- d. All of the above.
- e. A and C only.
- a. All of the above.

20. Four important steps to follow when administering transdermal medications are.

- a. Cleanse and dry area, check for redness, press firmly for a few seconds after applying, rotate sites and document site.
 - b. Cleanse and dry area, check for redness, do not press site, use same site all the time.
 - c. Dry off area, check for rash, put compress over, same site each time.
 - d. Lubricate area, check temperature of area, massage area, rotate site.
- a. Cleanse and dry area, check for redness, press firmly for a few seconds after applying, rotate sites and document site.

21. A blister pack is a drug delivery system.

a. True

b. False

a. True

22. A vial is a type of therapeutic bath.

a. True

b. False

a. False

23. Transdermal means through the skin.

a. True

b. False

a. True

24. Sitz is a medication container.

a. True

b. False

a. False

25. Nebulizer means through the skin.

a. True

b. False

a. False