



**Indiana  
Department  
of  
Health**

**Qualified  
Medication Aide  
(QMA) Training  
Curriculum**

**Instructor's Manual**

January 22, 2025

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**This manual is intended for the QMA program instructor to use along with the QMA Basic Student Curriculum, which contains the lessons in their entirety.**

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\*Forms may also be accessed at <https://www.in.gov/health/ltc/aide-training-and-certification/qma/forms-and-applications/>.

## **To the Program Director/Instructor:**

The Qualified Medication Aide Basic Curriculum provides a strong basis for the teaching of the program; however, the instructor should supplement this curriculum with materials from other sources in an effort to ensure the curriculum is updated with newly released medications, etc. The QMA curriculum has been drafted in a format such that the student manual begins each lesson with a "student overview" while the instructor has a supplemental booklet of "instructor overviews" with the same information as the student, yet additional information privy only to the instructor.

Both the student and the instructor overviews begin with the lesson objectives. These objectives should be reviewed at the beginning of each lesson. Both the student and instructor overviews will have key terms listed; however, the student overview will not list the definitions while the instructor manual will list definitions in an effort to assist the instructor in lesson preparation. After the initial lesson, it is anticipated that the instructor will advise the students to complete the definitions of the key terms, utilizing the glossary found in the back of the student manual, prior to arrival at each session. Multiple lessons will likely be taught at each class session, thus, the instructor will need to advise the students as to how many lessons to prepare for prior to his/her arrival to the next class.

The remaining components of the instructor overview are not listed on the student overview. Those components are as follows:

- Visual Aids - Items listed may include diagrams provided, equipment to illustrate the lesson, etc. This list is not intended to be all-inclusive, but rather provoke the instructor's thinking as to needed lesson preparation.
- Student Activities/Worksheets - Supplemental worksheets are provided to enhance the learning of students, as well as recommended exercises to be completed, etc. While this is not intended to be an all-inclusive list, it will provoke the thinking of the instructor as to potential activities to enhance the learning process of the students.
- At the end of each individual lesson instructor overview, there will be 1-3 review questions. It is at the instructor's discretion as to whether these review questions are presented to the students orally at the end of each lesson or prepared in written form for distribution as short quizzes at the end of each lesson. In addition, the instructor is encouraged to develop a practice test to evaluate each student's knowledge and readiness for the State competency evaluation.

Organization of each class session is at the discretion of the instructor. Classroom training must consist of at least 60 hours. There are 61 lessons to address in those 60 hours. As a result, the instructor must determine, based upon the number of hours per classroom session, the average number of lessons to be covered per session.

For example, should a facility determine that it will provide training at a rate of one four (4) hour classroom session for 15 consecutive weeks, the following schedule would likely accommodate the training to be conducted:

### **SAMPLE TRAINING FORMAT BASED UPON FIFTEEN 4-HOUR SESSIONS:**

#### Session 1

- Lesson 1: Role and Responsibilities of the Qualified Medication Aide
- Lesson 2: Legal and Ethical Issues
- Lesson 3: Resident Rights/Prohibition of Abuse, Neglect, and Misappropriation of Resident Property
- Lesson 4: Communication and Interpersonal Skills
- Lesson 5: Caring for the Cognitively Impaired and/or Combative Resident
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#### Session 2

- Lesson 8: The Dying Process
- Lesson 9: Introduction to Pharmacology/Medication Classification
- Lesson 10: Factors that Influence Medication Effectiveness (Care of the Long-Term Resident/Monitoring for Effects of Medication Usage)
- Lesson 11: Medication Supply and Storage

#### Session 3

- Lesson 12: Medication Orders
- Lesson 13: Weights, Measures and Simple Mathematics
- Lesson 14: Abbreviations Used to Designate Time and Frequency of Medication Administration

#### Session 4

- Lesson 15: The Gastrointestinal System

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## Session 12

- Lesson 36: Preparing Oral Tablets or Capsules
- Lesson 37: Preparing Liquid Medications
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## Session 13

- Lesson 43: Applying Lotion, Liniment, Ointment or Cream
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## Session 14

- Lesson 51: Administering Medications via the Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube)
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## Lesson 61: Instilling a Commercially Prepared Enema

In the teaching of the program, it must be stressed to the student that the individual product, device, etc., must be assessed for potential instruction that might differ from the general guidance provided in the QMA curriculum. With changing technology and pharmacy, it will be the obligation of both the instructor and the employing facility to ensure that the QMA remains knowledgeable of the equipment being utilized in the individual facility and of any newly released medications and their potential side effects.

# Lesson 1: Role and Responsibilities of the Qualified Medication Aide

## Lesson Objectives:

- Acknowledge the QMA Scope of Practice.
- Identify those tasks that the QMA is prohibited from performing.
- Identify necessary preparation for each classroom session.

## Key Terms:

Assess: Observe and evaluate a resident's condition. The assessment is conducted by the nurse.

Controlled Substance: A medication that can be addictive or habit-forming.

Nasal Cannula: Plastic tubing utilized to deliver oxygen from the supply source (tank) to the resident's nares.

Nasogastric Tube: A tube that is placed through the nose into the stomach. The QMA may not flush, check placement or instill medications via nasogastric tube.

Observation: What is seen, heard, smelled, or overheard as spoken by the resident. An observation is made by monitoring attentively.

Oximeter: Photoelectric device utilized to determine the amount of oxygen in the blood.

Pro Re Nata (PRN): Whenever necessary.

Vital Signs: Temperature, pulse, respiratory rate, and blood pressure (TPR, B/P).

## Visual Aides:

Each student must have:

- A copy of the QMA Training Program Manual.
- A personal copy of a current medication reference tool chosen by the instructor.

## Student Activities/Worksheets:

- Initiate "Documentation of Classroom/Laboratory Hours and Topics Covered," which will be completed at the end of each classroom session.

## Review Questions:

1. True or False: The QMA is prohibited from "assessing" a resident's condition. **Answer:** True
2. True or False: The QMA is prohibited from administering medication by injection except as authorized in IC 16-28-1-11.5. **Answer:** True
3. True or False: The QMA should observe and report to the facility's nurse reactions and side-effects to medications exhibited by a resident. **Answer:** True
4. True or False: The QMA may administer a treatment to an advanced skin condition such as a Stage III pressure ulcer. **Answer:** False
5. True or False: The QMA may count, administer, and document controlled substances. **Answer:** True

## Lesson 2: Legal and Ethical Issues

### Lesson Objectives:

- Identify what actions constitute negligence and malpractice.
- Identify the "six rights" of medication administration.

### Key Terms:

Assault and Battery: The threat (assault) to use force upon another person and the carrying out (battery) of the threat.

Code of Ethics: A voluntary set of rules that influence relationships between people.

Duty of Care: Performance of services that meet common standards.

Euthanasia: Inducing the painless death of a person for reasons believed to be merciful.

Libel: Any written statement that damages a person's character.

Living Will: A document that states to the physician/provider and caregivers that life-prolonging medical treatments should not be used, and the resident must be allowed to die naturally from his/her terminal condition. The document also addresses whether the resident chooses for food or water to be artificially provided as part of medical treatment during the end-stage of life when the resident cannot consume these independently.

Malpractice: Improper, injurious, or negligent professional treatment or care of a resident.

Negligence: Omission or neglect of any reasonable precaution, care, or action.

Reasonable Care: The degree of caution and concern for the safety of oneself and others acting as an ordinarily prudent and rational person would act in the same or similar situation.

Slander: A malicious statement or report.

Standard of Care: A description of conduct that illustrates what a reasonably prudent person would have done, or would not have done, under similar circumstances.

### Visual Aides:

- Medication Error Report
- Facility policy addressing Medication Errors

## **Student Activities/Worksheets:**

- The instructor should suggest that students print the "six rights" of medication administration on an index card and commit them to memory as these will be repeatedly referenced throughout the training.

## Review Questions:

1. Recite the "six rights" of medication administration. **Answer:**
  1. Right Medication
  2. Right Dose
  3. Right Resident
  4. Right Route
  5. Right Time
  6. Right Documentation
2. What is the first thing a QMA should do if they make an error in administering medication?  
**Answer:** Tell the nurse.

## **Lesson 3: Resident Rights/Prohibition of Abuse, Neglect, and Misappropriation of Resident Property**

### **Lesson Objectives:**

- Know and understand the resident's rights.
- Know and understand facility policies and procedures for prevention and reporting of abuse.
- Know and uphold resident dignity during provision of care.

### **Key Terms:**

Abuse: The willful infliction of injury, unreasonable confinement, intimidation or punishment with resulting physical harm, pain, or mental anguish.

Exploitation: Taking advantage of resident for personal gain by manipulation, intimidation, threats, or coercion.

Involuntary Seclusion: Separation of a resident from other residents or from his/her room or confinement to his/her room against the resident's will.

Mental Abuse: Humiliation, harassment, threats of punishment or deprivation.

Mistreatment: Inappropriate treatment or exploitation of a resident.

Misappropriation of Resident Property: The deliberate misplacement or exploitation of a resident's belongings.

Neglect: Failure to provide goods and services necessary to avoid physical harm, mental anguish or mental illness.

Physical Abuse: Hitting, slapping, pinching, kicking, corporal punishment.

Sexual Abuse: Non-consensual sexual contact of any type with a resident. Sexual abuse includes, but is not limited to, sexual harassment, sexual coercion, or sexual assault.

Verbal Abuse: Oral, written, or gestured language that willfully includes disparaging and derogatory terms.

### **Visual Aides:**

- A copy of Resident's Rights distributed by the facility to staff and residents.
- Facility policies and procedures addressing abuse prohibition.

**Student Activities/Worksheets:**

- The instructor is encouraged to request each student to review the Resident's Rights and then identify/list at least (5) ways in which those rights might be breached.
- When reviewing abuse, request students to provide an example of each type of abuse to ensure a clear understanding.

**Review Questions:**

1. True or False: The resident has the right to refuse treatment. **Answer:** True
2. True or False: The resident does not have the right to voice grievances. **Answer:** False
3. True or False: The staff must care for residents in a manner and in an environment that maintains or enhances each resident's dignity. **Answer:** True
4. True or False: The resident has the right to be free from verbal, sexual, physical and mental abuse, corporal punishment, and involuntary seclusion. **Answer:** True

## Lesson 4: Communication and Interpersonal Skills

### Lesson Objectives:

- Understand the four elements of successful communication.
- Understand the steps to effective communication.
- Identify the need for listening skills.
- Identify barriers to communication and necessary interventions in response to those barriers.

### Key Terms:

Communication: The exchange of information and messages. Effective communication completes a cycle between two people.

Nonverbal communication: Facial expressions, tone of voice, eye movement, posture, gestures (e.g., body language), touching, and call lights.

Verbal communication: Written or spoken words.

### Visual Aides:

- Communication board, flashcards, or devices utilized to communicate with a non-verbal resident.

### Student Activities/Worksheets:

- Request students to identify three (3) residents with different types of communication barriers and describe interventions to implement to promote successful communication.

### Review Questions:

1. What are the four elements necessary for successful communication? **Answer:** 1. Formulate the message; 2. Send the message; 3. Receive the message; 4. Observe the feedback.
2. Explain verbal and nonverbal communication. **Answer:** Verbal communication - Written or spoken word; Nonverbal communication – Facial expressions, tone of voice, eye movement, posture, gestures.
3. Define active listening. **Answer:** Using body language that shows concern without interrupting the speaker, providing feedback but avoiding judgment based on personal beliefs.

## Lesson 5: Caring for the Cognitively Impaired and/or Combative Resident

### Lesson Objectives:

- Recognize behaviors that are common with cognitive impairment.
- Describe various interventions to employ in response to difficult behavior(s) exhibited by a resident.

### Key Terms:

Catastrophic Reaction: The resident is abnormally overwhelmed by stimuli or easily startled.

Delusions: False beliefs that the resident holds even when there is obvious proof or evidence to the contrary (e.g., believes food is being poisoned by facility; believes he/she is the facility physician, etc.).

Hallucinations: Hearing, smelling, or seeing something that is not there. False sensory perceptions.

Sundowning: Increased confusion and restlessness in late afternoon, evening, and night.

### Visual Aides:

- The instructor might consider the availability of an instructional videotape addressing dementia and the caregiver's response to difficult behavior, if available in the facility.

### Student Activities/Worksheets:

- Provide scenarios in which residents become combative with the caregiver. Allow the students to role-play potential intervention/response to the behavior(s) exhibited.

### Review Questions:

1. List general interventions to attempt in response to any difficult behavior exhibited by a resident:  
**Answer:** 1. Remain calm; speak softly; 2. Don't approach from side or back; 3. Attempt to calm resident; 4. Attempt to distract or redirect behavior; 5. Allow resident to express feelings
2. True or False: The resident's behavior often has some meaning, and the caregiver must try to determine why the resident is exhibiting the behavior. **Answer:** True

## Lesson 6: Infection Control and Hand Hygiene

### Lesson Objectives:

- Recognize the way infection is spread.
- Identify interventions that will break the chain of infection.

### Key Terms:

Enhanced Barrier Precautions: Used when engaging in high-contact resident care activities with residents who have been infected with/or have a colonized targeted multidrug-resistant organism (MDRO).

Infection Control: Preventing the spread of microorganisms by following certain practices and procedures.

Medical Asepsis: The state of being free from disease-causing microorganisms.

Microorganism: Germs; not all are harmful.

Nosocomial Infection/Healthcare Associated Infection (HAI): An infection acquired while in the facility.

Pathogen: Harmful, disease-causing microorganism.

Standard Precautions: Guidelines to reduce the risk of transmission of pathogens from both known and unknown sources of infection. Every resident is treated as though potentially infectious.

Transmission-Based Precautions: Actions (precautions) implemented, in addition to standard precautions, based upon the means of transmission (airborne, contact, or droplet) to prevent or control infections.

Antibiotic Stewardship: A set of commitments and actions designed to optimize the treatment of infections while reducing the adverse events associated with antibiotic use.

### Visual Aides:

- Gown, mask, and gloves to demonstrate correct procedure.
- Facility Infection Control Manual to address the manual as a resource to staff.
- Isolation signs utilized by the facility in an effort to discuss various types of isolation that may be utilized.

**Student Activities/Worksheets:**

- Consider the use of a commercial product designed to emphasize the importance of handwashing by exposing areas of the skin not properly cleansed.
- Allow students to demonstrate correct use of gown, mask, or gloves, if indicated.

**Review Questions:**

1. What is the best and easiest way to prevent the spread of infection? **Answer:** Hand hygiene
2. What is a nosocomial infection? **Answer:** An infection acquired while in the facility
3. Describe Standard Precautions: **Answer:** Treating every resident as though potentially infectious by wearing gloves and wearing gown, mask or protective eyewear in situations where splashing may occur.

## Lesson 7: Safety and Emergency Procedures/Intervention for Airway Obstruction

### Lesson Objectives:

- Be prepared to assist in any disaster or emergency by:
  - Knowing the appropriate procedures/interventions to respond to a health emergency.
  - Knowing the facility's emergency plan and evacuation procedures.

### Key Terms:

Abdominal Thrusts: An emergency intervention implemented on a person observed to be choking in an effort to cause the person to expel the object. Bend the resident forward at the waist and place a fist with the thumb side against the middle of the resident's abdomen, just above the navel. Grasp the fist with the other hand. Press fist into abdomen with five, quick, inward, and upward thrusts.

Back Blows: An emergency intervention implemented on a person observed to be choking in an effort to cause the person to expel the object. Place the heel of one hand between the shoulder blades and hit them firmly on their back 5 times.

Choking: A complete blockage of the airway requiring immediate action.

Disaster Emergency: A sudden event that has widespread damage to property and injuries or deaths. This may include flood, tornado, earthquake, blizzard, fire, or explosion.

### Visual Aides:

- Facility policies/procedures addressing disaster preparedness.

### Student Activities/Worksheets:

- The instructor might bring to the classroom a fire extinguisher to allow students to visualize and simulate use.

### Review Questions:

1. Explain RACE:

**Answer:**

R = remove residents from the immediate fire area to a place of safety;

A = activate the alarm;

C = contain the fire by closing all doors and windows;

E = extinguish the fire

2. Explain PASS:

**Answer:**

P = pull pin;

A = aim nozzle;

S = squeeze handle;

S = sweep from side to side

3. Describe how to perform the abdominal thrusts: **Answer:** Call for nurse and stay with resident.

Ask the resident if he/she can speak or cough. If the resident cannot speak or cough, move behind the resident and slide arms under the resident's armpits. Place fist with the thumb side against the abdomen midway between the waist and ribcage. Grasp your fist with the other hand. Press fist into abdomen with quick inward and upward thrusts. Repeat until the object is expelled. Assist the nurse with documentation of the event.

## Lesson 8: The Dying Process

### Lesson Objectives:

- Identify necessary interventions to provide as much comfort and support as possible to the dying resident.
- Recognize symptoms of impending death.

### Key Terms:

Apnea: Temporary cessation of breathing.

Cheyne-Stokes: Respiratory cycles that vary in intensity; waxing and waning of respirations from very deep respirations to very shallow with temporary apnea.

Palliative: Serving to relieve or alleviate but not cure.

Pruritus: Intense itching.

Stomatitis: Inflammation of the mucous tissue of the month.

### Review Questions:

1. True or False: There will always be visible signs of pain. **Answer:** False
2. True or False: Everyone feels the same intensity of pain from the same stimuli. **Answer:** False
3. True or False: The quality of your care for the dying resident affects the comfort of the resident and family. **Answer:** True

## Lesson 9: Introduction to Pharmacology/Medication Classification

### Lesson Objectives:

- Identify manners in which medications may affect the resident.
- Identify the need to observe for potential adverse effects of medication.

### Key Terms:

Adverse Effect: An undesired side effect or toxicity.

Pharmacology: The study of medications and their effect on the body.

Side Effect: Outcomes of medication use that are not intended; the action or the effect of a medication other than that desired.

### Visual Aides:

- Physician's Desk Reference (PDR).
- Available medication resources such as Nursing Drug Reference.

### Student Activities/Worksheets:

- Utilize medication exercises provided to familiarize the students with the use of the medication reference tool provided.
- The instructor might consider comprising a list of commonly used medications and request students to memorize by both trade (or brand) name and generic name.

### Review Questions:

1. True or False: A medication having a "local" effect will affect the area of the body where the medication is applied. **Answer:** True
2. True or False: The name of the medication that is considered the official name of the medication is the "generic" name. **Answer:** True
3. The study of medications and their effect on the body is called \_\_\_\_\_. **Answer:** Pharmacology

## Lesson 10: Factors that Influence Medication Effectiveness (Care of the Long-Term Resident/ Monitoring for Effects of Medication Usage)

### Lesson Objectives:

- Understand how medications are absorbed, distributed, and excreted by the body.
- Identify the effects of aging on medication effectiveness.

### Key Terms:

Absorption: The taking of fluids or other substances by the skin, mucous surfaces, or absorbent vessels.

Distribution: To divide and dispense.

Edema: Swelling caused by large amounts of fluid in the tissues.

Excretion: Eliminating waste, such as sweat, urine or feces from the body.

Half Life: The time required by living tissue, an organ, or an organism to eliminate half the quantity of the substance taken in.

Metabolism: The physical and chemical processes involved in the maintenance of life.

Sublingual: Medication placed under the tongue.

### Visual Aides:

- Various types of pills and capsules for students to visualize (e.g., enteric coated, timed-release capsules, etc.) secured by the instructor and immediately returned following observation.

### Student Activities/Worksheets:

- "Review of Systemic Actions" chart.

### Review Questions:

1. Which route of medication administration is the slowest? **Answer:** Oral
2. The time that it takes half of the medication to leave the bloodstream is referred to as \_\_\_\_\_.  
**Answer:** the half-life
3. Most medications are metabolized by the \_\_\_\_\_. **Answer:** Liver

## Lesson 11: Medication Supply and Storage

### Lesson Objectives:

- Identify the responsibility of the QMA to ensure medications remain properly stored and secure at all times.
- Understand the meaning of drug diversion and consequences thereof.

### Key Terms:

Controlled Substance: A medication that can be addictive or habit forming and must be counted and secured.

Drug Diversion: Diverting the resident's medication for one's own or another person's use.

EDK (Emergency Drug Kit): A supply of medications maintained "in-house" by the facility.

Medication: Any substance used in the diagnosis or treatment of disease, relief of pain or other symptoms.

### Visual Aides:

- Supply a copy of the record utilized by the facility to count controlled substances.
- EDK (Emergency Drug Kit).

### Review Questions:

1. True or False: Only authorized personnel may have access to the medication room. **Answer:** True
2. True or False: The medication cart must be locked when not attended or within visual range.  
**Answer:** True
3. The acronym "EDK" stands for \_\_\_\_\_. **Answer:** Emergency Drug Kit

## Lesson 12: Medication Orders

### Lesson Objectives:

- Understand the need to accurately review orders and administer medications accordingly.
- Acknowledge the prohibition of the QMA transcribing provider's orders.

### Key Terms:

PRN – Pro Re Nata: Whenever necessary.

STAT Orders: Orders to be carried out immediately.

### Visual Aides:

- Copy of admission orders.
- Copy of provider's telephone order.
- Copy of recapitulation (recap) of orders.
- Pharmacy Policy Manual to reference as the source of facility policies regarding medication administration.

### Student Activities/Worksheets:

- Allow students to compare the original admission orders received to the MAR in an effort to observe the nurse's transcription of orders.
- It is recommended that the instructor require the students to create flashcards listing the roots, pre-fixes and suffixes found in the Glossary of Word Elements provided.

### Review Questions:

1. True or False: A QMA may take/transcribe the verbal order of a provider. **Answer:** False
2. True or False: STAT orders are to be carried out immediately. **Answer:** True
3. True or False: The QMA has the right and responsibility to question any medication order he/she is not comfortable in following. **Answer:** True

## Lesson 13: Weights, Measures and Simple Mathematics

### Lesson Objectives:

- Commit to memory common abbreviations for weights and measures.
- Correctly identify common equivalents.

### Key Terms:

Apothecary System: A system of measure historically used by the person who prepares and sells medications and medicines.

Metric System: A system of measurement based upon the meter as the unit of measurement, the gram as the unit of weight and the liter as the unit of volume.

### Visual Aides:

- Medicine cup labeled with milliliters.
- Supply index cards to allow students to make flashcards to memorize abbreviations and common equivalents.

### Student Activities/Worksheets:

- The instructor is encouraged to prepare a worksheet/lesson to review basic mathematic functions (addition, subtraction, multiplication, division) and assess the extent of review required by the students.
- Equivalent/abbreviation worksheet.

### Review Questions:

1. One teaspoon equals \_\_\_\_ milliliters. **Answer:** 5
2. Thirty (30) cubic centimeters/milliliters equals \_\_\_\_ ounce(s). **Answer:** 1
3. One-liter equals \_\_\_\_ milliliters. **Answer:** 1000

## Lesson 14: Abbreviations Used to Designate Time and Frequency of Medication Administration

### Lesson Objectives:

- Identify common medical abbreviations for the number of times per day a medication is to be administered.
- Identify common abbreviations to indicate the specific number of hours between doses of a medication.
- Identify common abbreviations relative to ordered medications.

### Key Terms:

Abbreviation: A shortened form of a word or phrase.

### Visual Aides:

- Supply index cards to allow students to make flash cards to memorize common abbreviations.
- If the facility has a list of approved abbreviations, provide to students as an example of facility-specific practice.

### Student Activities/Worksheets:

- Allow the students "free time" to quiz one another utilizing the flash cards made.

### Review Questions:

1. If a medication is to be administered q hs, it would be given \_\_\_\_\_. **Answer:** Every Night.
2. If a medication is ordered qid, how frequently is it administered? **Answer:** Four Times a Day
3. If a medication is ordered q4h, PRN, how often may it be administered? **Answer:** Every Four Hours, when necessary

## Lesson 15: The Gastrointestinal System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the G.I. system.
- Identify the effects of aging on the G.I. system.
- Identify the classifications of medications that affect the G.I. system.

### Key Terms:

Cecum: Blind pouch which forms the first part of the large intestine.

Cirrhosis: Severe disease of the liver usually associated with alcohol abuse, nutritional deficiency, poisoning, or previous infection. Scar tissue replaces normal liver tissue.

Constipation: Hard, dry stool usually occurring infrequently; may be caused by inactivity, poor diet, medication.

Diarrhea: Frequent, loose bowel movements.

Duodenum: First part of the small intestine; the stomach empties into the duodenum.

Dyspepsia: Indigestion, often caused by change in the amount of gastric secretions.

Fecal Impaction: The formation of a firm mass of feces in the distal colon or rectum. QMAs are not permitted to check residents for fecal impaction.

GERD: Gastroesophageal Reflux Disease; reflux of gastric contents into the esophagus. Reflux may occur in association with obesity, pregnancy, or incompetence of the lower esophageal sphincter.

Hepatitis: Inflammation of the liver.

Ileum: Last portion of the small intestine; follows the jejunum.

Jejunum: Middle portion of the small intestine; follows the duodenum.

Nonalcoholic steatohepatitis (NASH): A common cause of cirrhosis, NASH has emerged as the major form of chronic liver disease and is expected to become the leading indication for liver transplantation.

Parasite: An organism that lives within, upon or at the expense of another organism (host). Intestinal parasites are found in the intestinal tract of the host.

Peristalsis: The involuntary constriction and relaxation of the muscles of the intestine which pushes contents of the canal forward.

Pyorrhea: Inflammation of the gum and tooth sockets leading to loosening of the teeth.

Ulcer: Repeated irritation causes a sore in the lining of the stomach or duodenum.

**Visual Aides:**

- Refer to diagram provided of the gastrointestinal system

**Student Activities/Worksheets:**

- Gastrointestinal Medication Study

**Review Questions:**

1. Medications used to treat and prevent nausea and vomiting are called: **Answer:** B
  - A. antihistamines
  - B. antiemetics
  - C. antacids
  - D. antiflatulants
2. The organ located in the upper left of the abdomen, below the diaphragm, is the: **Answer:** D
  - A. gall bladder
  - B. large intestine
  - C. small intestine
  - D. stomach
3. Bulk-producing laxatives must be given with sufficient: **Answer:** A
  - A. fluids
  - B. food
  - C. fiber
  - D. enzymes

## Lesson 16: The Musculoskeletal System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the musculoskeletal system.
- Identify the effects of aging on the musculoskeletal system.
- Identify the classifications of medications that affect the musculoskeletal system.

### Key Terms:

Analgesic: Medication that relieves muscle, joint and bone pain.

Anti-Inflammatory: Medications used to reduce swelling, pain and tenderness caused by inflammation.

Arthritis: Inflammation of a joint.

Fracture: Broken bone.

Gout: Acute arthritis and inflammation of the joints.

Muscle Relaxant: Medication that helps muscle tissue relax and be less tense and painful.

Muscle Spasm: Condition of the muscles in which there is a sudden and violent tightening of the muscle.

Muscle Sprain: Trauma to a joint that causes pain and disability, depending on the degree of injury to the ligaments. More severe than a strain and requires longer recuperation.

Muscle Strain: Condition in which the muscle is stretched.

Osteoporosis: A condition characterized by loss of bone density causing bones to become more brittle and easily fracture.

Range of Motion (ROM): Moving a joint its full range in an attempt to prevent muscle contractures and joint deformity.

### Visual Aides:

- Refer to diagram provided of the Musculoskeletal System.

### Student Activities/Worksheets:

- Musculoskeletal Medication Study

**Review Questions:**

1. Medications that help muscle tissue relax and be less tense and painful are called \_\_\_\_\_. **Answer:** Muscle Relaxants
2. Medications used to reduce symptoms of inflammation are called \_\_\_\_\_. **Answer:** Anti-Inflammatory Medications
3. Medications that relieve muscle, joint and bone pain are called \_\_\_\_\_. **Answer:** Analgesics

## Lesson 17: The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the skin and sensory system.
- Identify the effects of aging on the skin and sensory system.
- Identify the classifications of medications that affect the skin and sensory system.
- Identify the methods of prevention of pressure ulcers (pressure injuries).

### Key Terms:

Athlete's Foot (tinea pedis): A contagious fungus infection of the feet.

Burn: Tissue injury resulting from excessive exposure to strong chemicals, electricity, high temperatures or radiation.

Cataract: The lens or capsule of the eye loses its transparency or translucency causing partial or total blindness.

Conjunctivitis: Inflammation of the mucous membrane that lines the inner surface of the eyelid and the exposed surface of the eyeball.

Dermatitis: Inflammation of the skin.

Dermis: Inner layer of skin.

Eczema: A noncontagious, acute, or chronic inflammation of the skin, marked mainly by redness, itching, and the outbreak of lesions that discharge fluid and become encrusted and scaly.

Epidermis: The outer protective layer of skin.

Glaucoma: A disease of the eye characterized by high intraocular pressure, which results in atrophy (shrinking) of the optic nerve and may result in partial or complete loss of vision.

Pediculosis: A contagious infestation of the hair, body, and pubic area caused by lice.

Pressure Ulcer (Pressure Injury): A persistent reddened area or open wound that is caused by the pressure of lying or sitting in one position for a long period of time. Also called a pressure sore or bedsore.

Psoriasis: A chronic, noncontagious disease of the skin characterized by inflammation, reddened lesions, and white, scaly patches.

Scabies: A contagious skin condition caused by mites that burrow under the skin; characterized by tiny, thread-like blisters that itch.

Sensory System: Receives outside sensations and relates these sensations to the proper nerves.

**Visual Aides:**

- ❖ Refer to diagrams provided.

**Student Activities/Worksheets:**

- ❖ Skin and Sensory Medication Study

**Review Questions:**

1. A contagious skin condition caused by mites that burrow under the skin is called: **Answer: D**
  - keratitis
  - pediculosis
  - psoriasis
  - scabies
2. A contagious infestation of the hair and body caused by lice is called: **Answer: B**
  - keratitis
  - pediculosis
  - psoriasis
  - scabies
3. Continuous pressure on body areas causes: **Answer: C**
  - psoriasis
  - keratitis
  - pressure ulcers (pressure injuries)
  - pediculosis
4. When applying local anti-infectives, you must wear: **Answer: A**
  - gloves
  - a mask
  - a gown
  - gloves and mask

## Lesson 18: The Urinary System

### **Lesson Objectives:**

- Become familiar with the basic anatomy and physiology of the urinary system.
- Identify the effects of aging on the urinary system.
- Identify the classifications of medications that affect the urinary system.

### **Key Terms:**

Cystitis: Inflammation of the urinary bladder.

Edema: Excessive accumulation of fluid in the tissues.

Pyelonephritis: Inflammation of both the kidney and the lining of its pelvis usually due to bacterial infection.

Urinary Incontinence: Inability to control urination.

Urinary Retention: Inability to empty bladder.

Urinary Tract Infection (UTI): Infection in the organs and ducts participating in secretion and elimination of urine.

### **Visual Aides:**

- Refer to diagram provided of the urinary system

### **Student Activities/Worksheets:**

- Urinary System Medication Study

### **Review Questions:**

1. The inability to empty the bladder is a symptom of \_\_\_\_\_. **Answer: D**
  - A. incontinence
  - B. cystitis
  - C. nephritis
  - D. urinary retention

2. An example of a diuretic is \_\_\_\_\_. **Answer: C**

- A. Furadantin
- B. Macroductin
- C. Aldactone
- D. Pyridium

3. When administering diuretics, the resident must be observed for symptoms of \_\_\_\_\_. **Answer: A**

- A. decreased potassium levels
- B. increased potassium levels
- C. decreased sodium levels
- D. increased sodium levels.

4. Which of the following is NOT a change in the urinary system due to aging? **Answer: C**

- A. Edema in the lower body due to decreased kidney function
- B. Incontinence due to decreased muscle tone
- C. Greater sensation to urinate
- D. Change in the filtration ability of the kidneys

5. An inflammation of the urinary bladder is called \_\_\_\_\_. **Answer: B**

- A. pyelonephritis
- B. cystitis
- C. incontinence
- D. nephritis

## Lesson 19: The Cardiovascular System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the cardiovascular system.
- Identify the effects of aging on the cardiovascular system.
- Identify the classifications of medications that affect the cardiovascular system.

### Key Terms:

Angina: Spasmodic, choking, or suffocative pain; used almost exclusively to denote angina pectoris.

Angina Pectoris: A clinical syndrome characterized by spasms of pain on the anterior chest caused by inadequate coronary blood flow and/or inadequate oxygen supply to the heart muscle.

Arrhythmia: Any variation from the normal rhythm of the heartbeat.

Arteriosclerosis: Thickening and hardening of arterial walls; interferes with blood circulation; caused by calcium build-up.

Atherosclerosis: A deposit or degenerative accumulation of cholesterol and lipid material in the arteries.

Bradycardia: Slow heartbeat; usually refers to a pulse of less than 60.

Cerebrovascular Accident (CVA): Stroke; a sudden impairment of circulation in one or more of the blood vessels supplying the brain.

Congestive Heart Failure (CHF): Heart muscle weakness causing fluid to back-up and cause edema in the tissues.

Electrolytes: Chemical elements in the blood and body that are important for muscle function by means of electrical conduction.

Hematemesis: Vomiting blood.

Hemoptysis: Coughing blood.

Hypertension: High blood pressure.

Hypotension: Low blood pressure.

Ischemia: Temporary decrease in the amount of blood being delivered to a part of the body due to constriction or actual obstruction of a blood vessel.

Myocardial Infarction (MI): Heart attack.

Pacemaker/ICD: A mechanical device that gives electrical shocks to the heart muscle, regulating its contractions to restore regular rhythm. Implantable cardioverter defibrillators (ICDs) detect and suppress the presence of heart arrhythmias.

Phlebitis: Inflammation of a vein.

Syncope: A brief loss of consciousness.

Tachycardia: Excessively rapid heartbeat; usually refers to a pulse rate above 100 beats per minute.

Thrombosis: The formation of blood clots.

Thrombophlebitis: Inflammation of a vein associated with clot formation.

Trendelenburg Position: Lying on the back with the pelvis higher than the head, inclined at a 45 degree angle; used in case of shock or low blood pressure.

#### **Visual Aides:**

- Refer to diagrams provided.

#### **Student Activities/Worksheets:**

- Cardiovascular System Medication Study.

#### **Review Questions:**

1. The vessels that carry blood away from the heart are called \_\_\_\_\_. **Answer: C**

- A. capillaries
- B. veins
- C. arteries
- D. arterioles

2. What type of cell fights infection? **Answer: B**

- A. red blood cells
- B. white blood cells

- C. platelet
- D. all cells fight infection

3. A lack of adequate oxygen supply to the heart causes: **Answer: D**

- A. angina pectoris
- B. myocardial infarction
- C. coronary occlusion
- D. myocardial ischemia

4. Edema in the feet and legs is a symptom of: **Answer: C**

- A. angina pectoris
- B. coronary occlusion
- C. congestive heart failure
- D. arteriosclerosis

5. A build-up of plaque deposits in the blood vessels is called: **Answer: A**

- A. arteriosclerosis
- B. coronary occlusion
- C. angina pectoris
- D. congestive heart failure

## Lesson 20: The Respiratory System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the respiratory system.
- Identify the effects of aging on the respiratory system.
- Identify the classifications of medications that affect the respiratory system.

### Key Terms:

Allergen: A substance that causes a hypersensitive reaction (an allergy).

Allergic Reaction: Sensitivity to any substance contacted by touch, inhalation, ingestion, or injections such as poison ivy, pollen, insect bites, foods, or medications.

Anaphylactic Reaction: Life threatening allergic reaction caused by allergen. Characterized by respiratory difficulty, fainting, itching, and welts on the skin.

Asthma: A chronic respiratory disease, often from allergies, with labored breathing, chest constriction and coughing.

Bronchitis: Inflammation or swelling of the bronchial tubes.

Chronic Obstructive Pulmonary Disease - COPD: Chronic airway obstruction.

Common Cold: Communicable viral disease.

Emphysema: A condition of the lungs resulting in labored breathing and increased susceptibility to infection. The alveoli (air cells) of the lungs become distended or ruptured. There is a loss in elasticity of the lung.

Histamine: A white crystalline compound found in plant and animal tissue. It is a stimulator of gastric secretion and is used medicinally as a vasodilator which increases the blood supply to the brain.

Pneumonia: An acute or chronic disease marked by inflammation and infection in the lungs.

Rhinitis: Inflammation and swelling of the lining of the nose.

Tuberculosis: Communicable acute or chronic infection caused by mycobacterium tuberculosis.

### Visual Aides:

- Refer to diagrams provided.
- Oxygen sources, nasal cannula, mask

**Student Activities/Worksheets:**

- ❖ Respiratory System Medication Study

**Review Questions:**

1. Symptoms of pulmonary emphysema include which of the following? **Answer: D**
  - A. barrel chest
  - B. pursed lip breathing
  - C. cyanosis of extremities
  - D. all the above
2. Which of the following are used to treat allergic reactions? **Answer: B**
  - A. antitussives
  - B. antihistamines
  - C. bronchodilators
  - D. expectorants
3. Residents who have chronic lung disease should have oxygen administered at \_\_\_\_: **Answer: A**
  - A. lower liter flows
  - B. higher liter flows
  - C. liter flows ordered by the nurse
  - D. the liter flow that makes him/her feel comfortable
4. Which of the following depress cough? **Answer: C**
  - A. expectorants
  - B. bronchodilators
  - C. antitussives
  - D. antihistamines

## Lesson 21: The Endocrine System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the endocrine system.
- Identify the effects of aging on the endocrine system.
- Identify the classifications of medications that affect the endocrine system.

### Key Terms:

Diabetes: A disorder of carbohydrate, protein and fat metabolism that prevents the body from properly converting foods into energy for carrying out vital functions.

Hormone: A chemical substance secreted into the body fluids by an endocrine gland, which has a specific effect on the activities of other organs.

Hyperglycemia: An abnormally high level of sugar in the blood.

Hypoglycemia: An abnormally low level of sugar in the blood.

Insulin: A preparation derived from the pancreas of a pig, an ox or developed from semi-synthetic human insulin that is used in the medical treatment of diabetes.

Ketoacidosis: Result of fat being used for energy resulting in an acidotic state. Form of acidosis in which sodium, potassium, and ketone bodies are lost in the urine; found in residents who have diabetes mellitus.

Urticaria: A skin condition characterized by intensely itching welts and caused by an allergic reaction. Hives.

### Visual Aides:

- Refer to diagrams provided.

### Student Activities/Worksheets:

- Endocrine System Medication Study

**Review Questions:**

1. Symptoms of hypoglycemia include: **Answer: D**
  - A. drowsiness
  - B. perspiration
  - C. pallor
  - D. all the above
2. Which of the following is not oral hypoglycemic medication? **Answer: B**
  - A. Glucotrol
  - B. Synthroid
  - C. Diabinese
  - D. Glucophage

## Lesson 22: The Male and Female Reproductive Systems

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the reproductive system.
- Identify the effects of aging on the reproductive system.
- Identify the classifications of medications that affect the reproductive system.

### Key Terms:

Benign Prostatic Hypertrophy (BPH): Enlargement of the prostate gland.

Estrogen: Female sex hormone.

Menopause: The permanent ending of menstrual activity.

Mucus: Viscous fluid secretion by mucous membranes and glands.

Testosterone: Male sex hormone.

Vaginitis: Inflammation of the vagina.

### Visual Aides:

- Refer to diagrams provided.

### Student Activities/Worksheets:

- Reproductive System Medication Study

### Review Questions:

1. An enlargement of the prostate gland is called \_\_\_\_\_. **Answer:** Benign Prostatic Hypertrophy or BPH
2. The hormone responsible for male secondary sex characteristics is \_\_\_\_\_. **Answer:** Testosterone
3. The hormone responsible for female secondary sex characteristics is \_\_\_\_\_. **Answer:** Estrogen

## Lesson 23: The Nervous System

### Lesson Objectives:

- Become familiar with the basic anatomy and physiology of the nervous system.
- Identify the effects of aging on the nervous system.
- Identify the classifications of medications that affect the nervous system.

### Key Terms:

Autonomic Nervous System (ANS): The division of the vertebrate nervous system that regulates involuntary action (intestines, heart, and glands) and makes up the sympathetic and parasympathetic nervous systems.

Encephalitis: Inflammation of the brain.

Epilepsy: Chronic disorder characterized by recurring seizures that last from a few seconds to several minutes and require specific medication for prevention and control.

Guillain-Barre' Syndrome: An acute, rapidly progressive form of polyneuritis that is caused by demyelination of peripheral nerves.

Huntington's Disease: Hereditary progressive disease-causing dance-like movements, mental deterioration, and ending in dementia.

Meningitis: Inflammation of the layers covering the brain and spinal cord.

Myasthenia Gravis: A disease characterized by muscular weakness.

Neuron: A nerve cell.

Parkinson's Disease: A chronic nervous disease characterized by a slowly spreading tremor.

Poliomyelitis: Inflammation of the gray matter of the spinal cord.

Sciatica: Severe pain in the leg along the course of the sciatic nerve.

Trigeminal Neuralgia: Degeneration of the trigeminal nerve causing pain and spasm of the face.

### Visual Aides:

- Refer to the diagrams provided.

**Student Activities/Worksheets:**

- Nervous System Medication Study

**Review Questions:**

1. The right side of the brain controls the \_\_\_\_ side of the body. **Answer:** Left
2. A mild form of epileptic attack with the absence of seizures is called \_\_\_\_\_. **Answer:** Petit Mal
3. Which medication classification depresses abnormal neuronal discharges in the central nervous system? **Answer:** Anticonvulsants

## Lesson 24: Nutrition/Nutritional Disorders

### Lesson Objectives:

- Understand the role of proper nutrition.
- Identify common disorders related to nutritional deficiencies.
- Identify the use of vitamins and minerals as replacement therapy.

### Key Terms:

Dehydration: Condition in which output exceeds intake.

Hypokalemia: An abnormally low level of potassium in the blood.

Iron Deficiency Anemia: Low iron levels in the blood due to inadequate diet or blood loss.

Osteoporosis: Abnormal porousness of the bone caused by the enlargement of its canals or the formation of abnormal spaces. Causes brittleness.

Pernicious Anemia: Vitamin B-12 deficiency.

### Student Activities/Worksheets:

- Nutritional Deficiency Medication Study.

### Review Questions:

1. A potential side effect of diuretic therapy is a condition in which potassium is not absorbed by the body and is known as \_\_\_\_\_. **Answer:** Hypokalemia
2. A low iron in the blood due to the inability of the stomach lining to absorb vitamin B is the cause of what condition? **Answer:** Pernicious Anemia

## Lesson 25: Immunity

### Lesson Objectives:

- Become familiar with the structure and function of the lymphatic system.
- Identify the types of immunity.
- Identify the effects of aging on the immune system.

### Key Terms:

Active Immunity (long lasting): Naturally acquired immunity obtained by contracting a disease or by the injection of the infectious organism.

Acquired Immune Deficiency Syndrome (AIDS): A progressive impairment of the immune system.

Hepatitis B: Inflammation of the liver; transmitted by blood, secretions, or feces.

Measles: A childhood disease caused by the rubeola virus.

Mumps: An inflammation of one or both parotid glands.

Passive Immunity (short term): Artificially acquired immunity obtained by ingesting antibodies.

Polio: A communicable disease caused by the poliovirus.

Rubella (German Measles): An acute, contagious viral disease that produces a 3-day rash.

Smallpox: Acutely infectious disease for which vaccination is administered.

Tetanus (Lockjaw): An acute infection caused by a specific bacteria growing at the site of injury, especially around contaminated puncture wounds.

### Review Questions:

1. True or False: Active immunity is naturally acquired by contracting a disease or artificially acquired by injecting the body with the disease to stimulate the production of antibodies. **Answer:** True
2. True or False: HIV infection can be transmitted in the following ways: sexual intercourse, shared needles, infected mothers passing on to fetus, and blood transfusions. **Answer:** True

## Lesson 26: Inflammation and Infection

### Lesson Objectives:

- Identify the causes and treatment for inflammation and disease-related inflammation.
- Identify the causes and treatment for infections.
- Identify the medications associated with treating bacterial infections.
- Identify the medications associated with treating fungal infections.

### Key Terms:

Antiseptic: A substance that inhibits the growth of germs. Used to prevent the spread of infection.

Arthritis: Inflammation of a joint.

Athlete's Foot: A contagious fungal infection of the feet.

Bursitis: Inflammation of a bursa (sac or cavity around the joints)

Candida Auris: A multidrug-resistant fungus that can cause severe illness and spreads easily among residents in healthcare facilities.

Clostridium difficile (C. diff, C. difficile): A highly contagious germ (bacterium) that causes diarrhea and colitis (an inflammation of the colon). It often infects people who have recently taken antibiotics. Antibiotics that kill other bacteria in the gut but don't kill C. diff allow C. diff to quickly grow out of control.

COVID-19: Coronavirus disease 2019 is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly.

Disinfectants: Substance used to destroy microorganisms.

Infection: Activity of disease-producing bacteria, virus, or fungus in the body.

Inflammation: Localized heat, redness, swelling and pain.

Influenza (Flu): Acute highly contagious infection.

Pneumonia: Acute or chronic disease marked by inflammation and infection of the lungs.

Ringworm: A contagious fungal infection of the scalp or body.

Strep Throat: A severely inflamed, infected throat caused by streptococcus.

**Student Activities/Worksheets:**

- Inflammation and Infection Medication Study

**Review Questions:**

1. List symptoms of infection: **Answer:** Inflammation; increased body temperature; pain; discharge; decrease in function
2. What classification of medication is utilized to kill or prevent the growth of specific germs?  
**Answer:** Antibiotics

## Lesson 27: Malignant Disease

### Lesson Objectives:

- Identify the warning signs of malignant disease.
- Identify the treatment of malignant disease.

### Key Terms:

Benign: Mild; non-cancerous.

Chemotherapy: The treatment of a disease with chemicals.

Malignant: Cancerous.

Metastasis: Transmission of a disease from an original site to one or more sites elsewhere in the body.

Radiation: Treatment with a radioactive substance.

### Review Questions:

1. Which of the following is NOT one of the warning signals of cancer? **Answer: D**

- A. a sore that does not heal
- B. prolonged hoarseness
- C. change in bowel habits
- D. change in appetite

2. Medications that kill or slow the growth of cancer cells are called: \_\_\_\_\_. **Answer: A**

- A. antineoplastics
- B. antibiotics
- C. antitussives
- D. antiseptics

## Lesson 28: Overview of Psychotic Conditions, Neurocognitive Disorder, and Psychoactive Medications

### Lesson Objectives:

- Become familiar with the structure and function of the brain.
- Identify the psychiatric and psychological conditions requiring medications.
- Identify the effects of mental and emotional stress.
- Identify the medications utilized for psychological conditions.

### Key Terms:

Akathisia: Motor restlessness; inability to sit or lie down quietly.

Akinesia: Complete or partial loss of muscle movement.

Aphasia: Defect or loss of the power of expression (speech, writing or signs).

Neurocognitive Disorder: Decreased mental function caused by some physical agent or condition, such as arteriosclerosis, Alzheimer's Disease, brain tumors, alcohol and other medications, infections, or nutritional deficiencies.

Neurosis: Functional disorders of the mind or emotions without obvious organic lesion or change.

Parkinsonism: Rigidity of limbs, tremors, gait, and posture disturbances.

Psychosis: Any severe mental disorder, with or without organic damage, characterized by deterioration of normal intellectual and social functioning and by partial or complete withdrawal from reality.

Tardive Dyskinesia: Involuntary, repetitive useless movements; often the result of long-term antipsychotic use.

### Visual Aides:

- Facility policies addressing behavior monitoring/management and accompanying tracking tools/forms.

### Student Activities/Worksheets:

- Psychotropic Medication Study

**Review Questions:**

1. An emotional reaction that interferes with leading a normal life is called: **Answer: C**
  - A. psychosis
  - B. stress
  - C. neurosis
  - D. paranoia
2. Residents receiving an antipsychotic medication must be monitored for: **Answer: C**
  - A. tachycardia
  - B. bradycardia
  - C. tardive dyskinesia
  - D. drowsiness
3. Which of the following medications is used to treat depression? **Answer: C**
  - A. Librium
  - B. Stelazine
  - C. Elavil
  - D. Lithium

## Lesson 29: Alzheimer's Disease

### Lesson Objectives:

- Identify the common symptoms of Alzheimer's Disease.

### Key Terms:

Dementia: A term for several symptoms related to a decline in thinking skills.

Sundowning: Increased confusion and restlessness in late afternoon, evening, and night.

Validation Therapy: A manner of response to a resident by which the resident is allowed to remain in his/her belief without attempting to re-orient the resident.

### Visual Aides:

- Consider viewing excerpts of any caregiver videotapes available in the facility which illustrate successful interaction with the resident with Alzheimer's Disease.

### Review Questions:

1. True or False: The exact cause of Alzheimer's Disease is unknown. **Answer:** True
2. True or False: Common symptoms of Alzheimer's Disease include, but are not limited to, memory loss, difficulty performing familiar tasks and poor judgment. **Answer:** True

# Lesson 30: Principles of Administering Medications

## Lesson Objectives:

- Identify the six rights of medication administration.
- Identify the safeguards to correct medication administration.
- Identify the necessary accountability of the QMA.

## Key Terms:

EDK (Emergency Drug Kit): A supply of medications maintained "in-house" by the facility.

Medication Error: The administration of a medication or treatment which is not in accordance with provider's orders, manufacturer's specifications or accepted professional standards and principles.

Meniscus: The curved upper surface of a liquid in a container.

## Visual Aides:

- Medication Administration Record
- Medication cart
- Liquid and medicine cup to illustrate the visualization of the meniscus

## Student Activities/Worksheets:

The instructor might provide (or request students to obtain) the facility policies addressing:

- antibiotic administration and necessary vital signs
- medication error reporting
- use of the EDK (including the list of medications available in the EDK)

## Review Questions:

1. True or False: The medication cart must be locked at all times when not within direct eyesight of the QMA. **Answer:** True
2. True or False: If a medication is ordered "ac" the QMA must administer the medication after the meal. **Answer:** False
3. True or False: Medication errors often occur due to loss of concentration when preparing or administering medication. **Answer:** True

## Lesson 31: Documentation

### Lesson Objectives:

- Understand the need to document medication administration accurately.
- Understand the need to document objective observations.

### Key Terms:

Abdominal Distention: Enlarged abdomen.

Anorexia: Lack or loss of appetite for food.

Anuria: No urinary output.

Aphasia: Defect or loss of the power of expression (speech, writing or signs), or of comprehending spoken or written language due to injury or disease of the brain centers.

Blood Pressure: The force exerted by the blood against the arterial walls when the heart contracts (systolic) or relaxes (diastolic).

Bradycardia: Slow heartbeat, less than 60 beats per minute.

Bruise: Discolored area caused by an injury to the surface of the skin.

Chills: Shivering or shaking.

Comatose: Cannot be aroused; unconsciousness.

Constipation: Difficult, incomplete, or infrequent bowel movements.

Contracture: Permanent shortening of a muscle that produces a deformity.

Convulsion: Abnormal, uncontrolled movement of all or part of the body.

Cyanosis: A bluish discoloration of the skin, caused by the lack of oxygen in the blood.

Pressure Ulcer (Pressure Injury): A persistent reddened area or an open wound that is caused by the pressure of lying or sitting in one position for an extended period of time.

Diarrhea: Frequent, loose bowel movements.

Dyskinesia: Abnormal movements of the body such as a dramatic onset of spasms, oculogyric crisis (begins with a stare, rolling of the eyes, tilting of the head, facial expressions), protrusion of the

tongue, stiff neck and inability to swallow, stammering speech (dysarthria), labored breathing and involuntary muscle movements.

Dysphagia: Difficulty in or inability to swallow.

Dyspnea: Difficulty in breathing.

Dysuria: Painful or difficult urination.

Edema: Swelling caused by large amounts of fluid in the tissues.

Emaciated: Excessively thin or lacking in normal amount of tissue.

Emesis: Vomit.

Excoriation: A scratch on the skin, usually covered by a scab.

Feces: Waste excreted from the bowels.

Fever: Body temperature 2.4° higher than the resident's normal baseline temperature. Rectal temperature above 100° Fahrenheit.

Flushed: Redness of the skin.

Hemiplegia: Paralysis on only one side of the body.

Hives: Red, swollen, itching areas.

Inflammation: Localized heat, redness, swelling and pain as a result of irritation, injury or infection.

Insomnia: Inability to sleep.

Jaundice: Yellowish discoloration of tissues and body fluids with bile pigment caused by any of several pathological conditions in which normal processing of bile is interrupted.

Laceration: A wound made by tearing.

Lethargic: Not alert, drifts off into sleep, drowsy, sluggish.

Nausea: Unpleasant sensation usually preceding vomiting.

Obese: Extremely overweight.

Oliguria: Voiding of a diminished amount of urine in relation to the fluid intake.

Orthopnea: Inability to breathe except in an upright position.

Pallor: Paleness of the skin.

Paraplegia: Paralysis of the legs and lower part of the body; caused by disease or injury to the spine.

Petechiae: Small purplish spots on the body surface caused by a minute hemorrhage.

Polyuria: Large amounts of urinary output.

Pulse: Rhythical throbbing of the arteries caused by the heartbeat.

Quadriplegia: Paralysis of both arms and both legs.

Range of Motion: Moving a joint through its full range in an attempt to prevent muscle contractures and joint deformity.

Rash: A skin eruption, usually reddened and raised.

Respiration: Process of breathing.

Sclera: White tissue covering all the eyeball except the cornea.

Sediment: Solid particles in the urine.

Somnolence: Drowsiness; sleepiness.

Syncope: A brief loss of consciousness.

Tachycardia: Excessively rapid heartbeat, usually applied to a pulse rate above 100 beats per minute.

Tinnitus: A sound in the ears, such as buzzing, ringing, or whistling.

Tremor: Involuntary trembling or shaking.

Turgor: Normal fullness and elasticity of the skin.

Vertigo: Dizziness.

Voiding: Eliminating urine.

#### **Student Activities/Worksheets:**

- Provide sample case studies/paragraphs describing scenarios allowing students to read and draft mock documentation for Instructor review.

**Review Questions:**

1. The resident's chart is\_\_\_\_\_. **Answer A**
  - A. a legal document
  - B. a facility document only
  - C. not legally binding
  - D. for the family to read
2. When you make an error in charting, you should: **Answer: D**
  - A. erase the error and chart correctly
  - B. start a new form
  - C. ask the nurse to chart for you
  - D. draw a line through the error, write "error" above it, and initial.
3. Placing your initials in the appropriate box on the medication administration record is normal procedure for charting what type of medication? **Answer: D**
  - A. stat
  - B. prn
  - C. routine
  - D. all

## Lesson 32: Positioning Resident for Medication/Treatment Administration

### Lesson Objectives:

- Identify the common positions for medication/treatment administration.
- Identify the proper body mechanics for assisting residents to various positions.

### Key Terms:

Dorsal Recumbent Position: Resident is on back with head and shoulders elevated at an angle of 30° or more. The lower extremities are moderately flexed with legs apart and the soles of the feet resting upon the bed.

Fowler's Position: Head of bed elevated 45-60° eases breathing and is comfortable for grooming, oral care and eating, but puts more pressure on the coccyx.

Lateral Position: Lying on either the right or left side reducing pressure on one side of body.

Prone Position: Lying face down, on stomach, seldom used with the elderly.

Semi-Fowler's Position: Head elevated 30-45°; eases breathing, puts less pressure on coccyx than sitting up and facilitates swallowing.

Sim's Position: A semi-prone position. Resident on left side, right knee and thigh drawn up, left arm along back of resident, chest leaned forward so resident can rest upon it.

Supine Position: Flat on back; may be necessary during some procedures including bed making, bed bath and perineal care.

### Visual Aides:

- Provide illustrations and/or demonstrate the positions listed in the key terms above.

### Review Questions:

1. A resident in the dorsal recumbent position is lying: **Answer: D**
  - A. flat on the back with legs straight
  - B. on one side with the top knee bent
  - C. lying on one side with the legs outstretched and one leg on top of the other
  - D. flat on the back with the legs apart, knees bent, soles of feet flat on bed

2. The position in which the resident's head is elevated 45-60°: **Answer: B**

- A. supine
- B. Fowler's
- C. semi-fowler's
- D. Sim's

3. The position in which the resident is lying flat on the back with the legs straight and arms resting at the sides is called: **Answer: A**

- A. supine
- B. prone
- C. lateral
- D. dorsal recumbent

## Lesson 33: Temperatures Obtained by Oral, Axillary, Aural, Temporal, or Rectal Route

### Lesson Objectives:

- Demonstrate the proper technique to measure a resident's temperature.

### Key Terms:

Aural: Pertaining to ear.

Axillary: Pertaining to the axilla. The armpit.

Fever: Body temperature 2.4° greater than the resident's normal baseline temperature. A rectal temperature above 100° Fahrenheit.

Oral: Pertaining to the mouth.

Rectal: Pertaining to the rectum.

Temporal: Pertaining to the forehead.

### Visual Aides:

- Diagrams provided of types of thermometers.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. Where would the thermometer be placed to measure an axillary temperature? **Answer: B**
  - under the tongue
  - in the resident's armpit
  - in the rectum
  - on the resident's forehead
2. Which of the following temperatures should be reported to the nurse? **Answer: D**
  - 98° F
  - 98.6° F
  - 99° F
  - 101° F

## Lesson 34: Obtaining the Pulse and Respiratory Rate

### Lesson Objectives:

- Identify the commonly used points in the body.
- Accurately demonstrate the obtaining of the pulse and respiratory rate.

### Key Terms:

Apical Rate: The heartbeat heard at the apex of the heart.

Brachial Artery: Main artery of the arm running down the inside of the arm.

Carotid: The arteries which arise from the aorta and supply blood to the head and neck; normally palpated in the neck.

Radial Pulse: The pulse taken at the inner part (thumb side) of the wrist.

### Visual Aides:

- Stethoscope

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. The pulse taken at the inner part of the wrist is called the \_\_\_\_pulse. **Answer: C**
  - A. femoral
  - B. brachial
  - C. radial
  - D. pedal
2. Normal respiratory rate for adults is: \_\_\_\_ **Answer: D**
  - A. 10-11 breaths per minute.
  - B. 12-13 breaths per minute.
  - C. 14-20 breaths per minute
  - D. 12-16 breaths per minute

## Lesson 35: Obtaining the Blood Pressure

### Lesson Objectives:

- Identify the normal blood pressure range.
- Accurately demonstrate the obtaining of the blood pressure.

### Key Terms:

Diaphragm: The flat surface of the bell of the stethoscope, which is placed on the brachial artery when obtaining the blood pressure.

Diastolic Pressure: The force of the blood in the arteries when the heart is relaxed and filling with blood. It is the bottom number recorded. Normal range is between 60-90 mm Hg, with the average being 80 mm Hg.

Hypertension: High blood pressure.

Hypotension: Low blood pressure.

Sphygmomanometer: Instrument for measuring blood pressure in millimeters of mercury.

Systolic Pressure: The force of the blood in the arteries when the heart is pumping blood out. It is the top number recorded. Normal range is between 100-140 mm Hg.

### Visual Aides:

- Diagrams provided
- Stethoscope
- Sphygmomanometer/cuff

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. Blood pressure is normally measured at the \_\_\_\_ artery. **Answer: B**
  - radial
  - brachial
  - femoral
  - pedal

## Lesson 36: Preparing Oral Tablets or Capsules

### Lesson Objectives:

- Demonstrate the ability to prepare oral tablets or capsules for administration.

### Visual Aides/Teaching Tools:

- Medication cart
- Medication supply system examples (sachet packaging, blister pack, pill bottle)

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. You should chart the medications that you administer: **Answer: B**
  - A. before giving them to the resident.
  - B. after giving them to the resident and verifying consumption.
  - C. at the end of the shift.
  - D. during the resident's afternoon rest period.
2. If asked to administer a dose of medication prepared by someone else, you should: **Answer: D**
  - A. give the medication.
  - B. ask the nurse to give the medication.
  - C. ask the person who prepared it what the medication is.
  - D. not give the medication.

## Lesson 37: Preparing Liquid Medications

### Lesson Objectives:

- Demonstrate the ability to accurately pour liquid medications for administration.

### Visual Aides/Teaching Tools:

- Medication cart
- Liquid medication bottles
- Medication cup

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: After the liquid medication is poured, the medicine cup must be placed at eye level and assessed for accurate dose. **Answer:** True

## Lesson 38: Preparing Powdered Medications

### Lesson Objectives:

- Demonstrate the ability to accurately prepare powdered medications for administration.

### Visual Aides/Teaching Tools:

- Medication Cart
- Containers of powdered medications which require reconstitution or preparation prior to administration.
- Medication Cup

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Powdered medications should be administered immediately after mixing. **Answer:** True

## Lesson 39: Crushing Tablets

### Lesson Objectives:

- Demonstrate the ability to crush and prepare medication for administration.

### Visual Aides/Teaching Tools:

- Leverage-type crusher
- Medication cups
- Non-crushable medication list utilized by the facility.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: The QMA must always verify that a medication is effective if crushed prior to crushing to prepare for administration. **Answer:** True

## Lesson 40: Altering Capsules

### Lesson Objectives:

- Demonstrate the ability to alter a capsule in preparation for administration.

### Visual Aides/Teaching Tools:

- Sample capsules or illustrations of capsules
- Medication cup

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: A capsule is a gelatinous container for a powder, liquid, or oil drug form. **Answer:** True

## Lesson 41: Preparing Controlled Substances for Administration

### **Lesson Objectives:**

- Demonstrate ability to prepare a controlled substance for administration.

### **Visual Aides/Teaching Tools:**

- Controlled substance log/sheet utilized by the facility.
- Refer to Controlled Substance chart provided.

### **Student Activities/Worksheets:**

- Performance Checklist

### **Review Questions:**

1. True or False: Medications with the least potential for physical or psychological dependence are Schedule I medications. **Answer:** False
2. True or False: Medications with the highest potential for abuse are Schedule III medications. **Answer:** False

## Lesson 42: Counting Controlled Substances and Responding to Errors in a Controlled Substance Count

### Lesson Objectives:

- Demonstrate the ability to count controlled substances with a partner to verify accuracy of the logs/sheets.
- Demonstrate knowledge of correct response should an error be discovered in the controlled substance count.

### Visual Aides/Teaching Tools:

- Facility policy addressing the counting of controlled substances at change of shift.

### Student Activities/Worksheets:

- Performance Checklists

### Review Questions:

1. True or False: When counting controlled substances, one must visually scan the entire medication to ensure the presence and integrity of the medications: **Answer:** True
2. True or False: If the controlled substance count is incorrect, the QMA must notify the nurse immediately. **Answer:** True

## **Lesson 43: Applying Lotion, Liniment, Ointment or Cream**

### **Lesson Objectives:**

- Demonstrate ability to correctly apply lotion, liniment, ointment, or cream as ordered by the provider.

### **Visual Aides/Teaching Tools:**

- Disposable gloves
- Types of medications to be applied topically
- Gauze squares, cotton balls, Q-tips, tongue blades

### **Student Activities/Worksheets:**

- Performance Checklist

### **Review Questions:**

1. True or False: Gauze squares, cotton balls, Q-tips, or a tongue blade may be used to apply a topical treatment based upon area to be treated and consistency of medication to be applied.

**Answer:** True

## Lesson 44: Applying a Transdermal Patch

### Lesson Objectives:

- Demonstrate ability to correctly remove and apply a transdermal patch.

### Visual Aides/Teaching Tools:

- Transdermal patch

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. Describe an area of the body appropriate to be chosen for transdermal patch application:

**Answer:** Upper right or left arm, upper right or left chest or upper right or left back. The area should be reasonably hair-free; avoid skin folds, scar tissue or irritated areas.

## Lesson 45: Instilling Eyedrops and Instilling Ophthalmic Ointment

### Lesson Objectives:

- Demonstrate the ability to correctly instill eyedrops as ordered by the provider.
- Demonstrate the ability to correctly instill ophthalmic ointment as ordered by the provider.

### Visual Aides:

- Eyedrops
- Gauze or tissue
- Ophthalmic Ointment

### Student Activities/Worksheets:

- Performance Checklists

### Review Questions:

1. True or False: The QMA must instill eyedrops preventing the dropper from contacting any part of the eye. **Answer:** True
2. True or False: When two or more different types of eyedrops are to be administered at the same time, allow a 5-minute period between each. **Answer:** True
3. True or False: Following the instillation of ophthalmic ointment, the QMA must instruct the resident to close his/her eye and roll the eyeball and refrain from blinking. **Answer:** True

## Lesson 46: Instilling Eardrops

### Lesson Objectives:

- Demonstrate the ability to correctly instill eardrops as ordered by the provider.

### Visual Aides:

- Eardrops
- Cotton Balls

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Prior to instilling eardrops, the ear canal is straightened by gently pulling the earlobe down and forward. **Answer:** False
2. True or False: Following instillation of eardrops, a cotton ball should be placed in front of the opening to the ear canal to prevent excessive leakage. **Answer:** True

## **Lesson 47: Instilling Nasal Drops (Dropper) and Instilling Nasal Medication Utilizing an Atomizer**

### **Lesson Objectives:**

- Demonstrate the ability to correctly instill nasal drops utilizing a medicine dropper.
- Demonstrate the ability to correctly instill nasal medication as ordered by the provider utilizing an atomizer.

### **Visual Aides:**

- Medicine Dropper
- Nasal Spray/Atomizer

### **Student Activities/Worksheets:**

- Performance Checklists

### **Review Questions:**

1. True or False: Following the instillation of nasal drops, the resident should be instructed to maintain the same position for approximately 2 minutes to allow sufficient contact of medication with nasal tissue. **Answer:** True

## Lesson 48: Inserting a Vaginal Suppository and Administering a Vaginal Cream

### Lesson Objectives:

- Demonstrate the ability to correctly insert a vaginal suppository as ordered by the provider.
- Demonstrate the ability to correctly administer a vaginal cream as ordered by the provider.

### Visual Aides:

- Packaged suppository
- Disposable examination glove
- Lubricant
- Vaginal Cream
- Applicator

### Student Activities/Worksheets:

- Performance Checklists

### Review Questions:

1. True or False: A suppository is a semi-solid material that melts at body temperature. **Answer:** True
2. True or False: The resident should be placed in the Sim's position prior to instillation of a vaginal cream. **Answer:** False

## Lesson 49: Inserting a Rectal Suppository

### Lesson Objectives:

- Demonstrate the ability to correctly insert a rectal suppository as ordered by the provider.

### Visual Aides:

- Packaged Suppository
- Disposable Examination Glove
- Lubricant

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: The resident should be placed in the Fowler's position when inserting a rectal suppository. **Answer:** False

## Lesson 50: Observing and Reporting to the Licensed Nurse

### Lesson Objectives:

- Exhibit understanding of the process of gathering information using all senses.
- Exhibit necessity of reporting information gathered to the nurse.

### Key Terms:

Objective Observation: What is seen and heard.

Subjective Observation: Something that is experienced by the individual; not perceptible to an observer.

### Visual Aides:

- Provide a copy of the reporting tool utilized by the facility to pass information from one shift to the next.

### Student Activities/Worksheets:

- Scenarios of situations warranting reporting of the condition to the nurse.

### Review Questions:

1. An objective observation would include: **Answer: D**

- A. a rash
- B. irregular heartbeat
- C. foul odor from a wound
- D. all the above

## Lesson 51: Administering Medications via the Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube)

### Lesson Objectives:

- Demonstrate the ability to correctly assess placement, instill a flush and instill medications via G-Tube or J-Tube per provider's orders

### Key Terms:

G-Tube (Gastrostomy Tube): An artificial surgical opening into the stomach through the abdominal wall, which is used for feeding or medication administration.

J-Tube (Jejunal Tube): An artificial surgical opening into the jejunum through the abdominal wall. It may be a permanent or temporary opening and is used for feeding or medication administration.

### Visual Aides:

- G-Tube or J-Tube
- Piston Syringe

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Should a resident receiving a tube feeding be observed with his/her abdomen distended and complaining of indigestion, the nurse must be notified. **Answer:** True
2. True or False: The QMA must routinely observe the resident receiving tube feeding and promptly report to the nurse any potential complication. **Answer:** True
3. True or False: If there is 200 cc of residual stomach contents obtained, the QMA should proceed to administer medications. **Answer:** False

## Lesson 52: Applying a Dressing to a Healed Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube) Site

### Lesson Objectives:

- Demonstrate the ability to apply a dressing to a healed G-Tube or J-Tube site per provider order.

### Key Terms:

Peg Tube: Percutaneous endoscopic gastrostomy tube.

### Visual Aides:

- Gauze, scissors, tape, cotton balls, or Q-tips to demonstrate cleaning and cutting of gauze to fit around the tube.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: A small amount of clear or tan drainage around the tube site is normal. **Answer:** True
2. True or False: The tube site should be kept clean and dry. **Answer:** True

## Lesson 53: Administration of Medication via Metered Dose Inhaler

### Lesson Objectives:

- Demonstrate the ability to correctly administer medication via metered dose inhaler (MDI) as ordered by the provider.

### Key Terms:

Metered Dose Inhaler (MDI): handheld inhaler.

### Visual Aides:

- Inhaler (canister with mouthpiece) and spacer, if available.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: All inhalers must be shaken well prior to use. **Answer:** True
2. True or False: The resident must wait one minute between "puffs" for multiple inhalations of the same medication. **Answer:** True

## Lesson 54: Applying a Dressing to a Minor Skin Tear

### Lesson Objectives:

- Demonstrate the ability to correctly apply a dressing to a minor skin tear.

### Visual Aides:

- Types of dressings utilized to treat skin tears.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Skin tears can be prevented by decreasing or eliminating external injury hazards.

**Answer:** True

2. A skin tear that has moderate drainage may require a \_\_\_\_\_. **Answer:** Non-occlusive dressing

## **Lesson 55: Treatment for Minor Skin Conditions (Dermatitis, Scabies, Pediculosis, Fungal Infection, Psoriasis, Eczema, First Degree Burn, Stage I Pressure Ulcer)**

### **Lesson Objectives:**

- Demonstrate the ability to administer treatment as ordered by the provider to minor skin conditions.

### **Visual Aides:**

- Creams, transparent films, etc., utilized in treatment of minor skin conditions.

### **Student Activities/Worksheets:**

- Review Performance Checklist previously completed for application of lotion, ointment, liniment or cream.
- Performance Checklist for transparent films.

### **Review Questions:**

1. True or False: Scabies treatment may require repeat applications in 7-10 days. **Answer:** True
2. True or False: Hydrocolloid films may be ordered as a treatment to a stage I ulcer to prevent further skin breakdown associated with urine and fecal contamination. **Answer:** True
3. \_\_\_\_\_ are used to treat dermatitis, psoriasis, and eczema. **Answer:** Anti-inflammatory steroids

## Lesson 56: Emptying and Changing a Colostomy Bag

### Lesson Objectives:

- Demonstrate the ability to empty and change the colostomy bag.

### Key Terms:

Colostomy: An opening of some portion of the colon to the abdominal surface.

Stoma: An artificially created mouth or opening to the surface.

### Visual Aides:

- Colostomy bag and plastic clamp, various types of products utilized for colostomy maintenance (Karaya seal, adhesive, etc.)

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: The QMA may instill medications via the colostomy. **Answer:** False
2. True or False: A change in the skin at the stoma site must be reported to the nurse. **Answer:** True

## Lesson 57: Apply a Cold, Dry Compress

### Lesson Objectives:

- Demonstrate the ability to apply a cold, dry compress.

### Visual Aides:

- Ice bag and/or collar
- Commercially prepared cold pack

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. Cold therapy is used to: **Answer:** D
  - A. reduce acute swelling
  - B. relieve pain
  - C. promote soft tissue healing
  - D. all the above
2. True or False: Persistent numbness and severe discomfort is normal following the application of a cold, dry compress. **Answer:** False

## Lesson 58: Diabetic Testing (Finger Stick)

### Lesson Objectives:

- Demonstrate the ability to correctly perform diabetic testing using both urine and fingerstick methods.

### Key Terms:

Hyperglycemia: An abnormally high level of sugar in the blood.

Hypoglycemia: An abnormally low level of sugar in the blood.

### Visual Aides:

- Various types of testing strips/products utilized by the facility.
- Glucose meter utilized by the facility with the manufacturer's instructions.
- Control solution/strip and corresponding quality control log.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: The presence of alcohol can alter the test results on the test strip if mixed with blood. **Answer:** True
2. List the common symptoms of hypoglycemia: **Answer:** shaking, sweating heavily, weakness or fatigue, pale, cold, clammy skin, anxiety, confusion, grouchiness, fast heartbeat, headache, dizziness, hunger, blurred vision

## Lesson 59: Collecting Fecal or Urine Specimens/Hemoccult Testing

### Lesson Objectives:

- Demonstrate the ability to correctly collect fecal or urine specimens.
- Demonstrate the ability to correctly perform hemoccult testing.

### Key Terms:

CCMS: Clean catch mid-stream urine specimen.

Hemoccult Testing: A screen for fecal occult blood.

### Visual Aides:

- Specimen container/labels
- Hemoccult testing slide and developer

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Any specimen collected should be placed in a container clearly labeled as biohazardous. **Answer:** True
2. Hemoccult testing is performed to detect what substance in the feces? **Answer:** Occult Blood

## Lesson 60: Pulse Oximetry and Oxygen Saturation/Application of Oxygen per Nasal Cannula/Non-Sealing Mask

### Lesson Objectives:

- Demonstrate the ability to obtain an oxygen saturation level utilizing an oximeter.
- Demonstrate the ability to apply oxygen per nasal cannula or non-sealing mask.

### Key Terms:

Intercostal: Space between the ribs.

Nasal Cannula: Plastic tubing utilized to deliver oxygen from the supply source (tank) to resident nares.

Non-sealing Mask: Plastic mask shaped like a cup, with a long slender tube that extends from the mask to the oxygen source.

Oximeter: Photoelectric device utilized to determine the amount of oxygen in the blood.

Substernal: Beneath the sternum.

### Visual Aides:

- Pulse oximeter with corresponding manufacturer's instructions.
- Oxygen equipment, including nasal cannula and non-sealing mask.

### Student Activities/Worksheets:

- Performance Checklist

### Review Questions:

1. True or False: Normal oxygen saturation is considered to range between \_\_\_\_ to \_\_\_\_ . **Answer:** 97% to 99%
2. List the signs/symptoms of respiratory distress: **Answer:** increased, rapid pulse; rapid, shallow respirations; increased restlessness or light-headedness; flaring of the nares; substernal or intercostal retractions; cyanosis

## Lesson 61: Instilling a Commercially Prepared Disposable Enema

### **Lesson Objectives:**

- Demonstrate the ability to correctly instill a commercially prepared disposable enema per provider's order.

### **Visual Aides:**

- Commercially prepared disposable enema.

### **Student Activities/Worksheets:**

- Performance Checklist

### **Review Questions:**

1. True or False: Following enema instillation, the resident should be instructed to retain the solution for as long as possible for the best results. **Answer:** True
2. What should be documented following the administration of an enema? **Answer:** The effects of the procedure, including color, consistency and amount of results.

# APPENDICES

- Pre-enrollment Testing and Answer Key (Basic math and ability to read and write in English)
- Verification of CNA Hours Worked and CNA Registry Status
- QMA Training Supply and Equipment List
- Lesson worksheets with answers
- Documentation of Classroom/Laboratory Hours and Topics Covered
- Documentation of Practicum
  - Performance Checklist
- QMA Student File Checklist
- QMA Testing - Verification of Additional Training form (when re-testing is necessary)
- Student QMA Record of Annual In-service Training

\*Forms may also be accessed at <https://www.in.gov/health/ltc/aide-training-and-certification/qma/forms-and-applications/>.

**English Comprehension Evaluation**

**Directions:** Read the following paragraph aloud.

I am a new employee serving as a caregiver in a long term care facility. While I am walking down the hall during my first week of work, I see that a call light is ringing from a resident's room. Although this is not my assigned resident and I do not know the resident very well, I wonder if I should stop and ask how I can assist the resident. I decide that I will stop, and so I enter the room of Mrs. Smith. When I ask what I can do to assist Mrs. Smith, she informs me that she would like a drink of water from her bedside pitcher. She also wants to be transferred from the bed to her recliner because she is very uncomfortable. She complains of pain in her back and demands to speak with the nurse right away.

**Discussion Questions:**

1. What would you do first to assist Mrs. Smith?

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2. What would you need to do prior to attempting to transfer Mrs. Smith to the recliner?

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3. What might you ask Mrs. Smith about her pain in an effort to report to the nurse the concerns of Mrs. Smith?

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**Comments:**

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QMA Applicant Name: \_\_\_\_\_ Date: \_\_\_\_\_

### **Mathematical Function Evaluation**

**Complete the following equations without the use of a calculator:**

1.) 
$$\begin{array}{r} 25 \\ \times 5 \\ \hline \end{array}$$

2.) 
$$\begin{array}{r} 32 \\ \times 6 \\ \hline \end{array}$$

3.) 
$$\begin{array}{r} 125 \\ +215 \\ \hline \end{array}$$

4.) 
$$\begin{array}{r} 450 \\ -125 \\ \hline \end{array}$$

5.)  $45 \div 9 = \underline{\quad}$

6.) 
$$\begin{array}{r} 325 \\ \times 2 \\ \hline \end{array}$$

7.)  $240 \div 6 = \underline{\quad}$  8.) 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

9.)  $150 \div 5 = \underline{\quad}$

10.) 
$$\begin{array}{r} 632 \\ -120 \\ \hline \end{array}$$

11.) 
$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

12.) 
$$\begin{array}{r} 10 \\ -7 \\ \hline \end{array}$$

13.) 
$$\begin{array}{r} 18 \\ \times 3 \\ \hline \end{array}$$

14.) 
$$\begin{array}{r} 24 \\ +12 \\ \hline \end{array}$$

15.)  $125 \div 5 = \underline{\quad}$

16.) 
$$\begin{array}{r} 60 \\ +45 \\ \hline \end{array}$$

17.)  $30 \div 3 = \underline{\quad}$

18.) 
$$\begin{array}{r} 35 \\ +25 \\ \hline \end{array}$$

19.) 
$$\begin{array}{r} 36 \\ -12 \\ \hline \end{array}$$

20.)  $66 \div 11 = \underline{\quad}$

21.) 
$$\begin{array}{r} 40 \\ -12 \\ \hline \end{array}$$

22.)  $45 \div 5 = \underline{\quad}$

23.) 
$$\begin{array}{r} 66 \\ -16 \\ \hline \end{array}$$

24.) 
$$\begin{array}{r} 66 \\ +34 \\ \hline \end{array}$$

25.) 
$$\begin{array}{r} 88 \\ -11 \\ \hline \end{array}$$

26.) 
$$\begin{array}{r} 40 \\ +20 \\ \hline \end{array}$$

27.) 
$$\begin{array}{r} 68 \\ -14 \\ \hline \end{array}$$

28.) 
$$\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$

29.)  $60 \div 3 = \underline{\quad}$

30.) 
$$\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$$

31.) 
$$\begin{array}{r} 4 \\ +8 \\ \hline \end{array}$$

32.) 
$$\begin{array}{r} 26 \\ -18 \\ \hline \end{array}$$

33.)  $36 \div 6 = \underline{\quad}$

34.) 
$$\begin{array}{r} 24 \\ \times 2 \\ \hline \end{array}$$

35.)  $63 \div 9 = \underline{\hspace{2cm}}$

36.)  $34$

$\underline{+16}$

37.)  $28$

$\underline{-4}$

38.)  $75$

$\underline{-35}$

39.)  $34$   
 $\underline{\times 2}$

40.)  $80 \div 10 = \underline{\hspace{2cm}}$

41.)  $24$

$\underline{+24}$

42.)  $64$   
 $\underline{-24}$

43.)  $200 \div 5 = \underline{\hspace{2cm}}$

44.)  $20$

$\underline{\times 6}$

45.)  $150 \div 3 = \underline{\hspace{2cm}}$

46.) A resident is to receive 2 ounces of liquid. You know that 30 ccs equals one ounce. How many ccs of the fluid will you give to ensure the resident receives 2 ounces? \_\_\_\_\_

47.) A resident is to drink  $\frac{1}{2}$  liter of water each day. You know that one liter is equal to 1000 ccs. How many ccs of water must the resident drink each day? \_\_\_\_\_

48.) A resident is to receive 50 mg. of medicine that is in the form of syrup. The label on the bottle of syrup reads that there are 25 mg. of the medicine in each teaspoon of syrup. How many teaspoons will you give the resident to ensure the resident receives 50 mg? \_\_\_\_\_

49.) A resident is to receive 40 mg. of a medication. You look at the pills that have been delivered and note that each pill has 20 mg. of the medication. How many pills will be administered to ensure the resident receives the 40 mg. ordered? \_\_\_\_\_

50.) A resident is to receive  $\frac{1}{2}$  ounce of a liquid medication. You know that 30 ccs equals one ounce. How many ccs of the liquid medication will you give to ensure the resident receives  $\frac{1}{2}$  ounce? \_\_\_\_\_

# **KEY**

## **Mathematical Function Evaluation**

**Complete the following equations without the use of a calculator:**

1.) 
$$\begin{array}{r} 25 \\ \times 5 \\ \hline 125 \end{array}$$
      2.) 
$$\begin{array}{r} 32 \\ \times 6 \\ \hline 192 \end{array}$$
      3.) 
$$\begin{array}{r} 125 \\ +215 \\ \hline 340 \end{array}$$
      4.) 
$$\begin{array}{r} 450 \\ -125 \\ \hline 325 \end{array}$$

5.)  $45 \div 9 = 5$       6.) 
$$\begin{array}{r} 325 \\ \times 2 \\ \hline 650 \end{array}$$
      7.)  $240 \div 6 = 40$       8.) 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$$

9.)  $150 \div 5 = 30$       10.) 
$$\begin{array}{r} 632 \\ -120 \\ \hline 512 \end{array}$$
      11.) 
$$\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$$
      12.) 
$$\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$$

13.) 
$$\begin{array}{r} 18 \\ \times 3 \\ \hline 54 \end{array}$$
      14.) 
$$\begin{array}{r} 24 \\ +12 \\ \hline 36 \end{array}$$
      15.)  $125 \div 5 = 25$       16.) 
$$\begin{array}{r} 60 \\ +45 \\ \hline 105 \end{array}$$

17.)  $30 \div 3 = 10$       18.) 
$$\begin{array}{r} 35 \\ +25 \\ \hline 60 \end{array}$$
      19.) 
$$\begin{array}{r} 36 \\ -12 \\ \hline 24 \end{array}$$

20.)  $66 \div 11 = 6$       21.) 
$$\begin{array}{r} 40 \\ -12 \\ \hline 28 \end{array}$$
      22.)  $45 \div 5 = 9$       23.) 
$$\begin{array}{r} 66 \\ -16 \\ \hline 50 \end{array}$$

24.) 
$$\begin{array}{r} 66 \\ +34 \\ \hline 100 \end{array}$$
      25.) 
$$\begin{array}{r} 88 \\ -11 \\ \hline 77 \end{array}$$
      26.) 
$$\begin{array}{r} 40 \\ +20 \\ \hline 60 \end{array}$$
      27.) 
$$\begin{array}{r} 68 \\ -14 \\ \hline 54 \end{array}$$

28.) 
$$\begin{array}{r} 10 \\ \times 5 \\ \hline 50 \end{array}$$
      29.)  $60 \div 3 = 20$       30.) 
$$\begin{array}{r} 14 \\ \times 2 \\ \hline 28 \end{array}$$
      31.) 
$$\begin{array}{r} 4 \\ +8 \\ \hline 12 \end{array}$$

32.) 
$$\begin{array}{r} 26 \\ -18 \\ \hline 8 \end{array}$$
      33.)  $36 \div 6 = 6$       34.) 
$$\begin{array}{r} 24 \\ \times 2 \\ \hline 48 \end{array}$$

$$35.) \quad 63 \div 9 = 7$$

$$36.) \quad \begin{array}{r} 34 \\ +16 \\ \hline 50 \end{array}$$

$$37.) \quad \begin{array}{r} 28 \\ -4 \\ \hline 24 \end{array}$$

$$38.) \quad \begin{array}{r} 75 \\ -35 \\ \hline 40 \end{array}$$

$$39.) \quad \begin{array}{r} 34 \\ \times 2 \\ \hline 68 \end{array}$$

$$40.) \quad 80 \div 10 = 8$$

$$41.) \quad \begin{array}{r} 24 \\ +24 \\ \hline 48 \end{array}$$

$$42.) \quad \begin{array}{r} 64 \\ -24 \\ \hline 40 \end{array}$$

$$43.) \quad 200 \div 5 = 40$$

$$44.) \quad \begin{array}{r} 20 \\ \times 6 \\ \hline 120 \end{array}$$

$$45.) \quad 150 \div 3 = 50$$

46.) A resident is to receive 2 ounces of liquid. You know that 30 ccs equals one ounce. How many ccs of the fluid will you give to ensure the resident receives 2 ounces? 60 ccs

47.) A resident is to drink  $\frac{1}{2}$  liter of water each day. You know that one liter is equal to 1000 ccs. How many ccs of water must the resident drink each day? 500 ccs

48.) A resident is to receive 50 mg. of medicine that is in the form of syrup. The label on the bottle of syrup reads that there are 25 mg. of the medicine in each teaspoon of syrup. How many teaspoons will you give the resident to ensure the resident receives 50 mg? 2 teaspoons

49.) A resident is to receive 40 mg. of a medication. You look at the pills that have been delivered and note that each pill has 20 mg. of the medication. How many pills will be administered to ensure the resident receives the 40 mg. ordered? 2 pills

50.) A resident is to receive  $\frac{1}{2}$  ounce of a liquid medication. You know that 30 ccs equals one ounce. How many ccs of the liquid medication will you give to ensure the resident receives  $\frac{1}{2}$  ounce? 15 ccs

Score = /50

## **Verification of CNA Hours Worked and CNA Registry Status**

### **Section 1: Verification of Work Experience**

I, \_\_\_\_\_, a representative of \_\_\_\_\_  
(print your name) (name of facility)

verify that \_\_\_\_\_ has completed at least 1,000 hours\* of work  
(name of QMA applicant)

experience as a certified nurse aide during the past two (2) years.

Facility Representative Name & Title: \_\_\_\_\_

Date: \_\_\_\_\_

Email Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

\*If applicant's work experience is less than 1,000 hours at one facility, indicate the number of hours completed at your facility. It is the responsibility of the applicant to submit verification forms from all facilities where the 1,000 hours were obtained.

### **Section 2: Verification of Nurse Aide Registry Status**

State: \_\_\_\_\_ Date Verified: \_\_\_\_\_

Listed on Registry?  Yes  No

CNA Expiration Date: \_\_\_\_\_

Confirmed Finding(s)?  Yes  No

If yes, describe:

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Signature & Title of Individual Obtaining Information: \_\_\_\_\_

Date: \_\_\_\_\_

## QMA Training Supply and Equipment List

SUPPLIES AND EQUIPMENT	YES	NO
QMA Training Manual for each student		
Current Nursing Drug Handbook		
Anatomically correct mannequin with stomas for the administration of medication via either a g-tube or j-tube and provision of colostomy and catheter care.		
Blood glucose monitoring equipment and strips		
Blood pressure equipment (S/M/L)		
Clock or watch with second hand		
Cold, dry compress		
Colostomy appliance and bags		
Container for collection fecal specimen		
Container for collection urine specimen		
Cream, placebo		
Cotton balls		
Disposable enema		
Dual stethoscope		
Fire extinguisher		
Gloves		
Hand sanitizer		
Hemoccult test		
Hospital bed (with working side rails)		
Leverage type of device for crushing		
Lotion, placebo		
Masks		
Medication Cart that locks		
Medication Administration Book		
Medication, controlled substance with matching record for controlled substance count monitoring, placebo		
Medication cups		
Medication, eardrops, placebo		
Medication, eyedrops, placebo		
Medication, liquid, placebo		
Medication, nasal drops, placebo		
Medication, Oral capsules, placebo		
Medication, Oral tablets, placebo		
Medication, Powdered, placebo		
Medication, rectal suppository, placebo		
Medication, trans-dermal patch, placebo		
Medication, vaginal suppository, placebo		
Metered dose inhalation, placebo		
O2 equipment (oxygen, regulator/flow meter, tubing, nasal cannula/non-sealing mask, humidification device, sterile water)		
Ointment, placebo		
Overbed table		
Paper towel dispenser		

Privacy curtain		
Protective gowns		
Pulse oximetry equipment		
Sink with running water		
Soap dispenser		
Thermometer, oral		
Thermometer, rectal		
Thermometer, tympanic		
Thermometer sheaths		
Tissues		
Trash Can		
Treatment Administration Book		
Treatment cart		
Transparent dressing		

COMMENTS:

Surveyor: \_\_\_\_\_ Date: \_\_\_\_\_

# Worksheet

## Lesson 2: Legal and Ethical Issues

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____ Six rights	1. Not providing goods or services needed by a person to prevent injury, emotional pain, mental distress or physical illness
b. _____ Licensed health care professional	2. Getting the right dose of the right medication via the right route to the right resident, at the right time, and completing the right documentation.
c. _____ Medication aide	3. Anticipated, desired effect of a medicine
d. _____ Neglect	4. Any unintended reaction to a medication
e. _____ Medication action	5. A person who has received specialized training in the process of assisting with administering medications
f. _____ Side effect	6. A licensed individual for whom administration of medication is included in his/her scope of practice

2. Beth Nelson is a medication aide at Allcare Assisted Living. She works the evening shift and has an LPN on call if needed. In which situation should Beth call the LPN, and why?

- A resident has fallen to the floor. Beth sees no sign of injury. The resident is alert and competent. The resident declines further assistance, gets up and returns to her room on her own.
- The pharmacy sent a medication that is the wrong dose for the resident.
- Beth accidentally gave a resident a morning medication at 5:00 p.m.

3. Which example would be considered a violation of a basic competency, and why?

- Mrs. Jones lives in your facility. She was diagnosed with lung cancer and recently decided to stop all treatment. She is alert and competent. Her daughter calls the facility and wants to know what is going on with her mother and her health status. Should the medication aide inform the daughter of Mrs. Jones recent activities and decisions?
- The facility has a policy about destroying outdated and discontinued medications with an RN present. Old medications have been piling up in the med room for several months. You, the medication aide, and an LPN are working the night shift and decide to clean out the med room. Following facility procedure, the medications are documented and flushed down the hopper.

4. Mrs. Cayton, a resident in your facility, has been alert and able to take her medications without difficulty. She recently started a new blood pressure medication for her high blood pressure. This morning she is difficult to arouse and is unable to swallow without choking. What is the medication aide's next step?

5. You have just given Mr. Clark all of his scheduled 0800 medications. Please document each medication provided.

Routine MedicationOrder Date Reason	Freq.	1	2	3	4	5	6	7
Digoxin 25 mg po q am6/21/04 atrial fib. Hold Apical HR<60	0800							
Coumadin 5 mg po q am6/21/04 blood clots	0800							
Lotensin 20 mg po qid6/21/04 blood pressure	0800 1200 1600 2000							
Lasix 40 mg po q am6/21/04 edema	0800							
Doctor: Virgil	Allergies: Coumadin							
Diagnosis: Depression, ASHD, Afib								
Resident Name: Clark, Jack	Room number: 208							

6. A resident has the right to refuse treatment. This includes the right to refuse medications. Provide an example of what a medication aide can do to encourage a person to take his or her medication without infringing on this right.

7. How are medications stored in the work setting?

8. What are the four basic routes of medication provision?

9. What is the most important thing you can do to prevent the spread of infection?

10. List the six rights of medication administration.
  
11. If a resident refuses a medication, what should the medication aide's response be?

# Worksheet Answer Key

## Lesson 2: Legal and Ethical Issues

1. Match the key terms to the definitions.

- a. 2 Six rights
- b. 6 Licensed health care professional
- c. 5 Medication aide
- d. 1 Neglect
- e. 3 Medication action
- f. 4 Side effect

- 1. Not providing goods or services needed by a person to prevent injury, emotional pain, mental distress or physical illness
- 2. Getting the right dose of the right medication via the right route to the right resident, at the right time, and completing the right documentation.
- 3. Anticipated, desired effect of a medicine
- 4. Any unintended reaction to a medication
- 5. A person who has received specialized training in the process of assisting with administering medications
- 6. A licensed individual for whom administration of medication is included in his/her scope of practice

2. Beth Nelson is a medication aide at Allcare Assisted Living. She works the evening shift and has an LPN on call if needed. In which situation should Beth call the LPN, and why?

- a. A resident has fallen to the floor. Beth sees no sign of injury. The resident is alert and competent. The resident declines further assistance, gets up and returns to her room on her own.
- b. The pharmacy sent a medication that is the wrong dose for the resident.
- c. **Beth accidentally gave a resident a morning medication at 5:00 p.m.**

3. Which example would be considered a violation of a basic competency, and why?

**Both are violations of a basic competency.**

- a. Mrs. Jones lives in your facility. She was diagnosed with lung cancer and recently decided to stop all treatment. She is alert and competent. Her daughter calls the facility and wants to know what is going on with her mother and her health status. Should the medication aide inform the daughter of Mrs. Jones recent activities and decisions?  
**This is a HIPAA violation if the daughter is not the Power of Attorney.**
- b. The facility has a policy about destroying outdated and discontinued medications with an RN present. Old medications have been piling up in the med room for several months. You, the medication aide, and an LPN are working the night shift and decide to clean out the med room. Following facility procedure, the medications are documented and flushed down the hopper. **This is a violation because the LPN and the medication aide did not have an RN present during the destroying process.**

4. Mrs. Cayton, a resident in your facility, has been alert and able to take her medications without difficulty. She recently started a new blood pressure medication for her high blood pressure. This morning she is difficult to arouse and is unable to swallow without choking. What is the medication aide's next step? **Notify the person providing direction and monitoring before giving any medications.**

5. You have just given Mr. Clark all of his scheduled 0800 medications. Please document each medication provided.

Routine MedicationOrder Date Reason	Freq.	1	2	3	4	5	6	7
Digoxin 25 mg po q am6/21/04 atrial fib. Hold Apical HR<60	0800							
Coumadin 5 mg po q am6/21/04 blood clots	0800							
Lotensin 20 mg po qid6/21/04 blood pressure	0800 1200 1600 2000							
Lasix 40 mg po q am6/21/04 edema	0800							
Doctor: Virgil	Allergies: Coumadin							
Diagnosis: Depression, ASHD, Afib								
Resident Name: Clark, Jack	Room number: 208							

6. A resident has the right to refuse treatment. This includes the right to refuse medications. Provide an example of what a medication aide can do to encourage a person to take his or her medication without infringing on this right.  
**Identify the reason for refusal and attempt to correct the problem.**

7. How are medications stored in the work setting?  
**In secured or locked environment in a medication cart, room or within the resident's room. Narcotics outside the resident's room should be double locked.**

8. What are the four basic routes of medication provision?  
**Oral; topical; inhalation (inhalers, nebulizers and/or oxygen); instillation into the eyes, ears and nose.**

9. What is the most important thing you can do to prevent the spread of infection?  
**Hand washing.**

10. List the six rights of medication administration.

**Give the right drug to the right resident, by the right route, in the right dose and at the right time.**

11. If a resident refuses a medication, what should the medication aide's response be?

**Respect the right, report to the person providing direction and monitoring, document and follow the facility policy.**

# Worksheet

## Lesson 12: Medication Orders

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____	Inhale	1. Interface between air and water
b. _____	Exhale	2. Referring to the ear
c. _____	Meniscus	3. To breathe in
d. _____	Ophthalmic	4. Under the tongue
e. _____	Otic	5. Referring to the mouth
f. _____	Sublingual	6. To breathe out
g. _____	Oral	7. Referring to the eye

2. When are the three safety checks performed during medication setup?

3. Fill in the blanks of the following lists of precautions.

- Do not touch medications with your \_\_\_\_\_ hands.
- Always \_\_\_\_\_ the medication room or cart when leaving the area.
- Do not give a drug if the resident is \_\_\_\_\_ to it.
- Do not give a drug if you are not positive of the resident's \_\_\_\_\_.
- Do not \_\_\_\_\_ sustained release, enteric coated, buccal or sublingual medications.
- Report and record any possible \_\_\_\_\_ to drugs.
- Wash hands as needed \_\_\_\_\_ residents.
- Report \_\_\_\_\_ controlled drugs immediately.

4. Review and practice the skills of all basic routes. Be prepared to demonstrate these skills.

# Worksheet Answer Key

## Lesson 12: Medication Orders

1. Match the key terms to the definitions.

a. <u>3</u>	Inhale	1. Interface between air and water
b. <u>6</u>	Exhale	2. Referring to the ear
c. <u>1</u>	Meniscus	3. To breathe in
d. <u>7</u>	Ophthalmic	4. Under the tongue
e. <u>2</u>	Otic	5. Referring to the mouth
f. <u>4</u>	Sublingual	6. To breathe out
g. <u>5</u>	Oral	7. Referring to the eye

2. When are the three safety checks performed during medication setup?

1. When removing the container from storage.
2. When opening the container.
3. When returning the container to storage.

3. Fill in the blanks of the following lists of precautions.

- Do not touch medications with your bare hands.
- Always lock the medication room or cart when leaving the area.
- Do not give a drug if the resident is allergic to it.
- Do not give a drug if you are not positive of the resident's identification.
- Do not crush or chew sustained release, enteric coated, buccal or sublingual medications.
- Report and record any possible reactions to drugs.
- Wash hands as needed between residents.
- Report missing controlled drugs immediately.

4. Review and practice the skills of all basic routes. Be prepared to demonstrate these skills.

# Worksheet

## Lesson 34: Obtaining the Pulse and Respiratory Rate

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Demonstrate each procedure accurately.
2. What is a cold compress used to treat?
3. Could you apply medication during the clean, dry dressing procedure? When?
4. Temperature, pulse, respirations and blood pressure are also called:
5. Why should you not tell the resident when you are counting his or her respirations?
6. Why would you need to count the apical pulse instead of the radial pulse?
7. What are the normal ranges for each of the vital signs for an adult?
  - a. Temperature
    - Oral:
    - Rectal:
    - Axillary:
    - Tympanic:
  - b. Pulse:
  - c. Respirations:
  - d. Blood pressure:

# Worksheet Answer Key

## Lesson 34: Obtaining the Pulse and Respiratory Rate

1. Demonstrate each procedure accurately.
  
2. What is a cold compress used to treat?  
**Control pain, prevent swelling or stop bleeding**
  
3. Could you apply medication during the clean, dry dressing procedure? When? **Yes, after cleaning and drying the skin. May need to change gloves.**
  
4. Temperature, pulse, respirations and blood pressure are also called:  
**Vital signs.**
  
5. Why should you not tell the resident when you are counting his or her respirations?  
**Can be consciously controlled.**
  
6. Why would you need to count the apical pulse instead of the radial pulse?  
**More accurate.**
  
7. What are the normal ranges for each of the vital signs for an adult?
  - a. Temperature
    - Oral: **97.6 - 99.6**
    - Rectal: **98.6 - 100.6**
    - Axillary: **96.6 - 98.6**
    - Tympanic: **98.6-100.6**
  
  - b. Pulse: **60-100**
  
  - c. Respirations: **12-20**
  
  - d. Blood pressure: **90-140/60-90**

# Worksheet

## Lesson 9: Introduction to Pharmacology/Medication Classification

## Lesson 10: Factors that Influence Medication Effectiveness

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____ Allergic reaction	1. Non-proprietary name for a drug
b. _____ Generic name	2. Passage of substances across and into tissues
c. _____ Trade name	3. Brand name of a drug
d. _____ Dependence	4. The chemical changes in living cells by which energy is provided for vital processes, and activities and new materialis created
e. _____ Metabolism	5. Location of medications in various organs or tissues afteradministration
f. _____ Excretion	6. Acquired need for a drug that may produce symptoms of withdrawal when the drug is stopped
g. _____ Absorption	7. The process of eliminating or getting rid of substances bythe body
h. _____ Distribution	8. The body's immune system over response to a foreignsubstance such as a food or drug

2. If a medication is topical, how is it absorbed?

3. If a medication is oral, how is it absorbed?

4. What is the most common way of distributing or transporting a medication to the site of action?

5. Which organ is most responsible for drug metabolism?

6. Which organ is most responsible for excretion of a drug?

7. List at least five factors that can affect how a drug works in the body.
  
  
  
  
  
8. The signs and symptoms of an allergic reaction include:
  
  
  
  
  
9. What should the medication aide do first if an allergic reaction is suspected?
  
  
  
  
  
10. How does age affect a person's response to drugs?

# Worksheet Answer Key

## Lesson 9: Introduction to Pharmacology/Medication Classification

## Lesson 10: Factors that Influence Medication Effectiveness

1. Match the key terms to the definitions.

a. <u>8</u>	Allergic reaction	1. Non-proprietary name for a drug
b. <u>1</u>	Generic name	2. Passage of substances across and into tissues
c. <u>3</u>	Trade name	3. Brand name of a drug
d. <u>6</u>	Dependence	4. The chemical changes in living cells by which energy is provided for vital processes, and activities and new materials are created
e. <u>4</u>	Metabolism	5. Location of medications in various organs or tissues after administration
f. <u>7</u>	Excretion	6. Acquired need for a drug that may produce symptoms of withdrawal when the drug is stopped
g. <u>2</u>	Absorption	7. The process of eliminating or getting rid of substances by the body
h. <u>5</u>	Distribution	8. The body's immune system over response to a foreign substance such as a food or drug

2. If a medication is topical, how is it absorbed?

**Through the skin or mucous membrane.**

3. If a medication is oral, how is it absorbed?

**Through the digestive system.**

4. What is the most common way of distributing or transporting a medication to the site of action?

**Through the blood stream.**

5. Which organ is most responsible for drug metabolism?

**Liver**

6. Which organ is most responsible for excretion of a drug?

**Kidney**

7. List at least five factors that can affect how a drug works in the body.

**Body size, family traits, emotions, disease, allergies, drug tolerance, age, other drugs, foods.**

8. The signs and symptoms of an allergic reaction include:

**Rash; swelling of hands or feet, or around eyes; fever; hives; difficulty breathing; low blood pressure; rapid heart rate.**

9. What should the medication aide do first if an allergic reaction is suspected?

**Contact the person providing direction and monitoring or, if life-threatening, initiate emergencymedical services.**

10. How does age affect a person's response to drugs?

**Age affects absorption, metabolism, excretion and distribution. The speed of a medication action may change. Changes in the digestive system can alter the effects of medication. Changes in metabolism and excretion can alter the drug levels circulating in the blood. Changes in circulationcan affect distribution.**

# Worksheet

## Lesson 16: The Musculoskeletal System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. ___ Opioid	1. Where two or more bones meet
b. ___ Pain	2. A traumatic injury to a bone in which a break occurs
c. ___ Fracture	3. Chemicals that have opium-like effects
d. ___ Osteoporosis	4. Fibrous bands that attach bone to bone across a joint
e. ___ Ligaments	5. A disorder of the bone involving abnormal loss of bone density and deterioration of the bone tissue
f. ___ Joints	6. Unpleasant sensation that is a subjective feeling in response to a stimulus

2. The function of bones includes: (circle all that apply)

- Framework of support
- Movement
- Protection
- Storage
- Blood cell production
- Fight infection
- Sensation

3. Describe three age-related changes of the musculoskeletal system.

4. List at least five pain descriptors or signs of pain.

5. Which drug classification is considered a controlled substance?

6. Which drug classification acts by suppressing muscle movement?

7. What are some non-pharmacological treatments the medication aide may use to alleviate a resident's pain?
  
8. What are the three primary elements of pain assessment?

# Worksheet Answer Key

## Lesson 16: The Musculoskeletal System

1. Match the key terms to the definitions.

a. <u>3</u> Opioid	1. Where two or more bones meet
b. <u>6</u> Pain	2. A traumatic injury to a bone in which a break occurs
c. <u>2</u> Fracture	3. Chemicals that have opium-like effects
d. <u>5</u> Osteoporosis	4. Fibrous bands that attach bone to bone across a joint
e. <u>4</u> Ligaments	5. A disorder of the bone involving abnormal loss of bone density and deterioration of the bone tissue
f. <u>1</u> Joints	6. Unpleasant sensation that is a subjective feeling in response to a stimulus

2. The function of bones includes: (circle all that apply)

**Framework of support**

Movement

**Protection**

Storage

**Blood cell production**

Fight infection

Sensation

3. Describe three age-related changes of the musculoskeletal system.

**Bones:** become thinner and weaker; reduction in bone mass; height decreases; fluid and cartilage loss in joints; decreased flexibility.

**Muscles:** loss of lean muscle mass; decrease in movement; become smaller, weaker and easily fatigued; prone to overheating.

4. List at least five pain descriptors or signs of pain.

<b>Cramping</b>	<b>Throbbing</b>	<b>Pressing</b>	<b>Burning</b>	<b>Tingling</b>
<b>Crushing</b>	<b>Sharp</b>	<b>Numb</b>	<b>Shooting</b>	<b>Tender</b>
<b>Squeezing</b>	<b>Dull</b>	<b>Radiating</b>	<b>Stabbing</b>	

5. Which drug classification is considered a controlled substance?

**Opioid or narcotic (narcotic is best answer)**

6. Which drug classification acts by suppressing muscle movement?

**Skeletal muscle relaxants**

7. What are some non-pharmacological treatments the medication aide may use to alleviate a resident's pain?

**Exercise, heat or cold therapy, relaxation techniques, imagery, massage, aroma therapy, music therapy, other complimentary treatments not involving medication.**

8. What are the three primary elements of pain assessment?

- 1. Amount of pain**
- 2. Description of pain**
- 3. Location of pain**

# Worksheet

## Lesson 17: The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____	Benign	1. Pertaining to the surface of the body
b. _____	Malignant	2. Non-cancerous growth
c. _____	Topical	3. Inner layer of the skin
d. _____	Pruritus	4. Black or brown pigment in the skin and hair
e. _____	Dermis	5. To become worse or cancerous
f. _____	Melanin	6. Itching

2. Identify three functions of the skin.

3. Where is the mucous membrane located?

4. For the following changes associated with aging, identify the concerns.

- Skin becomes more fragile:
- Vitamin D production decreases:
- Less sweat is produced:
- Blood supply to the skin decreases:
- Hair follicles stop functioning:
- Blood vessels break more easily:
- Subcutaneous layer thins:

5. What effect do the following drug classifications have on the skin and mucous membranes?

- Local anesthetics:
- Antihistamines:

■ Anti-inflammatory:

■ Antibiotics:

■ Scabicides:

6. Demonstrate the application of a simple dressing.

# Worksheet Answer Key

## Lesson 17: The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)

1. Match the key terms to the definitions.

a. <u>2</u>	Benign	1. Pertaining to the surface of the body
b. <u>5</u>	Malignant	2. Non-cancerous growth
c. <u>1</u>	Topical	3. Inner layer of the skin
d. <u>6</u>	Pruritus	4. Black or brown pigment in the skin and hair
e. <u>3</u>	Dermis	5. To become worse or cancerous
f. <u>4</u>	Melanin	6. Itching

2. Identify three functions of the skin.

**Protection, temperature regulation, communication.**

3. Where is the mucous membrane located?

**It lines the cavities that open to the exterior of the body.**

4. For the following changes associated with aging, identify the concerns.

- Skin becomes more fragile: **More prone to injury and infection.**
- Vitamin D production decreases: **Calcium storage in bones diminish.**
- Less sweat is produced: **Skin becomes drier and less supple, risk of overheating more easily.**
- Blood supply to the skin decreases: **Causes the skin to cool and the person to feel cold; causes healing to occur more slowly.**
- Hair follicles stop functioning: **Hair loss accelerates.**
- Blood vessels break more easily: **Bruising is more common.**
- Subcutaneous layer thins: **Results in very fragile skin; less insulation.**

5. What effect do the following drug classifications have on the skin and mucous membranes?

- Local anesthetics: **Numbing effect on the skin and mucous membranes.**
- Antihistamines: **Used to control the body's response to a substance that may be causing itching.**

- Anti-inflammatory: **May reduce itching caused by allergic reactions.**
- Antibiotics: **Prevent or treat infections.**
- Scabicides: **Used to kill mites that cause scabies, head and body lice.**

6. Demonstrate the application of a simple dressing.

# Worksheet

## Lesson 18: The Urinary System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____	Dehydration	1. Excessive urination at night
b. _____	Edema	2. Abnormal depletion of body fluids
c. _____	Incontinence	3. Tiny units in the kidneys that filter wastes out of the blood
d. _____	Nocturia	4. Movement from a high concentration area to a low concentration area, with a force pushing it
e. _____	Filtration	5. Inability to control urination or defecation
f. _____	Nephron	6. Expansion of fluid between cells

2. Identify three of the five functions of the urinary system.

3. Describe the three processes of urine formation filtration, reabsorption and secretion.

4. Signs and symptoms of a urinary tract infection include:

5. The following drug classifications may be used for what purpose?

- a. antispasmodic:
- b. antibiotics:
- c. diuretics:
- d. holinergic:

6. What are four common side effects of antibiotics?

7. Why is potassium depletion a concern with certain diuretic groups?
8. The medication aide should be alert to signs of dehydration and changes in elimination. Identify four critical changes and what the medication aide should do.

# Worksheet Answer Key

## Lesson 18: The Urinary System

1. Match the key terms to the definitions.

a. <u>2</u> Dehydration	1. Excessive urination at night
b. <u>6</u> Edema	2. Abnormal depletion of body fluids
c. <u>5</u> Incontinence	3. Tiny units in the kidneys that filter wastes out of the blood
d. <u>1</u> Nocturia	4. Movement from a high concentration area to a low concentration area, with a force pushing it
e. <u>4</u> Filtration	5. Inability to control urination or defecation
f. <u>3</u> Nephron	6. Expansion of fluid between cells

2. Identify three of the five functions of the urinary system.

**Regulates fluid and electrolyte balance; blood pressure; and pH. Remove waste products.**

**Red blood cell production.**

3. Describe the three processes of urine formation filtration, reabsorption and secretion.

**Filtration occurs when there is movement from a high-concentration area to a low-concentration area with a force pushing it. Blood passes through the nephron via filtration with blood pressure as the force.**

**Reabsorption occurs as the filtrate passes through the nephron. The body reabsorbs 97-99% of H<sub>2</sub>O and dissolved substances that are filtered into the kidney back into blood.**

**Secretion allows the nephrons to add substances that the body does not need to the filtrate.**

4. Signs and symptoms of a urinary tract infection include:

**Frequency; burning, pain with voiding; if severe, blood and pus in urine; chills, fever and back pain; cloudy urine; odor; incontinence; confusion or agitation; some people have no symptoms.**

5. The following drug classifications may be used for what purpose?

- Antispasmodic: **Used to reduce strength of bladder contractions; used to increase bladder capacity.**
- Antibiotics: **Used to treat infection.**
- Diuretics: **Increase urine excretion.**
- Cholinergic: **Causes contraction of the bladder to relieve urinary retention.**

6. What are four common side effects of antibiotics?

**Stomach distress  
Drowsiness**

**Dizziness  
Rash**

**Allergic reactions  
Nausea and vomiting**

**Diarrhea  
Photosensitivity**

7. Why is potassium depletion a concern with certain diuretic groups?

**Some diuretics can pull potassium into the urine and deplete the body to dangerous levels.**

8. The medication aide should be alert to signs of dehydration and changes in elimination.

Identify four critical changes and what the medication aide should do.

**If the resident drinks less than six cups of liquids**

**daily. If the resident has one or more of the**

**following:**

Dry mouth

Cracked

lips Sunken

eyes

Dark urine

**Does the resident need help drinking from a cup or glass?**

**Does the resident have trouble swallowing liquids?**

**Does the resident report any vomiting, diarrhea or fever?**

**Is there a new onset of confusion, or is the resident easily tired?**

**Contact the person providing direction and monitoring.**

# Worksheet

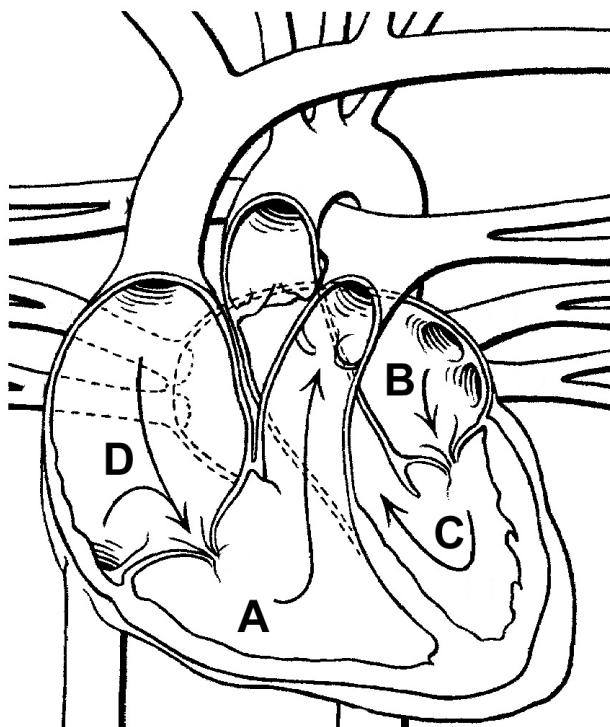
## Lesson 19: The Cardiovascular System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions:

a. _____	Aorta	1. Period when the heart is at rest
b. _____	Necrosis	2. Liquid, straw-colored portion of the blood
c. _____	Cardiac	3. Death of part of the heart muscle
d. _____	Diastole	4. Largest artery in the body
e. _____	Plasma	5. Tissue death
f. _____	Pulse	6. Pertaining to the heart contracting
g. _____	Systole	7. Pertaining to the heart
h. _____	Myocardial infarction	8. Number of times the heart beats in one minute

2. On this diagram identify the four chambers of the heart.



A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

3. How does the heart change with age?
4. Identify risk factors for coronary artery disease.
5. Describe myocardial infarction.

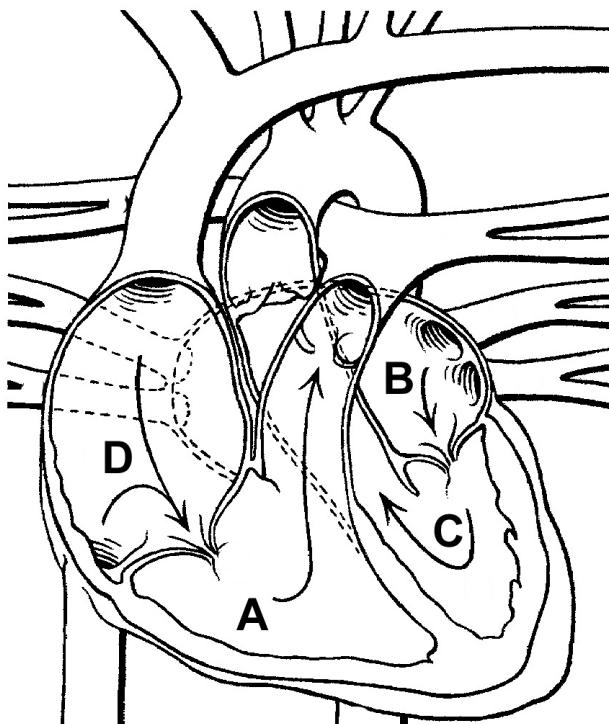
# Worksheet Answer Key

## Lesson 19: The Cardiovascular System

1. Match the key terms to the definitions:

a. <u>4</u> Aorta	1. Period when the heart is at rest
b. <u>5</u> Necrosis	2. Liquid, straw-colored portion of the blood
c. <u>7</u> Cardiac	3. Death of part of the heart muscle
d. <u>1</u> Diastole	4. Largest artery in the body
e. <u>2</u> Plasma	5. Tissue death
f. <u>8</u> Pulse	6. Pertaining to the heart contracting
g. <u>6</u> Systole	7. Pertaining to the heart
h. <u>3</u> Myocardial infarction	8. Number of times the heart beats in one minute

2. On this diagram identify the four chambers of the heart.



A. Right ventricle

B. Left atrium

C. Left ventricle

D. Right atrium

3. How does the heart change with age?

**With age, the heart becomes less elastic and the electrical activity becomes less accurate. The myocardium thickens as the chambers of the heart enlarge. The heart pumps blood less effectively. Less blood is pumped with each heartbeat. Damaged heart muscle is replaced with scar tissue, which makes the heart weaker.**

4. Identify risk factors for coronary artery disease.

Age	Genetics	Diet high in saturated fats	Personality type
Sex	Weight	Sedentary lifestyle	
Smoking	Cholesterol levels	Stress	Coping skills

5. Describe myocardial infarction.

**Also called a heart attack. It occurs when areas of the heart are deprived of blood and oxygen, resulting in tissue death and destruction.**

# Worksheet

## Lesson 20: The Respiratory System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions:

a. _____	Exhale	1. Drawing out/in by suction
b. _____	Inhale	2. To breathe in
c. _____	Aspiration	3. Exchange of oxygen and carbon dioxide in the body; one inhalation plus one exhalation
d. _____	Alveoli	4. Tiny air sacs in the lungs where oxygen and carbon dioxide are exchanged between the air and the blood
e. _____	Trachea	5. To breathe out
f. _____	Respiration	6. Air passage that extends from the larynx to the bronchi, also called the windpipe

2. Number the following structures in order of air being inhaled into the lungs.

Alveoli (air sacs) \_\_\_\_\_  
Pharynx (throat) \_\_\_\_\_  
Bronchi (tree) \_\_\_\_\_  
Trachea (wind pipe) \_\_\_\_\_  
Larynx (voice box) \_\_\_\_\_

3. The most common respiratory disorder is:

4. What age-related changes to the respiratory system explain why an elderly person may experience fatigue with exertion?

5. Match the actions with the drug classifications:

a. _____	Antiviral	1. Used to reduce fever
b. _____	Expectorant	2. Reduces swelling in the nose, slows the formation of mucus and permits the drainage of mucus
c. _____	Antitussive	3. Used to control coughing
d. _____	Decongestant	4. Used to treat viral infections
e. _____	Antipyretic	5. Thins the secretions in the lungs, making them easier to cough out

6. Explain the role of the medication aide in relation to the use of oxygen by a resident.

# Worksheet Answer Key

## Lesson 20: The Respiratory System

1. Match the key terms to the definitions:

a. <u>5</u> Exhale	1. Drawing out/in by suction
b. <u>2</u> Inhale	2. To breathe in
c. <u>1</u> Aspiration	3. Exchange of oxygen and carbon dioxide in the body; one inhalation plus one exhalation
d. <u>4</u> Alveoli	4. Tiny air sacs in the lungs where oxygen and carbon dioxide are exchanged between the air and the blood
e. <u>6</u> Trachea	5. To breathe out
f. <u>3</u> Respiration	6. Air passage that extends from the larynx to the bronchi, also called the windpipe

2. Number the following structures in order of air being inhaled into the lungs.

Alveoli (air sacs) 5  
Pharynx (throat) 1  
Bronchi (tree) 4  
Trachea (wind pipe) 3  
Larynx (voice box) 2

3. The most common respiratory disorder is:

**Upper respiratory infection**

4. What age-related changes to the respiratory system explain why an elderly person may experience fatigue with exertion?

**The cartilage connecting to the ribs becomes more rigid, and the muscles between the ribs weaken. This makes breathing more difficult. With age a person exhales less air. The air left in the lungs has less oxygen than fresh air. This can reduce the amount of oxygen readily available. With age a person is less responsive to oxygen needs and can become oxygen deprived more easily. A person has to work harder to breathe as much oxygen and becomes fatigued more easily.**

5. Match the actions with the drug classifications:

a. <u>4</u> Antiviral	1. Used to reduce fever
b. <u>5</u> Expectorant	2. Reduces swelling in the nose, slows the formation of mucus and permits the drainage of mucus
c. <u>3</u> Antitussive	3. Used to control coughing
d. <u>2</u> Decongestant	4. Used to treat viral infections
e. <u>1</u> Antipyretic	5. Thins the secretions in the lungs, making them easier to cough out

6. Explain the role of the medication aide in relation to the use of oxygen by a resident.

**Medication aides are the only unlicensed personnel who can manipulate oxygen. They can turn oxygen on and off, alter the flow rate and assist with providing oxygen. Oxygen may be given by nasal cannula, mask, tents, hoods or direct ventilation.**

# Worksheet

## Lesson 23: The Nervous System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions

a. _____ Alzheimer's	1. Restlessness, inability to sit still
b. _____ Photosensitivity	2. A progressive mental deterioration that involves plaque formation in areas of the brain
c. _____ Akathesia	3. One of two main divisions in the nervous system consisting of the brain and the spinal cord
d. _____ Central nervous system	4. Difficulty swallowing
e. _____ Dysphagia	5. Abnormally low blood pressure that occurs with sudden changes from lying to sitting or standing
f. _____ Orthostatic hypotension	6. Abnormal response to exposure to light
g. _____ Schizophrenia	7. Tension or strain
h. _____ Stress	8. Psychotic disorder characterized by major distortions in thinking and reality; often shows signs of hallucinations, delusions, paranoia, withdrawal and disturbances in communication

2. Describe the differences between the central nervous system and the peripheral nervous system.

3. Why are thermoregulation and adjusting to body position changes of concern for the elderly?

4. Identify which symptoms are likely in stage one, two or three of Alzheimer's disease. Place a 1, 2 or 3 beside each answer.

- a. \_\_\_\_\_ Repeating self
- b. \_\_\_\_\_ Neglect self-care
- c. \_\_\_\_\_ Inability to comprehend
- d. \_\_\_\_\_ Difficulty swallowing
- e. \_\_\_\_\_ Poor impulse control
- f. \_\_\_\_\_ Rummaging

5. Briefly describe each of these disorders.

Alzheimer's disease:

Parkinson's disease:

Multiple sclerosis:

Cerebrovascular accident (CVA):

Seizure disorder:

Schizophrenia:

Depression:

6. Match the actions with the drug classifications

- a. \_\_\_\_\_ Antimanic agents
- b. \_\_\_\_\_ Antidepressants
- c. \_\_\_\_\_ Antipsychotics
- d. \_\_\_\_\_ Anticonvulsants
- e. \_\_\_\_\_ Alzheimer's drugs
- f. \_\_\_\_\_ Anticholinergic agents

- 1. Treat mild forms of Parkinson's disease or Parkinson's symptoms related to drugs such as antipsychotics
- 2. Acetylcholinesterase inhibitors; prevent the breakdown of the chemical acetylcholine and improve cognitive function
- 3. Treat long-term bipolar disorder
- 4. Relieve symptoms of psychosis including delusions, hallucinations, agitation and combativeness
- 5. Treat various types of depression
- 6. Reduce the frequency and severity of seizures

# Worksheet Answer Key

## Lesson 23: The Nervous System

2. Match the key terms to the definitions

a. <u>2</u> Alzheimer's	1. Restlessness, inability to sit still
b. <u>6</u> Photosensitivity	2. A progressive mental deterioration that involves plaque formation in areas of the brain
c. <u>1</u> Akathesia	3. One of two main divisions in the nervous system consisting of the brain and the spinal cord
d. <u>3</u> Central nervous system	4. Difficulty swallowing
e. <u>4</u> Dysphagia	5. Abnormally low blood pressure that occurs with sudden changes from lying to sitting or standing
f. <u>5</u> Orthostatic hypotension	6. Abnormal response to exposure to light
g. <u>8</u> Schizophrenia	7. Tension or strain
h. <u>7</u> Stress	8. Psychotic disorder characterized by major distortions in thinking and reality; often shows signs of hallucinations, delusions, paranoia, withdrawal and disturbances in communication

3. Describe the differences between the central nervous system and the peripheral nervous system.

**The central nervous system (CNS) includes the brain and spinal cord. The brain is the part of the body that allows for higher processes related to thinking, feeling, logic, artistic expression and learning.**

**Many parts of the brain contain both a motor and a sensory component. The spinal cord contains thereflex centers for the body.**

**The peripheral nervous system (PNS) includes all nerve tissue throughout the body including the cranial nerves, spinal nerves and the autonomic nervous system. The cranial and spinal nerves are located throughout the body and allow communication between the body and the CNS. The nerves either transmit information to the brain and spinal cord or send instructions to the body from the CNS to carry out directions. The autonomic nervous system carries out the body's automatic functions such as breathing, digestion and heartbeat.**

4. Why are thermoregulation and adjusting to body position changes of concern for the elderly?

**Postural and gait changes alter with age. The body may not adapt as rapidly to position changes such as adjusting the blood pressure with standing. The result may be dizziness and lightheadedness while the body attempts to compensate for the position change. Thermoregulation is also a concern with aging. The body is less efficient at controlling body temperature. A fever in an older adult is a significant concern because it requires a higher response by the brain to whatever is causing the infection.**

5. Identify which symptoms are likely in stage one, two or three of Alzheimer's disease. Place a 1, 2 or 3 beside each answer.

- a. 1 Repeating self
- b. 2 Neglect self-care
- c. 3 Inability to comprehend
- d. 3 Difficulty swallowing
- e. 1 Poor impulse control
- f. 2 Rummaging

6. Briefly describe each of these disorders.

**Alzheimer's disease: A slow, progressive decline in mental functions.**

**Parkinson's disease: A progressive neurological disorder that manifests as a movement disorder. It includes a loss of brain cells that produce the chemical dopamine.**

**Multiple sclerosis: A disease of the central nervous system that occurs as a result of recurrent inflammation of the nerve tissue. It includes a random formation of plaque, which destroys parts of the nerve cell and prevents appropriate transmission of information and impulses to and from the brain and spinal cord.**

**Cerebrovascular accident (CVA): A sudden impairment of blood flow to part of the brain, usually due to partial or total blockage; commonly called a stroke.**

**Seizure disorder: An abnormal discharge of electrical energy within the brain cells. This discharge in electrical activity results in changes in awareness of environment, abnormal motor or sensory activity, loss of ability to speak, or sense of fear or impending doom.**

**Schizophrenia: A chronic disorder with residual disability; includes signs and symptoms of disturbed thinking patterns such as paranoia, hallucinations, suspiciousness, delusions and confused thinking.**

**Depression: Exaggerated feelings of sadness, despair, decreased self-worth and decreased interest over an extended period of time.**

7. Match the actions with the drug classifications

- a. 3 Antimanic agents
- b. 5 Antidepressants
- c. 4 Antipsychotics
- d. 6 Anticonvulsants
- e. 2 Alzheimer's drugs
- f. 1 Anticholinergic agents

- 1. Treat mild forms of Parkinson's disease or Parkinson's symptoms related to drugs such as antipsychotics
- 2. Acetylcholinesterase inhibitors; prevent the breakdown of the chemical acetylcholine and improve cognitive function
- 3. Treat long-term bipolar disorder
- 4. Relieve symptoms of psychosis including delusions, hallucinations, agitation and combativeness
- 5. Treat various types of depression
- 6. Reduce the frequency and severity of seizures

# Worksheet

## Lesson 15: The Gastrointestinal System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions

a. _____	Digestion	1. Passage of substances across and into tissues
b. _____	Constipation	2. To break into smaller pieces to be able to be absorbed
c. _____	Enzyme	3. Inflammation of the lining of the stomach
d. _____	Absorption	4. Longest part of the digestive system; connects to the stomach and large intestine; most absorption of nutrients occurs here
e. _____	Small intestine	5. Chemical that speeds up a chemical reaction in substances
f. _____	Gastritis	6. Difficulty passing feces

2. How does the digestive system change with age?

3. List the action and possible side effects of the following drug classifications:

Antacids:

Antiulcer drugs:

Histamine receptor

blockers:Proton pump

inhibitors:

Laxatives/Cathartics:

Stimulants:

Saline laxatives:

Bulk-forming laxatives:

Stool softeners:

Antispasmodics:

Antiemetics:

# Worksheet Answer Key

## Lesson 15: The Gastrointestinal System

### 1. Match the key terms to the definitions

a. <u>2</u> Digestion	1. Passage of substances across and into tissues
b. <u>6</u> Constipation	2. To break into smaller pieces to be able to be absorbed
c. <u>5</u> Enzyme	3. Inflammation of the lining of the stomach
d. <u>1</u> Absorption	4. Longest part of the digestive system; connects to the stomach and large intestine; most absorption of nutrients occurs here
e. <u>4</u> Small intestine	5. Chemical that speeds up a chemical reaction in substances
f. <u>3</u> Gastritis	6. Difficulty passing feces

### 2. How does the digestive system change with age?

Teeth become thin, brittle and sensitive. Missing or decayed teeth can make chewing difficult. Less saliva is produced, causing dry mouth, diminished taste and difficulty swallowing dry food. Taste buds also decrease with age. Less acid is produced in the stomach. Absorption of calcium and some vitamins is diminished. Normal muscle activity in the stomach and intestines can be slowed, resulting in poor digestion of food and constipation. The liver decreases in size, and fewer enzymes are produced. This makes metabolism and detoxification of medications more complex. Bile production decreases and gallstones may develop. The membrane lining the entire system becomes thinner and more fragile.

### 3. List the action and possible side effects of the following drug classifications:

**Antacids:** Neutralize stomach acid. They work in a variety of ways including decreasing acid, strengthening muscle tone in part of the stomach or forming gas that may be burped up and eliminated. Side effects include poor appetite, constipation and diarrhea.

**Antiulcer drugs:** Used to reduce acid production. There are two primary categories.

**Histamine receptor blockers:** Promote healing of ulcers and work with antacids to reduce acidity of the stomach. Side effects include dizziness, headaches, drowsiness and diarrhea.

**Proton pump inhibitors:** Inhibit the acid pump in the stomach permanently. Side effects include headache, diarrhea and abdominal pain.

**Laxatives/Cathartics:** Change the consistency of stool, speed and passage of stool through the digestive system, and aid in elimination of stool.

**Stimulants:** Increase muscle contraction of the intestine and stimulate stool to move through the digestive system faster. Side effects include muscle weakness, pruritus, cramps and electrolyte imbalance.

**Saline laxatives: Draw water into the intestines and increase water content in the stool. Side effects include nausea, vomiting, cramping and electrolyte imbalance.**

**Bulk-forming laxatives: Absorb water and expand, increasing the bulk and water content of stool. Side effects include abdominal cramps, diarrhea and obstruction.**

**Stool softeners: Are mild laxatives that are used to soften the stool. Side effects include cramping and rash.**

**Antispasmodics: Slow the motility of the intestinal muscle. Side effects include dry mouth, constipation, urinary retention, blurred vision, change in heart rate, headache, dizziness and fever.**

**Antiemetics: Used to prevent and treat nausea and vomiting. These drugs work on the central nervous system to control the vomiting center in the brain. Side effects may include restlessness, depression, dizziness, constipation, diarrhea and respiratory depression.**

# Worksheet

## Lesson 21: The Endocrine System

## Lesson 22: The Male and Female

## Reproductive System

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

- a. \_\_\_\_ Diabetes mellitus
- b. \_\_\_\_ Glucose
- c. \_\_\_\_ Metabolism
- d. \_\_\_\_ Ovaries
- e. \_\_\_\_ Pituitary
- f. \_\_\_\_ Testes

- 1. Chemical changes in living cells by which energy is provided for vital processes and activities, and new material is created
- 2. Pair of male gonads that produce sperm and the male hormone testosterone; located in the scrotum
- 3. Simple sugar found in foods
- 4. An endocrine gland located in the brain that produces several hormones
- 5. Pair of female sex glands that contain the ova and produce female hormones
- 6. Metabolism disorder as a result of insulin deficiency

2. Why is the pituitary gland known as the master gland?

3. Identify three changes associated with aging of the endocrine and reproductive systems.

4. List three symptoms of hyperglycemia and three symptoms of hypoglycemia.

■ Hyperglycemia:

■ Hypoglycemia:

# Worksheet Answer Key

## Lesson 21: The Endocrine System

## Lesson 22: The Male and Female Reproductive System

1. Match the key terms to the definitions.

a. <u>6</u> Diabetes mellitus	1. Chemical changes in living cells by which energy is provided for vital processes and activities, and new material is created
b. <u>3</u> Glucose	2. Pair of male gonads that produce sperm and the male hormone testosterone; located in the scrotum
c. <u>1</u> Metabolism	3. Simple sugar found in foods
d. <u>5</u> Ovaries	4. An endocrine gland located in the brain that produces several hormones
e. <u>4</u> Pituitary	5. Pair of female sex glands that contain the ova and produce female hormones
f. <u>2</u> Testes	6. Metabolism disorder as a result of insulin deficiency

2. Why is the pituitary gland known as the master gland?

**It regulates activity of other endocrine glands.**

3. Identify three changes associated with aging of the endocrine and reproductive systems.

**Metabolism decreases with age. Some hormone production decreases with age. The body also tends to become less sensitive to certain hormones.**

**The production of the sex hormones decreases. The ovaries decrease hormone production between the ages of 45-55. Menopause is triggered by hormone reduction. With the loss of reproductive ability, changes occur in the female reproductive organs. Many organs decrease in size. In males, testosterone and sperm production decrease with age. Reproductive ability is not lost.**

4. List three symptoms of hyperglycemia and three symptoms of hypoglycemia.

■ Hyperglycemia:

Shortness of breath  
Fruity odor to breath  
Nausea/vomiting  
Dry mouth

Polyuria  
Polyphagia  
Polydipsia  
Fatigue

Dry, flushed skin  
Confusion, poor concentration  
Abdominal pain  
Kussmaul respiration

Slow reflexes  
Slurred speech

■ Hypoglycemia:

**Shakiness**  
**Dizziness**  
**Sweating**  
**Hunger**

**Pale, cool, clammy skin**  
**Mood swings**  
**Behavior changes**

**Clumsy/jerky movement**  
**Poor concentration, confusion**  
**Tingling sensation around mouth**

**Seizure**  
**Nightmare**  
**Fatigue**

# Worksheet

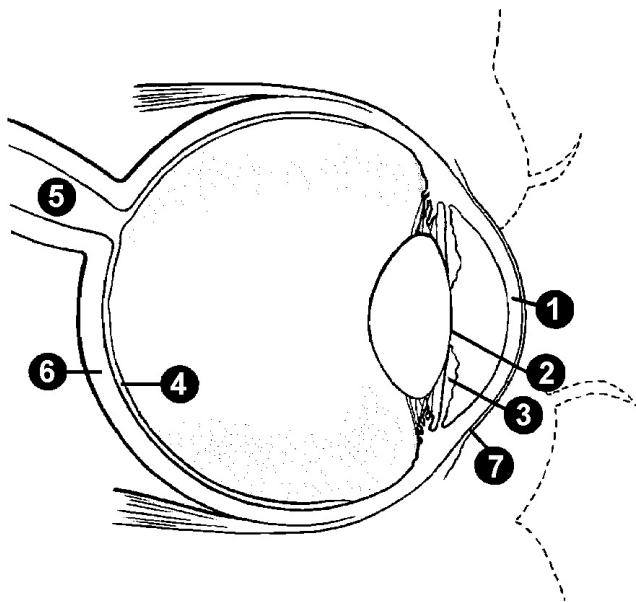
## Lesson 17: The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. _____	Accommodation	1. Mucous membrane that lines the inner surfaces of the eyelids and the front part of the sclera
b. _____	Macular degeneration	2. Harmful effects involving the organs of hearing
c. _____	Ototoxic	3. Part of the inner ear that contains nerve receptors for balance
d. _____	Conjunctivitis	4. Pertaining to the eardrum
e. _____	Semicircular canals	5. Process of adjusting the eyes for near and far vision
f. _____	Tympanic	6. Progressive deterioration of part of the retina of the eye causing central vision loss

2. Label the parts of the eye.



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

3. Identify four changes related to aging of the eyes and ears.
4. Describe the difference between sensorineural hearing loss and conductive hearing loss.

■ Conductive hearing loss:

■ Sensorineural hearing loss:

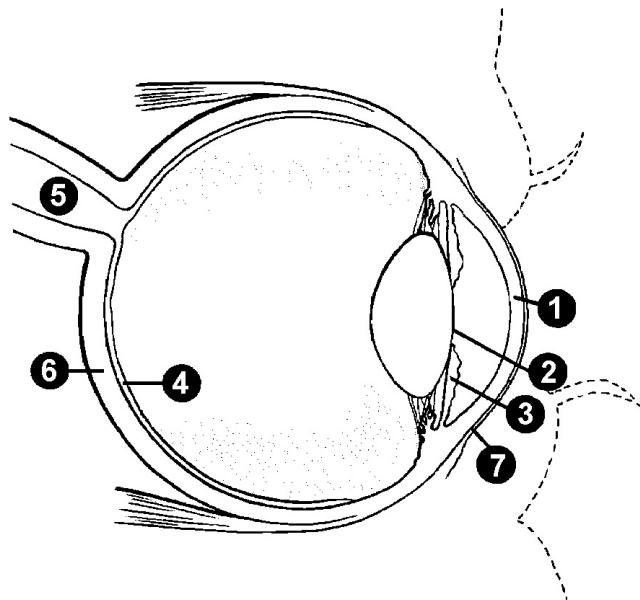
# Worksheet Answer Key

## Lesson 17: The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)

1. Match the key terms to the definitions.

a. <u>5</u> Accommodation	1. Mucous membrane that lines the inner surfaces of the eyelids and the front part of the sclera
b. <u>6</u> Macular degeneration	2. Harmful effects involving the organs of hearing
c. <u>2</u> Ototoxic	3. Part of the inner ear that contains nerve receptors for balance
d. <u>1</u> Conjunctiva	4. Pertaining to the eardrum
e. <u>3</u> Semicircular canals	5. Process of adjusting the eyes for near and far vision
f. <u>4</u> Tympanic	6. Progressive deterioration of part of the retina of the eye causing central vision loss

2. Label the parts of the eye.



1. Cornea
2. Pupil
3. Iris
4. Retina
5. Optic Nerve
6. Sclera
7. Conjunctiva

3. Identify four changes related to aging of the eyes and ears.

*Eyes*

Need more light for reading, cooking or driving a car. Regular household light bulbs are better for older eyes than fluorescent bulbs. Farsightedness. Visual acuity or the ability to see clearly diminishes with age. Peripheral vision and night vision also diminish with age. The lens becomes discolored and opaque. The fluid in the eye becomes thinner, and floaters may appear in the visual field. Eye color changes and becomes lighter. Accommodation is more difficult as the lens becomes less elastic.

*Ears*

Hearing loss may be part of the aging process. Most people over the age of 65 have some degree of hearing loss.

4. Describe the difference between sensorineural hearing loss and conductive hearing loss.

- Conductive hearing loss: Occurs as a result of problems involving the external or middle ear. There is an interference with sound waves. This may occur due to hardened cerumen (ear wax) blocking the external ear, scar tissue or inflammation preventing sound waves from vibrating the bones of the middle ear.
- Sensorineural hearing loss: Is a gradual, progressive hearing loss and occurs as a result of changes within the inner ear. There is a decreased ability to hear high-pitched sounds.

# QMA Training Worksheet

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Match the key terms to the definitions.

a. \_\_\_\_ PRN

1. Surgical creation of an artificial opening into the stomach through the abdominal wall

b. \_\_\_\_ Gastrostomy

2. Medication formulated for insertion and absorption into the rectum, urethra or vagina

c. \_\_\_\_ Nasogastric

3. An administration scheme in which a medication is not routine, is taken as needed, and requires assessment for need and effectiveness

d. \_\_\_\_ Suppository

4. Pertaining to the nose and stomach

2. Special procedures that must be followed for the medication aide to perform additional activities include (fill in the blank):

■ A determination that the medication aide is \_\_\_\_\_ of providing the medication \_\_\_\_\_.

■ A determination that it is safe for the medication aide to provide medication to each specific \_\_\_\_\_.

■ The directions for each \_\_\_\_\_ medication are \_\_\_\_\_ and in \_\_\_\_\_.

■ Directions for \_\_\_\_\_ and \_\_\_\_\_ actions and side effects of medications are in writing.

■ The individual responsible for \_\_\_\_\_ the effects of medications for each resident has been identified and is in writing.

3. Demonstrate each of the additional activities being taught until you feel confident.

4. List five people who are responsible for the safe provision of medications:

# QMA Training Worksheet Answer Key

1. Match the key terms to the definitions.

a. 3 PRN

1. Surgical creation of an artificial opening into the stomach through the abdominal wall

b. 1 Gastrostomy

2. Medication formulated for insertion and absorption into the rectum, urethra or vagina

c. 4 Nasogastric

3. An administration scheme in which a medication is not routine, is taken as needed, and requires assessment for need and effectiveness

d. 2 Suppository

4. Pertaining to the nose and stomach

2. Special procedures that must be followed for the medication aide to perform additional activities include (fill in the blank):

■ A determination that the medication aide is capable of providing the medication safely.

■ A determination that it is safe for the medication aide to provide medication to each specific individual.

■ The directions for each PRN medication are complete and in writing.

■ Directions for observing and reporting actions and side effects of medications are in writing.

■ The individual responsible for monitoring the effects of medications for each resident has been identified and is in writing.

3. Demonstrate each of the additional activities being taught until you feel confident.

4. List five people who are responsible for the safe provision of medications:

**Medication aide, employer, physician, pharmacist, licensed nurse, competent resident or caretaker.**

# INDIANA DEPARTMENT OF HEALTH

## Documentation of QMA Classroom/Laboratory Hours and Topics Covered

Student Name: \_\_\_\_\_

Instructions: Multiple lessons will be addressed in each class session. At the end of each session, the lessons completed should be denoted either by an entry in each box or an arrow indicating the cumulative lessons covered and total hours of the cumulative lessons with student and instructor initials. This document must be monitored ongoing and will be included in the student's individual class file.

Date	Curriculum	Hours	Student Initials	Instructor Initials
	1. Role and Responsibilities of the Qualified Medication Aide			
	2. Legal and Ethical Issues			
	3. Resident Rights/Prohibition of Abuse, Neglect, and Misappropriation of Resident Property			
	4. Communication and Interpersonal Skills			
	5. Caring for the Cognitively Impaired and/or Combative Resident			
	6. Infection Control and Hand Hygiene			
	7. Safety and Emergency Procedures/Intervention for Airway Obstruction			
	8. The Dying Process			
	9. Introduction to Pharmacology/Medication Classification			
	10. Factors that Influence Medication Effectiveness (Care of the Long-Term Resident/Monitoring for Effects of Medication Usage)			
	11. Medication Supply and Storage			
	12. Medication Orders			
	13. Weights, Measures and Simple Mathematics			
	14. Abbreviations Used to Designate Time and Frequency of Medication Administration			
	15. The Gastrointestinal System			
	16. The Musculoskeletal System			
	17. The Skin and Sensory System/Pressure Ulcers (Pressure Injuries)			
	18. The Urinary System			
	19. The Cardiovascular System			
	20. The Respiratory System			
	21. The Endocrine System			
	22. The Male and Female Reproductive Systems			
	23. The Nervous System			
	24. Nutrition/Nutritional Disorders			

Date	Curriculum	Hours	Student Initials	Instructor Initials
	25. Immunity			
	26. Inflammation and Infection			
	27. Malignant Disease			
	28. Overview of Psychotic Conditions, Neurocognitive Disorder, and Psychoactive Medications			
	29. Alzheimer's Disease			
	30. Principles of Administering Medications			
	31. Documentation			
	32. Positioning Resident for Medication/Treatment Administration			
	33. Temperatures Obtained by Oral, Axillary, Aural, Temporal or Rectal Route			
	34. Obtaining the Pulse and Respiratory Rate			
	35. Obtaining the Blood Pressure			
	36. Preparing Oral Tablets or Capsules			
	37. Preparing Liquid Medications			
	38. Preparing Powdered Medications			
	39. Crushing Tablets			
	40. Altering Capsules			
	41. Preparing Controlled Substances for Administration			
	42. Counting Controlled Substances and Responding to Errors in Controlled Substance Count			
	43. Applying Lotion, Liniment, Ointment or Cream			
	44. Applying a Transdermal Patch			
	45. Instilling Eyedrops and Instilling Ophthalmic Ointments			
	46. Instilling Eardrops			
	47. Instilling Nasal Drops and Instilling Nasal Medications by Atomizer			
	48. Inserting a Vaginal Suppository and Administering a Vaginal Cream			
	49. Inserting a Rectal Suppository			
	50. Observing and Reporting to the Licensed Nurse			
	51. Administering Medications via the Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube)			
	52. Applying a Dressing to a Healed Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube) Site			
	53. Administration of Medication via Metered Dose Inhaler			
	54. Applying a Dressing to a Minor Skin Tear			
	55. Treatment for Minor Skin Conditions (Dermatitis, Scabies, Pediculosis, Fungal Infection, Psoriasis, Eczema, First Degree Burn, Stage I Pressure Ulcer)			
	56. Emptying and Changing a Colostomy Bag			
	57. Applying a Cold, Dry Compress			
	58. Diabetic Testing (Finger Stick)			
	59. Collecting of Fecal or Urine Specimens/Hemoccult Testing			

	60. Pulse Oximetry and Oxygen Saturation/Application of Oxygen per Nasal Cannula/Non-Sealing Mask			
	61. Instilling a Commercially Prepared Enema			

The required sixty (60) hours of classroom training were completed on \_\_\_\_\_.  
(date)

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Student Signature

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Instructor Signature



# **DOCUMENTATION OF QUALIFIED MEDICATION AIDE PRACTICUM**

State Form 51650 (R2 / 7-23)

Indiana Department of Health – Consumer Services & Health Care Regulation

**This original form must accompany your application for testing.**

Student Name:

## IDOH Approved QMA Training Program:

Practicum Site: \_\_\_\_\_ TOTAL PRACTICUM HOURS: \_\_\_\_\_

**TOTAL PRACTICUM HOURS:**

**Read Directions Carefully:** List **complete** dates (including year) and complete times (including am or pm). Document **only** time spent performing duties & tasks as mandated in the IDOH QMA program. Use the “Task #s” on the “QMA Procedure Performance Checklist” to document completed tasks in the “Description of Tasks Completed” column. Do Not include time spent on other duties, breaks or meals. Use multiple forms as necessary.

A maximum of two **4-hour increments**, which **must be divided by at least a 30-minute break**, may be completed in a 24-hour period of time.

Total Practicum Hours: \_\_\_\_\_

I verify that the above stated hours are correct and are the actual times of medication and treatment administration.

## RN QMA Training Program Instructor Signature

### QMA Procedure Performance Checklist

Initials:

Student	Instructor	Date	Task #	Procedure Title (Corresponding Lesson #)
			1	Initial Steps (Introduced in Lesson #3 and repeated prior to Lesson #51)
			2	Final Steps (Introduced in Lesson #3 and repeated prior to Lesson #51)
			3	Supine Position (Lesson #32)
			4	Sim's Position (Lesson #32)
			5	Fowler's Position (Lesson #32)
			6	Semi-Fowler's Position (Lesson #32)
			7	Prone Position (Lesson #32)
			8	Dorsal Recumbent Position (Lesson #32)
			9	Obtaining an Oral Temperature Using an Electronic Thermometer (Lesson #33)
			10	Obtaining a Rectal Temperature Using an Electronic Thermometer (Lesson #33)
			11	Obtaining an Axillary Temperature Using an Electronic Thermometer (Lesson #33)
			12	Obtaining a Tympanic (Aural) Temperature (Lesson #33)
			13	Obtaining the Pulse (Apical & Radial) and Respiratory Rate (Lesson #34)
			14	Obtaining the Blood Pressure (Lesson #35)
			15	Preparing Oral Tablets or Capsules (Lesson #36)
			16	Preparing Liquid Medications (Lesson #37)
			17	Preparing Powdered Medications (Lesson #38)
			18	Crushing Tablets (Lesson #39)
			19	Altering Capsules (Lesson #40)
			20	Preparing Controlled Substances for Administration (Lesson #41)
			21	Counting Controlled Substances/Responding to Errors in a Controlled Substance Count (Lesson #42)
			22	Applying Lotion, Liniment, Ointment or Cream (Lesson #43)
			23	Applying a Transdermal Patch (Lesson #44)
			24	Instilling Eyedrops (Lesson #45)
			25	Instilling Ophthalmic Ointment (Lesson #45)
			26	Instilling Eardrops (Lesson #46)
			27	Instilling Nasal Drops (Dropper) (Lesson #47)
			28	Instilling Nasal Medication Using an Atomizer (Lesson #47)
			29	Inserting a Vaginal Suppository (Lesson #48)
			30	Administering a Vaginal Cream (Lesson #48)
			31	Inserting a Rectal Suppository (Lesson #49)
			32	Administering Medications via the Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube) (Lesson #51)
			33	Applying a Dressing to a Healed Gastrostomy Tube (G-tube) or Jejunal Tube (J-tube) Site (Lesson #52)
			34	Administration of Medication via Metered Dose Inhaler (MDI) (Lesson #53)
			35	Applying a Transparent Dressing to a Minor Skin Tear (Lesson #54)
			36	Scabies Treatment (Lesson #55)
			37	Pediculosis Treatment (Lesson #55)
			38	Emptying and Changing a Colostomy Bag (Lesson #56)
			39	Applying a Cold, Dry Compress (Lesson #57)
			40	Blood Glucose Testing via Finger Stick (Lesson #58)
			41	Collecting Urine Specimens (Lesson #59)
			42	Collecting Fecal Specimens (Lesson #59)
			43	Hemoccult Testing (Lesson #59)
			44	Oxygen Administration (Lesson #60)
			45	Instilling a Commercially Prepared Disposable Enema (Lesson #61)

The Qualified Medication Aide student may have more than one practicum supervisor or instructor. Please make sure each practicum supervisor or instructor initials and signs this form.

I verify that these procedures were taught and demonstrated with 100% accuracy according to IDOH standards.

Student's signature: \_\_\_\_\_ Date: \_\_\_\_\_

QMA practicum supervisor's signature, initials, and title: \_\_\_\_\_

Date(s): \_\_\_\_\_

QMA practicum supervisor's signature, initials, and title: \_\_\_\_\_

Date(s): \_\_\_\_\_

QMA practicum supervisor's signature, initials, and title: \_\_\_\_\_

Date(s): \_\_\_\_\_

QMA practicum supervisor's signature, initials, and title: \_\_\_\_\_

Date(s): \_\_\_\_\_

QMA practicum supervisor's signature, initials, and title: \_\_\_\_\_

Date(s): \_\_\_\_\_

**PLEASE NOTE: The “Task #s” on this “QMA Procedure Performance Checklist” should be used to document the “Description of Tasks Completed” on the “Documentation of Qualified Medication Aide Practicum” form.**

## **QMA STUDENT FILE CHECKLIST**

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

- The pre-enrollment information such as application for admission.
- Criminal history check;
- Completed pre-enrollment test;
- Documentation of CNA status including proof of inclusion on Indiana nurse aide registry and hours worked;
- Documentation of classroom/laboratory hours and topics covered;
- All assessments of progress including written homework assignments or tests;
- Documentation of practicum hours and tasks performed;
- Completed practicum performance checklists;
- A copy of the test application and accompanying documentation submitted to the testing entity;
- Documentation of any disciplinary issues that arose during training including, but not limited to, allegations of resident abuse, neglect or misappropriation of resident property; medication errors; and tardiness and/or absences;
- Correspondence from the testing entity including letters indicating the student's success or failure on the final competency evaluation examination; and
- Documentation of hours and topics covered during additional training required after a failure to achieve a passing score of 80% on the competency evaluation examination.
- Proof of high school graduation such as copy of diploma, transcript, GED or equivalent.

# INDIANA DEPARTMENT OF HEALTH

## QMA TESTING

### VERIFICATION OF ADDITIONAL TRAINING

This completed form must be submitted to Ivy Tech Community College with the candidate's request to test for the second or third time.

*According to the Indiana Department of Health, a medication aide candidate, who repeats competency evaluation testing, must provide documentation to the testing entity of additional training based on the QMA training program and conducted by an approved QMA training program instructor. The additional training must include a minimum of six (6) hours of instruction in the areas identified by the testing entity as in need of improvement.*

I verify that I have conducted additional training with: \_\_\_\_\_

Candidate's Name

Topics Covered:

I verify that the additional training I provided was in accordance with the Indiana Department of Health accepted Qualified Medication Aide curriculum.

Date: \_\_\_\_\_

QMA Program Instructor's Signature

QMA Program Instructor's RN License Number

Program Instructor's Training Program Affiliation: \_\_\_\_\_

I verify that I have received additional training as stated above.

Date: \_\_\_\_\_

Candidate's Signature

Revised January 2024



**QUALIFIED MEDICATION AIDE (QMA) RECORD OF ANNUAL INSERVICE TRAINING**

State Form 51654 (R6 / 7-23)

State Form 31004 (Rev. 7/12) INDIANA DEPARTMENT OF HEALTH – Consumer Services & Health Care Regulation

**INSTRUCTIONS:**

1. Please type or print clearly in black ink.
2. Six (6) hours of inservice training must be completed each year (January – December).
3. For insulin administration certified QMAs, one (1) additional hour of inservice training directly related to insulin administration must also be completed each year.
4. Only inservices related to medications, medication administration, QMA Scope of Practice, and insulin administration should be included on this form.
5. QMA **MUST** keep the original form.
6. Electronic signatures are acceptable.

QMA Signature: \_\_\_\_\_ Date (mm/dd/yy): \_\_\_\_\_  
(typed name is acceptable)