

# Medication Aide

**8368 18 weeks / 140 hours**

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## Course Description

**Suggested Grade Level:** 11 or 12

**Prerequisites:** 8356 or 8362

This certificate program is designed to provide students with the basic skills and knowledge to begin work as a medication aide. Upon successful completion of this course, the student will be able to prepare for the safe administration of medications to clients in assisted living facilities, maintain aseptic conditions, understand basic pharmacology, facilitate client self-administration or assist with medication administration, follow proper procedures for preparing, administering, and maintaining medications, and follow appropriate procedures for documentation and reporting to the licensed health care professional on duty at the facility or to the client’s prescriber.

The coursework will fulfill the requirements of the Virginia Board of Nursing (VBON) Medication Aide Program Statutory Authority—54.1-3408.M and 54.1-3005 (17) Assisted Living Facilities Licensed by Department of Social Services (DOSS)—and make students eligible to apply to take the state examination administered by PSI Services LLC (PSI). Trained, experienced medication aides who can demonstrate the right skills and knowledge and have passed the exam with a minimum of 70 percent should be able to pursue respected career options in assisted living facilities.

Prerequisite: Student must have successfully completed a Virginia Board of Nursing (VBON) and Virginia Department of Education (VDOE) approved nurse aide education program and received a certificate of completion.

## Task Essentials Table

- Tasks/competencies designated by plus icons (⊕) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (⊖) are omitted
- Tasks marked with an asterisk (\*) are sensitive.

8368	Tasks/Competencies
<b>Examining Legal and Ethical Issues in Medication Management</b>	
⊕	Identify legal and ethical issues in medication management.
⊕	Recognize the implication of a client’s rights regarding medications, treatment decisions, and confidentiality.
⊕	Identify laws and regulations relating to the administration of medication in Virginia assisted living facilities (ALF).
⊕	Identify permitted practices and acts prohibited by medication aides (MA) in Virginia.
⊕	Identify the legal requirement to report the abuse, neglect, or exploitation of a client.
<b>Preparing for Safe Administration of Medications</b>	
⊕	Identify the principles of maintaining aseptic conditions.
⊕	Identify emergencies and health-threatening conditions and the appropriate responses.
⊕	Identify basic principles of communicating with a cognitively impaired client.

8368	Tasks/Competencies
+	Record vital signs.
+	Demonstrate understanding of international/military time.
+	Identify the seven rights of medication administration.
<b>Understanding Pharmacology Basics</b>	
+	Define key pharmacology terms, medical terminology, and abbreviations associated with medication administration.
+	Explain how drugs are classified.
+	Identify factors that affect drug action.
+	Facilitate a client's awareness of the purpose and effects of medications.
+	Identify how to use drug information sources.
+	Identify drug labeling requirements in Virginia.
<b>Examining Administration of Prepared Instillations and Treatments</b>	
+	Identify basic guidelines for administering medications.
+	Administer oral medications.
+	Administer eye drops and ointments.
+	Administer eardrops.
+	Administer nasal drops and sprays.
+	Administer topical preparations.
+	Administer compresses and dressings.
+	Administer vaginal products.
+	Administer rectal products.
+	Administer soaks and sitz baths.
+	Administer oral hygiene products.
+	Administer inhalation therapy products.
+	Administer a nebulizer treatment.
+	Administer transdermal products.
+	Administer epinephrine injection.
<b>Documenting Medication Administration</b>	
+	Describe the three types of forms commonly used to document medication administration.
+	Explain procedures for receiving and transcribing healthcare providers' (HCP) orders.
+	Document medication administration on the medication administration record (MAR).
+	Document medication errors.
<b>Practicing Storage and Disposal of Medication</b>	
+	Identify the procedures for storing and securing medications and equipment.
+	Maintain an inventory of medications including controlled substances.
+	Identify the procedures for the disposal of medications.
<b>Examining Special Issues in Medication Administration</b>	
+	Identify special issues related to drug use in the elderly.
+	Explain the uses, adverse reactions, and special considerations for selected psychotropic medications.
+	Identify when a drug is a chemical restraint.
+	Explain the importance of blood testing to monitor the therapeutic level of medication.
+	Identify medications considered inappropriate for the elderly.
+	Identify the reasons for a client's refusal to take medications and respond appropriately.

8368	Tasks/Competencies
+	Identify issues related to over-the-counter (OTC) medications and herbal preparations of nonmedical substances.
<b>Exploring Insulin</b>	
+	Explain basic facts about diabetes mellitus.
+	Identify activities involved in the management of diabetes.
+	List the common causes and symptoms of hyperglycemia and hypoglycemia.
+	Perform a finger stick procedure for blood glucose monitoring.
+	Administer or assist the client with the self-administration of insulin.
<b>Describing the Opioid Crisis</b>	
+	Describe the history and current state of the opioid crisis in the United States.
+	Describe the history and current state of the opioid crisis in Virginia.
+	Define the pharmacological components and common uses of opioids.
<b>Examining the Key Factors of Drug Addiction</b>	
+	Examine the science of addiction.
+	Explain prevention and early intervention strategies.
+	Identify addiction and its behavioral elements, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).
+	Describe the treatment models of addiction therapy.
+	Describe the medication management antidote used to prevent fatal opioid overdoses.
<b>Understanding Pain Management Protocols</b>	
+	Explain the science of physiological and mental pain.
+	Describe the diagnostic tools used in developing pain management plans.
+	Describe pain treatment options available to various populations of patients.
+	Describe the effects of opioid dependency on the human body systems.
+	Explain the mechanism and physical effects of opioids on the human body.
+	Explain the use of opioids in practice settings, the role of opioids in pain management, and risk factors associated with the use of the medication.
+	Describe the withdrawal and tapering side effects of opioid use.
+	Describe storage and disposal options for opioids.
+	Explain community resources for education about opioid use.
<b>Working with Patients and Caregivers</b>	
+	Describe key communication topics involving opioids for patients.
+	Describe communication topics for caregivers and family members.

Legend: + Essential ○ Non-essential ⊖ Omitted

## Curriculum Framework

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# Examining Legal and Ethical Issues in Medication Management

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## Task Number 39

### Identify legal and ethical issues in medication management.

#### Definition

Identification should include

- the differences between ethical standards and legal standards
  - ethical standards are guides to moral behavior
  - legal standards are guides to legal behavior
- issues of importance to the medication aide
  - working within the scope of practice
  - performing only those acts for which they have been trained
  - keeping skills and knowledge up to date
  - requesting help before acting in a questionable situation
  - protecting the safety and well-being of the resident
  - performing the job according to facility policy
- knowledge of consequences for violation of ethical or legal standards
  - loss of registration
  - loss of eligibility to work in assisted living facilities (ALF)
  - disciplinary action by the facility and/or the Virginia Board of Nursing (VBON).

#### Process/Skill Questions

- What are some ethical issues that could affect client care?
- How do ethical issues differ from legal issues?
- How can confidentiality be an ethical, as well as legal, issue?
- What is the role of the ethics committee in healthcare facilities?
- How could a visit to the VBON be beneficial to a student?
- What are some ethical scenario issues?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Knowledge Test: Medical Law and Ethics

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## **Task Number 40**

### **Recognize the implication of a client's rights regarding medications, treatment decisions, and confidentiality.**

#### **Definition**

Recognition should include

- a client's rights regarding medications and treatment decisions
  - to be informed of rights, responsibilities, policies, and rules
  - to participate in planning personal medical treatment
  - to refuse medical treatment
  - to privacy during medical treatment, including the administration of medications
  - to take only medications prescribed by a personal healthcare provider (HCP)
  - to refuse to participate in research or experimentation
  - to choose physicians and other HCPs
  - to move around freely (i.e., free from chemical restraint)
- a client's rights regarding confidentiality
  - to have only those staff members providing care to a client access to the client's medical records
  - to approve or refuse to release personal records to an individual outside the facility, except as otherwise provided by law.

#### **Process/Skill Questions**

- What is the process if a client purchases an over-the-counter medication?
- What other products or supplements require an HCP's approval?
- Why is it important to recognize the implications of clients' rights regarding medications, treatments, and confidentiality?

#### **HOSA Competitive Events (High School)**

##### **Health Science Events**

- Knowledge Test: Medical Law and Ethics
- Knowledge Test: Pharmacology

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## **Task Number 41**

# Identify laws and regulations relating to the administration of medication in Virginia assisted living facilities (ALF).

## Definition

Identification should include the following:

- [Virginia Board of Nursing \(VBON\)](#)
- [Drug Control Act of Virginia](#)
- [Regulations Governing the Registration of Medication Aides, VBON](#)
- [Regulations of the Virginia Department of Social Services](#)
- [Regulations of the Virginia Board of Pharmacy](#)

## Process/Skill Questions

- Where can one find the current laws and regulations relating to the administration of medications?
- Whose responsibility is it to know the regulations?

## HOSA Competitive Events (High School)

### Health Science Events

- Knowledge Test: Medical Law and Ethics
- Knowledge Test: Pharmacology

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## Task Number 42

# Identify permitted practices and acts prohibited by medication aides (MA) in Virginia.

## Definition

Identification should include

- practices allowed
  - may administer medications in ALFs licensed by the Virginia Department of Social Services (VDSS)
  - may administer medications for no more than 120 days from the date of the letter from the VBON
  - may administer medications which a client would normally self-administer

- may administer insulin injections as ordered by a prescriber and as would normally be self-administered by a client
- may administer epinephrine auto-injectors and glucagon as ordered by prescriber, in emergency situations
- acts prohibited by the VBON
  - may not administer medications in a nursing home
  - may not transmit verbal orders for new prescription drugs to a pharmacy
  - may not assess a client
  - may not deviate from the medication regime ordered
  - may not mix, dilute, or reconstitute two or more drug products, except insulin and glucagon
  - may not administer intramuscular medications
  - may not administer intravenous medications
  - may not give medication by way of percutaneous endoscopic gastric tubes
- acts prohibited by the Virginia Board of Pharmacy (VBOP)
  - may not transmit verbal orders for new prescription drugs to a pharmacy
  - may not remove drugs or administer drugs from an emergency stat box provided by a pharmacy
  - may not repackage or label medications of any kind
- prohibited by the DOSS
  - may not administer medications in ALFs until registered with the VBON pursuant to regulations effective July 15, 2019
  - must meet all regulatory requirements within one year of the effective date of new regulations
- other prohibited practices for medication aides
  - may not give medications which have been poured by another person
  - may not pour medication for another person to give
  - may not pre-pour medications for anyone (including oneself)
  - may not label or change the label of a medication
  - may not write prescriptions or order new medications
  - may not administer medications to clients until all requirements for training and certification are met.

Teacher Resource: [18VAC90-60-91. Requirements for Provisional Practice](#)

### **Process/Skill Questions**

- What are the observations that an MA should report?
- What are the legal or ethical consequences for practicing outside your scope of practice?
- Why is it important to review the facility job description before assuming the responsibilities of an MA?

## **Task Number 43**

## **Identify the legal requirement to report the abuse, neglect, or exploitation of a client.**

### **Definition**

Identification should include

- definitions of *abuse*, *neglect*, *exploitation/misappropriation*, and *abandonment*
- those for whom mandated reporting is Virginia law ([Code of Virginia Title 63.2-1606.A](#))
- specific facts that are mandated to report (e.g., age, identity, circumstances)
- where to make a report
- responsibilities to report suspected abuse, neglect, sexual abuse, or other criminal activity that puts someone in danger of death or harm
- rights of the person reporting
- penalty for failure to report.

See VBON student handouts 1.1A—1.4A

### **Process/Skill Questions**

- What measures does an MA take to protect a client from abuse, mistreatment, and neglect?
- To whom does an MA report instances of abuse, mistreatment, and neglect?
- Where and how does an MA document abuse, mistreatment, and neglect?
- What does *freedom from retribution* mean?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Medical Law and Ethics

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## **Preparing for Safe Administration of Medications**

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### **Task Number 44**

**Identify the principles of maintaining aseptic conditions.**

## Definition

Identification should include

- definitions of *aseptic* and *pathogen*
- the Occupational Safety and Health Administration (OSHA) standards for equipment use when working in facilities
- knowledge of the steps in Standard Precautions
- knowledge of the proper disposal of infectious waste according to Virginia law.

## Process/Skill Questions

- What are the different types of pathogens (e.g., bacteria, viruses, fungi, protozoa, rickettsia), and how do they differ from one another?
- What are drug-resistant organisms, and why are these problematic?
- What are transmission-based Standard Precautions, and how and when is personal protective equipment (PPE) used?
- What is the procedure to clean a blood spill?

## HOSA Competitive Events (High School)

### Health Professions Events

- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Pharmacy Science

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## Task Number 45

### Identify emergencies and health-threatening conditions and the appropriate responses.

#### Definition

Identification should include

- causes for emergencies
  - injury
  - illness
  - complications related to illness or injury
  - unwanted effects of medication

- common emergency conditions
  - excessive, uncontrolled bleeding
  - accidents involving severe injury
  - failure or obstruction of the respiratory system
  - uncontrollable behavior which is a danger to the client or others
  - loss of consciousness unrelated to predictable seizure activity
- types of health-threatening conditions which should be reported
  - life-threatening emergencies
  - nonemergency, but health-threatening conditions
  - other significant changes in physical condition or behavior
- appropriate responses to emergency and nonemergency but health-threatening conditions
- appropriate follow-up to emergency and nonemergency but health-threatening conditions.

### Process/Skill Questions

- What are the signs of anaphylactic shock?
- How would an MA activate the emergency medical services (EMS)?
- How would an MA control bleeding?
- What is the universal sign for choking?
- How does an MA provide first aid for soft-tissue injuries?

### HOSA Competitive Events (High School)

#### Emergency Preparedness Events

- CPR/First Aid

## Task Number 46

### Identify basic principles of communicating with a cognitively impaired client.

#### Definition

Identification should include

- the three components of communication (i.e., message, sender, receiver)
- how to be a good listener
- communication barriers (e.g., failure to listen)
- the definition of *cognitive impairment*
- the causes of cognitive impairment (e.g., delirium, depression, dementia)
- the behaviors associated with Alzheimer’s disease and other types of dementia

- communication techniques to minimize behavior problems
- communication techniques with a mentally ill client
- communication techniques with an aphasic client
- behavior management techniques.

### **Process/Skill Questions**

- What communication strategies can an MA use during interaction with others?
- What specific methods can improve the cognition of a cognitively impaired client?
- What cognitive prompts are available in an ALF (e.g., clocks, calendars, daily activity, and menu schedules)?
- How would an MA respond to a 90-year-old client who is asking where her mother is?
- What are four alternative activities an MA could suggest for a confused client who is becoming agitated?

## **Task Number 47**

### **Record vital signs.**

#### **Definition**

Recording should include measuring and recording temperature, pulse, respirations, and blood pressure.

#### **Process/Skill Questions**

- What are the definitions of *blood pressure, systolic, diastolic, apical pulse, radial pulse, oral temperature, rectal temperature, axillary temperature, and tympanic temperature*?
- When do vital signs need to be measured and recorded?
- What are the normal ranges for blood pressure, pulse, respiration, and temperature?
- What are the factors that influence blood pressure, pulse, and temperature?
- What are the proper techniques for taking blood pressure, pulse, respiration, and temperature?
- What factors help an MA determine the site of temperature measurement?
- What circumstances alert the need to immediately report vital signs?

### **HOSA Competitive Events (High School)**

#### **Health Professions Events**

- Home Health Aide
- Nursing Assisting

## **Task Number 48**

### **Demonstrate understanding of international/military time.**

#### **Definition**

Demonstration should include identifying the corresponding standard time for international/military time.

#### **Process/Skill Questions**

- What is the rationale for using military time vs. standard time?

## **Task Number 49**

### **Identify the seven rights of medication administration.**

#### **Definition**

Identification should include the

- right patient
- right drug
- right dose
- right route
- right time
- right documentation
- right technique.

*See VBON student handouts 2.1—2.5A.*

#### **Process/Skill Questions**

- What steps should be taken before administering medication?
- Why is it important to know your facility's time frame in administering medications?
- What technologies are in place to prevent medication errors?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pharmacology

#### **Health Professions Events**

- Clinical Nursing

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# Understanding Pharmacology Basics

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## Task Number 50

### Define key pharmacology terms, medical terminology, and abbreviations associated with medication administration.

#### Definition

Definitions should include

- agency definitions and abbreviations of pharmacology terms
  - Drug Enforcement Administration (DEA)
  - Food and Drug Administration (FDA)
- pharmacy definitions (e.g., *contraindication*, *toxicity*)
- terms related to body systems (e.g., *absorption*, *metabolism*)
- abbreviations associated with
  - medication forms (e.g., sol.—solution, crm.—cream)
  - routes of administration (e.g., buc.—inside the cheek, top.—on the skin)
  - measurements (e.g., cm—centimeter, oz—ounce)
  - time of administration (e.g., prn—as necessary, q4h—every four hours)
  - medical terms (e.g., c/o—complaints of, npo—nothing by mouth, MAR—medication administration record)
- measurement equivalents (e.g., 1 cc = 1 ml).

Teacher Resource: [The Official "Do Not Use" List of Abbreviations](#), The Joint Commission

#### Process/Skill Questions

- How do routes of drug administration compare in relation to rates of absorption, effectiveness, and safety?
- What laws and agencies regulate drug production, distribution, and use?
- What are the “Do Not Use” abbreviations noted by the FDA?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Medical Terminology
  - Knowledge Test: Pharmacology
- 

## Task Number 51

### Explain how drugs are classified.

#### Definition

Explanation may include

- sources of drugs
  - natural
    - plant (e.g., aspirin derived from willow bark)
    - animal (e.g., insulin derived from the pancreas of pigs and cattle)
    - mineral (e.g., Epsom salts derived from magnesium sulfate)
  - chemical sources
    - synthetic—created in a laboratory
    - biotechnology (e.g., Humulin—a synthetic insulin)
- drug names
  - generic—the official name of the active ingredient used by all manufacturers; nonproprietary
  - trade—the brand or product name; proprietary; indicated by the symbol ®
- classification based on the body system affected by the drug
  - cardiovascular
  - respiratory
  - gastrointestinal
  - endocrine
- classification by the action of the drug in the body
  - anticoagulant
  - antihypertensive
  - antihyperlipidemic
  - antibiotic
  - anticonvulsant
  - hypnotic
  - antianxiety
  - antidepressant
  - antimanic
  - antipsychotic
- classification by the disease the drug is intended to treat
  - osteoporosis
  - pain
  - dementia

- dispensing classification
  - prescription drugs
  - over-the-counter (OTC) drugs
- legal classifications of drugs
  - Schedule I
    - high potential for abuse
    - no currently accepted medical use in the United States
    - examples include heroin, lysergic acid diethylamide (LSD), 3,4-methylenedioxymethamphetamine (commonly known as ecstasy or molly), mescaline, and methaqualone
  - Schedule II
    - high potential for abuse
    - accepted medical use with restrictions
    - may lead to psychological or physical dependence
    - examples include amphetamine, cocaine, fentanyl, and hydrocodone
  - Schedule III
    - potential for abuse
    - accepted medical use
    - may lead to moderate or low physical dependence or high psychological dependence
    - examples include anabolic steroids, buprenorphine, and ketamine
  - Schedule IV
    - low potential for abuse
    - accepted medical use
    - may lead to limited physical or psychological dependence
    - examples include benzodiazepines, modafinil, and tramadol
  - Schedule V
    - low potential for abuse
    - accepted medical use
    - may lead to limited physical or psychological dependence
    - examples include diphenoxylate, lacosamide, and pregabalin
- classes regulated by the Controlled Substances Act
  - narcotics
  - depressants
  - stimulants
  - hallucinogens
  - anabolic steroids.

## Process/Skill Questions

- What are the sources of drugs? What is an example of a drug derived from each source?
- What are the characteristics of chemical, generic, and brand names of specified drugs?
- How do religious beliefs influence medication selection and sources?
- What are the potential risks when combining certain pharmaceuticals and the consumption of or exposure to certain plants (e.g., fox glove, poinsettia)?

## HOSA Competitive Events (High School)

### Health Science Events

- Knowledge Test: Pharmacology

### Health Professions Events

- Pharmacy Science
- 

## Task Number 52

### Identify factors that affect drug action.

#### Definition

Identification may include

- explanations of *absorption, distribution, metabolism, and excretion*
- physical factors
  - age
  - weight
  - gender
  - disease states
  - genetic factors
- psychological factors
  - diet
  - exercise
  - mental state
  - past history of response to drugs
- drug administration factors
  - dosage form
  - route of administration
  - time of administration.

#### Process/Skill Questions

- What health factors affect a client's interactions with drugs?
- What factors, such as blood levels, affect drug absorption?
- What factors affect drug distribution?
- What factors affect drug metabolism/biotransformation?
- What factors influence drug excretion?

## HOSA Competitive Events (High School)

### Health Science Events

- Knowledge Test: Pharmacology

### Health Professions Events

- Pharmacy Science
- 

## Task Number 53

### Facilitate a client's awareness of the purpose and effects of medications.

#### Definition

Facilitation may include

- purpose
  - to prevent illness (e.g., vaccines)
  - to eliminate illness (e.g., antibiotics)
  - to control disease (e.g., insulin)
  - to relieve symptoms (e.g., cough suppressant)
  - to alter behavior (e.g., tranquilizers)
- effects
  - desired—drug acts in the manner for which it was prescribed
  - undesired
    - side effects
    - drug interactions
      - *potentiate*—one drug increases the effect of another
      - *antagonist*—one drug decreases the effect of another
      - two drugs combine to produce a new unwanted effect (e.g., rash, diarrhea, light-headedness)
    - no effect
- potential for drug dependency
- potential for drug allergies.

#### Process/Skill Questions

- What patient education is required?
- What is the therapeutic purpose of drugs?

- What is the difference between drug incompatibility and drug interactions, considering food-drug, drug-drug, and herbal-drug?
  - What are the common drug interactions, including drug-drug and drug-food?
  - What is the difference between a drug side effect and a drug adverse reaction?
- 

## Task Number 54

### Identify how to use drug information sources.

#### Definition

Identification should include

- common drug reference sources
  - [Physicians' Desk Reference](#) (PDR)
  - United States Pharmacopeia Dispensing Information (USPDI)
  - Nurses Drug Handbook
  - The Pill Book
- information found in drug references
  - description
  - action
  - indication
  - interactions
  - contraindications
  - precautions
  - adverse reactions
  - dosage and administration
  - how supplied.

#### Process/Skill Questions

- What are the names of at least three drug reference books and/or online resources that provide easy access to information for a nurse? How are they used to obtain needed information?
- What is the title of the official drug reference that establishes legal standards for drugs?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Knowledge Test: Pharmacology

##### Health Professions Events

- Clinical Nursing
- 

## **Task Number 55**

### **Identify drug labeling requirements in Virginia.**

#### **Definition**

Identification should include

- the pharmacy name, address, telephone number, and DEA number
- the prescription number and the name of the physician
- the client's name and the date the prescription was filled
- directions for taking the medication
- the name of the drug, its strength, and the count of the medication
- the number of times the drug may be reordered without a new prescription
- the drug expiration date
- stickers with special instructions, if applicable.

#### **Process/Skill Questions**

- What are the requirements for a drug label in an ALF as prescribed by Virginia's state regulations?
- What guidelines could prevent an MA from distributing medication to a patient?
- What is the cardinal rule when administering medication?

#### **HOSA Competitive Events (High School)**

##### **Health Science Events**

- Knowledge Test: Pharmacology

##### **Health Professions Events**

- Pharmacy Science
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## **Examining Administration of Prepared Instillations and Treatments**

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## Task Number 56

### Identify basic guidelines for administering medications.

#### Definition

Identification may include

- knowing why a client is receiving the medication
- knowing the medication delivery system
  - vials
  - blister pack
  - unit dose
  - multi-dose
- verifying each medication order
- knowing the types of medication orders
  - routine
  - PRN—from the Latin phrase *pro re nata* which translates to “as the situation demands”
  - single dose
  - stat
- giving only medications ordered by an authorized prescriber
- reading the pharmacist’s label three times
- never giving a medication if there is any question about the order
- never giving a medication if its normal appearance has been altered
- always checking for allergies
- taking vital signs when indicated
- checking the expiration date on the label
- staying with a client until the medication has been safely swallowed, when administering oral medications
- documenting in the MAR
- preparing for a medication pass (i.e., med-pass).

#### Process/Skill Questions

- Who clarifies the medication order if there is a question?
- What are common auxiliary labels affixed to containers?
- Why is it important to check allergies before administering medications?
- What is the importance of the MAR?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Knowledge Test: Pharmacology

### **Health Professions Events**

- Clinical Nursing
  - Pharmacy Science
- 

## **Task Number 57**

### **Administer oral medications.**

#### **Definition**

Administration should include

- following the guidelines for administering oral liquid medication:
  - Wash your hands thoroughly.
  - Identify the right client.
  - Read the medication administration record (MAR) and compare with the HCP orders.
  - Get the medication container from the cart/cabinet and read the label to verify
    - right client
    - right drug
    - right dose
    - right route
    - right time.
  - Check the expiration date on the medication label.
  - Compare the label with the instructions on the MAR and read three times.
  - Pour the verified medication into the appropriate container.
  - Place your initials in the appropriate box on the MAR.
  - Follow special documentation procedures if the medication is a Schedule II-IV drug.
  - Give the drugs to the client immediately with the recommended amount of fluids.
  - Stay with the client until the medication is swallowed (check mouth PRN).
  - Close the MAR and lock the cart/cabinet if out of visual range.
  - Wash your hands thoroughly after administering the medications.
  - Administer the medications within a two-hour window unless otherwise specified.
  - Dispose of unused foods or liquids.
  - Restock the cart with supplies.
  - Clean and lock the cart/cabinet.
  - Observe the client for any unpleasant or harmful effects from the medication and report observations to a physician immediately.
- following the guidelines for administering oral solid medication:

- Shake the bottle well unless instructed not to do so.
- Place the cap from the bottle upside down on the counter or table after removing.
- Use specially marked cups when pouring and measuring liquids.
- Place the measuring cup at eye level when pouring and measuring.
- When pouring, hold the bottle so that the label is covered with your hand, and then wipe the top of the bottle after pouring to keep the label from becoming soiled or illegible.
- If too much medicine is poured, throw away the extra amount.
- If giving two liquid medications at one time and one of the liquids is a cough syrup, give the cough syrup last (do not mix the two liquids together).

Do not give medication

- if the HCP order, the MAR, or the pharmacy label is missing or illegible.
- if a client exhibits a significant change in physical or mental status.
- if there is a question or any doubt about the five rights.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 58**

### **Administer eye drops and ointments.**

#### **Definition**

Administration should include adhering to the following procedures for the safe administration of eye drops:

- Provide for client privacy.
- Verify the medication order for accuracy on the MAR.
- Wash your hands.
- Put on gloves.
- Use a clean tissue or a sterile cotton pad to wipe the eyelid from inside to outside of eyelid, if crusting or drainage is present.
- Position the client on their back, or, if sitting, with the head tilted back.
- Shake the medication bottle well, if required.
- Remove the cap from the bottle and place it on a clean, dry surface.
- When the bottle has a separate dropper, draw the required amount of solution into the dropper, holding the dropper upright; if it is a self-contained unit, invert the bottle.

- Use a gauze pad and gently pull down lower eyelid forming a pouch.
- Instruct the client to look up.
- Instill the prescribed number of drops inside the lower lid close to the outer corner of eye or squeeze a strip of ointment 1/3 inch into the pouch.
- Allow 1 minute between drops and 5 minutes between two different kinds of drops.
- Instruct the client to close the eye slowly to allow for even distribution over the surface of the eye.
- Apply gentle pressure to the inside corner of the eye with the index finger if the medication is for glaucoma or inflammation, or advise the client to do so.
- Avoid touching the tip of the container to any surface.
- Replace the cap and check for tight closure.
- When two or more different eye drops must be administered at the same time, allow at least a 5-minute period between each medication.
- Properly dispose of gloves and wash your hands.
- Document accurately in the MAR.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 59**

### **Administer eardrops.**

#### **Definition**

Administration should include

- knowledge of the purpose of otic medicines to treat ear infections, inflammation, pain, and to soften wax
- adhering to the following procedures for administering ear drops:
  - Provide for client privacy.
  - Verify the medication order for accuracy with the MAR.
  - Wash your hands.
  - Put on gloves if the client's ears are infected or bleeding.
  - Make sure the medication is room temperature.
  - Position the client on his/her side with the unaffected ear facing downward and the affected ear facing upward.
  - Use tissue or a gauze pad to wipe any secretions or drainage from the outside of the ear. *Do not use a cotton swab or other sharp object.*

- When in a container that includes a dropper, remove the cap from the bottle and place it upside down on a clean, dry surface.
- If using a separate dropper, check for cracks.
- For an adult, straighten the ear canal by gently pulling the ear up and outward; for a child, pull the ear back and down.
- Drop the prescribed amount of medication onto the outer part of the ear canal and gently rotate to move the medication into the ear canal.
- Remove the extra medication with a cotton ball.
- Instruct the client to maintain the position for 5 minutes to prevent medication from rolling out of the ear.
- If included in instructions, place a cotton ball in the client's ear.
- Replace the cap and check for tight closure.
- Properly dispose of gloves and wash your hands.
- Document accurately in the MAR.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 60**

### **Administer nasal drops and sprays.**

#### **Definition**

Administration should include

- knowledge of the purpose of nasal medications to treat sinus infections, seasonal allergies, pain, or congestion due to colds
- following the procedures for nasal drops:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Make sure the medication is at room temperature.
  - Instruct the client to gently blow their nose.
  - Instruct the client to sit or lie down and tilt their head back.
  - Drop the prescribed number of drops into the client's nose.
  - Instruct the client to remain in the same position for a few minutes.
  - Replace the cap.

- Wash your hands and properly dispose of gloves, if wearing.
- Document accurately on the MAR.
- following the procedures for nasal sprays:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Make sure the medication is at room temperature.
  - Instruct the client to gently blow their nose.
  - Instruct the client to hold their head upright and slightly tilt the head forward.
  - Instruct the client to use a finger to close the nostril not receiving medication and to breathe in through the nose and out through the mouth.
  - Insert the spray nozzle no more than one-quarter inch into the nostril with tip pointed to the back outer side of the nose.
  - Spray firmly and quickly.
  - Remove the spray bottle and instruct the client to tilt their head back for several seconds to aid penetration of the drug.
  - Instruct the client to avoid blowing their nose for 15 minutes.
  - Replace the cap.
  - Wash your hands and properly dispose of gloves if wearing.
  - Document accurately in the MAR.

*Note: These medications are best if they are administered by the client, especially the nasal sprays because they require hand/breathing coordination.*

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 61**

### **Administer topical preparations.**

#### **Definition**

Administration should include the following procedures for topical preparations:

- Provide for client privacy and explain the procedure.
- Verify the medication order for accuracy with the MAR and read the label three times.
- Wash your hands.

- Put on gloves.
- Apply a thin film of cream, ointment, or lotion to the affected area using a gloved finger or cotton gauze.
- Replace the container top immediately.
- Properly dispose of gloves and wash your hands.
- Document accurately in the MAR.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 62**

### **Administer compresses and dressings.**

#### **Definition**

Administration should include

- knowledge of the purpose of compresses to apply heat or cold to injured areas of the body
  - heat opens blood vessels
  - cold closes blood vessels
- following the procedures for proper administration of compresses and dressings:
  - Provide for client privacy and explain procedure
  - Verify the medication order for accuracy with the MAR and read the label three times
  - Wash your hands.
  - Put on gloves.
  - Follow the HCP's order for preparing the compress solution.
  - Check the temperature of the warm compress solution; never exceed 110° Fahrenheit or warm when applied to the inner part of the upper forearm.
  - Use a gauze pad or a clean washcloth as the compress.
  - Soak the compress in the prepared solution and squeeze lightly.
  - Apply the compress to the affected area and note the time of application.
  - Keep the compress cold by changing it every 2-3 minutes or by applying plastic over the compress, and then an ice bag.
  - Reheat the compress by dipping it into a solution approximately every 5-10 minutes and covering the compress with plastic wrap; never place an electric heating pad on a compress.
  - Remove the compress in 20 minutes unless otherwise directed, or if
    - the client complains of pain

- the area becomes reddened or the client complains of numbness.
- Properly dispose of gloves and wash your hands.
- Document administration according to facility policy.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 63**

### **Administer vaginal products.**

#### **Definition**

Administration should include

- knowledge of the purpose of vaginal medications to treat infection, relieve itching, control vaginal dryness, and for symptoms of menopause or for birth control
- following procedures for vaginal suppositories and creams:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR.
  - Wash your hands.
  - Put on gloves.
  - Encourage the client to urinate and/or move bowels, if possible before administering suppositories or creams.
  - Position the client on her back with the knees flexed and legs drawn toward chest.
  - Lubricate the tip of the suppository or cream with a water-soluble gel; do not use petroleum gel.
  - Spread the labia and insert the suppository gently forward about 2 inches; do not use force.
  - Instruct the client to remain lying down for 30 minutes after inserting the medication.
  - Properly dispose of gloves and wash your hands.
  - Document accurately in the MAR.

## **Task Number 64**

### **Administer rectal products.**

#### **Definition**

Administration should include

- knowledge of the purpose of rectal medicines to treat seizure, fever, nausea, vomiting, pain, and constipation
- following the appropriate steps for administering suppositories
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Instruct the client to urinate or move bowels, if possible.
  - Position the client on the left side with the right leg flexed at the knee.
  - Remove the suppository wrapper.
  - Moisten the suppository with water.
  - Insert into the rectum approximately to the second knuckle.
  - Properly dispose of gloves and wash your hands.
  - Document accurately in the MAR.
- following the appropriate steps for administering external creams:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Instruct the client to urinate or move bowels, if possible.
  - Apply a small amount of cream or ointment and gently rub it in.
  - Properly dispose of gloves and wash your hands.
  - Document accurately in the MAR.
- following the appropriate steps for administering internal creams and ointments:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Instruct the client to urinate or move bowels, if possible.
  - Attach the plastic applicator tube to the tube of cream or ointment.
  - Insert the applicator tip into the rectum and gently squeeze the tube to deliver the medication.
  - Remove the applicator tip from the tube and wash the applicator with hot, soapy water.
  - Replace the cap on the tube.
  - Properly dispose of gloves and wash your hands.
  - Document accurately in the MAR.
- following the appropriate steps for administering enemas:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.

- Wash your hands.
- Put on gloves.
- Instruct the client to urinate or move bowels, if possible.
- Insert the enema tip into the rectum.
- Allow all fluid to run into the rectum.
- See the HCP's order or package directions for instructions for specific enema products.
- Properly dispose of gloves and wash your hands.
- Document accurately in the MAR.

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

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 65**

### **Administer soaks and sitz baths.**

#### **Definition**

Administration should include

- knowledge of the purpose of soaks and sitz baths to relieve pain, to cleanse, and to speed healing
- following the procedure for assisting with soaks:
  - Provide for client privacy and explain the procedure
  - Verify the medication order for accuracy with the MAR and read the label three times
  - wash hands
  - Put on gloves
  - Prepare the soaking solution and check the water temperature with a thermometer or on your wrist; the water temperature should be between 105° and 110° Fahrenheit; have the client check the water temperature and adjust if necessary
  - If adding a pharmaceutical solution, follow the instructions on the solution label
  - Immerse the body part in the solution; pad the edge of the basin with a towel if needed

- Check the water temperature every 5 minutes and add hot water as needed to maintain the temperature
- Check the reaction of the body part being soaked at least every five minutes and remove if the skin reddens or if the client complains of pain or numbness
- Soak for the prescribed time; usually no more than 20 minutes
- Remove the body part and dry thoroughly with a clean towel—this is particularly important when soaking the feet of a diabetic patient
- Dispose of the soaking solution according to facility policy
- Document the procedure according to facility guidelines
- following the procedure for assisting with sitz baths:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Prepare the soaking solution and check the water temperature with a thermometer or on your wrist; the water temperature should be between 105° and 110° Fahrenheit; have the client check the water temperature and adjust if necessary.
  - If adding a pharmaceutical solution, follow the instructions on the solution label.
  - Position the client comfortably in the bath; stay with the client if the client is frail or cognitively impaired.
  - Have the client remain in the bath for the prescribed period of time; usually no more than 20 minutes.
  - Help the client from the bath, dry the skin or provide a towel and assist with dressing.
  - Dispose of the bath water.
  - Document the procedure according to facility guidelines.

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

## **Task Number 66**

### **Administer oral hygiene products.**

#### **Definition**

Administration should include knowledge of

- the necessity of providing care of the mouth, teeth, gums, and/or dentures at least twice daily, preferably after each meal
- types of oral hygiene products
  - mouthwash
  - toothpaste

- dental floss
- denture cleaning products
- how to use oral hygiene products
  - read package labels and refer to HCP orders for amounts and frequency
  - follow the procedures for providing oral care (e.g., brushing, flossing, denture cleaning)
- the potential problems of failing to provide oral care
  - serious problems such as gum disease
  - a decreased appetite and weight loss
  - linked to a decreased life span.

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Nursing Assisting

## **Task Number 67**

### **Administer inhalation therapy products.**

#### **Definition**

Administration should include following procedures for the use of handheld inhalers (i.e., metered dose):

- Provide for client privacy and explain the procedure.
- Verify the medication order for accuracy with the MAR and read the label three times.
- Wash your hands.
- Put on gloves if there is any body fluid contact.
- Warm the canister to hand temperature.
- Remove the cap and hold the inhaler upright.
- If using the inhaler for the first time or after a prolonged period of time, test it by spraying into the air before spraying into the mouth.
- Have the client take a drink of water to moisten the mouth.
- Position the inhaler with the mouthpiece between the lips and pursed to make a seal around the mouthpiece.
- Instruct the client to hold his/her breath for 10 seconds to allow the medication to penetrate deeply into the lungs and then slowly exhale through the nose.
- If additional puffs are ordered, wait at least one minute and then repeat the previous three steps.
- Rinse mouth after steroid inhaler.
- Replace the inhaler cap and store the inhaler per facility policy.

- Document administration according to facility policy.

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

*Note: Read the instructions that accompany the inhaler to ensure the correct procedure is followed.*

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology
- 

## **Task Number 68**

### **Administer a nebulizer treatment.**

#### **Definition**

Administration should include

- knowledge of the purpose of nebulizer treatments to administer medication for respiratory disease in the form of a mist
- following the procedures for inhalation therapy using a nebulizer:
  - Read the manufacturer's instructions for the nebulizer machine.
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Open the vial containing the medicine and squeeze the contents into the nebulizer cup or measure the appropriate amount of drug and place it in the nebulizer cup.
  - Connect the nebulizer to the mouthpiece or mask.
  - Connect the nebulizer to the compressor.
  - Position the client upright; instruct the client to place the mouthpiece in his/her mouth or place the mask over the client's mouth.
  - Turn on the compressor.
  - Instruct the client to breathe calmly, deeply, and as evenly as possible until no mist is formed in the nebulizer chamber (usually 5-15 minutes); ask the client to hold each breath a second or two before breathing out
  - Advise the client to brush their teeth and rinse after the administration of the medication

- When the treatment is complete, clean the equipment following manufacturer’s instructions
- Document the administration according to facility policy.

*Note: The principle of administering medication by pulmonary inhalation is the same, regardless of how it is administered. When assisting with nebulizer treatments, an MA must know how to use the nebulizer machine and chamber into which the medication is poured before giving the medication. If unsure as to how they work, an MA should seek assistance from a supervisor, pharmacist, or an HCP before attempting to operate the machine. The machines usually have concise instructions for use and cleaning. It is recommended that these instructions be placed in a plastic sleeve or notebook and kept with the machine.*

## **Task Number 69**

### **Administer transdermal products.**

#### **Definition**

Administration should include

- knowledge of the purpose of transdermal medicines to release medication over a specific period of time
- following the procedures for administering transdermal medications:
  - Provide for client privacy and explain the procedure.
  - Verify the medication order for accuracy with the MAR and read the label three times.
  - Wash your hands.
  - Put on gloves.
  - Remove any/all previous patches of the same medication.
  - Prepare the skin—should be clean and dry and on a hairless (not shaved) part of the body
  - Apply the patch firmly to the skin; apply firm pressure with the palm or heel of the hand until the patch is securely in place (about 10 seconds).
  - Write the date, time, and your initials on the patch.
  - Discard any used patches removed prior to before applying the new patch by folding the old patch in half with the adhesive sides touching.
  - Remove and properly dispose of glove and wash your hands.
  - Document accurately in the MAR.
- knowledge of special considerations for the administration of transdermal medications:
  - Keep the patch dry unless instructed by the HCP that the patch may get wet.
  - Avoid applying patches to hairy parts of the body.
  - Unless instructed to do otherwise, apply the patch at the same time every day.
  - Inspect the skin for redness, blistering, rash, or other signs of allergic reaction.
  - Attempt to reapply if the patch becomes dislodged; if unable to do so, notify the HCP for instructions.

- knowledge of sites for transdermal medications:
  - Nitroglycerin patches are usually applied to the chest
  - Estradiol or hormone patches are usually applied to the buttocks or abdomen
  - Application sites should be rotated to prevent skin irritation
  - The site should be documented on the MAR according to facility policy.

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## **Task Number 70**

### **Administer epinephrine injection.**

#### **Definition**

Administration should include

- following the procedure for administering:
  - Unscrew the yellow or green cap and remove the EpiPen from its storage tube.
  - Grasp the pen with the black tip pointing down.
  - Form a fist around the unit with the black tip down, and with your other hand, pull off the gray safety release.
  - Hold the black tip near the client's outer thigh.
  - Swing and jab the pen firmly into the client's outer thigh until the pen clicks so that the unit is perpendicular (i.e., a 90° angle) to the thigh.
  - Hold firmly against the thigh for approximately 10 seconds—injection is complete; auto-injector will show red.
  - Remove the unit from the thigh and massage injection area for 10 seconds.
  - Call 911 and seek immediate medical attention.
  - Carefully place the used auto-injector needle-end first into the storage tube of the carrying case that provides a built-in needle protection after use.
  - Screw the cap of the storage tube back on completely and take it with the client to the hospital emergency room.
- knowledge of special instructions for the use of the EpiPen:
  - Never put your thumb, fingers, or hand over the black tip.
  - Do not remove the gray safety release until you are ready to use the pen
  - Do not use if the solution is discolored or a red flag appears in the clear window.
  - Do not place patient insert or any other foreign objects in carriers with the auto-injector as this may prevent removing the auto-injector for use.
- knowledge of care and storage of the EpiPen:

- Keep available and ready for use at all times.
- Store in a dark place at room temperature.
- Do not refrigerate.
- Note the expiration date; reorder a replacement pen before that date.

*See VBON student handouts 4.1—4.2. Note: The auto-injector is designed to work through clothing.*

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

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# **Documenting Medication Administration**

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## **Task Number 71**

**Describe the three types of forms commonly used to document medication administration.**

### **Definition**

Description should include

- the physician's order (PO) form or HCP order form
- the MAR
- the medication error report form
- other medication administration documentation forms
  - the client-controlled drug form
  - the controlled drug count documentation
  - the drug disposal disposition form
  - electronic documentation.

### **Process/Skill Questions**

- Why is it important to document medication administration immediately?
- Why is it important to report medication errors promptly?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

### **Health Professions Events**

- Clinical Nursing
- 

## **Task Number 72**

### **Explain procedures for receiving and transcribing healthcare providers' (HCP) orders.**

#### **Definition**

Explanation should include

- how the order is received
  - written on the PO form of the HCP form
  - verbal order (VO)
  - telephone order (TO)
- the four types of medication orders
  - routine
  - PRN
  - stat
  - single dose
- how to prevent misinterpretation of an order
- how to transcribe orders onto the MAR
- how to transmit the HCP order to the pharmacy.

#### **Process/Skill Questions**

- What is recommended if an MA must take a telephone or verbal order?
- Under what circumstances could an MA take an order for a new medication?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

## Health Professions Events

- Clinical Nursing
- 

### **Task Number 73**

#### **Document medication administration on the medication administration record (MAR).**

##### **Definition**

Documentation should include

- all medications administered or omitted
- the client's refusal to take medication.

##### **Process/Skill Questions**

- Why is it important to document a patient's refusal and the reason for refusal to take medication?
- What should an MA do if a medication is missing?

### **Task Number 74**

#### **Document medication errors.**

##### **Definition**

Documentation should include

- knowledge of the five wrongs
  - wrong client
  - wrong medication
  - wrong dose
  - wrong time
  - wrong route
- information required on a medication error report form.

*See VBON student handouts 5.1D—5.2.*

##### **Process/Skill Questions**

- Who should be contacted in the event of a medication error?
- What are the consequences of failing to correctly document?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Medical Law and Ethics
- Knowledge Test: Pharmacology

### **Health Professions Events**

- Pharmacy Science

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# **Practicing Storage and Disposal of Medication**

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## **Task Number 75**

### **Identify the procedures for storing and securing medications and equipment.**

#### **Definition**

Identification should include storage of medications to comply with federal and state laws and regulations, and follow rules regarding

- medicine cabinets, containers, or compartments
- pharmacy containers
- storing internal and external medication
- storing medications which require a specific temperature
- storing floor-stock drugs.

#### **Process/Skill Questions**

- How does one know where to locate medications?
- Why is it important for medications to be properly stored?

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Pharmacy Science
- 

## **Task Number 76**

### **Maintain an inventory of medications including controlled substances.**

#### **Definition**

Maintenance should include

- an inventory of individual client medications
  - new prescription drug orders
  - refilled prescription drug orders
- an inventory of controlled substances
- following the guidelines for counting Schedule II, Schedule III, and Schedule IV drugs.

#### **Process/Skill Questions**

- Where are Schedule II, Schedule III, and Schedule IV drugs stored?
- Why is it important to never to leave your medication cart unlocked?
- Where should the keys to the medication cart be stored?

## **HOSA Competitive Events (High School)**

### **Health Professions Events**

- Pharmacy Science
- 

## **Task Number 77**

### **Identify the procedures for the disposal of medications.**

#### **Definition**

Identification should include

- the reasons for disposal of medications (e.g., contaminated, expired)
- the guidelines for medication disposal
- documentation of medication disposal
- acceptable methods of disposal
- the procedure for reporting medication losses.

*See VBON student handouts 6.1A—6.2B.*

### **Process/Skill Questions**

- What is the practice of drug stewardship?
- Who can dispose of medications?
- What is the environmentally friendly way to dispose of medications?
- What are the current methods of drug disposal?

### **HOSA Competitive Events (High School)**

#### **Health Professions Events**

- Pharmacy Science

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# **Examining Special Issues in Medication Administration**

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## **Task Number 78**

**Identify special issues related to drug use in the elderly.**

### **Definition**

Identification should include

- how aging affects drug action
- special administration considerations
  - adverse drug reactions (ADR)
  - nonadherence—failure to take the medication as prescribed
- how disease, malnutrition, and dehydration affect drug action.

## **Process/Skill Questions**

- What are the symptoms of drug toxicity?
- When would Narcan be used?
- How does chronic disease affect the efficacy of a drug?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology
- 

## **Task Number 79**

### **Explain the uses, adverse reactions, and special considerations for selected psychotropic medications.**

#### **Definition**

Explanation should include

- the three classes of psychotropic drugs, their adverse reactions, and special considerations
  - antidepressant agents
  - antianxiety agents
  - antipsychotic agents
- conditions treated with psychotropic medications
  - depression
  - anxiety disorders
  - bipolar disorder
  - psychotic disorders.

## **Process/Skill Questions**

- Why is it important to document behaviors?
- What steps should be taken when an MA observes side effects of a medication?
- What are some of the side effects of psychotropic medications?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

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## Task Number 80

### Identify when a drug is a chemical restraint.

#### Definition

Identification should include

- the VDSS definition of *chemical restraint*
- the dangers of chemical restraints
- reasons for the use of chemical restraints
- communication strategies for the healthcare team.

Teacher resource: [Virginia Department of Social Services \(VDSS\) Alternative Living Facility \(ALF\) Training Regulations Chart](#)

#### Process/Skill Questions

- What steps must be taken before using a chemical restraint?
- When is a drug classified as a chemical restraint vs. a therapeutic treatment?

### HOSA Competitive Events (High School)

#### Health Science Events

- Knowledge Test: Medical Law and Ethics

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## Task Number 81

### Explain the importance of blood testing to monitor the therapeutic level of medication.

#### Definition

Explanation should include the

- reasons for monitoring
- definitions of
  - *therapeutic level*

- *toxic level*
- factors that determine dosage (e.g., age, weight, activity level)
- most frequently monitored medications
- factors that can interfere with testing
- responsibilities of facility staff.

### **Process/Skill Questions**

- What types of drugs require therapeutic levels or blood monitoring?
- What is the difference between a therapeutic level and a toxic level?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pharmacology
- 

## **Task Number 82**

### **Identify medications considered inappropriate for the elderly.**

#### **Definition**

Identification should include the Beers Criteria (or Beers List).

Teacher resource: [American Geriatrics Society 2015 updated Beers Criteria for potentially inappropriate medication use in older adults.](#)

### **Process/Skill Questions**

- What physical characteristics make the elderly vulnerable to certain drugs?
- Who should be notified if one of the medicines on the Beers list is ordered?
- What are the consequences of polypharmacy?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pharmacology
-

## Task Number 83

### Identify the reasons for a client's refusal to take medications and respond appropriately.

#### Definition

Identification should include

- a client's right to refuse medication
- the reasons clients refuse to take medication
- types of refusal
  - active refusal
  - passive refusal
- the questions to ask to determine the reason for refusal
- strategies for dealing with a client's refusal.

#### Process/Skill Questions

- What is the difference between active and passive refusal?
- What questions should an MA ask to determine the reason for refusal?
- What is *cheeking*?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Knowledge Test: Pharmacology
- 

## Task Number 84

### Identify issues related to over-the-counter (OTC) medications and herbal preparations of nonmedical substances.

#### Definition

Identification should include

- commonly used OTC medications

- the necessity of prescription in order for the drug to be administered by the MA
- the effects of nonmedical substances (e.g., alcohol, nicotine, caffeine).

### **Process/Skill Questions**

- What observations might an MA note for nonmedical substances?
- What is the effect of OTC medications on prescribed medications?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pharmacology
- 

## **Exploring Insulin**

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### **Task Number 85**

### **Explain basic facts about diabetes mellitus.**

#### **Definition**

Explanation should include

- the purpose of insulin in the body
- a definition of diabetes, and the differences between and causes of
  - type 1
  - type 2
- symptoms of diabetes mellitus.

#### **Process/Skill Questions**

- How does insulin affect the body?
- What is the difference between type 1 and type 2 diabetes?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pathophysiology

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## **Task Number 86**

### **Identify activities involved in the management of diabetes.**

#### **Definition**

Identification should include

- diet management
- exercise
- medication
- blood glucose monitoring
- ketone testing.

#### **Process/Skill Questions**

- What foods should a diabetic limit?
- How does exercise affect insulin requirements?
- What is ketoacidosis?
- What is carbohydrate counting?
- How do you check for the presence of ketones?

#### **HOSA Competitive Events (High School)**

##### **Health Science Events**

- Knowledge Test: Pathophysiology
- 

## **Task Number 87**

### **List the common causes and symptoms of hyperglycemia and hypoglycemia.**

#### **Definition**

Listing should include

- hyperglycemia
  - causes

- too little insulin
    - overeating or eating excessive sweets
    - lack of exercise
    - illness
    - stress
  - symptoms
    - increased thirst
    - frequent urination
    - headache
    - difficulty concentrating
    - blurred vision
    - fatigue
    - weight loss
    - blood sugar higher than 180 mg/dL
  - treatment
    - exercise
    - decrease noncomplex carbohydrates
  - causes of hypoglycemia
    - missing a meal
    - too much exercise
    - poor insulin management
- three degrees of hypoglycemia
  - mild hypoglycemia
    - symptoms
      - shakiness
      - sweating
      - fast heartbeat
      - pale skin
      - hunger
    - treatment
      - 4 ounces of juice
      - 4 ounces of regular soda
      - 2-3 glucose tablets
      - 8 ounces of skim milk
  - moderate hypoglycemia
    - symptoms
      - inability to concentrate
      - confusion
      - slurred speech
      - blurred vision
      - irrational behaviors
    - treatment
      - order of a larger amount of glucose
      - offer of treatments for mild hypoglycemia
      - wait 30 minutes before resuming normal activity
  - severe hypoglycemia

- symptoms
  - may include all of those for mild and moderate and disoriented behavior
  - may include unconsciousness
- treatment
  - call 911
  - turn patient on side and give glucagon
  - do not give anything by mouth until the person is fully conscious.

### **Process/Skill Questions**

- What is the difference between hypo and hyper?
- What are the dangers of hypoglycemia and hyperglycemia?
- When does one need glucagon?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pathophysiology
- 

## **Task Number 88**

### **Perform a finger stick procedure for blood glucose monitoring.**

#### **Definition**

Performance should include

- gathering supplies needed for the finger-stick
- knowledge of normal blood glucose ranges.

#### **Process/Skill Questions**

- What is a normal blood glucose range?
  - Why is it important to perform quality control on a glucometer?
- 

## **Task Number 89**

# **Administer or assist the client with the self-administration of insulin.**

## **Definition**

Administration should include

- following general guidelines for the administration of subcutaneous injections
- mixing two types of insulin
- administering insulin using an insulin pen.

*Note: Never give concentrated insulin.*

## **Process/Skill Questions**

- What is a sliding scale?
- When should insulin not be given?
- What are the differences among short-acting, intermediate, and long-acting insulins?

# **Describing the Opioid Crisis**

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## **Task Number 90**

### **Describe the history and current state of the opioid crisis in the United States.**

#### **Definition**

Description should include

- the relationship between opioid prescribing and illicit opioid use to overall opioid overdose deaths
- the prevalence of co-occurring mental health disorders
- the shift in attitudes in the 1990s toward pain management and use of opioids, including the role of pharmaceutical marketing
- the stigma associated with addiction and the changing view of addiction from a moral failing to a chronic, relapsing disease
- statistics, trends, and demographics surrounding the crisis
- population health and other public health aspects of the crisis, including its effects on family and neonates, as well as overall health costs.

## Process/Skill Questions

- How are opioids created?
- Can opioids be safely prescribed to patients taking psychotropic drugs?
- How does society stereotype individuals with a history of drug addiction?
- What are the current trends that have contributed to the nationwide opioid crisis?
- How has the opioid epidemic affected emergency rooms and the first responder system?

## HOSA Competitive Events (High School)

### Health Science Events

- Medical Spelling
- Medical Terminology

### Teamwork Events

- Creative Problem Solving
- Public Service Announcement

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## Task Number 91

### Describe the history and current state of the opioid crisis in Virginia.

#### Definition

Description should include

- the relationship between opioid prescribing and illicit opioid use to overall opioid overdose deaths
- the prevalence of co-occurring mental health disorders
- the shift in attitudes in the 1990s toward pain management and use of opioids, including the role of pharmaceutical marketing
- the stigma associated with addiction and the changing view of addiction from a moral failing to a chronic, relapsing disease
- statistics, trends, and demographics surrounding the crisis
- population health and other public health aspects of the crisis, including its effects on family and neonates, as well as overall health costs
- the Virginia Department of Health's [Declaration of a Public Health Emergency](#) on November 21, 2016

- proposed legislation to address the crisis in Virginia (i.e., [House Bill 2161](#) and [Senate Bill 1179](#), which require the secretary of health and human resources to convene a workgroup to establish educational guidelines for training healthcare providers in the safe prescribing and appropriate use of opioids)
- the development of curricula and educational standards regarding opioid addiction.

Resource: [The Opioid Crisis Among Virginia Medicaid Beneficiaries](#)

### Process/Skill Questions

- What agencies participated in the governor’s task meeting on the opioid crisis?
- What educational organizations will be tasked with providing opioid training to their students?
- What is the benefit of educating future medical professionals about opioid addiction?
- What is the current attitude in society about opioid use and addiction?
- How is the local community affected by the opioid epidemic?

### HOSA Competitive Events (High School)

#### Health Science Events

- Medical Spelling
- Medical Terminology

#### Teamwork Events

- Creative Problem Solving
- Public Service Announcement

## Task Number 92

### Define the pharmacological components and common uses of opioids.

#### Definition

Definition should include

- plant-based opioids (e.g., opium from poppy seeds)
- names of legal and illegal opioids
- [heroin](#)
- names of the most common opioids

- [fentanyl](#)
- medical diagnoses and injuries associated with opioid prescriptions
- [commonly used terms](#).

Resource: [Prescription Pain Medications](#), National Institute on Drug Abuse for Teens

### **Process/Skill Questions**

- For what illnesses are opioids commonly prescribed?
- What is the current medical protocol when opioids are prescribed?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Spelling
- Medical Terminology
- Knowledge Test: Pharmacology

#### **Health Professions Events**

- Clinical Nursing

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# **Examining the Key Factors of Drug Addiction**

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## **Task Number 93**

### **Examine the science of addiction.**

#### **Definition**

Examination should include

- biopsychosocial aspects of addiction
- the role of endorphins and dopamine
- the role of religious beliefs
- behavioral aspects of addiction
- life cycle of addiction

- misuse of opioids.

### **Process/Skill Questions**

- How will understanding the physiological absorption of opioids in the body provide a holistic assessment?
  - What spiritual characteristics might be observed in the science of addiction?
  - What are some genetic explanations for some family members being more prone to addiction?
- 

## **Task Number 94**

### **Explain prevention and early intervention strategies.**

#### **Definition**

Explanation should include

- risk and protective factors in opioid addiction
- specific populations at risk of addiction
- motivational interviewing and other communication strategies
- naloxone co-prescribing
- roles of family and social institutions in prevention and early intervention.

Resources:

- [Prevention Tip Card](#), Office of the Attorney General of Virginia
- [Prescription Opioids: Even When Prescribed by a Doctor](#) (video), Centers for Disease Control and Prevention (CDC)

### **Process/Skill Questions**

- What are the physiological characteristics of opioid addiction?
  - What demographic is most affected by the opioid epidemic? What are some explanations for this?
  - How can provision of naloxone and training in its use be sustained financially?
  - What obligations do families and society as a whole have in preventing and providing early intervention related to drug addiction?
- 

## **Task Number 95**

# **Identify addiction and its behavioral elements, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).**

## **Definition**

Identification should include

- DSM-5 Criteria for Substance Use Disorders
- American Society of Addiction Medicine (ASAM) Criteria (i.e., The Six Dimensions of Multidimensional Assessment)
- CONTINUUM, The ASAM Criteria Decision Engine
- clinical and behavioral aspects of addiction
- practice-appropriate screening tools, including co-morbidity screening.

## **Process/Skill Questions**

- What are DSM-5 and ASAM and what information do they provide to healthcare professionals?
- What are clinical and behavioral elements of addiction that should be recognized by healthcare professionals?
- Who is responsible for providing the necessary screening tools and training?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Behavioral Health
- Knowledge Test: Medical Law and Ethics

### **Health Professions Events**

- Clinical Nursing

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## **Task Number 96**

**Describe the treatment models of addiction therapy.**

## **Definition**

Description should include

- a recognition that addiction is a chronic disease
- evidence-based treatment models for addiction in general and opioid addiction in particular
- medication-assisted treatment
- the continuum of care in opioid addiction treatment
- how and when to make a referral for treatment
- the roles in an interdisciplinary addiction team
- the role of peers in the treatment of addiction
- the difference between a drug culture and recovery culture
- the management of patients in recovery, including factors contributing to relapse.

### **Process/Skill Questions**

- How many treatment models exist for addiction therapy? Why is one model better than the other?
- What are the advantages of evidence-based treatments and models?
- What medication-assisted treatment programs are available? Who provides them?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Behavioral Health
- Knowledge Test: Medical Law and Ethics

#### **Health Professions Events**

- Clinical Nursing

## **Task Number 97**

### **Describe the medication management antidote used to prevent fatal opioid overdoses.**

#### **Definition**

Description should include

- availability and use of naloxone
- naloxone training (e.g., [REVIVE!](#))
- naloxone training agencies
- monitoring of concurrent prescriptions.

Resources:

- [Frequently Asked Questions about Naloxone](#), Virginia Department of Health
- [How to prepare naloxone for administration](#), Virginia Department of Behavioral Health and Developmental Services

### **Process/Skill Questions**

- What is naloxone?
- How much does naloxone cost with health insurance? How much does naloxone cost without health insurance?
- Who should receive naloxone training?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Medical Spelling
- Medical Terminology
- Knowledge Test: Pharmacology

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# **Understanding Pain Management Protocols**

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## **Task Number 98**

### **Explain the science of physiological and mental pain.**

#### **Definition**

Explanation should include

- definition of pain from the International Association for the Study of Pain (IASP)
- neurobiological basis of pain
- biopsychosocial model of pain
- types of pain (e.g., neuropathic)
- acute, sub-acute, and chronic pain, including pain generation
- spinal and brain modulation, behavioral adaptation and maladaptation, and the continuum from acute to chronic disabling pain
- the underlying science of pain relief.

## Process/Skill Questions

- What is the IASP definition of pain?
- How can a medical professional get a patient to describe physiological pain?
- What assessment tools can be used to help patients describe physiological pain? How do tools differ for describing mental pain?
- How are pain and levels of pain categorized?

## HOSA Competitive Events (High School)

### Health Science Events

- Knowledge Test: Nutrition
- Knowledge Test: Transcultural Health Care

### Teamwork Events

- Community Awareness
- Creative Problem Solving
- HOSA Bowl

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## Task Number 99

### Describe the diagnostic tools used in developing pain management plans.

#### Definition

Description should include

- pain-related health history and examination
- understanding the role of family in supporting individuals in need of pain management
- practice-appropriate screening tools that include aspects such as mood and function
- the use and limitations of pain scales
- differential diagnosis of pain and its placement on the pain continuum.

Resource: [Promoting Safer and More Effective Pain Management](#), CDC

## Process/Skill Questions

- What are the Wong-Baker, LEGO, and Hospice assessment tools?
- How do pain assessment tools vary across the life span?

- When completing an assessment, is pain considered subjective or objective?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Nutrition
- Knowledge Test: Transcultural Health Care

### **Teamwork Events**

- Community Awareness
  - Creative Problem Solving
  - HOSA Bowl
- 

## **Task Number 100**

### **Describe pain treatment options available to various populations of patients.**

#### **Definition**

Description should include

- special populations in pain management, such as palliative/end-of-life care patients, patients with cancer, pediatric patients, and geriatric populations
- non-pharmacologic treatment of pain, including active care and self-care, evidence- and non-evidence-based approaches, and multimodal pain management
- non-opioid pharmacologic management of pain
- the challenges in discussing the psychological aspects of pain and the role of the central nervous system
- adverse drug event prevention for all pain medications
- the roles in an interdisciplinary pain management team
- the significance of issues such as anxiety, depression, and sleep deprivation in pain management
- the placebo effect
- goals and expectations in the treatment of pain, based on diagnosis and pain continuum
- when to make a pain referral and to whom.

Resources:

- [CDC Fact Sheet for Prescribing Opioids for Chronic Pain](#)
- [CDC Guidelines for Prescribing Opioids for Chronic Pain](#)

## Process/Skill Questions

- What pain management resources are available for special populations?
- What are alternative forms of pain management?
- What role does the mind play in pain management?

## HOSA Competitive Events (High School)

### Health Science Events

- Knowledge Test: Nutrition
- Knowledge Test: Transcultural Health Care

### Teamwork Events

- Community Awareness
- Creative Problem Solving
- HOSA Bowl

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## Task Number 101

### Describe the effects of opioid dependency on the human body systems.

#### Definition

Description should include the short- and long-term effects of opioids on the following:

- Nervous system
- Respiratory system
- Circulatory system
- Digestive system
- Skeletal system

Resource: [Drugs and Your Body](#), Scholastic

## Process/Skill Questions

- How does the misuse of opioids affect nutrition and weight loss?
- How might opioid misuse be evident in a person's vital signs?
- How do opioids affect the brain as the control center for homeostasis?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Spelling
- Medical Terminology

### **Teamwork Events**

- HOSA Bowl
- 

## **Task Number 102**

### **Explain the mechanism and physical effects of opioids on the human body.**

#### **Definition**

Explanation should include the following:

- Mechanism of action and metabolism of opioids
- Development of tolerance, dependence, and addiction
- Health consequences of drug misuse
  - HIV, hepatitis, and other infectious diseases
  - Cancer
  - Cardiovascular effects
  - Respiratory effects
  - Gastrointestinal effects
  - Musculoskeletal effects
  - Kidney damage
  - Liver damage
  - Neurological effects
  - Hormonal effects
  - Prenatal effects
  - Other health effects
  - Mental health effects
  - Death
- Withdrawal
  - Causes
  - Timeframe (i.e., peaks of withdrawal symptoms)
  - Physical signs (e.g., nausea, diarrhea, vomiting, cold flashes)

## Process/Skill Questions

- What are the short- and long-term effects of withdrawal dependence symptoms?
- How long can the human body function while exhibiting the symptoms of withdrawal?
- What are other medical conditions that may arise because of the symptoms of physical dependence?

## HOSA Competitive Events (High School)

### Health Science Events

- Medical Spelling
- Medical Terminology

### Teamwork Events

- HOSA Bowl

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## Task Number 103

**Explain the use of opioids in practice settings, the role of opioids in pain management, and risk factors associated with the use of the medication.**

### Definition

Explanation should include

- appropriate use of different opioids in various practice settings
- the interactions, risks, and intolerance of prescription opioids
- the role and effectiveness of opioids in acute, sub-acute, and chronic pain
- a reassessment of opioid use based on stage of pain
- contemporary treatment guidelines, best practices, health policies, and government regulations related to opioid use
- use of opioids in pain management of patients with substance abuse disorders, in recovery, and in palliative/end-of-life care.

## Process/Skill Questions

- When should risk factors regarding opioids be reviewed with the patient?
- What are the options when treating patients with a history of substance abuse?

- What government regulations and policies are in place to improve the safe administration of opioids?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Spelling
- Medical Terminology
- Knowledge Test: Pharmacology

### **Teamwork Events**

- Creative Problem Solving
- HOSA Bowl

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## **Task Number 104**

### **Describe the withdrawal and tapering side effects of opioid use.**

#### **Definition**

Description should include

- characteristics of acute and protracted withdrawal from opioid dependence or addiction
- tapering
- pain contracts or agreements.

#### **Process/Skill Questions**

- What are the stages of withdrawal in opioid abuse transition?
- What medications might be needed in the withdrawal stage?
- What information should be included in the pain management contract?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Knowledge Test: Pharmacology

### **Health Professions Events**

- Clinical Nursing
- 

## Task Number 105

### Describe storage and disposal options for opioids.

#### Definition

Description should include

- medicine take-back options (e.g., [National Drug Take Back Day](#))
- disposal in the household trash and flushing certain potentially dangerous medicines down the toilet.

Resources:

- [Disposal of Unused Medicines: What You Should Know](#), Food and Drug Administration (FDA)
- [Prescription Drug Abuse and Tips for Proper Disposal](#), Office of the Attorney General of Virginia

#### Process/Skill Questions

- How should medications be stored in the house?
- What is National Prescription Drug Take Back Initiative?
- What is the *black box*?

#### HOSA Competitive Events (High School)

##### Health Science Events

- Knowledge Test: Pharmacology

##### Health Professions Events

- Clinical Nursing
- 

## Task Number 106

## **Explain community resources for education about opioid use.**

### **Definition**

Explanation should include key components of and resources for patient education in the use of opioids, including

- risks
- benefits
- side effects
- tolerance
- signs of sedation or overdose
- naloxone, including its storage and disposal.

### **Process/Skill Questions**

- What resources for opioid education are available locally, statewide, and nationally?
- Where should the patient first be informed about the resources available?
- How does social media aid in patient education on opioid addiction?

### **HOSA Competitive Events (High School)**

#### **Health Science Events**

- Knowledge Test: Pharmacology

#### **Health Professions Events**

- Clinical Nursing

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## **Working with Patients and Caregivers**

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### **Task Number 107**

**Describe key communication topics involving opioids for patients.**

## **Definition**

Description should include

- benefits and risks of opioids
- opioid risk screening (i.e., taking a social, medical, and financial history)
- risk mitigation (e.g., naloxone, safe storage, pain contracts)
- medication tapers and/or discontinuation of therapy.

## **Process/Skill Questions**

- What are the benefits of using opioids in medicine?
- What is the relationship between demographics and risk of opioid addiction?
- How does culture influence risk factors in opioid abuse?

## **HOSA Competitive Events (High School)**

### **Health Science Events**

- Medical Spelling
- Medical Terminology

### **Health Professions Events**

- Clinical Nursing
- 

## **Task Number 108**

**Describe communication topics for caregivers and family members.**

## **Definition**

Description should include

- basic knowledge about opioids
- signs of addiction
- treatment options for addiction
- naloxone training for caregivers
- legal issues related to misuse.

## **Process/Skill Questions**

- What rights do caregivers have in regard to medical information of the abuser?
- What legal steps might the caregiver or family have to take for treatment?
- Where can the caregiver or family members receive naloxone training? Are children of opioid abusers eligible for training?

## HOSA Competitive Events (High School)

### Health Science Events

- Medical Spelling
- Medical Terminology

### Health Professions Events

- Clinical Nursing

## SOL Correlation by Task

Identify legal and ethical issues in medication management.	English: 11.5, 12.5  History and Social Science: GOVT.8, GOVT.9, WHI.5
Recognize the implication of a client’s rights regarding medications, treatment decisions, and confidentiality.	English: 11.5, 12.5  History and Social Science: GOVT.8, GOVT.9, WHI.5
Identify laws and regulations relating to the administration of medication in Virginia assisted living facilities (ALF).	English: 11.5, 11.8, 12.5, 12.8  History and Social Science: GOVT.8, GOVT.9
Identify permitted practices and acts prohibited by medication aides (MA) in Virginia.	English: 11.5, 11.8, 12.5, 12.8  History and Social Science: GOVT.8, GOVT.9
Identify the legal requirement to report the abuse, neglect, or exploitation of a client.	English: 11.5, 11.8, 12.5, 12.8

	History and Social Science: GOVT.8, GOVT.9
Identify the principles of maintaining aseptic conditions.	English: 11.3, 11.5, 11.8, 12.3, 12.5, 12.8  History and Social Science: VUS.13, VUS.14
Identify emergencies and health-threatening conditions and the appropriate responses.	History and Social Science: VUS.13, VUS.14, WHI.5
Identify basic principles of communicating with a cognitively impaired client.	English: 11.5, 12.5
Record vital signs.	English: 11.2, 12.2
Demonstrate understanding of international/military time.	English: 11.5, 12.5
Identify the seven rights of medication administration.	
Define key pharmacology terms, medical terminology, and abbreviations associated with medication administration.	English: 11.3, 11.5, 12.3, 12.5  History and Social Science: VUS.13, VUS.14
Explain how drugs are classified.	English: 11.3, 11.5, 12.3, 12.5  History and Social Science: VUS.13, VUS.14
Identify factors that affect drug action.	English: 11.5, 12.5  Science: BIO.4
Facilitate a client's awareness of the purpose and effects of medications.	
Identify how to use drug information sources.	English: 11.3, 11.5, 11.8, 12.3, 12.5
Identify drug labeling requirements in Virginia.	English: 11.5, 12.5, 12.8  History and Social Science: GOVT.8, GOVT.9
Identify basic guidelines for administering medications.	English: 11.5, 12.5
Administer oral medications.	English: 11.5, 12.5
Administer eye drops and ointments.	English: 11.5, 11.6, 12.5, 12.6

Administer eardrops.	English: 11.5, 11.6, 12.5, 12.6
Administer nasal drops and sprays.	English: 11.5, 11.6, 12.5, 12.6
Administer topical preparations.	
Administer compresses and dressings.	English: 11.5, 11.6, 12.5, 12.6
Administer vaginal products.	English: 11.5, 11.6, 12.5, 12.6
Administer rectal products.	English: 11.5, 11.6, 12.5, 12.6
Administer soaks and sitz baths.	English: 11.5, 11.6, 12.5, 12.6  History and Social Science: WHI.6
Administer oral hygiene products.	
Administer inhalation therapy products.	English: 11.5, 11.6, 12.5, 12.6
Administer a nebulizer treatment.	English: 11.5, 11.6, 12.5, 12.6
Administer transdermal products.	English: 11.5, 11.6, 11.7, 12.5, 12.6, 12.7
Administer epinephrine injection.	
Describe the three types of forms commonly used to document medication administration.	
Explain procedures for receiving and transcribing healthcare providers' (HCP) orders.	English: 11.5, 12.5
Document medication administration on the medication administration record (MAR).	English: 11.6, 11.7, 12.6, 12.7
Document medication errors.	English: 11.6, 11.7, 12.6, 12.7
Identify the procedures for storing and securing medications and equipment.	English: 11.5, 12.5
Maintain an inventory of medications including controlled substances.	English: 11.6, 11.7, 12.6, 12.7  History and Social Science: GOVT.8, GOVT.9
Identify the procedures for the disposal of medications.	English: 11.5, 12.5  History and Social Science: GOVT.8, GOVT.9
Identify special issues related to drug use in the elderly.	English: 11.5, 12.5

Explain the uses, adverse reactions, and special considerations for selected psychotropic medications.	English: 11.5, 12.5
Identify when a drug is a chemical restraint.	English: 11.5, 11.8, 12.5, 12.8  History and Social Science: GOVT.8, GOVT.9
Explain the importance of blood testing to monitor the therapeutic level of medication.	English: 11.3, 11.5, 12.3, 12.5
Identify medications considered inappropriate for the elderly.	English: 11.5, 12.5
Identify the reasons for a client's refusal to take medications and respond appropriately.	English: 11.5, 12.5
Identify issues related to over-the-counter (OTC) medications and herbal preparations of nonmedical substances.	English: 11.5, 12.5
Explain basic facts about diabetes mellitus.	English: 11.3, 11.5, 12.3, 12.5
Identify activities involved in the management of diabetes.	English: 11.5, 12.5
List the common causes and symptoms of hyperglycemia and hypoglycemia.	English: 11.6, 12.6
Perform a finger stick procedure for blood glucose monitoring.	
Administer or assist the client with the self-administration of insulin.	English: 11.5, 12.5
Describe the history and current state of the opioid crisis in the United States.	English: 11.5, 12.5
Describe the history and current state of the opioid crisis in Virginia.	English: 11.5, 12.5
Define the pharmacological components and common uses of opioids.	English: 11.3, 12.3
Examine the science of addiction.	English: 11.5, 12.5
Explain prevention and early intervention strategies.	English: 11.5, 11.8, 12.5, 12.8
Identify addiction and its behavioral elements, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).	English: 11.5, 12.5
Describe the treatment models of addiction therapy.	English: 11.5, 12.5
Describe the medication management antidote used to prevent fatal opioid overdoses.	English: 11.5, 11.8, 12.5, 12.8
Explain the science of physiological and mental pain.	English: 11.3, 11.5, 12.3, 12.5
Describe the diagnostic tools used in developing pain management plans.	English: 11.5, 12.5
Describe pain treatment options available to various populations of patients.	English: 11.5, 11.8, 12.5, 12.8
Describe the effects of opioid dependency on the human body systems.	English: 11.5, 12.5

Explain the mechanism and physical effects of opioids on the human body.	English: 11.5, 12.5
Explain the use of opioids in practice settings, the role of opioids in pain management, and risk factors associated with the use of the medication.	English: 11.5, 12.5
Describe the withdrawal and tapering side effects of opioid use.	English: 11.5, 12.5
Describe storage and disposal options for opioids.	English: 11.5, 11.8, 12.5, 12.8
Explain community resources for education about opioid use.	English: 11.5, 12.5
Describe key communication topics involving opioids for patients.	English: 11.5, 12.5
Describe communication topics for caregivers and family members.	English: 11.5, 12.5

## Teacher Resources

- [18VAC90-60-91. Requirements for Provisional Practice](#)
- [American Geriatrics Society 2015 updated Beers Criteria for potentially inappropriate medication use in older adults](#)
- [CDC Fact Sheet for Prescribing Opioids for Chronic Pain](#)
- [CDC Guidelines for Prescribing Opioids for Chronic Pain](#)
- [Declaration of a Public Health Emergency](#)
- [Disposal of Unused Medicines: What You Should Know](#)
- [Drug Control Act of Virginia](#)
- [Drugs and Your Body](#)
- [Frequently Asked Questions about Naloxone](#)
- [House Bill 2161](#)
- [How to administer Narcan nasal spray](#)
- [How to prepare naloxone for administration](#)
- [National Drug Take Back Day](#)
- [Physicians' Desk Reference](#)
- [Prescription Drug Abuse and Tips for Proper Disposal](#)
- [Prescription Opioids: Even When Prescribed by a Doctor](#)
- [Prescription Pain Medications](#)
- [Prevention Tip Card](#)
- [Promoting Safer and More Effective Pain Management](#)
- [Regulations Governing the Registration of Medication Aides, VBON](#)
- [Regulations of the Virginia Board of Pharmacy](#)
- [Regulations of the Virginia Department of Social Services](#)
- [Senate Bill 1179](#)
- [The Official "Do Not Use" List of Abbreviations](#)
- [The Opioid Crisis Among Virginia Medicaid Beneficiaries](#)
- [Virginia Board of Nursing \(VBON\)](#)
- [Virginia Department of Social Services \(VDSS\) Alternative Living Facility \(ALF\) Training Regulations Chart](#)

- [Virginia law \(63.2-1606.A\)](#)

## Acronym Glossary

- ADR       adverse drug reactions
- ALF       assisted living facility
- ASAM      American Society of Addiction Medicine (Criteria)
- DEA       Drug Enforcement Administration
- DSM-5     Diagnostic and Statistical Manual of Mental Disorders
- EMS       Emergency Medical Services
- FDA       Food and Drug Administration
- HCP       healthcare provider
- IASP       International Association for the Study of Pain
- LSD       lysergic acid diethylamide
- MA        medication aide
- MAR       medication administration record
- OSHA      Occupational Safety and Health Administration
- OTC       over-the-counter
- PDR       Physicians' Desk Reference
- PO        physician's order
- PPE       personal protective equipment
- PRN       *pro re nata* (as the situation demands)
- TO        telephone order
- USPDI     United States Pharmacopeia Dispensing Information
- VBON      Virginia Board of Nursing
- VBOP      Virginia Board of Pharmacy
- VDSS      Virginia Department of Social Services
- VO        verbal order

## Opioid Abuse Prevention Education

This [Opioid Abuse Prevention](#) document includes resources for opioid abuse prevention education from kindergarten to 12th grade.

### Other Opioid Resources

Virginia Department of Behavioral Health and Developmental Services. Revive! Opioid Overdose and Naloxone Education for Virginia. [Naloxone Fact Sheet](#) (PDF).

Virginia Department of Behavioral Health and Developmental Services. [Revive! Opioid Overdose and Naloxone Education for Virginia](#) (website).

Office of National Drug Control Policy, White House. [Fentanyl: Safety Recommendations for First Responders](#) (PDF).

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Alcohol](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Bath Salts](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Cocaine](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: E-Cigarette](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Heroin](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Marijuana](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: MDMA](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Meth](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Pain Medicine](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Spice \(K2\)](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Tobacco and Nicotine](#) (website; PDF available)

National Institute on Drug Abuse, National Institutes of Health. [Easy to Read Drug Facts: Other Drugs People Use and Misuse](#) (website; PDF available)

# Appendix: Career Cluster Information

<b>Career Cluster: Health Science</b>	
<b>Pathway</b>	<b>Occupations</b>
<b>Therapeutic Services</b>	<b>Certified Nurse Aide Home Health Aide Medical Assistant</b>