Patient Care Technician

8303 36 weeks

Table of Contents

Acknowledgments ......................................................................................................................................... 2
Course Description ........................................................................................................................................ 3
Task Essentials Table .................................................................................................................................... 3
Curriculum Framework ................................................................................................................................. 6
Introducing the Healthcare System ............................................................................................................. 6
Identifying the Roles and Responsibilities of a Patient Care Technician (PCT) ........................................ 11
Examining Ethical and Legal Issues ........................................................................................................... 15
Understanding Medical Terminology and Documentations ....................................................................... 19
Practicing Infection Prevention Techniques ............................................................................................... 21
Practicing Safety Protocols ......................................................................................................................... 24
Understanding Basic Anatomy and Physiology .......................................................................................... 29
Demonstrating Medical Procedures and Patient Care and Comfort Measures ........................................... 49
Preventing Medical Complications ............................................................................................................. 57
Understanding the Role of the Electrocardiogram (ECG) ........................................................................... 61
Understanding Phlebotomy and Related Procedures ................................................................................ 64
Describing the Opioid Crisis ....................................................................................................................... 69
Examining the Key Factors of Drug Addiction .......................................................................................... 72
Understanding Pain Management Protocols ............................................................................................. 76
Working with Patients and Caregivers ........................................................................................................ 84
SOL Correlation by Task ............................................................................................................................. 86
Links to Resources ...................................................................................................................................... 91
Acronym Glossary ...................................................................................................................................... 92
Opioid Abuse Prevention Education .......................................................................................................... 92
Appendix: Credentials, Course Sequences, and Career Cluster Information ............................................ 94
Acknowledgments

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Course Description

Suggested Grade Level: 12

Prerequisite: 8362

Offered as an occupational course after the completion of Nurse Aide at the 12th-grade level, Patient Care Technician emphasizes the study of nursing occupations as related to the healthcare system. Students study normal growth and development, simple body structure and function, medical terminology, and are introduced to microbes and disease. Upon completion of the course, students will have mastered the skills needed to perform electrocardiograms (ECGs); execute basic medical, lab, and exam procedures; draw blood; and provide basic patient/client care. Students will be eligible to take the National Certification Exams to become Certified Phlebotomy Technicians, Certified ECG Technicians, and Certified Patient Care Technicians.

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.

<table>
<thead>
<tr>
<th>8303</th>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducing the Healthcare System</td>
<td></td>
</tr>
<tr>
<td>⊕</td>
<td>Summarize major developments in healthcare history.</td>
</tr>
<tr>
<td>⊕</td>
<td>Differentiate among the types of health insurance.</td>
</tr>
<tr>
<td>⊕</td>
<td>Differentiate among the types of medical care delivery systems.</td>
</tr>
<tr>
<td>⊕</td>
<td>Differentiate between the scope and roles of the Virginia Department of Health Professions (DHP) and the Virginia Department of Health (VDH).</td>
</tr>
<tr>
<td>⊕</td>
<td>Examine the effect of health informatics on the healthcare industry and on the individual.</td>
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</table>

Identifying the Roles and Responsibilities of a Patient Care Technician (PCT)

- Describe the scope of practice of a patient care technician (PCT).
- Maintain Basic Cardiac Life Support (BCLS) certification for healthcare providers.
- Adhere to HIPAA regulations regarding protected health information.
- Communicate with other healthcare professionals using appropriate medical terminology.
<table>
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<tr>
<td>☑</td>
<td>Describe the organizational structure in a healthcare setting.</td>
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<td>Use effective communication to interact with a patient/client, a patient's/client’s family, and other members of the healthcare team.</td>
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<td>☑</td>
<td>Adhere to regulations regarding operational standards.</td>
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<tr>
<td>Examining Ethical and Legal Issues</td>
<td></td>
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<tr>
<td>☑</td>
<td>Examine legal and ethical concerns pertaining to medical care.</td>
</tr>
<tr>
<td>☑</td>
<td>Examine concepts of care relating to ethnic, religious/spiritual, cultural, and personal preferences.</td>
</tr>
<tr>
<td>☑</td>
<td>Describe the roles of professionalism, including legal and ethical boundaries, for a PCT.</td>
</tr>
<tr>
<td>☑</td>
<td>Implement the Five Rights of Delegation.</td>
</tr>
<tr>
<td>Understanding Medical Terminology and Documentations</td>
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</tr>
<tr>
<td>☑</td>
<td>Identify word parts and medical terminology.</td>
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<tr>
<td>☑</td>
<td>Define abbreviations and medical terms.</td>
</tr>
<tr>
<td>☑</td>
<td>Demonstrate accurate documentation.</td>
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<tr>
<td>Practicing Infection Prevention Techniques</td>
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<tr>
<td>☑</td>
<td>Explain the importance of Standard Precautions and transmission-based precautions.</td>
</tr>
<tr>
<td>☑</td>
<td>Differentiate between Standard Precautions and transmission-based precautions.</td>
</tr>
<tr>
<td>☑</td>
<td>Explain concepts related to medical and surgical asepsis.</td>
</tr>
<tr>
<td>☑</td>
<td>Demonstrate aseptic technique and sterile technique.</td>
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<tr>
<td>Practicing Safety Protocols</td>
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<tr>
<td>☑</td>
<td>Define types of abuse and neglect.</td>
</tr>
<tr>
<td>☑</td>
<td>Report suspected abuse and neglect per facility policy.</td>
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<tr>
<td>☑</td>
<td>Follow regulatory agencies' patient/client safety guidelines.</td>
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<tr>
<td>☑</td>
<td>Use proper body mechanics when performing job functions.</td>
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<tr>
<td>☑</td>
<td>Monitor environmental safety.</td>
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<tr>
<td>☑</td>
<td>Respond to emergency situations.</td>
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<tr>
<td>☑</td>
<td>Follow procedures for identifying patients/clients.</td>
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<tr>
<td>☑</td>
<td>Report work-related accidents according to facility policy.</td>
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<tr>
<td>Understanding Basic Anatomy and Physiology</td>
<td></td>
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<tr>
<td>☑</td>
<td>Identify the body systems.</td>
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<tr>
<td>☑</td>
<td>Identify the body cavities and the organs within these cavities.</td>
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<tr>
<td>☑</td>
<td>Identify the parts and functions of a cell.</td>
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<tr>
<td>☑</td>
<td>Identify the tissues within the body.</td>
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<tr>
<td>☑</td>
<td>Identify the major structures and functions of the endocrine system.</td>
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<tr>
<td>☑</td>
<td>Describe the major disorders of the endocrine system.</td>
</tr>
<tr>
<td>☑</td>
<td>Identify the major structures and functions of the circulatory system.</td>
</tr>
<tr>
<td>☑</td>
<td>Describe the major disorders of the circulatory system.</td>
</tr>
<tr>
<td>☑</td>
<td>Identify the major structures and functions of the musculoskeletal system.</td>
</tr>
<tr>
<td>☑</td>
<td>Describe the major disorders of the musculoskeletal system.</td>
</tr>
<tr>
<td>☑</td>
<td>Identify the major structures and functions of the gastrointestinal system, including the oral cavity.</td>
</tr>
<tr>
<td>☑</td>
<td>Describe the major disorders of the gastrointestinal system.</td>
</tr>
<tr>
<td>☑</td>
<td>Identify the major structures and functions of the reproductive system.</td>
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<td>Tasks/Competencies</td>
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<tr>
<td>Describe the major disorders of the reproductive system.</td>
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<tr>
<td>Identify the major structures and functions of the urinary system.</td>
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<tr>
<td>Describe the major disorders of the urinary system.</td>
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</tr>
<tr>
<td>Identify the major structures and functions of the respiratory system.</td>
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<tr>
<td>Describe the major disorders of the respiratory system.</td>
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</tr>
<tr>
<td>Identify the major structures and functions of the nervous system.</td>
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<tr>
<td>Describe the major disorders of the nervous system.</td>
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</tr>
<tr>
<td>Identify the major structures and functions of the sensory system.</td>
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</tr>
<tr>
<td>Describe the major structures and functions of the sensory organs.</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the integumentary system.</td>
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</tr>
<tr>
<td>Describe the major disorders of the integumentary system.</td>
<td></td>
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<tr>
<td>Describe the major stages of growth and developmental abilities.</td>
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<tr>
<td>Describe the effects of the aging process on major body systems.</td>
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</tr>
<tr>
<td>Identify the psychosocial problems associated with the older adult.</td>
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</tr>
<tr>
<td>Identify needs related to death and dying.</td>
<td></td>
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</tbody>
</table>

**Demonstrating Medical Procedures and Patient Care and Comfort Measures**

<table>
<thead>
<tr>
<th>Tasks/Competencies</th>
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</thead>
<tbody>
<tr>
<td>Obtain vital signs.</td>
</tr>
<tr>
<td>Obtain patient/client height and weight.</td>
</tr>
<tr>
<td>Report changes in a patient/client’s condition.</td>
</tr>
<tr>
<td>Demonstrate methods of pain management.</td>
</tr>
<tr>
<td>Assist with basic patient/client care.</td>
</tr>
<tr>
<td>Monitor intake and output.</td>
</tr>
<tr>
<td>Provide emotional support for patients/clients and their families.</td>
</tr>
<tr>
<td>Assist the patient/client in admission, discharge, and/or transfer per facility policy.</td>
</tr>
<tr>
<td>Follow the nursing care plan or restorative plan of care.</td>
</tr>
<tr>
<td>Remove peripheral IVs.</td>
</tr>
<tr>
<td>Perform postmortem care.</td>
</tr>
</tbody>
</table>

**Preventing Medical Complications**

<table>
<thead>
<tr>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform passive range of motion (ROM) for the patient.</td>
</tr>
<tr>
<td>Maintain skin integrity.</td>
</tr>
<tr>
<td>Apply antiembolic devices.</td>
</tr>
<tr>
<td>Assist a patient/client with coughing and deep-breathing exercises.</td>
</tr>
<tr>
<td>Assist a patient/client with incentive spirometry.</td>
</tr>
<tr>
<td>Assist with reapplication of oxygen therapy.</td>
</tr>
<tr>
<td>Assist with wound care.</td>
</tr>
<tr>
<td>Assist with ostomy care per facility policy.</td>
</tr>
<tr>
<td>Report edema.</td>
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</tbody>
</table>

**Understanding the Role of the Electrocardiogram (ECG)**

<table>
<thead>
<tr>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the steps required for obtaining a cardiac monitoring procedure.</td>
</tr>
<tr>
<td>Identify ECG recordings and abnormal rhythms.</td>
</tr>
<tr>
<td>Describe troubleshooting and maintenance of cardiac monitoring devices.</td>
</tr>
</tbody>
</table>

**Understanding Phlebotomy and Related Procedures**

<table>
<thead>
<tr>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe basic human anatomy and physiology in relation to phlebotomy.</td>
</tr>
<tr>
<td>Identify the steps in laboratory specimen collection.</td>
</tr>
</tbody>
</table>
### Tasks/Competencies

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<tbody>
<tr>
<td>☑️</td>
<td>Respond to complications of phlebotomy.</td>
</tr>
<tr>
<td>☑️</td>
<td>Identify the steps in laboratory problems and making corrections.</td>
</tr>
<tr>
<td>☑️</td>
<td>Demonstrate specimen collection procedures appropriate to the patient.</td>
</tr>
<tr>
<td>☑️</td>
<td>Explain the order of the draw for tubes.</td>
</tr>
<tr>
<td>☑️</td>
<td>Demonstrate the collection, handling, and processing of laboratory procedures.</td>
</tr>
</tbody>
</table>

#### Describing the Opioid Crisis

- ☑️ 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.

#### Examining the Key Factors of Drug Addiction

- ☑️ 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.

#### Understanding Pain Management Protocols

- ☑️ 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.

#### Working with Patients and Caregivers

- ☑️ Describe key communication topics involving opioids for patients.
- ☑️ Describe communication topics for caregivers and family members.

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**Legend:** ☑️Essential ☐Non-essential ☐Omitted

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**Curriculum Framework**

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**Introducing the Healthcare System**

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6
Task Number 39

Summarize major developments in healthcare history.

Definition

Summary should include

- the Hippocratic Oath
- medicine and pharmacy practices
- the evolution of nursing practices
- aseptic procedures and their effect on medical care including microbes as the cause of disease
- Vaccines for Children Program (VFC)
- U.S. Department of Health and Human Services (HHS)
- Public Health Preparedness and Response
- Affordable Care Act (ACA)
- Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and National Institutes of Health (NIH).

Process/Skill Questions

- What is the Hippocratic Oath? Why was it developed?
- How have the roles of nurses changed in the last century?
- What is the intended purpose of the ACA?

HOSA Competitive Events (High School)

Teamwork Events

- HOSA Bowl

Task Number 40

Differentiate among the types of health insurance.

Definition

Differentiation should include
• preferred provider organization (PPO)
• health maintenance organization (HMO)
• Medicare
• Medicaid
• managed care
• workers’ compensation
• State Children’s Health Insurance Program (SCHIP)
• Affordable Care Act (ACA)
• Health Savings Account (HSA)
• commercial insurances (e.g., Anthem, TRICARE, Railroad Retirement Program benefits)
• U.S. Department of Veterans Affairs (VA)
• self-pay.

Where applicable, differentiation should include elements of health insurance such as

• premiums
• deductibles
• coinsurance
• copayment.

Process/Skill Questions

• Why are there different types of health insurance?
• How are Medicare and Medicaid similar, and how are they different?
• How has the development of managed care affected the cost of medical care?
• What is the difference between a PPO and an HMO?
• What is the purpose of workers’ compensation?
• What does ACA provide related to coverage, cost, and care?
• What happens to citizens who are not insured or who do not comply with the minimum essential health insurance coverage requirement?

HOSA Competitive Events (High School)

Teamwork Events

• HOSA Bowl

Task Number 41

Differentiate among the types of medical care delivery systems.
**Definition**

Differentiation should include

- emergency medical services
- primary care physicians' offices
- hospital emergency rooms
- urgent care centers
- community health clinics
- free clinics
- home health care
- assisted living facilities, nursing homes, independent living facilities, and retirement centers
- rehabilitation centers
- hospice care
- public health facilities
- ambulatory facilities
- mental health centers
- physical and occupational therapy offices
- Program of All-inclusive Care for the Elderly (PACE)
- pharmacies.

**Process/Skill Questions**

- What are the major differences in the care provided by the various medical care delivery systems?
- How does a community benefit from having a variety of healthcare delivery systems?
- What career opportunities are available within the types of healthcare delivery systems?
- What are the differences among assisted living facilities, nursing homes, and independent living facilities?

**HOSA Competitive Events (High School)**

**Teamwork Events**

- HOSA Bowl

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**Task Number 42**

Differentiate between the scope and roles of the Virginia Department of Health Professions (DHP) and the Virginia Department of Health (VDH).
Definition

Differentiation should include

- the functions of the DHP
  - regulations
  - licensure
- the functions of the VDH,
  - regulations
  - licensure
  - disease management
  - community health
  - healthcare notification.

Process/Skill Questions

- How does the VDH reach those in the community?
- Why is a regulatory agency needed for the healthcare industry?

Task Number 43

Examine the effect of health informatics on the healthcare industry and on the individual.

Definition

Examination should include

- the definition of health informatics
- Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- the effect of technology on the delivery of health care
- the cost of technology on the delivery of health care
- cybersecurity concerns in health care
  - Internet uses and vulnerabilities
  - mobile applications’ uses and vulnerabilities
- health insurance concerns (e.g., explanation of benefits [EOB], Health Savings Account [HSA])
- the electronic health record (EHR)
- the availability of medical and pharmaceutical information
- the National Library of Medicine
- medical support groups
- community service projects and volunteer opportunities
- communication with healthcare professionals.
Process/Skill Questions

- How does one know that health information is being safeguarded on the Internet?
- What are the advantages and disadvantages of the availability of medical information on the Internet?
- How can one determine which sites are reputable for accurate and updated medical information?

HOSA Competitive Events (High School)

Teamwork Events

- HOSA Bowl

Identifying the Roles and Responsibilities of a Patient Care Technician (PCT)

Task Number 44

Describe the scope of practice of a patient care technician (PCT).

Definition

Description should include the

- national and state association or licensing board guidelines that define the procedures and actions that regulate the profession
- code of ethics for PCT and certified nurse aides (CNA)
- credentialing agencies National Healthcare Association (NHA) and National Center for Competency Testing (NCCT).

Process/Skill Questions

- What is the scope of practice for a PCT in Virginia?
- Who provides the guidelines?

HOSA Competitive Events (High School)
Leadership Events
  o Medical Photography

Teamwork Events
  o Health Career Display

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**Task Number 45**

**Maintain Basic Cardiac Life Support (BCLS) certification for healthcare providers.**

**Definition**

Maintenance should include

- the American Heart Association (AHA)
- Basic Life Support for Cardiopulmonary Resuscitation (CPR) renewal every two years.

**Process/Skill Questions**

- What level of AHA CPR is required in order to be a PCT?
- When do students have to have proof of AHA CPR completion?

**HOSA Competitive Events (High School)**

Emergency Preparedness Events
  o CPR/First Aid

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**Task Number 46**

**Adhere to HIPAA regulations regarding protected health information.**

**Definition**

Adherence should reflect knowledge of and regard for
confidentiality
Patient’s Bill of Rights
Americans with Disabilities Act (ADA)
The Joint Commission
facility policies and procedures
social media policies.

Process/Skill Questions

- What does the acronym HIPAA mean?
- What are examples of HIPAA violations?
- What are the consequences of accessing anyone’s health record, including one’s own?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Task Number 47

Communicate with other healthcare professionals using appropriate medical terminology.

Definition

Communication should include the use of

- electronic medical record (EMR)
- written, verbal, and nonverbal strategies to overcome barriers to communication
- telephone etiquette
- reporting
- filing procedures.

Process/Skill Questions

- What communication is necessary for maintaining continuity of care?
- How can a PCT facilitate communication among a patient/client, a patient's/client's family, and the healthcare team?

HOSA Competitive Events (High School)
Task Number 48

Describe the organizational structure in a healthcare setting.

Definition

Description should include

- facilities’ organizational structures and line of authority
- areas of responsibility that lead to the most efficient operation of the facility.

Process/Skill Questions

- What is the chain of command?
- Who is generally the final line of authority?

Task Number 49

Use effective communication to interact with a patient/client, a patient's/client’s family, and other members of the healthcare team.

Definition

Use should include

- demonstration of
  - interpersonal skills
  - trust
  - empathy
  - compassion
  - competence
  - kindness
- sufficient time with a patient/client
- communication that is delivered, received, and verified
- medical terminology for a patient/client and the family
- avoidance or surmounting of barriers to communication, such as those related to language, culture, environment, age, gender, ethnicity, socioeconomic status, and special needs of a patient/client (e.g., visual and hearing impairments).

**Process/Skill Questions**

- How does effective communication help the healthcare provider gain the trust of a patient/client?
- How can a healthcare provider verify that a message is received and understood?

**Task Number 50**

**Adhere to regulations regarding operational standards.**

**Definition**

Adherence should include

- [The Joint Commission](#)
- [Clinical Laboratory Safety Institute (CLSI)](#)
- [Clinical Laboratory Improvement Amendments](#)
- [Occupational Safety Health Administration (OSHA)](#)
- [Virginia Board of Nursing (VBON) and CNA certification](#).

**Process/Skill Questions**

- What are the correct abbreviations and meanings of various accreditation agencies?
- What is the function of The Joint Commission?

**Examining Ethical and Legal Issues**

**Task Number 51**

**Examine legal and ethical concerns pertaining to medical care.**

**Definition**

Examinations should include
• professional codes of ethics (e.g., physician, nurse)
• Patient's Bill of Rights
• Nursing Home Residents’ Rights
• Good Samaritan Law
• U.S. Revised Anatomical Gift Act (2007)
• licensure
• access to medical care
• treatment issues
• advanced directives
• end-of-life issues
• liability issues
• informed consent/consent to care
• mandated reporters
• Drug Enforcement Agency (DEA) regulations.

Process/Skill Questions

• What is the definition of ethics?
• What is the difference between law and ethics?
• Who determines what constitutes ethical behavior in the healthcare field?
• Why was the Good Samaritan Law established? In what circumstances does the Good Samaritan Law not apply?
• What types of advanced directives are available?
• What are the different types of consent to care?

HOSA Competitive Events (High School)

Health Science Events

  o Knowledge Test: Medical Law and Ethics

Task Number 52

Examine concepts of care relating to ethnic, religious/spiritual, cultural, and personal preferences.

Definition

Examination should include

• differing beliefs and practices
• possible dietary restrictions
differing attitudes toward eye contact, gestures, personal space, and physical contact
potential language barriers
the necessity of translators
potential gender preferences of caregivers
various attitudes regarding death and disability
potential bias, prejudice, and stereotyping
recognition of sexual identity.

Process/Skill Questions

- Why is it important to understand cultural differences as they affect patient/client care?
- How do different cultures perceive health and illness?
- How does nonverbal communication differ among cultures?
- Why is it important for a patient/client to receive information and directions in their native language?
- How can healthcare workers assist with the special dietary requirements of different cultural groups?
- What does the Institute of Medicine suggest to eliminate racial and ethnic disparities in health care?
- What social or cultural considerations must be addressed for effective HIV prevention and interventions?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Task Number 53

Describe the roles of professionalism, including legal and ethical boundaries, for a PCT.

Definition

Description should include

- the definition of
  - negligence
  - abuse (e.g., physical, financial, emotional, verbal, and sexual)
  - assault and battery
  - slander and libel
- defamation
- invasion of privacy
- false imprisonment

- the difference between criminal law and civil law
- the definition of
  - torts
  - malpractice
  - mandated reporter

- the healthcare worker and social media
- the fundamentals of therapeutic relationships.

**Process/Skill Questions**

- What is the difference between criminal and civil law?
- What is a code of ethics?

**HOSA Competitive Events (High School)**

**Health Science Events**

- Knowledge Test: Medical Law and Ethics

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**Task Number 54**

**Implement the Five Rights of Delegation.**

**Definition**

Implementation should include

- right task
- right circumstance
- right person
- right direction
- right supervision.

**Process/Skill Questions**

- What is the significance of each delegation?
- Who can delegate?

**HOSA Competitive Events (High School)**
Understanding Medical Terminology and Documentations

Task Number 55

Identify word parts and medical terminology.

Definition

Identification should include

- defining, spelling, and pronouncing roots, prefixes, and suffixes
- defining, spelling, and pronouncing
  - common medical conditions (e.g., inflammation, swelling, pain)
  - anatomical reference system (e.g., planes, regions, direction)
  - structural units (e.g., cells, organs, tissues).

Process/Skill Questions

- What might be the consequences of misspelled medical terms?
- Why is suffix and prefix recognition helpful to healthcare workers and consumers?
- What are look-alike/sound-alike medical terms?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology

Task Number 56

Define abbreviations and medical terms.
**Definition**

Definition should include

- standard and pharmaceutical abbreviations and symbols
- the meanings of common Latin and Greek symbols, abbreviations, and acronyms.

**Process/Skill Questions**

- Why are abbreviations, symbols, and acronyms used in health care?
- What accounts for regional differences in abbreviations, symbols, and acronyms?
- Why is it important to know a facility’s approved abbreviations list?

**HOSA Competitive Events (High School)**

**Health Science Events**

- Medical Terminology

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**Task Number 57**

**Demonstrate accurate documentation.**

**Definition**

Demonstration should include the use of

- electronic documentation
- electronic downtime forms
- written (i.e., flow sheets) and graph forms.

**Process/Skill Questions**

- Where are vital signs documented?
- What are the guidelines for documenting vital signs?
- How does one correct an error in documentation?

**HOSA Competitive Events (High School)**

**Health Science Events**

- Medical Terminology
Practicing Infection Prevention Techniques

Task Number 58

Explain the importance of Standard Precautions and transmission-based precautions.

Definition

Explanation should include

- ways diseases are transmitted
- ways to prevent transmission
- chain of infection
- bloodborne pathogens standards
- Standard Precautions per CDC protocol
- hand hygiene
- personal protective equipment (PPE)
- types of isolation.

Teacher resource: The Safety Best Practice Guide for CTE, VDOE

Process/Skill Questions

- What is the chain of infection?
- What PPE goes with each type of isolation?

HOSA Competitive Events (High School)

Health Professions Events

- Clinical Nursing
- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Personal Care
Task Number 59

Differentiate between Standard Precautions and transmission-based precautions.

Definition

Differentiation should include OSHA standards such as

- Standard Precautions
  - sharps containers and red bags
  - exposure control plans and reporting
  - disposal of biohazardous materials
- CDC transmission-based precautions
  - contact precautions
  - droplet
  - airborne
  - enteric.

Process/Skill Questions

- What are PPE items? What are their protective values?
- What are some factors that could cause harm even when using PPE?
- What is the difference between a recommendation and a regulation?
- What are the roles of the CDC and OSHA?

HOSA Competitive Events (High School)

Health Professions Events

- Clinical Nursing
- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Personal Care

Task Number 60

Explain concepts related to medical and surgical asepsis.

Definition
Explanation should include

- medical asepsis
- surgical asepsis
- levels of aseptic control
  - antiseptic
  - disinfection
  - sterilization.

Process/Skill Questions

- Where are antiseptics used?
- What is the number one disinfectant according to the CDC’s review of disinfectants?
- Which type of asepsis eliminates all types of microorganisms?

HOSA Competitive Events (High School)

**Health Professions Events**

- Clinical Nursing
- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Personal Care

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**Task Number 61**

**Demonstrate aseptic technique and sterile technique.**

**Definition**

Demonstration should include aseptic and sterile technique, including, but not limited to

- dressing change
- equipment handling.

**Process/Skill Questions**

- What best prevents the spread of infection and also promotes good aseptic technique?
- What are the general principles of asepsis, and what is the rationale for each principle?
- What are the Standard Precautions, and how are they practiced?

HOSA Competitive Events (High School)
Practicing Safety Protocols

Task Number 62

Define types of abuse and neglect.

Definition

Definition should include

- sexual abuse/harassment
- substance use
- domestic violence/intimate-partner abuse
- financial abuse
- verbal abuse
- physical abuse
- mental abuse
- child abuse and neglect
- elder abuse and neglect.

Process/Skill Questions

- What are examples of types of abuse?
- How can criminal charges be filed for abuse and neglect?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Health Professions Events
Task Number 63

Report suspected abuse and neglect per facility policy.

Definition

Report may include instances of

- sexual abuse
- sexual harassment
- substance use
- drug diversion
- domestic violence/intimate partner abuse
- financial abuse
- verbal and physical abuse
- mental abuse
- child abuse and neglect
- elder abuse and neglect
- workplace bullying.

Process/Skill Questions

- What is a mandated reporter?
- To whom should one report suspected abuse?
- What are examples of protocol for reporting suspected abuse and neglect?
- What is the definition of drug diversion and employee responsibility?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Health Professions Events

- Nursing Assisting

Task Number 64
Follow regulatory agencies' patient/client safety guidelines.

**Definition**

Following guidelines should include the use of medical supplies and equipment such as

- locking the hospital bed
- locking wheelchairs
- raising stretcher side rails
- applying safety belts and restraints.

**Process/Skill Questions**

- What are three ways a PCT can promote patient/client safety?
- What are National Patient Safety guidelines?
- What other agencies provide safety guidelines for a PCT?

**HOSA Competitive Events (High School)**

**Health Professions Events**

- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Personal Care

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**Task Number 65**

**Use proper body mechanics when performing job functions.**

**Definition**

Use should include the following:

- Transport patients/clients using proper body mechanics.
- Transfer patients/clients using proper body mechanics.
- Transfer patients/clients using task-appropriate lifting equipment in accordance with National Institute for Occupational Safety and Health (NIOSH) guidelines.
- Manually lift and transfer patients/clients.

**Process/Skill Questions**
• What is the correct technique for lifting a load?
• What is the number one injury among healthcare workers?

HOSA Competitive Events (High School)

Health Professions Events

○ Home Health Aide
○ Nursing Assisting
○ Personal Care

Task Number 66

Monitor environmental safety.

Definition

Monitoring should include

• fall precautions
• faulty equipment
• prevention of workplace injuries by following OSHA guidelines.

Process/Skill Questions

• How can one prevent workplace injuries?
• What is the name of the form used for reporting an injury?

HOSA Competitive Events (High School)

Health Professions Events

○ Home Health Aide
○ Medical Assisting
○ Nursing Assisting
○ Personal Care

Task Number 67

Respond to emergency situations.
Definition

Response may include

- fire
- hostage
- biological hazard
- chemical hazard.

Process/Skill Questions

- What do PASS (pass, aim, squeeze, sweep) and RACE (rescue, alarm, confine, extinguish/evacuate) stand for in fire safety?
- What is a safety data sheet (SDS) sheet?
- Who handles chemical hazards?

HOSA Competitive Events (High School)

Health Professions Events

- Home Health Aide
- Medical Assisting
- Nursing Assisting
- Personal Care

Task Number 68

Follow procedures for identifying patients/clients.

Definition

Following procedures should be in accordance with the National Patient Safety Guidelines.

Process/Skill Questions

- What is the purpose of requiring two identifiers?
- What is meant by two-patient identifiers?

HOSA Competitive Events (High School)

Health Professions Events
Task Number 69

Report work-related accidents according to facility policy.

Definition

Report should include completing documentation according to facility policy.

Process/Skill Questions

• What documentation form is used for reporting work-related injuries?

HOSA Competitive Events (High School)

Health Professions Events

Task Number 70

Identify the body systems.

Definition

Identification should include
integumentary
skeletal
cardiovascular
blood
lymphatic/immune
respiratory
gastrointestinal
endocrine
reproductive
nervous
urinary
sensory.

Process/Skill Questions

• What are the functions of each body system?
• Why is symmetry an important concept in anatomy?

HOSA Competitive Events (High School)

Teamwork Events

o HOSA Bowl

Task Number 71

Identify the body cavities and the organs within these cavities.

Definition

Identification should include the location of

• dorsal cavity
  o cranial cavity
  o spinal cavity
• ventral cavity
  o thoracic cavity
  o abdominal cavity
  o pelvic cavity.

Process/Skill Questions
• What major organs are contained in each body cavity?
• Why is knowledge of the location of major organs important to medical personnel?
• What is the location of the diaphragm in relation to the body cavities?
• What is the function of the diaphragm?

HOSA Competitive Events (High School)

Teamwork Events

  ○ HOSA Bowl

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Task Number 72

Identify the parts and functions of a cell.

Definition

Identification should include

  • the parts of a cell, as well as the location and function of deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) within a cell
  • the units of organization in the body from simplest (i.e., cells) to the most complex (i.e., systems).

Process/Skill Questions

  • What is the relationship between cell shapes and cell functions?
  • What are the functions of the major organelles?
  • How does DNA affect genetics?
  • What is mitosis?

HOSA Competitive Events (High School)

  Health Science Events

  ○ Knowledge Test: Pathophysiology

  Teamwork Events

  ○ HOSA Bowl
Task Number 73

Identify the tissues within the body.

Definition

Identification should include the structures and functions of the four types of body tissues, including

- epithelial
- muscle
- connective
- nerve.

Process/Skill Questions

- What are the three types of muscle tissue?
- How do the three types of muscle tissue differ in functionality?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Pathophysiology

Teamwork Events

- HOSA Bowl

Task Number 74

Identify the major structures and functions of the endocrine system.

Definition

Identification should include

- organs of the endocrine system
  - pancreas
  - thymus
ovaries  
• testes  
• glands of the endocrine system  
  • pituitary  
  • thyroid  
  • parathyroid  
  • pineal  
• the function of the endocrine system in secreting hormones that affect or regulate body organs.

Process/Skill Questions

• What is the role of insulin after eating a meal?  
• What are the signs of hypoglycemia?  
• What is the function of a hormone?

HOSA Competitive Events (High School)

Health Science Events

• Medical Terminology  
• Knowledge Test: Pathophysiology

Task Number 75

Describe the major disorders of the endocrine system.

Definition

Description should include

• diagnostic tests  
• diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)  
• patient/client care.

Process/Skill Questions

• What are some of the diagnostic tests used for the identification of disorders/diseases of the endocrine system?  
• What influence do hormones have on various body functions?

HOSA Competitive Events (High School)
Task Number 76

Identify the major structures and functions of the circulatory system.

Definition

Identification should include

- the heart
- arteries
- veins
- capillaries.

Process/Skill Questions

- What is the effect of dehydration on the circulatory system?
- What is the effect of hemorrhage on the circulatory system?
- Why do humans have veins and arteries?

HOSA Competitive Events (High School)

Task Number 77

Describe the major disorders of the circulatory system.

Definition

Description should include
• diagnostic tests
• diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
• patient/client care.

**Process/Skill Questions**

• What are some of the diagnostic tests used for the identification of disorders/diseases?
• What influence do risk factors have on circulatory disorders/diseases?

**HOSA Competitive Events (High School)**

**Health Science Events**

- Medical Terminology
- Knowledge Test: Pathophysiology

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**Task Number 78**

**Identify the major structures and functions of the musculoskeletal system.**

**Definition**

Identification should include

• the two divisions of the skeleton
• the types, structures, functions, and formations of bones
• bone marrow, cranial sinuses, and cartilage
• the number of vertebrae in each segment of the vertebral column
• the difference between the male and female pelvis
• changes in the skeleton across the life span
• the basic unit of muscle tissue
• the three types of muscle tissue, their characteristics, and their functions
• physiology and the types of muscle contractions
• the effects of aging on muscles.

**Process/Skill Questions**

• How would one distinguish among the functions of the muscular system?
• What is the basic unit of muscle tissue?
• How would one distinguish among the three types of muscle tissue, and how would one summarize the functions of each type?
• What are the major muscles of the body, and where are they located?
• How are muscles attached to bones?
• How would one differentiate between antagonistic muscles and synergistic muscles?
• What is the role of the nervous system in muscle function?
• How would one differentiate between muscle tone and muscle sense?
• What are the energy sources for muscle contraction?
• How would one describe the physiology of muscle concentration, including the sliding filament theory, neurotransmitters, polarization, depolarization, muscle fatigue, and events leading to oxygen debt?
• What is the simple equation of cellular respiration, and what happens to each of the products in this equation?
• What are the types of muscle contractions?
• How would one describe the body's physiological responses to exercise? How does each response assist homeostasis?
• What should one recommend minimizing the effects of aging on the muscular system?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 79

Describe the major disorders of the musculoskeletal system.

Definition

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.

Process/Skill Questions

- What are three types of hernias?
- What is the difference between a muscle spasm and a muscle strain?
- How often should one have a tetanus shot?

HOSA Competitive Events (High School)
Task Number 80

Identify the major structures and functions of the gastrointestinal system, including the oral cavity.

Definition

Identification should include

- mouth and teeth
- esophagus
- stomach
- small intestine
- large intestine
- liver
- gallbladder
- pancreas.

Process/Skill Questions

- Where in the gastrointestinal system are most nutrients absorbed? Why is this important?
- What are the roles of the liver in the gastrointestinal system?
- How does food progress through the digestive tract?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 81

Describe the major disorders of the gastrointestinal system.
Definition

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.

Process/Skill Questions

- What are some of the diagnostic tests used for the identification of disorders/diseases?
- What influence do risk factors have on gastrointestinal disorders/diseases?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 82

Identify the major structures and functions of the reproductive system.

Definition

Identification should include

- the male system
- the female system.

Process/Skill Questions

- How is herpes type II different from herpes type I?
- Where is the egg fertilized by the sperm in the fallopian tube?
- What is the importance of the human papillomavirus (HPV) vaccine?

HOSA Competitive Events (High School)

Health Science Events
**Task Number 83**

**Describe the major disorders of the reproductive system.**

**Definition**

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.

**Process/Skill Questions**

- What are some of the diagnostic tests used for the identification of disorders/diseases?
- What influence do risk factors have on reproductive disorders/diseases?

**HOSA Competitive Events (High School)**

**Health Science Events**

- Medical Terminology
- Knowledge Test: Pathophysiology

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**Task Number 84**

**Identify the major structures and functions of the urinary system.**

**Definition**

Identification should include

- kidneys
- ureters
- bladder
urethra.

Process/Skill Questions

- What are nephrons?
- How many nephrons does each kidney contain?
- What makes up urine?
- What lab test describes kidney function?
- Why is this test important to a diagnosis?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 85

Describe the major disorders of the urinary system.

Definition

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.

Process/Skill Questions

- What are some of the diagnostic tests used for identification of disorders/diseases?
- What influence do risk factors have on urinary disorders/diseases?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology
Task Number 86

Identify the major structures and functions of the respiratory system.

Definition

Identification should

- nose
- pharynx
- larynx
- trachea
- lungs
- bronchi and alveoli.

Process/Skill Questions

- What is the function of the diaphragm in the breathing process?
- What happens to oxygen when hemoglobin is low?
- How many alveoli are present in the lungs?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 87

Describe the major disorders of the respiratory system.

Definition

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.
Process/Skill Questions

- What are some of the diagnostic tests used for the identification of disorders/diseases?
- What influence do risk factors have on respiratory disorders/diseases?
- How do the alveoli play a major role in emphysema?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 88

Identify the major structures and functions of the nervous system.

Definition

Identification should include

- central nervous system
  - brain
  - spinal cord
- peripheral nervous system
  - cranial nerves
  - spinal nerves.

Process/Skill Questions

- How can the central nervous system cells regenerate after being damaged? Why is this important?
- Where are the respiratory centers located in the brain? Why is this important in health care?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology
Task Number 89

Describe the major disorders of the nervous system.

Definition

Description should include

- diagnostic tests
- diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
- patient/client care.

Process/Skill Questions

- What are some of the diagnostic tests used for the identification of disorders/diseases?
- What influence do risk factors have on nervous system disorders/diseases?
- What is the difference between Alzheimer’s disease and dementia?
- What is meningitis? What test is used to diagnose it?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 90

Identify the major structures and functions of the sensory system.

Definition

Identification should include

- eyes
- ears
- nose
- skin
• taste buds.

Process/Skill Questions

• How do eyeglasses correct common vision problems?
• What is colorblindness? How is it caused?
• How many smells can the nose detect?
• How can the sense of smell be a defense mechanism for the body?
• How are taste and smell interconnected?
• Where are the receptors for hearing located?
• What precautions can be taken in young adulthood to reduce vision problems later in life?
• What precautions can be taken to reduce hearing loss over time?

HOSA Competitive Events (High School)

Health Science Events

  o Medical Terminology
  o Knowledge Test: Pathophysiology

Task Number 91

Describe the major disorders of the eye, ear, and other sensory organs.

Definition

Description should include

• diagnostic tests
• diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
• patient/client care.

Process/Skill Questions

• How does aging affect the sensory system?
• How do cataracts affect vision?
• How does myasthenia gravis affect vision?
• What are the effects of hearing loss in the older adult?

HOSA Competitive Events (High School)
Task Number 92

Identify the major structures and functions of the integumentary system.

Definition

Identification should include

- dermis
- epidermis
- subcutaneous.

Process/Skill Questions

- What is the body’s first line of defense?
- What are the layers of the skin? How are they similar or different?
- How can the sun be harmful to the integumentary system? How can the sun also be helpful?

HOSA Competitive Events (High School)

Health Science Events

- Medical Terminology
- Knowledge Test: Pathophysiology

Task Number 93

Describe the major disorders of the integumentary system.

Definition

Description should include
• diagnostic tests
• diseases and abnormal conditions (e.g., signs and symptoms, treatment, prognosis)
• patient/client care.

Process/Skill Questions

• What are three names for abnormal colors of the skin, and what is the cause of each abnormal color?
• What are the stages of pressure ulcer formation, and what is the treatment for each?
• What PCT actions should be taken to prevent skin breakdown?

HOSA Competitive Events (High School)

Health Science Events

  o Medical Terminology
  o Knowledge Test: Pathophysiology

Task Number 94

Describe the major stages of growth and developmental abilities.

Definition

Description should include

  • life stages
  • physical development
  • emotional development
  • cognitive development
  • social development
  • Maslow’s hierarchy of needs.

Process/Skill Questions

• How would one explain Maslow’s hierarchy of needs theory?
• How would one categorize the life stages of modern man?
• How would one differentiate among cognitive, affective, and psychomotor development?
• How would one explain the general patterns of growth and development?
• How would one determine the adjustment periods of each group?
• How would one prioritize patient/client care based upon Maslow’s Motivational Theory of Basic Needs?

HOSA Competitive Events (High School)

Health Science Events

  o Knowledge Test: Human Growth and Development

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**Task Number 95**

**Describe the effects of the aging process on major body systems.**

**Definition**

Description should include

- physical changes of body systems
- emotional changes
- social changes
- diseases related to aging
- safety issues related to aging
- nutritional needs related to aging.

**Process/Skill Questions**

- What is the effect of aging on family dynamics and interactions?
- What are examples of health changes in older adults? In what ways do these changes affect them?
- What strategies might the older adult use to promote his or her good health?
- What should one include in a teaching plan for the older adult related to safety and security needs?

HOSA Competitive Events (High School)

  Health Science Events

  o Knowledge Test: Human Growth and Development
Task Number 96

Identify the psychosocial problems associated with the older adult.

Definition

Identification should include

- emotional problems
  - loss of social support
  - changing lifestyle
  - loss of relationships
  - limited finances
  - loss of independence
  - failing health
  - diminished coping mechanisms
- social responses
  - retirement
  - failing health
- spiritual and cultural responses.

Process/Skill Questions

- How do the major adjustment periods of aging, such as retirement, the death of a spouse, major illness, depression, and nursing home/assisted living placement, manifest themselves?
- How can aging affect an individual’s social needs?
- What type of psychosocial problems might arise as a result of a lack of independence?
- What are signs of altered coping mechanisms in the older adult?
- What affect do psychosocial problems have on the health of the older adult?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Human Growth and Development

Task Number 97

Identify needs related to death and dying.
Definition

Identification should include

- Kübler-Ross theory of death and dying
- personal feelings (e.g., patient/client, family, staff)
- characteristics of the stages of death and dying
- physical changes
- signs and symptoms of approaching death
- care of a dying patient/client
- hospice care
- postmortem care.

Process/Skill Questions

- What is the Kübler-Ross theory of death and dying?
- What is the effect of religious beliefs on death and dying?
- What are the stages of death and dying, and what characteristics are associated with each stage?
- What are some cultural influences on grief?
- What are the physical signs of approaching death (e.g., loss of muscle tone, breathing difficulty, circulatory failure, loss of senses)?
- How would one prioritize PCT care for a patient/client approaching death (e.g., comfort measures, communication techniques)?
- What is the philosophy of hospice care for a patient/client and family?
- How can PCTs maintain patient/client dignity in providing postmortem care?
- What effect do psychosocial problems have on the health of the older adult?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Human Growth and Development

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Demonstrating Medical Procedures and Patient Care and Comfort Measures

Task Number 97
Obtain vital signs.

Definition

Obtaining vital signs should include monitoring and recording

- blood pressure (manually and electronically)
- pulse (manually and electronically)
- apical pulse
- apical-radial deficit
- respirations (manually and electronically)
- pulse oximetry
- temperature (i.e., oral, rectal, tympanic, and temporal)
- pain scale.

Process/Skill Questions

- When obtaining a blood pressure measurement, how does one know whether the cuff is correctly sized?
- What portion of the cardiac cycle is represented in the systolic blood pressure measurement? What portion of the cardiac cycle is represented in the diastolic blood pressure measurement?
- What are three instances when one would need to immediately notify a patient’s assigned nurse?
- What changes in vital signs indicate a possible transfusion reaction during a blood transfusion?

HOSA Competitive Events (High School)

Health Professions Events

- Medical Assisting
- Nursing Assisting
- Personal Care

Task Number 99

Obtain patient/client height and weight.

Definition

Obtaining should include
• reading a tape measure
• using a bed scale
• using a wheelchair scale
• using a standup scale
• using an electronic scale
• using an infant scale
• using zero equipment per policy
• documenting per facility policy.

Process/Skill Questions

• How does a PCT ensure consistent weigh practices among healthcare professionals?
• How does the time of day a weight is taken affect patient/client care decisions?
• What is the conversion formula of pounds to kilograms?

HOSA Competitive Events (High School)

Health Professions Events

  o Medical Assisting

Task Number 100

Report changes in a patient/client’s condition.

Definition

Report should include

• vital signs
• pain scale
• level of consciousness
• respiratory changes
• wound drainage
• patient/client complaints
• chest pain
• family concerns and observations
• intake and output.

Process/Skill Questions

• What action should be taken if a PCT finds a patient/client slumped over in his/her chair?
What action should be taken if a patient/client complains of left lower leg pain after a left below-the-knee amputation?

Task Number 101

Demonstrate methods of pain management.

Definition

Demonstration may include

- repositioning
- massage
- distraction
- guided imagery
- population-specific pain scales
- cultural pain perception
- heat and cold applications
- alternative treatments (e.g., pets, music, and aromatherapy).

Process/Skill Questions

- What is the fifth vital sign?
- What are the various pain scales for determining pain levels?

Task Number 102

Assist with basic patient/client care.

Definition

Assistance should include

- maintaining a safe environment
- providing basic patient/client care under the direction of nursing staff (e.g., bathing, bed making, catheter care, transfer, assisting with activities of daily living [ADL]).

Process/Skill Questions

- How much assistance will a patient/client need with bathing and oral care if they cannot move their dominant side following a stroke?
• How can a PCT assist a primary caregiver with the ADL schedule if a patient/client has a plan to be discharged to home?
• What strategies can a PCT use to assist patients/clients and their families to meet ADL needs upon discharge (e.g., bathing, dressing, feeding, using assistive devices as needed)?

HOSA Competitive Events (High School)

Health Professions Events

- Home Health Aide
- Nursing Assisting
- Personal Care

Task Number 103

Monitor intake and output.

Definition

Monitoring should include

- measuring and recording intake/output (e.g., urine, emesis, wound drainage)
- recording functions related to digestion (e.g., bowel movements, percentage of meal eaten).

Process/Skill Questions

- How does one record a patient’s intake if his/her diet is liquid and dinner includes soup, juice, and Jell-O?
- How should the PCT measure and record a patient’s output if the patient/client has been incontinent?

Task Number 104

Provide emotional support for patients/clients and their families.

Definition

Provision should include
• coping mechanisms for patients/clients and families dealing with grief, death, and dying
• care related to the special-needs patient/client (e.g., physically, sensory, cognitively, and/or mentally impaired)
• one-on-one care for patients who are at risk of suicide.

Process/Skill Questions

• What special considerations are important when performing postmortem care on a Muslim patient/client?
• What is the appropriate action when a patient/client communicates a desire for death?

HOSA Competitive Events (High School)

Health Professions Events

  o Home Health Aide
  o Medical Assisting
  o Nursing Assisting

Task Number 105

Assist the patient/client in admission, discharge, and/or transfer per facility policy.

Definition

Assistance should include

• with monitor
• without monitor
• interfacility
• discharge to home
• discharge to outside facility
• new admission.

Process/Skill Questions

• What should a PCT do if a patient/client is scheduled to be discharged and the patient's/client's IV has not been removed?
• What should a PCT do when they discover medicines in the personal belongings of a new admission? What procedures and paperwork are required?
Task Number 106

Follow the nursing care plan or restorative plan of care.

Definition

Following should include

- bowel and bladder retraining
- use of devices for feeding and dressing
- use of adaptive devices for activities of daily living
- assistance with orthotics, splints, or prosthetic devices (e.g., hearing aids, dentures, artificial eyes, extremities).

Process/Skill Questions

- What types of patients/clients need assistance with bowel and bladder training?
- What are adaptive devices?

Task Number 107

Remove peripheral IVs.

Definition

Removal should include
initial doctor (ID) order
- equipment
- recording
  - date and time
  - location from which the catheter was removed
  - skin condition of the catheter site and catheter
  - patient's tolerance of the procedure.

**Process/Skill Questions**

- What should a PCT do if, after removing an IV and applying pressure for five minutes, a patient/client continues to bleed?
- When should a peripheral IV be removed?

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**Task Number 108**

**Perform postmortem care.**

**Definition**

Performance should include

- labeling the body (e.g., toe tag, bag, personal belongings)
- facilitating the disposition of valuables
- providing for forensic considerations
- preparing the body for viewing.

**Process/Skill Questions**

- What is postmortem care?
- When should postmortem care be initiated?
- When is it appropriate to bathe a patient/client as part of the postmortem care if the patient/client were involved in a violent exchange?
- What are special circumstances related to postmortem care?
- What are family considerations during postmortem care?

**HOSA Competitive Events (High School)**

**Health Professions Events**

- Nursing Assisting
Preventing Medical Complications

Task Number 109

Perform passive range of motion (ROM) for the patient.

Definition

Performance should include an understanding

- that range of motion (ROM) is the normal movement of a joint
- that ROM exercises should be performed five times each and at least twice a day.

Process/Skill Questions

- When should ROM be performed?
- What is the point of resistance?

HOSA Competitive Events (High School)

Health Professions Events

- Nursing Assisting
- Physical Therapy

Task Number 110

Maintain skin integrity.

Definition

Maintenance should include

- repositioning
- using approved creams
- applying a moisture barrier
- using devices to prevent skin breakdown (e.g., air mattresses, draw sheets)
- identifying and reporting changes in skin integrity.
Process/Skill Questions

- What are the four bony prominences over which pressure ulcers can form?
- What type of force is injuring a patient's/client's skin integrity when they slide down in bed?
- What should be done if a quarter-size, reddened area presents on a patient's/client's ankle during admission?

HOSA Competitive Events (High School)

Health Professions Events

- Nursing Assisting
- Personal Care

Task Number 111

Apply antiembolic devices.

Definition

Application should include

- circulation check
- check for skin breakdown
- placement of sequential compression devices
- placement of antiembolic stockings.

Process/Skill Questions

- How often should compression devices be removed?
- How often should stockings be removed?
- Why is the toe area open?

Task Number 112

Assist a patient/client with coughing and deep-breathing exercises.
Definition

Assistance should include

- an incentive spirometer
- deep breathing and coughing exercises
- documentation of
  - the date
  - the time
  - the procedure performed
  - a patient's ability to perform the procedure
  - sputum characteristics
  - a patient's tolerance of the procedure.

Process/Skill Questions

- What is the main purpose of performing coughing and deep breathing exercises?
- What is the correct patient/client position for the procedure?
- How often should an incentive spirometer be used?

Task Number 113

Assist a patient/client with incentive spirometry.

Definition

Assistance should include

- the use of an incentive spirometer—a breathing exerciser used to help with deep breaths and keep the lungs clear after surgery
- an understanding that deep-breathing exercises help open the air sacs in the lungs and may reduce the chance of developing breathing problems (e.g., pneumonia) after surgery.

Process/Skill Questions

- What is the purpose of an incentive spirometer?
- How does a spirometer work?
- How often should one perform incentive spirometry?
- What types of patients will require incentive spirometry?

Task Number 114

Assist with reapplication of oxygen therapy.
Definition

Assistance should include

- reapplication of a nasal cannula or face mask
- reapplication of a pulse oximeter.

Process/Skill Questions

- Who must initiate the order for oxygen?
- When is a PCT allowed to apply oxygen therapy? What are the signs of hypoxia?
- What is a normal pulse oximeter range?

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Task Number 115

Assist with wound care.

Definition

Assistance should include

- observation of the wound
  - sight
  - smell
  - palpation for appearance, drainage, and pain
- reporting to the nurse.

Process/Skill Questions

- What is serosanguinous drainage?
- Who should receive the report of drainage from a wound?
- How does one measure the drainage on a dressing?
- What should a PCT document?

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Task Number 116

Assist with ostomy care per facility policy.

Definition

Assistance should include
• the use of Standard Precautions
• the maintenance of privacy
• the use of proper equipment
• emptying of the apparatus
• an accurate description of waste output and measurement if ordered
• documentation.

Process/Skill Questions

• What is the difference between an ileostomy and colostomy?
• What should be documented about the skin around the ostomy?

Task Number 117

Report edema.

Definition

Reporting should include

• local
• generalized.

Process/Skill Questions

• What are the levels of pitting edema?
• What are the basic treatments for patients/clients with pitting or lymph edema?

Understanding the Role of the Electrocardiogram (ECG)

Task Number 118

Identify the steps required for obtaining a cardiac monitoring procedure.

Definition
Identification should include

- a physician’s order
- patient/client identification according to the National Safety Standards
- assembling appropriate equipment
- providing patient/client instruction
- preparing and positioning a patient/client for testing
- placing electrodes on a patient/client appropriately for the test (e.g., stress, Holter, telemetry)
- using additional resources as needed for specific diagnostic tests (e.g., blood pressure cuff, treadmill, Holter monitor)
- educating a patient/client regarding behavior throughout the test.

Process/Skill Questions

- What are two things that a PCT should ask to verify a patient/client’s identity according to National Safety Standards?
- What items will be on a testing requisition?
- What implant devices must be documented if a patient/client has them listed on a requisition form?
- What are the different techniques for ECG monitoring?
- What is the correct method to prepare the skin?
- What is the correct placement of color-coded electrodes?
- What is the purpose of the Holter monitor?
- What are special considerations and safety concerns for Holter monitoring?

Task Number 119

Identify ECG recordings and abnormal rhythms.

Definition

Identification should include

- ongoing monitoring of a patient/client
- capturing and recording ECG tracings
- identifying and measuring waveform characteristics (e.g., P waves, T waves, QRS complexes)
- recognizing atrial and ventricular abnormalities (e.g., premature ventricular contraction [PVC], premature atrial contraction [PAC])
- distinguishing regular and irregular rhythms
- recognizing cardiac rhythm classifications and rates
  - sinus
  - atrial
  - ventricular
asystole
initiating response to life threatening arrhythmias per facility policy
monitoring patient/client vital signs and tolerance during testing
preparing the report for the appropriate healthcare team member
transmitting the report to the patient’s EMR/EHR or chart
identifying the disease processes affecting ECG rhythms.

Process/Skill Questions

- How would one identify the signs and symptoms of cardiopulmonary compromise?
- What are the components of an ECG?
- What is an artifact?
- What is meant by a 5-lead ECG?
- What is the difference between a P wave and QRS complex?
- What causes an arrhythmia?
- What variances in waves are present with ischemia?
- Why is a baseline reading important?
- What are two life-threatening arrhythmias and their treatments?

Task Number 120

Describe troubleshooting and maintenance of cardiac monitoring devices.

Definition

Description should include

- identifying recording errors
  - improper tracing
  - standardization mark out of range
  - improper lead placement
- identifying causes of an artifact
  - somatic tremor
  - patient/client movement
  - wandering baseline
  - AC interference
  - seizures
- accounting for patients/clients with special considerations
  - clothing
  - shunts
  - piercings
  - scars
  - pacemaker/automated implantable cardioverter defibrillator (AICD)
- correcting artifacts and recording errors
• paper placement
• lead reversal
• power loss
• remove electronic devices
• calm the patient
• operating the ECG machine per manufacturer’s and facility’s policy.

Process/Skill Questions

• How does one put paper in the ECG machine?
• How does one recognize a malfunction of the ECG machine?

Understanding Phlebotomy and Related Procedures

Task Number 121

Describe basic human anatomy and physiology in relation to phlebotomy.

Definition

Description should include

• the three veins (i.e., median cubital, cephalic, and basilica)
• venipuncture—for the purposes of blood collection; usually performed on superficial veins in the cubital fossa region.

Teacher Resource: Best Sites for Venipuncture, Becton, Dickinson, and Company Diagnostics

Process/Skill Questions

• What is the difference between arteries and veins?
• How does one know whether an artery has been punctured by mistake?

HOSA Competitive Events (High School)

Health Professions Events

• Medical Assisting
Task Number 122

Identify the steps in laboratory specimen collection.

Definition

Identification should include

- verifying the physician’s order
- identifying the patient/client
- assembling the equipment
- identifying venipuncture equipment typically found on a blood collection tray
- identifying micro sampling equipment typically found on a blood collection tray
- differentiating among the uses of evacuated tubes (i.e., all stopper colors) in blood collection
- selecting equipment for specimen collection needs according to physician orders, vein, and patient/client age and condition
- identifying additives/anticoagulants added to evacuated blood collection tubes by stopper color
- identifying the importance of inversion, recommended number of inversions, and fill-levels in tubes with additives/anticoagulants
- selecting proper equipment for use with patients who have latex allergies
- selecting proper bandaging equipment (e.g., site, age, allergy, skin type)
- determining appropriate site selection for blood collection (e.g., based upon varied patient/client conditions)
- preparing patients CLIENTS and site for blood collection (e.g., micro sampling, venipuncture, bacterial culture)
- performing venipuncture on patients/clients of all ages
- performing capillary punctures by finger stick
- assisting patients in performing capillary punctures
- identifying the Clinical and Laboratory Standard Institute (CLSI)-recommended order of draw for blood samples collected by a specified method
- taking precautions for patients with special needs (e.g., mastectomy, IV, burns, dementia, bleeding disorders)
- performing postphlebotomy care.

Teacher Resource: Blood Collection Tubes Order of Draw, Calgary Laboratory Services

Process/Skill Questions

- What is the optimal position for patients/clients during venipuncture?
- Why is positioning important during venipuncture?
- How should the arm be positioned?
• What is the importance of checking a patient’s/client's armband before venipuncture?
• When should blood be labeled?
• Why is the order of the draw important?
• How long may the tourniquet be left on a patient/client?

HOSA Competitive Events (High School)

Health Professions Events

  o Medical Assisting

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Task Number 123

Respond to complications of phlebotomy.

Definition

Response should include

• identifying potential problems (e.g., hematoma, excessive bleeding)
• taking corrective actions for problems with test requests, specimen transport, or specimen processing
• anticipating pre-analytical errors and complications
• assisting other healthcare professionals with blood culture collections
• collecting laboratory specimens per facility policy (e.g., urine, stool, culture swabs)
• handling laboratory specimens per facility policy (e.g., preservatives, light sensitivity, temperature).

Process/Skill Questions

• How long should a tourniquet be left on a patient/client?
• How many venipuncture attempts are allowed?
• What would be a reason for the lab to reject a specimen?
• What actions should a PCT take to avoid a hematoma or excessive bleeding?
• What are common problems when obtaining lab specimens?

HOSA Competitive Events (High School)

  Health Professions Events

    o Medical Assisting
Task Number 124

Identify the steps in laboratory problems and making corrections.

Definition

Identification should include

- taking corrective actions for problems
- anticipating pre-analytical errors and complications
- responding to complications of phlebotomy.

Process/Skill Questions

- What complication from venipuncture can cause a patient/client to fall?
- What is a potential complication for not drawing a blank tube of blood if indicated?

Task Number 125

Demonstrate specimen collection procedures appropriate to the patient.

Definition

Demonstration should include consideration of

- ethnicity
- age
- medical/mental status
- culture.

Process/Skill Questions

- What interventions can be instituted for a patient/client who is a hard stick?
- What considerations should one keep in mind in the postmastectomy patient?

Task Number 126

Explain the order of the draw for tubes.
Definition

Explanation should include the following as Clinical and Laboratory Standard Institute (CLSI) lists the order of draw:

- Blood culture tube
- Coagulation tube (e.g., blue closure)
- Serum tube with or without clot activator and with or without gel (e.g., red closure)
- Heparin tube with or without gel plasma separator (e.g., green closure)
- Edetate disodium (EDTA) tube with or without gel separator (e.g., lavender closure, pearl closure)
- Glycolytic inhibitor (e.g., gray closure)

Process/Skill Questions

- What color tube is drawn first?
- Why is the order of the draw so important?

HOSA Competitive Events (High School)

Health Professions Events

- Medical Assisting

Task Number 127

Demonstrate the collection, handling, and processing of laboratory procedures.

Definition

Demonstration should include

- blood smears
- blood culture
- blood samples for inborn errors of metabolism (e.g., phenylketonuria (PKU), galactosemia)
- quality control for Clinical Laboratory Improvements Amendments (CLIA)-waived procedures.
- specimens based on handling requirements (e.g., temperature, light, time)
- explaining nonblood specimen collection procedures to patients (e.g., stool, urine, semen, throat swab, sputum)
• handling patient-collected, nonblood specimens
• avoiding pre-analytical errors when collecting blood specimens (e.g., quantity not sufficient (QNS), hemolysis)
• adhering to chain-of-custody guidelines when required (e.g., forensic studies, blood alcohol, drug screen)
• preparing samples for transportation to a reference (i.e., outside) laboratory.
• using technology to input and retrieve specimen data
• reporting critical values to point-of-care testing (e.g., finger stick, blood glucose)
• distributing laboratory results to ordering providers.

Process/Skill Questions

• Where is the best place to perform a finger stick for a capillary collection?
• Why is there a time limit?
• What is the rationale for inverting the blood collection tubes after blood draws?

HOSA Competitive Events (High School)

Health Professions Events

○ Medical Assisting

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Describing the Opioid Crisis

Task Number 128

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

    o Medical Spelling
    o Medical Terminology

    Teamwork Events

    o Creative Problem Solving
    o HOSA Bowl
    o Public Service Announcement

Task Number 129

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
- HOSA Bowl
- Public Service Announcement

Task Number 130

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**

**Task Number 131**

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 132

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 133

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

- Medical Spelling
- Medical Terminology
- Knowledge Test: Behavioral Health

Health Professions Events

- Clinical Nursing

Task Number 134

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

- Medical Spelling
- Medical Terminology
- Knowledge Test: Behavioral Health

Health Professions Events

- Clinical Nursing

Task Number 135

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 administer Narcan nasal spray, Adapt Pharma
• 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

  o Knowledge Test: Pharmacology

Understanding Pain Management Protocols

Task Number 136

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

Task Number 137

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 138

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

Task Number 139

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 140

**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
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

Task Number 141

**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

o Medical Spelling
o Medical Terminology

Teamwork Events

o Creative Problem Solving
o HOSA Bowl

Task Number 142

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

o Knowledge Test: Pharmacology
Task Number 143

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
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

Working with Patients and Caregivers

Task Number 145

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 146

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**

<table>
<thead>
<tr>
<th>Task Description</th>
<th>English</th>
<th>History and Social Science:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarize major developments in healthcare history.</td>
<td>12.4</td>
<td>GOVT.8, GOVT.14, GOVT.15, VUS.13, VUS.14, WHI.5</td>
</tr>
<tr>
<td>Differentiate among the types of health insurance.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Differentiate among the types of medical care delivery systems.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Differentiate between the scope and roles of the Virginia Department of Health Professions (DHP) and the Virginia Department of Health (VDH).</td>
<td>12.4</td>
<td>GOVT.8, GOVT.14, GOVT.15</td>
</tr>
<tr>
<td>Examine the effect of health informatics on the healthcare industry and on the individual.</td>
<td>12.4</td>
<td>GOVT.8, GOVT.14, GOVT.15, VUS.13, VUS.14</td>
</tr>
<tr>
<td>Describe the scope of practice of a patient care technician (PCT).</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Maintain Basic Cardiac Life Support (BCLS) certification for healthcare providers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhere to HIPAA regulations regarding protected health information.</td>
<td></td>
<td>GOVT.14, VUS.8, VUS.14</td>
</tr>
<tr>
<td>Communicate with other healthcare professionals using appropriate medical terminology.</td>
<td></td>
<td>English: 12.1</td>
</tr>
<tr>
<td>Describe the organizational structure in a healthcare setting.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Use effective communication to interact with a patient/client, a patient's/client's family, and other members of the healthcare team.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Adhere to regulations regarding operational standards.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Examine legal and ethical concerns pertaining to medical care.</td>
<td>English: 12.5, 12.8</td>
<td></td>
</tr>
<tr>
<td>Examine concepts of care relating to ethnic, religious/spiritual, cultural, and personal preferences.</td>
<td>English: 12.5</td>
<td></td>
</tr>
<tr>
<td>Describe the roles of professionalism, including legal and ethical boundaries, for a PCT.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Implement the Five Rights of Delegation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify word parts and medical terminology.</td>
<td>English: 12.4, 12.7</td>
<td></td>
</tr>
<tr>
<td>Define abbreviations and medical terms.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Demonstrate accurate documentation.</td>
<td>English: 12.7, 12.8</td>
<td></td>
</tr>
<tr>
<td>Explain the importance of Standard Precautions and transmission-based precautions.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Differentiate between Standard Precautions and transmission-based precautions.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Explain concepts related to medical and surgical asepsis.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Demonstrate aseptic technique and sterile technique.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Define types of abuse and neglect.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Report suspected abuse and neglect per facility policy.</td>
<td>English: 12.1</td>
<td></td>
</tr>
<tr>
<td>Follow regulatory agencies' patient/client safety guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use proper body mechanics when performing job functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor environmental safety.</td>
<td>English: 12.2</td>
<td></td>
</tr>
<tr>
<td>Respond to emergency situations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Follow procedures for identifying patients/clients.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Report work-related accidents according to facility policy.</td>
<td>English: 12.7, 12.8</td>
<td></td>
</tr>
<tr>
<td>Identify the body systems.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>History and Social Science: WHII.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Identify the body cavities and the organs within these cavities.</td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Identify the parts and functions of a cell.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>History and Social Science: WHII.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.3</td>
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<tr>
<td>Identify the tissues within the body.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the endocrine system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the endocrine system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the circulatory system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>History and Social Science: WHII.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the circulatory system.</td>
<td>History and Social Science: WHII.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the musculoskeletal system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the musculoskeletal system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the gastrointestinal system, including the oral cavity.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the gastrointestinal system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the reproductive system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the reproductive system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the urinary system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Subject(s)</td>
<td></td>
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<td>----------------------------------------------------------------------------</td>
<td>------------------</td>
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</tr>
<tr>
<td>Describe the major disorders of the urinary system.</td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the respiratory system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the respiratory system.</td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the nervous system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the nervous system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the sensory system.</td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the eye, ear, and other sensory organs.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the major structures and functions of the integumentary system.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major disorders of the integumentary system.</td>
<td>Science: BIO.4</td>
<td></td>
</tr>
<tr>
<td>Describe the major stages of growth and developmental abilities.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Describe the effects of the aging process on major body systems.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the psychosocial problems associated with the older adult.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Identify needs related to death and dying.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Obtain vital signs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain patient/client height and weight.</td>
<td>English: 12.4</td>
<td></td>
</tr>
<tr>
<td>Report changes in a patient/client’s condition.</td>
<td>English: 12.1</td>
<td></td>
</tr>
<tr>
<td>Demonstrate methods of pain management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist with basic patient/client care.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor intake and output.</td>
<td>English: 12.7</td>
<td></td>
</tr>
<tr>
<td>Provide emotional support for patients/clients and their families.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist the patient/client in admission, discharge, and/or transfer per facility policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow the nursing care plan or restorative plan of care.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove peripheral IVs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform postmortem care.</td>
<td>English: 12.4, 12.7</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Level</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Perform passive range of motion (ROM) for the patient.</td>
<td></td>
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<tr>
<td>Maintain skin integrity.</td>
<td></td>
<td></td>
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<tr>
<td>Apply antiembolic devices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist a patient/client with coughing and deep-breathing exercises.</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>Assist a patient/client with incentive spirometry.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Assist with reapplication of oxygen therapy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist with wound care.</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>Assist with ostomy care per facility policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report edema.</td>
<td>12.1, 12.4, 12.7</td>
<td></td>
</tr>
<tr>
<td>Identify the steps required for obtaining a cardiac monitoring procedure.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Identify ECG recordings and abnormal rhythms.</td>
<td>12.1, 12.4, 12.7</td>
<td></td>
</tr>
<tr>
<td>Describe troubleshooting and maintenance of cardiac monitoring devices.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Describe basic human anatomy and physiology in relation to phlebotomy.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the steps in laboratory specimen collection.</td>
<td>12.4, 12.7</td>
<td></td>
</tr>
<tr>
<td>Respond to complications of phlebotomy.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Identify the steps in laboratory problems and making corrections.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Demonstrate specimen collection procedures appropriate to the patient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain the order of the draw for tubes.</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Demonstrate the collection, handling, and processing of laboratory procedures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe the history and current state of the opioid crisis in the United States.</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Describe the history and current state of the opioid crisis in Virginia.</td>
<td>12.5, 12.8</td>
<td></td>
</tr>
<tr>
<td>Define the pharmacological components and common uses of opioids.</td>
<td>12.3, 12.8</td>
<td></td>
</tr>
<tr>
<td>Examine the science of addiction.</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Explain prevention and early intervention strategies.</td>
<td>12.5, 12.8</td>
<td></td>
</tr>
<tr>
<td>Identify addiction and its behavioral elements, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Describe the treatment models of addiction therapy.</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Describe the medication management antidote used to prevent fatal opioid overdoses.</td>
<td>12.5, 12.8</td>
<td></td>
</tr>
</tbody>
</table>
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.

Describe key communication topics involving opioids for patients.

Describe communication topics for caregivers and family members.

Links to Resources

- Affordable Care Act (ACA)
- Americans with Disabilities Act (ADA)
- Best Sites for Venipuncture
- Blood Collection Tubes Order of Draw
- CDC Fact Sheet for Prescribing Opioids for Chronic Pain
- CDC Guidelines for Prescribing Opioids for Chronic Pain
- Centers for Disease Control and Prevention (CDC)
- Clinical Laboratory Improvement Amendments
- Clinical Laboratory Safety Institute (CLSI)
- Declaration of a Public Health Emergency
- DHP
- Disposal of Unused Medicines: What You Should Know
- Drugs and Your Body
- Frequently Asked Questions about Naloxone
- Good Samaritan Law
- Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- House Bill 2161
- How to administer Narcan nasal spray
- How to prepare naloxone for administration
- National Center for Competency Testing (NCCT)
Acronym Glossary

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 (Website).

Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- Certified EKG Technician (CET) Examination (AAH)
- Certified EKG Technician (CET) Examination (NHA)
- Certified Patient Care Technician (CPCT) Examination (AAH)
- Certified Patient Care Technician (CPCT/A) Examination (NHA)
- Certified Phlebotomy Technician (CPT) Examination (AAH)
- Certified Phlebotomy Technician (CPT) Examination (NHA)
- College and Work Readiness Assessment (CWRA+)
- EKG Technician Certification (ETC) Examination
- Mental Health Technician Certification (MHTC) Examination
- National Certified Patient Care Technician (NCPCT) Examination
- National Certified Phlebotomy Technician (NCPT) Examination
- Nationally Registered Certified EKG Technician (NRCEKGT) Examination
- Nationally Registered Certified Patient Care Technician (NRCPCT) Examination
- Nationally Registered Certified Phlebotomy Technician (NRCPT) Examination
- Patient Care Technician Certification (PCTC) Examination
- Phlebotomy Technician Certification (PTC) Examination
- Workplace Readiness Skills for the Commonwealth Examination

Concentration sequences: A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.

- Nurse Aide II (8362/36 weeks, 280 hours)
- Nurse Aide II Condensed (8356/36 weeks, 140 hours)

Career Cluster: Health Science

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostics Services</td>
<td>Cardiovascular Technologist</td>
</tr>
<tr>
<td></td>
<td>Phlebotomist</td>
</tr>
<tr>
<td>Therapeutic Services</td>
<td>Certified Nurse Aide</td>
</tr>
</tbody>
</table>