



GEORGIA

PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

HEALTHCARE SCIENCE

COURSE: 25.525 General Medicine

UNIT: 8.1 Medical Surgical Services – Surgical and Wound Care



INTRODUCTION

Annotation:

In this unit, students will understand the technical skills involved in wound care including documentation, dressing and irrigation. It is also important to have knowledge of patient care in the preoperative, intra-operative and postoperative phases.

Grade(s):

<input type="checkbox"/>	9 th
<input type="checkbox"/>	10 th
<input checked="" type="checkbox"/>	11 th
<input checked="" type="checkbox"/>	12 th

Time: Ten 50 minute periods.

Author: Delores Smith

Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards: Please list the standard and elements covered.

HS-TGM- 13. Students will demonstrate understanding of advanced technical skills in wound care within their scope of practice – Med-Surg (Medical and Surgical).

- a. Describe variations in wounds and methods for reporting.
- b. Describe pain associated with wounds and techniques for assessing, reporting, and managing pain.
- c. Demonstrate techniques in caring for wound drains.
- d. Demonstrate techniques for wound care including reporting observations.
- e. Demonstrate techniques for wound irrigation including documentation.
- f. Demonstrate techniques for application of sterile dressings, bandages, and binders including documentation.
- g. Demonstrate techniques for applying hot and cold treatments including documentation.
- h. Utilize sterile technique in performing surgical dressing changes.

HS-TGM-1. Students will demonstrate knowledge and understanding of the academic subject matter required for proficiency within their area. Academic standards are integrated throughout the standard statements within their applicable discipline areas and documented immediately following the standard statement.

HS-TGM-11: Students will understand and demonstrate the process for monitoring client health status according to professional standards and report results accurately – Med-Surg (Medical and Surgical).

- a. Measure and report vital signs including pain assessment.
- b. Make observations related to circulation and report findings.
- c. Monitor and report intake and output.
- d. Assist with admitting, transferring, and discharge.
- e. Report results of point of care testing.
- f. Observe and report cognitive function
- g. Assess overall patient appearance and report

HS-TGM-5: Students will understand the importance of and demonstrate data collection as it relates to the goals, objectives, and implementation of the treatment plan according to their scope of practice.

- a. Observe, record, and report client behavior.
- b. Assist treatment team in observing, reporting, and recording client healthcare needs, strengths, and problems.
- c. Follow policies and protocols of the facility.
- d. Understand and demonstrate all necessary interventions of the patient treatment plan as it relates to their scope of practice.
- e. Examine and demonstrate the importance of client collaboration and acceptance in identifying and implementing appropriate interventions in the treatment plan.
- f. Assist in identifying potential educational needs.

HS-TGM-3: Students will demonstrate communication and appropriate customer service skills.

- a. Examine and exhibit proper communication with the consumer.
- b. Examine and exhibit proper communication with team members.
- c. Examine and exhibit proper communication with the employer.
- d. Understand and demonstrate how to communicate in a healthcare setting and convey critical client information to appropriate team members in a timely and professional manner.
- e. Understand and show sensitivity to cultural differences to include the use of appropriate language aids.
- f. Examine and exhibit proper communication in unsafe environmental conditions and unusual occurrences and incidents.

HS-TGM- 2: Students will demonstrate professional demeanor at all times, both in the classroom and within the healthcare facilities.

- a. Understand and demonstrate dependability as it relates to being present, on time, and ready to participate.
- b. Understand and demonstrate compassion as it relates to being sensitive to the needs of patients and co-workers.
- c. Understand and demonstrate flexibility as it relates to their willingness to adapt to changes, accept added responsibility, and be a team player.
- d. Understand and demonstrate honesty as it relates to willingness to admit mistakes, to get help when unsure of a procedure, and to act in the interest of client safety.

Cross-Referenced to Nursing Essentials course:

HS-NE-14: The student will analyze and demonstrate (may simulate as necessary) nursing assistant skills which may be performed in an acute care setting.

- a. Describe the psychological and physical preparation of the preoperative patient/client.
- b. Demonstrate pre and post operative care procedures within scope of practice.

Academic Standards:

ELA9RL: The student understands and acquires new vocabulary and uses it correctly in reading and writing.

SAP2: Students will analyze the interdependence of the integumentary, skeletal, and muscular system as these relate to the protection, support, and movement of the human body.

SCSh3: Students will identify and investigate problems scientifically.

SCSh4: Students use tools and instruments for observing, measuring and manipulating scientific equipment and materials

SCSh5: Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations

National / Local Standards / Industry / ISTE:

CTAE-FS-7: Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-4: Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools



UNDERSTANDINGS & GOALS

Enduring Understandings:

- Students will demonstrate understanding of basic elements of care for surgical patients in the preoperative, intra-operative and postoperative phases.
- Students will develop a broader base of knowledge related to the transition of a medical patient /client or resident to a surgical continuum.
- Students will understand the concerns, fears, and needs relative to the surgical patient/client/resident.
- Students will also broaden approaches to overall assessment skills including pain assessment, management and documentation.

- Students will understand and apply the advanced skills associated with caring for types of wounds, complications of wound healing, application of dressings, appropriate observation and documentation of wounds and wound drainage as they occur in the medical- surgical environment.
- Students will utilize acquired concepts in monitoring the status of patients/clients or residents and exhibit appropriate communication and documentation of results.

Essential Questions:

- What skill techniques are essential in providing care to patients in the medical/surgical setting?
- What measures can I use to prevent post-operative complications?
- What actions are necessary to prepare a patient for surgery?
- Differentiate the care associated with the types of wounds most likely prevalent in the surgical patient/client or resident.
- What signs and symptoms are essential to report after surgery?
- What are the resources for pain assessment, management and documentation?
- What are the rules associated with application of sterile and non-sterile dressing changes?

Knowledge from this Unit:

- Students will demonstrate sensitivity towards the physical, psychological and social aspects of the medical-surgical patient.
- Students will know how to prevent post operative complications.
- Students will utilize advanced skills in assessment, management and documentation related to the medical-surgical patient.
- Students will know the standards of observation related to wounds and wound drainage.
- Students will know how to prepare the patient for surgery and point of care testing.
- Students will know proper technique for assessment of circulatory function in the pre and postoperative phase.

Skills from this Unit:

- Students will demonstrate skin preps.
- Students will demonstrate advance techniques in wound care, assessment and associated equipment.
- Students will demonstrate non-sterile and sterile techniques for dressing changes.
- Students will demonstrate environmental management for the surgical patient.
- (Room set-up, surgical bed-making, Anti embolic devices, Oxygen therapy, IV poles)
- Students will demonstrate advanced assessment practices related to circulation.



ASSESSMENT(S)

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

- ☐ Pre-test
- ☐ Objective assessment - multiple-choice, true- false, etc.
 - ☐ Quizzes/Tests
 - ☒ Unit test
- ☒ Group project
- ☒ Individual project
- ☒ Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - ☒ Self-check rubrics (refer to text book generated rubrics)
 - ☐ Self-check during writing/planning process
 - ☐ Journal reflections on concepts, personal experiences and impact on one's life
 - ☐ Reflect on evaluations of work from teachers, business partners, and competition judges
 - ☐ Academic prompts
 - ☐ Practice quizzes/tests
- ☒ Subjective assessment/Informal observations
 - ☐ Essay tests
 - ☒ Observe students working with partners
 - ☒ Observe students role playing
- ☐ Peer-assessment
 - ☐ Peer editing & commentary of products/projects/presentations using rubrics
 - ☐ Peer editing and/or critiquing
- ☒ Dialogue and Discussion
 - ☐ Student/teacher conferences
 - ☐ Partner and small group discussions
 - ☐ Whole group discussions
 - ☐ Interaction with/feedback from community members/speakers and business partners
- ☒ Constructed Responses
 - ☒ Chart good reading/writing/listening/speaking habits
 - ☒ Application of skills to real-life situations/scenarios
- ☐ Post-test

Assessment(s) Title:

- Informative Essay Rubric
- Worksheet
- Scorecard

Assessment(s) Description/Directions:

As outlined on Assessment

Attachments for Assessment(s):

- Informative Essay Rubric
- Worksheet

- Scorecard



LEARNING EXPERIENCES

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

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2. Review Essential Questions.

- What skill techniques are essential in providing care to patients in the medical/surgical setting?
- What measures can I use to prevent post-operative complications?

- What actions are necessary to prepare a patient for surgery?
- Differentiate the care associated with the types of wounds most likely prevalent in the surgical patient/client or resident.
- What signs and symptoms are essential to report after surgery?
- What are the resources for pain assessment, management and documentation?
- What are the rules associated with application of sterile and non-sterile dressing changes?

3. Identify and review the unit vocabulary.

- **Anesthesia-** general or local insensibility, as to pain and other sensation, induced by certain interventions or drugs to permit the performance of surgery or other painful procedures.
- **General Anesthesia-** Anesthesia characterized by unconsciousness, muscle relaxation, and loss of sensation over the entire body and resulting from the administration of a general anesthetic agent.
- **Local Anesthesia-** Anesthesia characterized by the loss of sensation only in the area of the body where an anesthetic is applied or injected.
- **Regional Anesthesia-** The loss of feeling or sensation in a large area of the body.
- **Embolus-** A blood clot that travels through the vascular system until it lodges in a blood vessel.
- **Thrombus-** A blood clot.
- **Dehiscence-** The separation of wound layers.
- **Evisceration-** The separation of a wound along with the protrusion of abdominal organs.
- **Hematoma-** A swelling that contains blood.
- **Hemorrhage-** The excessive loss of blood in a short time.
- **Sanguineous-** Bloody drainage.
- **Serosanguineous-** Thin watery drainage that is blood tinged.
- **Serous-** clear watery fluid (serum).
- **Purulent-** Thick green, yellow, or brown drainage.
- **Phlebitis-** Inflammation of a vein.
- **Pressure ulcer-** A localized injury to the skin and /or underlying tissue usually over a bony prominence; the result of pressure in combination with shear and/or friction
- **Incision-** An open wound with clean, straight edges: usually intentional from a sharp instrument.
- **Phantom pain-** Pain felt in a body part that is no longer there.
- **Pneumothorax-** Air in the pleural space.
- **Same-Day surgery-**
- **Out- Patient surgery-**
- **Elective surgery-**

Lesson 1- Lesson 2

Induction:

- Begin lesson with video clip of surgical procedure. (Sample video of prostate surgery)

http://www.cornellroboticprostate.org/?gclid=CL33gMmYtpsCFRjexwodOkCj_w

Ask students to identify other common reasons or disease processes that may require surgery.

Use the following **Brainstorming techniques** if desired.

- Place students in groups of 3-4 students. Have students identify their findings as a group. Give time limit.
- Ask a volunteer to write results on the white board.
- Assist students to combine answers into a workable format. (For example all abdominal Surgeries listed together).
- Once list is complete assign a category to each group. Limit assignments to general surgeries In - house. Give each group **attached guidelines**. Depending on maturity of group, allow students to choose group leader or teacher may assign.

Review guidelines with students for clarity. Allow time for internet research and monitor student progress. Call on spokesman from each group to present results (set a time-limit). You may randomly select questions from list until all groups have participated.

Conduct a “Whole group Discussion” on preoperative teaching and its importance.

Lesson 3-4

- Use article at the following web site to open discussion on anesthesia (article claims about 20-40,000 patients in America may experience anesthesia awareness).
<http://www.foxnews.com/story/0,2933,265001,00.html>
- Assign students to work individually to write a 2 page Informative essay on the types of anesthesia and their effectiveness in major surgical procedures. Use essay rubric for grading.

Lesson 5 (hands-on- lab)

Begin lesson by staging another teacher or student at the front of the class with a wet bloody dressing (use simulated blood or liquid with red food color).

Ask student to assist you in changing sterile dressing. Ask Class to critique procedure. **Purposely** contaminate gloves twice, **forget** to open dressings prior to removal of soiled dressing or any alternate error as preferred by instructor. Review correct procedure after demonstration and allow a return demonstration from a student volunteer.

Pair students and allow them to perform sterile dressing changes on each other. Students may use plastic wrap (saran wrap/cling) over clothes or skin to prevent tape burns and irritation.

Lesson 6

Have students consult the internet for various guidelines on postoperative care and room preparation. Students may work in groups or individually as teacher prefers. The following is a sample website with a quick reference guide for post-operative assessment.

<http://www.sign.ac.uk/pdf/grg77.pdf> . Use a quick game to collect information results.

Use a quick ball pass (beach ball). Give a fact each time ball is thrown. Divide class into teams and award the team with the most facts etc. or use **Wheel of fortune** game template and directions at the following website: <http://ic-schools.net/tutorials/PPT-games/>

Lesson 7

Open the lesson with a short video segment from the following website showing a “wound-vac” system needed when a wound becomes infected.

http://www.kci1.com/MOA_NoDisclaimer.swf Conduct a review session on the types of wounds with students: Use “**Think Pair Share**” to get the ball rolling. Allow students to think by themselves for about 5 minutes then students pair and discuss their ideas for another 5 minutes. Next, allow individual students to share their ideas with the entire class. Present new ideas on surgical wounds and pressure sores referencing the initial video and poor wound management. Divide class into groups of 4-7 for a total of 4 groups. Assign the following topics to the four groups:

- **Wound Healing**
- **Dressings and Binders**
- **Infected Wounds (Dehiscence and Eviscerations)**
- **“Pressure Ulcers and Management”**

Students must present at next class meeting. Allow flexibility with presentation; use a presentation rubric for grading.

Lesson 8-10

Students will begin working on culminating task and prepare to perform demonstrations and role plays on day 10. Teachers should prepare students for group project and monitor for effective progress. This assignment will require four groups with 4-7 members per group. **Group One: Preoperative Care; Group Two: Anesthesia, Intra-operative and PACU; Group Three: Post-Operative Care; Group Four: Pain Management and Wound Care Team.** Use “Group Planning Log” for monitoring accountability and participation (see attachment). See “Team Assignment Sheet” for detailed instructions. (attached)

Attachments for Learning Experiences:

- Guidelines for Whole Class Discussion

- Wheel of Fortune Template
- The Four P's of Surgery
- Multimedia Presentation Rubric
- Team Assignment Sheet

Notes & Reflections:

Some elements of this unit will require review of previous concepts learned in prerequisite courses. Some assignments will require adjustment to align with the appropriate career pathway for their students. Most lessons are adaptable with minor changes.



CULMINATING PERFORMANCE TASK

Culminating Unit Performance Task Title:

“The Four P's of Surgery Project”

Pre-op, PACU (Post anesthesia care unit), Post Op, Pain Management

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Each group should be assigned one of the Team Assignments with correlated cases. Each team will require some research to develop appropriate task lists for their particular assignment. Students may also be asked to create a role-play scene to allow demonstrative skills to be assessed (depending on allotted time). The instructor may need to adjust roles based on career pathways of assigned students. The following websites may be useful for research.

<http://www.nlm.nih.gov/medlineplus/ency/article/002919.htm>

Attachments for Culminating Performance Task:

- Team Assignment Sheet



UNIT RESOURCES

Web Resources:

- <http://www.wakemed.org/body.cfm?id=839>
- <http://www.hchc.org/preopcheck.html>
- <http://www.delawarevalleyplasticsurgery.com/assets/preopchecklist.pdf>

Sample of out patient surgery orders

- http://gwinnettd.org/forms_active/Medical%20Records_Medical%20Records/14209-Outpatient%20Surgery%20Pre-Op%20Orders.doc
- http://www.tomballhospital.org/patients_procedure.html

Sample Online form for Admission

- <https://secure.netreturns.biz/Forms/Main.aspx?FormName=TRMC%20Online%20Preregistration%20Form&SSiteld=a5b68d4d-2667-4c0d-91c0-949e0823a49a&SLocation=tomballhospital>

Wound Vac:

- http://www.kci1.com/MOA_NoDisclaimer.swf

Attachment(s):

- Oral Presentation Grading Rubric
- Guidelines for Whole Group Discussion
- Anesthesia Essay Rubric
- Team Assignment Sheet

Materials & Equipment:

- Supplies

What 21st Century Technology was used in this unit:

<input type="checkbox"/>	Slide Show Software
<input type="checkbox"/>	Interactive Whiteboard
<input type="checkbox"/>	Student Response System
<input type="checkbox"/>	Web Design Software
<input type="checkbox"/>	Animation Software
<input type="checkbox"/>	Email

<input type="checkbox"/>	Graphing Software
<input type="checkbox"/>	Calculator
<input type="checkbox"/>	Desktop Publishing
<input type="checkbox"/>	Blog
<input type="checkbox"/>	Wiki
<input checked="" type="checkbox"/>	Website

<input type="checkbox"/>	Audio File(s)
<input type="checkbox"/>	Graphic Organizer
<input type="checkbox"/>	Image File(s)
<input checked="" type="checkbox"/>	Video
<input type="checkbox"/>	Electronic Game or Puzzle Maker