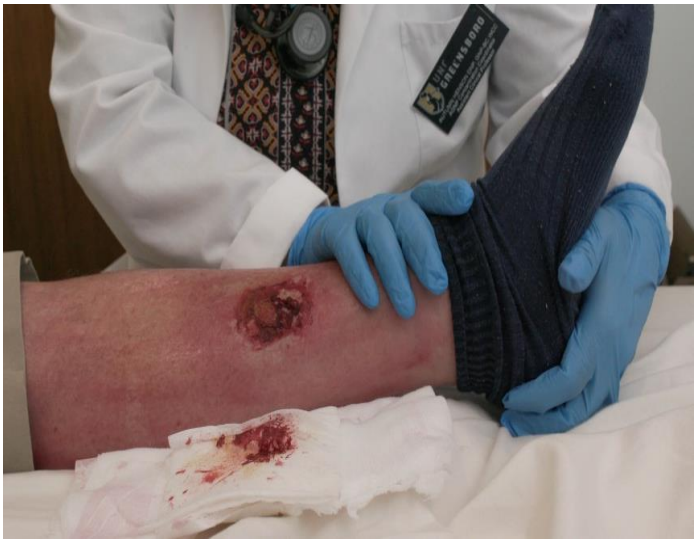
THE UNIVERSITY of NORTH CAROLINA
GREENSBORO
School of Nursing

Faculty Guide
Unresolved Leg Wound in an Older Man in Long-term Care: Interprofessional Approach to Care



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Funding

Foundation for Academic Nursing Faculty Scholars Grant 2021-2022. *Enhancing Nurse Practitioner Competency-Based Education and Assessment with Innovative Video Simulations*. $25,000.

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Year: 2022
Source: https://youtu.be/DMvoVAjsA4s

How These Videos Were Developed

These patient videos were scripted by UNCG School of Nursing professional educators. The scenarios are fictitious but based upon real circumstances and acted out by professional actors. The videos are available on YouTube and H5p platforms. Interactive questions were inserted into the videos using the h5p.org online platform. Closed captioning is included for increased accessibility.

Enhancing Nurse Practitioner Competency-Based Education and Assessment with Innovative Video Simulations. The clinical video case simulations have been designed to enhance nurse practitioners' skills in health history, advanced physical assessment, diagnostic reasoning, and developing management plans. These video simulations are aligned with the American Association of Colleges of Nursing. (2021). The essentials: Core competencies for professional nursing education.

Course Use

You can link to or embed these videos for your class. H5p videos can be assigned to students to complete as homework or completed in small groups or as a whole class for discussion. H5p videos can be incorporated into a learning management system (LMS) to track student responses. The YouTube videos can be linked or embedded in your course.

Using these Videos with an LMS for Formative Learning

Blackboard: Here are instructions for how to incorporate h5p videos into Blackboard.

Canvas: Using Canvas with H5P.com

To collect students' scores, you'll need an h5p.com account. To get started with H5P in Canvas just go to H5P.com and start a 30 days free trial. You should make sure your Canvas admin is ready to set up the LTI integration. By using H5P.com, the content is inserted right away, grades are stored in the gradebook and you can see what your users answered. Then you can download these ANEW patient videos from h5p.org and import them into your h5p.com account using these import/export instructions.

Moodle: See these instructions for using h5p.org with Moodle.

Disclaimer:

As new scientific information becomes available through basic and clinical research, recommended treatments and therapies undergo changes. At the time of development, the authors have done everything possible to make this simulation case accurate with accepted standards at the time of production.

INTRODUCTION

This simulation video case, "Unresolved Leg Wound in an Older Man in Long-term Care: Interprofessional Approach to Care" presents primary care nurse practitioner learners an opportunity to develop their advanced health assessment skills/knowledge to function in an APRN role. Learners can discuss and collaborate to diagnose the patient presentation and develop an appropriate plan of care for treatment and address any rehabilitation and preventative care needs.

LEARNING OBJECTIVES

This video case simulation prepares learners to:

1. Evaluate the patient's condition and determine the management of the diagnosis within the facility and plan for discharge as well
2. Recognize that the patient in a skilled nursing facility can be treated in a skilled nursing facility with multiple modalities.
3. Identify the acute and chronic changes related to having peripheral vascular disease with a wound.
4. Develop an evidence-based clinical management plan that takes into consideration the cost of the treatment and patient preferences for in the facility and planning for discharge.
5. Assume leadership position in facilitating care delivery to a skilled nursing care patient who requires a plan of care and treatment within the facility.
6. Recognize and develop relationships with other team members to develop the best plan of care for the patient.

The charts below were developed through a consensus process by the five nurse practitioner faculty experts who independently reviewed the videos and the faculty guides to determine the relevance of the content of the video and assignments with each of the domains, advanced level nursing education competencies, essentials level 2 sub-competencies and the concepts. The competencies, sub competencies and concepts listed here have an 80% consensus on the item (Polit & Beck, 2006).

Concepts for Nursing Practice
Clinical Judgment
Communication
Compassionate Care
Diversity, Equity, Inclusion
Ethics
Evidence-Based Practice
Social Determinants of Health

Learners of Advanced Practice Health Professions:

- Family Nurse Practitioner (FNP)
- Adult-Gerontology Primary Care Nurse Practitioner (AGPCNP)
- Adult-Gerontology Acute Care Nurse Practitioner (AGACNP)

Domain, Competencies, and Sub-competencies for Advanced-level Professional Nursing Education
 Knowledge for Nursing Practice
1.1 - Demonstrate an understanding of the discipline of nursing's distinct perspective
1.1e Translate evidence from nursing science as well as other sciences into practice.
1.1f Demonstrate the application of nursing science to practice.
1.1g Integrate an understanding of nursing history in advancing nursing's influence in health care.
1.2 - Apply theory and research-based knowledge from nursing, the arts, humanities,
1.2f Synthesize knowledge from nursing and other disciplines to inform education, practice, and research.
1.2g Apply a systematic and defendable approach to nursing practice decisions.
1.2h Employ ethical decision making to assess, intervene, and evaluate nursing care.
1.2i Demonstrate socially responsible leadership.
1.2j Translate theories from nursing and other disciplines to practice.
1.3 Demonstrate clinical judgment founded on a broad knowledge base.
1.3d Integrate foundational and advanced specialty knowledge into clinical reasoning.
1.3e Synthesize current and emerging evidence to Influence practice.
1.3f Analyze decision models from nursing and other knowledge domains to improve clinical judgment.
 Person-Centered Care
2.1 - Engage with the individual in establishing a caring relationship.
2.1d Promote caring relationships to effect positive outcomes.
2.1e Foster caring relationships.
2.2 Communicate effectively with individuals.
2.2g Demonstrate advanced communication skills and techniques using a variety of modalities with diverse audiences.
2.2h Design evidence-based, person-centered engagement materials.
2.2i Apply individualized information, such as genetic/genomic, pharmacogenetic, and environmental exposure information in the delivery of personalized health care.
2.2j Facilitate difficult conversations and disclosure of sensitive information.
2.3 - Integrate assessment skills in practice.
2.3h Demonstrate that one's practice is informed by a comprehensive assessment appropriate to the
2.4 - Diagnose actual or potential health problems and needs.
2.4f Employ context driven, advanced reasoning to the diagnostic and decision-making process.
2.4g Integrate advanced scientific knowledge to guide decision making.
2.5 - Develop a plan of care.
2.5h Lead and collaborate with an interprofessional team to develop a comprehensive plan of care.
2.5i Prioritize risk mitigation strategies to prevent or reduce adverse outcomes.
2.5j Develop evidence-based interventions to improve outcomes and safety.
2.5k Incorporate innovations into practice when evidence is not available.
2.6 - Demonstrate accountability for care delivery.
2.6e Model best care practices to the team.
2.6g Promote delivery of care that supports practice at the full scope of education.
2.6j Ensure accountability throughout transitions of care across the health continuum.

2.7 - Evaluate outcomes of care.
2.7d Analyze data to identify gaps and inequities in care and monitor trends in outcomes.
2.8 - Promote self-care management.
2.8f Develop strategies that promote self-care management.
2.8g Incorporate the use of current and emerging technologies to support self-care management.
2.8h Employ counseling techniques, including motivational interviewing, to advance wellness and self-care management.
2.8i Foster partnerships with community organizations to support self-care management.
2.9 - Provide care coordination.
2.9f Evaluate communication pathways among providers and others across settings, systems, and communities.
2.9g Develop strategies to optimize care coordination and transitions of care.
2.9h Guide the coordination of care across health systems.
 Scholarship for the Nursing Discipline
4.2 - Integrate best evidence into nursing practice.
4.2f Use diverse sources of evidence to inform practice.
 Interprofessional Partnerships
6.3 - Use knowledge of nursing and other professions to address healthcare needs.
6.3d Direct interprofessional activities and initiatives.
6.4 - Work with other professions to maintain a climate of mutual learning, respect, and
6.4f Foster an environment that supports the constructive sharing of multiple perspectives and enhances interprofessional learning.
6.4i Promote an environment that advances interprofessional learning.
 Informatics and Healthcare Technologies
8.2 - Use information and communication technology to gather data, create information,
8.2g Evaluate the use of communication technology to improve consumer health information literacy.
 Professionalism
9.2 - Employ participatory approach to nursing care.
9.2h Foster opportunities for intentional presence in practice.
9.2i Identify innovative and evidence-based practices that promote person-centered care.
9.2k Model professional expectations for therapeutic relationships.
9.2l Facilitate communication that promotes a participatory approach.
9.3 - Demonstrate accountability to the individual, society, and the profession.
9.3i Advocate for nursing's professional responsibility for ensuring optimal care outcomes.
9.3j Demonstrate leadership skills when participating in professional activities and/or organizations.
9.3l Foster a practice environment that promotes accountability for care outcomes.

9.5 - Demonstrate the professional identity of nursing.
9.5h Identify opportunities to lead with moral courage to influence team decision-making.
9.6 - Integrate diversity, equity, and inclusion as core to one's professional identity.
9.6d Model respect for diversity, equity, and inclusion for all team members.
 Personal, Professional, and Leadership Development
10.1 - Demonstrate a commitment to personal health and well-being.
10.1c Contribute to an environment that promotes self-care, personal health, and well-being.
10.3 - Develop capacity for leadership.
10.3j Provide leadership to advance the nursing profession.

Adapted with permission from American Association of Colleges of Nursing.
American Association of Colleges of Nursing. (2021). *The essentials: Core competencies for professional nursing education*. https://www.aacnnursing.org/Portals/42/AcademicNursing/pdf/Essentials-2021.pdf

CASE OVERVIEW

Case: Case: Mr. Lon Barr is an 81-year-old man newly admitted to Happy Oak Hill Nursing and Rehab for rehab and completion of IV antibiotics. He has a wound of his right leg that started as a traumatic wound. He still has discomfort of the wound with dressing changes and is concerned that it is not healing "fast enough", and he wants to go home "as soon as this medicine is finished." He is still having some weakness following his hospitalization but is slowly improving he states but is fearful of the plans to go home. He was living alone and very mobile and active and visits with his girlfriend of 20 years every afternoon to evening for meals together, walks, and visiting.
He does complain of some leg discomfort with walking long distances, but this decreases with elevation. He has no pain of his legs or feet with keeping his legs elevated.

Case Setting: The nurse practitioner visits Mr. Barr after the nursing staff reports he has a right leg wound with decreased drainage and discomfort with wound treatment.

In the hospital he was treated for MRSA cellulitis of his right leg.
42 days prior he had an acute COPD exacerbation and treated with Levaquin and Prednisone that was effective, but he was weakened and while walking up the steps he hit his leg on his steps causing a large abrasion that did not heal. He applied Neosporin to the area and then left it open to air and 30 days later went to see his PCP as his leg was very painful and tender.
With a fever and weakness his PCP sent him to the ER, and he was admitted to hospital. His current treatment of his wound is wet to dry dressings twice a day. He is on IV vancomycin for his cellulitis and finishes this in 10 days.

PMH: Surgical induced Hypothyroidism, HTN, HLD, COPD with emphysema, PVD. History of thyroidectomy. Former smoker quit 30 years ago.

PSH: Widower, retired army sergeant, retired social worker, volunteers with church and community activities
Does not drink or smoke or use recreational drugs, not sexually active

Medications: Losartan daily, Norvasc 10mg daily, Breo Elipta, Levothyroxine 50mcg daily, ASA 81mg daily, Gabapentin 300mg at night, Lipitor 40mg at night, albuterol 2 puffs every 6 hours PRN (does not take daily)

Labs:

WBC 9.6 (3.4-9.6)	BUN 18	AST 15 (8-33)
HGB 13.3 (13.2-16.6)	Cr 1.0 (.7-1.5)	Total cholesterol: 189
HCT 38.4 (38.3-48.6)	Cl 103 (96-106)	HDL 36
PLT 201 (135-317)	Albumin 3.3 (3.4-5.4)	VLDL 32
Na 141(136-146)	Total protein 5.6 (6.0-8.3)	LDL 89
K 4.7 (3.5-4.5)	Alkaline phosphatase 56	TSH 2.01
Cl 102 (96-106)	(20-130)	
Ca 9.8 (9-11)	ALT 12 (4-36)	

Hospital doppler assessment provided an Ankle Brachial Index, ABI of 1.0 of left leg and ABI of 1.1 of right leg.

Physical Exam:
General: Alert and orient x4
HEENT: Moist mucous membranes, No enlarge LN and Thyroid is not palpable.
Resp: Scattered faint wheezing of lower lobes, no use of accessory muscled
Cardio: Regular rate and rhythm, SEM 2/6 noted of precordial area.
GI: Soft, nontender, bowel sounds x4
MSK: Ambulatory, Active ROM of his UE and LE. Some crepitus of BLE, no pain with ROM of UE or LE.
Peripheral/Integumentary: Skin is dry and in area patchy scaly. Thin, fragile skin, with scant fading bruising of arms and legs. Flat no hematomas. Notably hair loss of BLE below the knees.
The shape of the leg was normal, and the ulcer of the right leg had been present for over a month after self-care and situated over the right medial, distal lower leg, proximal to the calcaneus. The wound bed is large with granulation and slough and noted erythema of the surrounding tissue.
Size: 4.0x2.0x0.1cm with irregular shape and shallow with red in color and some yellow patches are in place. The surrounding skin is discolored, dark in color and absent in hair.

Case Simulation: Unresolved Leg Wound in an Older Man in Long-term Care **: (11:06 min)**

- Interactive video h5p link: https://h5p.org/node/1293335
- YouTube link: https://youtu.be/DMvoVAjsA4s

INTERACTIVE H5P CASE QUESTIONS*

1. Which information from the medical history and HPI indicate the type of wound? Select all that apply.

a. History of Peripheral Vascular Disease (May contribute to PVD, but for the diagnosis of this wound, PVD and ABIs support this wound as venous stasis wound).
b. Hypertension (May contribute to PVD but for the diagnosis of this wound PVD and ABIs support this wound as venous stasis wound).
c. COPD (May contribute to PVD but for the diagnosis of this wound PVD and ABIs support this wound as venous stasis wound).
d. Hyperlipidemia (May contribute to PVD but for the diagnosis of this wound PVD and ABIs support this wound as venous stasis wound).

Rationale:

ABIs of 1.0 (In ABI ranges this range demonstrates this patient does not have peripheral arterial disease currently. --ABIs-Normal 1.0-1.4, Acceptable, but borderline 0.9-1.0, Mild PAD 0.8-0.9, Moderate PAD 0.5-0.8, Severe less than 0.5)

2. In the description of the patient's past medical history and medications what options would you consider could contribute to the edema of Mr. Barr's legs? Select all that apply.
   a. **Norvasc (one side effect of this medication is edema especially of lower legs)**
   b. **Peripheral Vascular Disease (symptoms of PVD include edema in addition to leg discomfort and chronic healing wounds)**
   c. **Coronary Artery Disease (symptoms of CAD can include edema possibly related to medications, vascular abnormalities, and trouble with valves of the veins, but also could be an early sign of congestive heart failure or other cardiovascular diseases)**
   d. COPD (Signs and symptoms of COPD do not include edema of lower extremities)

3. In the description of the wound, if you did not have the ABIs yet, would you consider this wound to be a venous stasis ulcer or arterial ulcer if you did not have the ABIs yet?
   a. **Venous stasis ulcer (the location of the wound of the of the lower, leg, and more medial, anterior of the leg. The size of the wound is more shallow and larger, with irregular shape)**
   b. Arterial ulcer (With diagnoses of PVD and the ABIs in normal range and pain is more with standing long periods and relieved with elevation, this reflects the diagnosis of venous stasis ulcer, not arterial ulcers.)

4. Based upon the patient's HPI, select the pertinent positives reported by the patient that the treatment needs to be changed. Select all that apply.
   a. Discomfort with treatment dressings
   b. Decrease drainage
   c. Fever (At this time this patient does not have a fever, so treatment does not need to be changed as he has no signs of infection.)
   d. Leg pain
   e. Lives alone

Rationale:

A patient with these positive answers in the review of systems reflect that the wound dressing is either becoming too dry or he is having pain with the dressing changes. The patient will need assistance with the dressing changes, and they may not always be available with dressing changes as often as ordered.

5. Who would be included as part of the interdisciplinary team for Mr. Barr's care? Select all that apply.
   a. **Therapy services - Physical and Occupational therapy**
   b. **Social Worker and Case Management**
   c. **Dietician**
   d. **Nursing**
   e. **Primary Care Provider**

***bolded responses** are correct answers

POSSIBLE DISCUSSION QUESTIONS

1. Based on the differentials and plan of care what are some preventative care measures or health promotion initiatives that could be included?

- **Use of compression, elevations, avoiding excess salt, exercise with walking, apply lotion to legs once a day to help keep legs moisturize and supple, teach patient how to do skin assessments especially of his feet, using mirrors, discuss proper footwear, etc**

2. Name three of the several conditions commonly exist with peripheral vascular disease.

- **Coronary artery disease, Neuropathy, Diabetes, Peripheral artery disease…**

3. Would this patient be a candidate for daily to twice daily dressing changes to his wound?
   If so, what type of treatment would you recommend?
   If not, what type of treatment would you recommend?

- **No, he is having discomfort with the dressing changes and isn't a great candidate for doing the treatment.**
- **He would benefit from a treatment that the wound doesn't dry out but doesn't add too much moisture and can be changed two to three times a week for home health to help him get the bandages and can change when he gets home. Possible treatment could be compression wraps but they can't dry out the wound.**
-

3. As part of the interdisciplinary team who would you recommend sharing resources with Mr. Barr. What information is necessary for his overall health and a safe discharge?

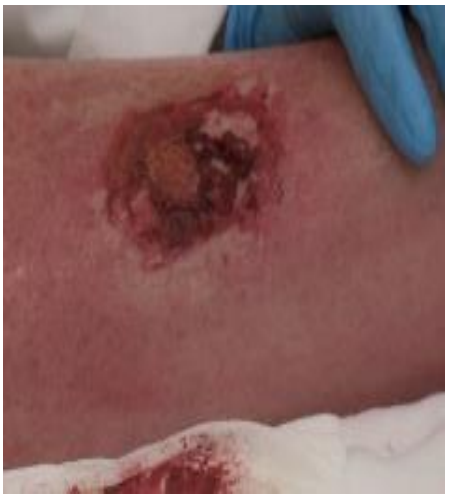
- **Therapy – Physical therapy, Occupational therapy**
- **Social Worker – Discharge plans, support at home, transportation, financial concerns.**
- **Dietician – Dietary needs, protein balance, meal suggestions**

- **Nursing – Wound care and education, prevention measures, edema management, Education to loved ones**
- **Primary care provider – Documentation is a key in communication from one provider to another. Make sure you document the best for the next provider to get a true picture of the patient, the wound, the overall needs, and your plans and suggestions.**

4. What would be at least one question for you to ask the dietician, the social worker, and Mr. Barr's nurse?

- **<u>Dietician</u>:**
  - **What are some examples of protein you could share with Mr. Barr to eat when he goes home?**
- **<u>Social Worker</u>:**
  - **Could you share some resources you will be sharing with Mr. Barr to prepare him and have available at home at discharge?**
- **<u>Nurse</u>:**
  - **How do you think Mr. Barr is doing with his dressing changes and wound care?**
  - **Does Mr. Barr have pain when you do the dressing changes?**
  - **What are some concerns you have with Mr. Barr and his wound and skin care?**

4. Write an objective note about this wound.



Integumentary- *Wound- Stage/Type of wound
*Open/Closed
*Measurement-
*Tunnel- Yes No
*Undermining- Yes No
*Base seen – Epidermis, Dermis, Subcutaneous, Muscle, Tendon, Bone
*Partial / Full Thickness
*Tissue type –Epidermis, Dermis, Granulation, Slough, Eschar Necrotic Tissue, Hyper granulation, Callous, Epibole edges
*Tissue Adherence - Loose, Adhere
*Drainage– None, Scant, Moderate, Heavy, No odor
*Drainage type – Serous, serosanguineous, Purulent
*Surround tissue – Fragile Skin, Dry, Scaly, Moist, Peri wound edema, Maceration, Erythema, Inflammation, Induration, Pustules

Integumentary- *Wound- Stage/Type of wound - Venous stasis ulcer
***Open/Closed - Open**
***Measurement- 4.0x2.0x0.1**
***Tunnel- No**
***Undermining- No**
***Base seen –Subcutaneous**
*** Full Thickness**
***Tissue type – 75% Granulation, 25% Slough**

***Tissue Adherence - Adhere**
***Drainage–Moderate, No odor**
***Drainage type – serosanguineous**
***Surround tissue – Fragile Skin, Moist, Peri wound edema, No Maceration, Mild Erythema, Mild Inflammation, No Induration, No Pustules, Some weeping of the surround skin**

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