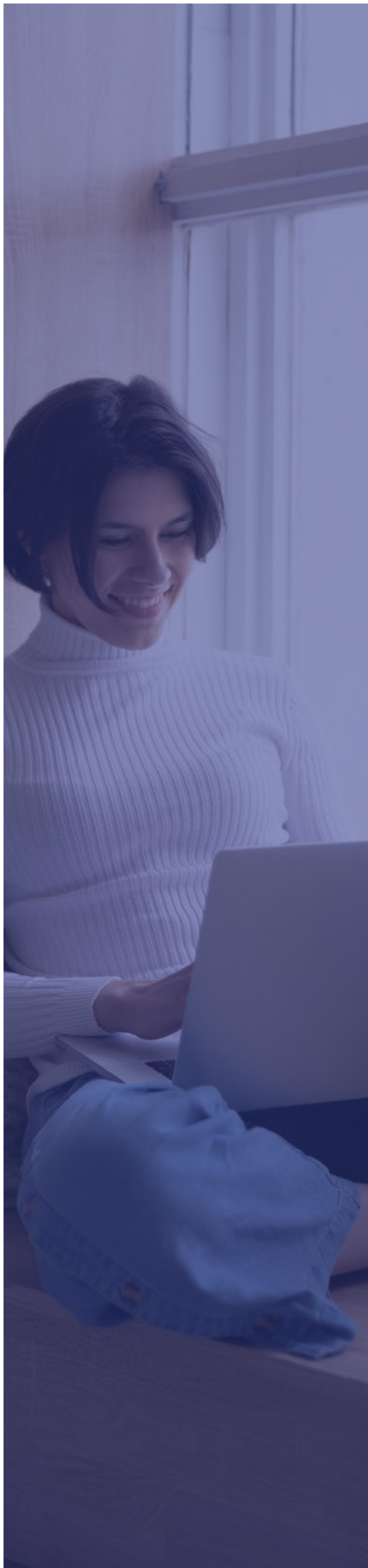




Wound Care Aged Care Series

Supporting nurses in enhancing their expertise in wound management: [Online Course](#)

WOUND EDUCATION



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Aged Care Series Online Course

Welcome to the comprehensive workbook designed to support nurses in enhancing their expertise in wound management within the unique context of aged care settings. This course encompasses a wide array of crucial topics that cater to the diverse and specialised needs of elderly people. From understanding and adhering to Aged Care Standards, Quality Indicators, and the Code of Conduct to delving into the intricacies of wound management standards, legal and ethical practices, and skin anatomy, this course equips nurses with the knowledge and skills necessary for optimal care.

As we navigate the workbook, we will explore the intricacies of wound healing physiology, delve into the importance of skincare and frailty, and learn the essentials of wound assessment and documentation. The integration of photography as a tool for comprehensive wound documentation will be covered, offering a valuable skill set for effective communication and collaboration among healthcare professionals.

Our journey continues with a focus on product selection, addressing moisture-associated skin damage, and understanding the challenges presented by skin tears. We will explore the complexities of wound infection and the growing concern of antimicrobial resistance. The course also provides in-depth coverage of leg ulceration, oedema management, pressure injury development, and effective strategies for pressure injury management.

The course includes knowledge and performance assessments at various intervals to reinforce the theoretical knowledge gained. Additionally, practical learning is enhanced through demonstration videos presented in this Clinical Training Made Easy-Aged Care Series. These videos offer a valuable visual aid, facilitating a better understanding of best practices in wound management.

This workbook is meticulously curated to empower nurses with the skills, knowledge, and confidence needed to provide exceptional wound care within the dynamic and challenging aged care landscape. Embrace this learning journey, and let's work together to elevate the standard of care for our older adults to whom we are privileged to provide care.

To support your learning, we have curated a list of recommended reading articles. These articles have been carefully selected to provide you with a comprehensive understanding of key concepts and practical approaches in skin and wound care. We encourage you to read these articles thoroughly and reflect on how you can apply the knowledge gained in your practice. Happy reading and learning!

These recommended reading articles can be viewed online under the Materials tab within each lesson.



Standards for Nurses

I am delighted to have the opportunity to discuss a vital topic that holds great significance in our roles as registered nurses and enrolled nurses in the aged care setting, residential and community, wound management.

As healthcare professionals, we are bound by professional standards and a code of conduct that guides our practices and ensures high-quality care to those entrusted to us. Wound management is an essential aspect of our duties, and we must be well-versed in the latest guidelines, standards, and best practices to provide the best possible outcomes for our patients.

Throughout this presentation, we will explore in-depth the professional standards that underpin our roles, including the code of conduct we must adhere to. Understanding these standards ensures compliance and guarantees that we always deliver ethical and legal care, promoting the well-being and safety of our patients.

Additionally, we will delve into the aged care standards, rights, and quality indicators that shape the resident and community experience. Our commitment to meeting these standards and upholding the rights of those in our care is paramount to fostering an environment that promotes respect, dignity, and optimal patient outcomes.

The Australian Standards for the Prevention and Management of Wounds, Fourth Edition 2023, serves as a comprehensive and evidence-based guide for wound management. We will explore the key recommendations and strategies outlined in this edition, enabling us to implement the latest wound prevention, assessment, and treatment approaches. By staying current with these standards, we can ensure that our practices align with our professional standards, the most current best practices in wound care.

Throughout this presentation, we will engage in interactive problem-based learning, case studies, and practical examples to enhance our understanding and enable us to apply this knowledge in our daily practices. By the end of our session, I hope that you will feel confident and equipped to navigate the complex landscape of wound care in the aged care setting, both residential and community.

Let us embark on this journey together, deepen our knowledge, and embrace the opportunities to provide exemplary wound management care to our patients.

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Aged Care Series

- Registered Nurses & Enrolled Nurses
- Standards Related to the Nurses Role
- (0023BM1 Aged Care Series)

Notes

WOUND & AGED CARE STANDARDS

MODULE 1 OVERVIEW



1. Knowledge & Performance Goals
2. Code of conduct for nurses
3. Nurses Professional Standards
4. The role of the Nurse
5. Aged Care Standards
 - Charter of Aged Care Rights
 - Aged Care Quality Indicators
6. Nurses - Legal & Ethical Practice
7. Wounds Australia Standards


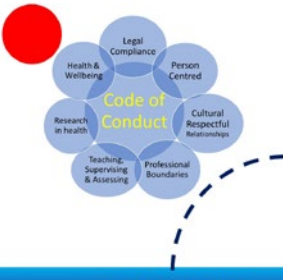
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GOALS

KNOWLEDGE	PERFORMANCE
1. Understand the professional goals and code of conduct that govern wound management practices in the aged care settings.	1. Nurses in aged care will apply professional standards to wound management scenarios, demonstrating their ability.
2. Gain knowledge of the aged care standards, rights and quality indicators that impact skin care and wound management in the care of older people.	2. Evaluate and apply standards, rights, and quality indicators to ensure person-centered care for the best outcomes in aged care.
3. Familiarise healthcare professionals with the Australian Standards for the Prevention and Management of Wounds (2023) and its recommendations for best practice.	3. Incorporate ethical and legal considerations in wound management decisions, providing patient-centered care within the scope of practice.
4. Recognize legal and ethical considerations in wound care, respecting scope of practice and ensuring safe, effective treatment.	

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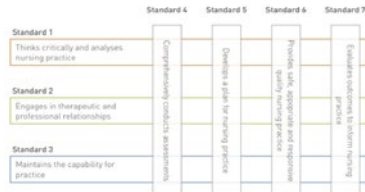
NURSES CODE OF CONDUCT

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STANDARDS OF RN PRACTICE

Figure 1: RN standards



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STANDARDS OF ENR PRACTICE

Enrolled nurse standards for practice

- Standard 1: Functions in accordance with the law, policies and procedures affecting EN practice
- Standard 2: Practices nursing in a way that ensures the rights, confidentiality, dignity and respect of people are upheld
- Standard 3: Accepts accountability and responsibility for own actions
- Standard 4: Interprets information from a range of sources in order to contribute to planning appropriate care
- Standard 5: Collaborates with the ill, the person receiving care and the healthcare team when developing plans of care
- Standard 6: Provides skilled and timely care to people whilst promoting their independence and autonomy in care decision-making
- Standard 7: Communicates and uses documentation to inform and report care
- Standard 8: Provides nursing care that is informed by research evidence
- Standard 9: Practices within safety and quality improvement guidelines and standards
- Standard 10: Engages in ongoing development of self as a professional



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CHARTER OF AGED CARE RIGHTS

(Aged Care Act 1997)

- Safe and high-quality care services
- Be informed about care and services in a way I understand
- Have control and make choices about my care and personal and social life, including where the choices involve personal risk.



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NURSE'S ROLE

Nurses in aged care facilities supervise and create individualised care plans for the personalised and dignified care of elderly residents, ensuring their safety and well-being while working within the clinical care team to meet Australian Aged Care Standards and Quality Indicators.



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AGED CARE QUALITY INDICATORS (QI)

- Unplanned weight loss
- Pressure Injury
- Incontinence care
- Activity daily living (ADL)
- Medication
- Falls



- Physical restraint
- Hospitalisation
- Consumer experience
- Quality of life
- Workforce

National Aged Care Mandatory Quality Indicator Program Manual 2.0 – Part 4

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QI SCENARIO

Mrs Mable Brown came to stay at the aged care facility 14 weeks ago following a long stay in hospital. She had a fall in her home where she lived alone with her cat. She suffered a fractured hip and pelvis which has left her unable to mobilise and she now has trouble controlling her bladder. Her appetite is poor and she has lost 5 kg since arriving at the facility. Her days are spent lying in a recliner or in her bed in the afternoon watching TV.



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QUESTION

PLEASE SELECT THE QUALITY INDICATORS RELATED TO MABLE'S CARE BASED ON THE BRIEF STORY

- A. Medications, Quality of life, Physical restraint, hospitalisation
- B. Consumer experience, Workforce, Falls, Quality of life
- C. Incontinence care, Falls, Medication, Hospitalisation
- D. ADLs, Weight loss, Incontinence care, Pressure Injury



D

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PCA'S & NURSES ARE CLOSELY CONNECTED TO RESIDENTS

While Sally, the regular PCA, was assisting Mable with her shower, she noticed that there were red marks on both of her heels and a painful stinging rash in her groin area. Mable expressed her embarrassment about the rash and shared that she didn't want to tell anyone. Sally assured Mable that she would be discreet and asked if she could request the nurse to take a look. The RN assessed both the heels and the rash and provided appropriate treatment to alleviate Mable's discomfort.



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RESIDENTS CAN SHOW SIGNS OF WITHDRAWING

Sally took the chance to speak with the RN about her worries regarding Mable's weight loss and lack of interest. This communication prompted the RN to make some time to talk with Mable and see how she was feeling. The nurse discovered that Mable was sad because she missed her cat and did not like the food at the facility.



AGED CARE STANDARDS

1. Consumer dignity & choice
2. Assessment & planning
3. Personal care & clinical care
4. Services & support of daily living
5. Organisation's service environment
6. Feedback & Complaints
7. Human resources
8. Organisational governance



<https://www.agedcarequality.gov.au/consumers/standards/standards>

AGED CARE STANDARDS

STANDARD	ELEMENTS	REQUIREMENTS & RELEVANCE
1	3 (a,b,c,d)	Dignity, Respect and Culturally Safe. Make decisions about care. Supported to take risks. Information is current accurate and timely.
2	3 (a,b,c,d,e)	Safe & Effective, End of life planning, Consumer partnership, Communicating outcomes, Care reviewed regularly.
3	3 (a,b,c,d,f,g,i)	Best practice, pressure injury & IAD, comfort and end of life care, change in condition, escalation & referral, infection & antimicrobial stewardship.
4	3 (e,g)	Timely referrals, equipment is safe, effective, clean and well maintained.
7	3 (a,c,d,e)	Staff knowledge, skill mix to deliver safe & quality care, competent staff, recruitment involves training staff to equip and support to meet standards, Staff are reviewed regularly.
8	3 (b,c,d L,lv,e)	Governance, safe, inclusive & quality care, continuous improvement, manage high prevalence risks. Clinical governance framework for antimicrobial stewardship.

EXCEEDING, MEETING, DEVELOPING

STANDARDS FOR WOUND PREVENTION AND MANAGEMENT

- Consistency
- High level care
- Variation reduced
- Improve safety
- Positive outcomes High-level



WOUND MANAGEMENT STANDARDS



Hester E. and Carville K. (2023). Australian Standards for Wound Prevention and Management. Australian Health Research Alliance, Wounds Australia and Risk Health Translation Network.

WOUND STANDARDS & THE NURSE

Jenny, the nurse, has been supervising Ted with his hygiene. She observed that Ted uses soap to wash his face and body and rubs his skin vigorously when drying himself before applying aftershave. However, Ted's skin looks dry and irritated. Jenny suggests that Ted should use a pH skin-friendly cleanser and moisturising cream after showering to improve his skin condition.



QUESTION

WHY IS VIGOROUS RUBBING WITH A TOWEL HARMFUL?

- A. Excessive rubbing can ruin towels and can be costly
- B. Rubbing can increase the risk of skin damage and breakage
- C. Can be the direct cause of hair loss
- D. Repeated friction can make the skin less sensitive over time

B

SCOPE OF PRACTICE



"...health care professional or health care worker is educated, competent and legally permitted to perform services."



The scope of practice for these individuals is determined by their educational background, status with an Australian health care registration body and law and regulations pertaining to their clinical field" (Wounds Australia, pg 6, 2016)



LEGAL PRACTICE

- _____ Malpractice
- _____ Duty of care
- _____ Breach of duty
- _____ Harm to the patient
- _____ Harm as a result of the breach



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LEGAL RESPONSIBILITY

-  Risk factors identified
-  Prevention program initiated
-  Documentation "2nd-hourly-turns"
-  Care planning
-  Assessment and required detail
-  Diagnosis & Notification



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MEDICAL ETHICS & THE NURSE

Ethical behaviours by health care professionals that can be trusted. Principles of dignity, honesty, fairness, "respecting the diversity and rights of individuals" (Beldon P. Wounds UK 2014)



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ETHICAL EXAMPLES IN WOUND CARE

- Industry partners
- Contracts
- Innovation/Research
- Education/Training
- Health Care Setting
- "Postcode lottery"
- Vulnerable Groups
- Informed consent
- Confidentiality



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DEMONSTRATING STANDARDS FOR WOUND PREVENTION AND MANAGEMENT

Scope of practice
Collaborative practice
Documentation



Wound Assessment
Wound Prevention
Wound Treatment



Knowledge, Education & Research
Digital platforms & Technology

Source: 1 and 2 (2016). Australian Standards for Clinical Practice and Management, Australian Health Research Alliance, Wound Care and 2016 Health Transition Research.

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QUESTION

Ethical Practice

A national wound company advertises a case study competition. The winning prize is an opportunity to attend the national wound conference being held in a 5-star resort. The facilities podiatrist enters a case study that highlights the success of the company's wound product. Is it ethical for podiatrists to enter the competition? List the potential concerns.

Patient consent.
Organisational permission.
Declaration of conflict of interest.
Conditions of entry.
Post prize expectations.
Case study publication.

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Question

Scope of Practice

The medical officer attends the aged care facility and requests the RN to apply a 2-layer compression bandage system on an elderly resident who has had frequent episodes of cellulitis in the lower limb over the past four months.

What is the nurse's most appropriate action?



1. Reflect on existing knowledge, recent experience and training to safely complete the procedure
2. Discuss the request with the Nurse Unit Manager
3. Escalate to the wound specialist or community nurse who has been trained in the skill
4. Seek out opportunities for further training with skill assessment and discuss with the manager
5. Discuss with the patient and family the options for safe compression bandaging.

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KEY POINTS

- As a nurse employed in an aged care role, it is essential to have a comprehensive understanding of the Nurses Standards of Practice, Aged Care Standards, Charter of Aged Care Rights, Aged Care Quality Indicators, and Wounds Australia Standards.
- The nurse is crucial in ensuring that elderly individuals receive respectful, personalised, and safe care.
- To promote quality care for vulnerable aging people, nurses must comprehend the practice standards and translate the best evidence into clinical practice. Nurses who possess these capabilities will be successful in their profession.

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Deteriorating Resident

This presentation will focus on deteriorating residential and community aged care patients. As caregivers, we must be aware of the signs of resident deterioration and respond accordingly. This is especially important in the unique residential and community aged care settings where our elderly residents have diverse and often complex healthcare needs.

We understand that timely intervention can profoundly impact resident's outcomes. As dedicated professionals committed to the well-being of our elderly residents, we must strive to identify and manage deteriorating patients effectively. To achieve this, we will explore the early warning signs, communication strategies within interdisciplinary teams, and clinical judgment required to respond to deteriorating patients.

Continuous learning and improvement are essential to providing the highest quality of care to our elderly residents. By equipping ourselves with knowledge, compassion, and a shared dedication, we can ensure that the residents under our care are safe and receive the best possible outcomes, even in the face of deterioration.

The “**Stop and Watch**” tool is a valuable resource for healthcare professionals, especially in aged care, to promptly identify and respond to deteriorating patients. When using this tool, the following key factors must be considered:

- **The tool's purpose is to have a structured approach emphasising early identification and intervention to keep elderly people safe.**
- **Stop:** This highlights the importance of stopping and noticing changes in the person's condition.
- **Watch:** Observe closely any signs of deterioration or deviation from the person's normal.
- **Act:** The proactive nature of this tool encourages immediate action when concerning signs are identified.
- **Early Warning Signs:** Both physical and behavioural cues. Respiratory distress, complexion-colour, perspiration, feeling dizzy or faint, pain, nausea, vomiting, diarrhoea, thirst, changes in vital signs, altered mental status, and/or increased confusion.
- **Documentation and Communication:** Concise, factual, and timely documentation is the role of all healthcare professionals. Ensuring the communication strategies are relevant and effective.
- **Interdisciplinary Collaboration:** Communicating concerns and escalating promptly to the aged care team members is an important responsibility of the aged care nurse.
- **Role of Education and Training:** The Stop and Watch framework must be familiar to all care and clinical staff and seamlessly implemented within the team. This tool allows PCAs to promptly alert nurses to their concerns, making it pivotal for the nurse to respond appropriately. A culture of recognising the signs and responding timely will keep older people safe in our care.

STOP AND WATCH TOOL

- Early Warning Tool
- Consistent Communication
- Minimise the risk of health deterioration or hospitalisation
- Improves resident safety
- Complete form at any sign/clue to clinical change

Stop and Watch

Care & Concern Evaluation Tool

You have identified a change or concern while caring for or observing a resident. Please note the change and notify a nurse. Please use the form in case of this tool or more health than in case of an action.

S Seems different to usual

T Talking & communicating less

O Overall needs more help

P Pain - new or worsening

A Activity - participation is less

H Hydration - eating or drinking less

D Disturbance or no bowel action in 3 days

W Weight change up or down

A Agitated or more nervous than usual

T Tired, weak, confused or dizzy

C Change in skin integrity, colour or condition

H Help with ADLs required more than usual

Name of Resident: _____

Bed number: _____

Room/Room: _____ Date/Time: _____

Report to: _____

"NOT THEIR USUAL SELF ..."



COMPLETING THE TOOL

- Mary did not attend the scheduled exercise class as planned
- In the morning Mary requested to return to bed as she was feeling tired
- Complained of a headache
- Did not eat breakfast

Stop and Watch

Care & Concern Evaluation Tool

You have identified a change or concern while caring for or observing a resident. Please note the change and notify a nurse. Please use the form in case of this tool or more health than in case of an action.

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H Help with ADLs required more than usual

Name of Resident: _____

Bed number: _____

Room/Room: _____ Date/Time: _____

Report to: _____

OBSERVATIONS & ESCALATION

- The PCA reported the concerns about Mary to the RN, although the Stop and Watch form was not completed.
- Mary remained in bed and was reluctant to eat, drink, or move for the remainder of the day.
- The afternoon shift PCA noted the changes in Mary's skin colour and condition on her left foot.
- A new Stop & Watch form was completed by the afternoon shift PCA, adding the foot skin changes, signed, dated, and including time reported to the RN for action.



QUESTION

The PCA was concerned about Mary's headache and increasing pain. The PCA decided to help by checking with her doctor if Mary could have Panadol, knowing she had been offered it before. Do you believe the PCA's actions were appropriate since you are the nurse on duty?



- A. Yes as I never have enough time
- B. No because Mary's headache is severe and a stronger medication is warranted.
- C. Yes as the PCA knows Mary well and you are a new employee
- D. No this is outside the training, skill and scope of care for a PCA

D

QUESTION

Mary's family notified the clinical pharmacist of medication changes and requested delivery to the facility from the local pharmacy. Should the family be responsible for communicating their mother's medication changes?

- A. Yes. The family want to accelerate Mary's recovery
- B. No. The pharmacist must receive a prescription written by a medical officer or nurse practitioner before a medication can be dispensed.
- C. Yes. Mary has requested that her family remain involved in her treatment.
- D. No. The family could be delayed, which may cause Mary's condition to deteriorate even further.

B

DOCUMENTATION

- What was the concern/issue?
- What signs or symptoms were observed by the Nurse?
- Mary complained of a frontal headache and feeling tired. She did not want to eat or drink at breakfast. Remained in bed for the past 6 hours. She has a reddened left heel, which did not blanch with gentle pressure.
- Heel pressure was relieved with two heel lifts, which elevated the heels off the bed. Repositioned in bed every 3 hours.
- Stop & Watch completed and reported/escalated to RN at 2 pm.
- Throughout the shift, the Registered Nurse (RN) monitored Mary's condition closely and monitored her vital signs, urine output and appetite, 2nd hourly. The RN also requested the PCA to encourage Mary to drink more fluids and reposition her 3rd hourly. Mary was given a call bell and instructed to contact the RN immediately if she experienced increased pain or any other signs of feeling unwell.
- The RN documented Mary's condition and observations and contacted the LMO, who was updated on Mary's sudden illness.
- The doctor confirmed the estimated time he would be at the facility to review Mary
- At 4.30 pm, the doctor arrived and assessed Mary's condition.
- Mary's medications were changed to reduce her hypertension, and the nurse monitored her vital signs over the next 48 hours
- The health record documentation was in chronological order, concise, accurate and timely.

KEEPING RESIDENT'S SAFE



Pressure injury prevention equipment was put in place for Mary along with regular repositioning



The PCA completed the handover about Mary according to their findings from the Stop and Watch tool.



The RN promptly assessed and escalated the resident to the medical officer. As Mary was hypertensive. Monitoring of her vital signs continued and documented findings were discussed with her LMO



The medical officer visited the resident and prescribed appropriate medication for pain and further investigations

QUESTION

UNUSUAL RESIDENT CONFUSION AND CONSTIPATION SHOULD BE ESCALATED TO THE NURSE USING THE STOP-AND-WATCH TOOL

- TRUE
- FALSE



TRUE

CLINICAL IMAGE PURPOSE & BENEFIT

- Diagnosis-validation
- Wound healing progress
- Telehealth support
- RN/resident/family review
- Evidence of care - Incident reporting
- Education/Research/Product Evaluation

"Wound photographs provide a visual reference not matched by memory or the written word."

Sweeny 2010



RULES & POLICY RECOMMENDATIONS

- Purpose of image explained
- Publication/education consent
- Third-party consent
- Organisational policy differences
- Privacy, data protection, storage
- Legal & Insurance



ONE: TIMING

- On admission
- On initial discovery - escalation
- Follow-up - monitoring weekly
- Discharge image or on transfer

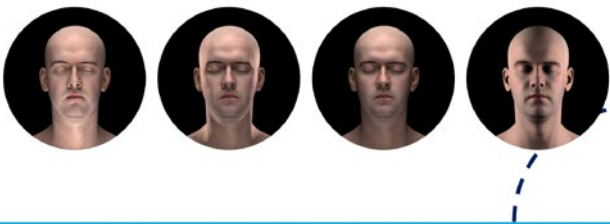


TWO:
SECURITY

- Resident identification ie MRN
- How to label images
- Upload to medical record
- Safe photo transfer



THREE:
LIGHTING



FOUR:
DEVICE

- Organisation device
- Contractor's device
- Tablet/Smart Phone or Camera
 - No editing of the image
 - Factory settings
- Flash or no flash?



QUESTION:

EXPLAIN WHY THE NURSE SHOULD NOT USE A PERSONAL PHONE TO TAKE IMAGES OF A RESIDENT'S WOUND.

- Security Breach
- Privacy
- Consent
- Organisational Policy



FIVE:

CONSISTENCY/POSITIONING

- Same position every time
- Do not distort the body part
- 1st Entire body or limb
- 2nd close-up



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SIX:

IMAGE DISTRACTION

- Consider the background
- Clean the wound of debris
- Obscure the face
- Cover genitals for dignity



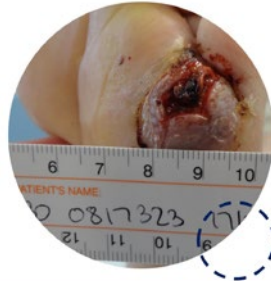
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SEVEN:

MEASUREMENT

- Consistent measurement device with 2 rulers
- Length - head to toe
- Width - side to side
- Depth with a soft tip probe in position
- Same placement each time



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EIGHT:

ASSESSMENT FINDINGS

- Wound characteristics can also be captured
- Exudate colour and amount on a dressing
- Blanching for pressure injury
- Capillary refill and temperature



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QUESTION:

WHAT IS WRONG WITH THIS IMAGE?

- Wound product advertisement
- Covering some of the wound with the paper tape
- Measurement should be at the bottom of the wound
- The wound's anatomical position on the body is unclear.



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NINE:

PRE-POST

- Debridement
- Unstageable pressure injuries
- Treatment monitoring



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TEN:

PRINTING IMAGES

- Communicating with health care team
- Displaying progress to the patient and family
- On transfer to another facility
- Minimise dressing disturbances ie NPWT
- File in hard copy medical record

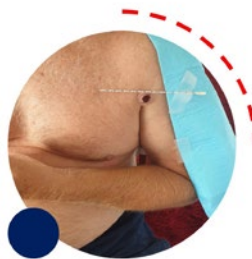


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QUESTION:

WHERE IS THIS WOUND LOCATED?



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KEY POINTS

- The nurse must act on observations made by the PCA, who report abnormal behaviour, distress or changes in an older person's health.
- The nurse interprets these reports, uses the Stop & Watch tool to address concerns, and conducts timely assessments.
- Early detection can help prevent deterioration.
- Policies must be followed for obtaining and storing images.

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Skin Anatomy, Wound Healing Physiology and Skin Frailty

This module has been carefully developed to provide you, a dedicated aged care nurse, with the knowledge and skills necessary to offer optimal care for the aging population. As a nurse for the elderly, your role goes beyond routine tasks and requires an intuitive understanding of the unique challenges presented by aging skin. This workbook explores the complexities and functions of skin anatomy, delving into risk management and harm prevention in a population with challenging skin issues.

Wound healing physiology is a critical aspect of your expertise, and this module takes you on a journey through the physiological processes that govern the body's remarkable ability to repair and regenerate. With a focus on the aging population, we unravel the intricacies of wound healing in older individuals, considering the factors that may influence this process.

Navigating the terrain of skin frailty in the older person requires a practical understanding of the unique challenges presented by aging skin. We explore the factors contributing to skin frailty, from intrinsic aging processes to external influences, offering insights and strategies to enhance the overall skin health of older individuals under your care.

This workbook features practical knowledge, fostering a deeper connection between theory and hands-on application. Through engaging exercises, case studies, and interactive content, you can apply your newfound knowledge in real-world scenarios, solidifying your understanding and enhancing your competence as a caregiver in aged care.

WOUND EDUCATION


CLINICAL TRAINING MADE EASY®

- Registered & Enrolled Nurses
- Anatomy, Physiology, Skin Frailty
- (0023DM3 CTME Aged Care Series)

Notes

ANATOMY, PHYSIOLOGY and SKIN FRAILITY

MODULE 3 OVERVIEW



1. Knowledge & Performance Goals
2. Skin Anatomy & Aging Skin Changes
3. Wound Healing Physiology
4. Skin Frailty

WOUND EDUCATION
CLINICAL TRAINING MADE EASY-AGED CARE SERIES 9

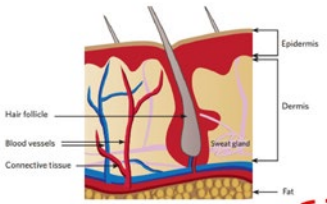
GOALS

KNOWLEDGE	PERFORMANCE
1. Identify and describe the structural changes in the skin associated with aging, listing the impact of aging on the epidermis, dermis, and subcutaneous tissue.	1. Assess aging skin, identify dermatological issues in the elderly, and recognise indicators of skin frailty during evaluations.
2. Explain the challenges and factors affecting wound healing in the elderly population and the strategies to promote effective wound healing in this group.	2. Address ethical considerations related to skin care in the elderly, including autonomy and informed consent issues.
3. Discuss the differences between skin aging and skin frailty and their implications on overall health and quality of life.	3. Integrate evidence-based practices into the development of care plans and interventions.

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THE SKIN

- Largest Organ
- Protective Covering
- After 40 years < 10% new cells
- Weak top layer (epidermis)
- Dry skin
- Skin barrier less effective
- Shallow "anchoring area" (epidermal junction)

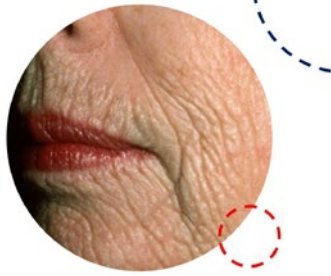


Backhouse D et al (2019) Best practice recommendations for better outcomes in pressure and moisture skin integrity. Alcohol, international, available online at: www.international.com

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THE AGING SKIN CHANGES

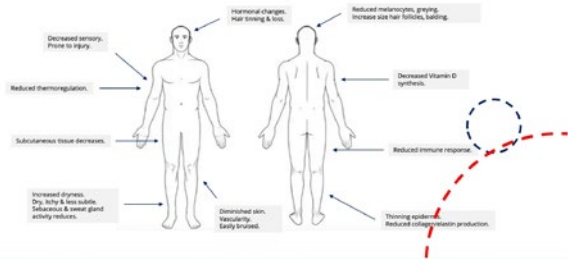
- Protection
- Temperature control
- Sensation
- Metabolism
- Elimination
- Cosmesis



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THE AGING SKIN CHANGES

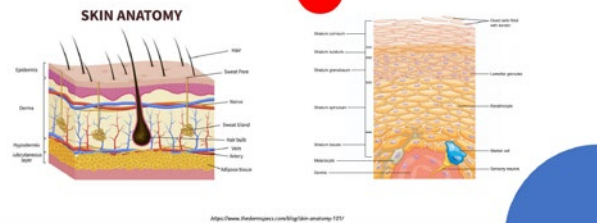


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SKIN OUTER LAYER

EPIDERMIS-STRATUM



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NATURAL MOISTURISING FACTOR

- Barrier Mechanism
- Inside the cell
 - Sodium PCA
 - Amino Acid
 - Lactate



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“BRICKS & MORTAR”

LAMELLAR LAYER

- Intracellular Lipids (mortar)
 - Ceramides
 - Free fatty acids
 - Cholesterol

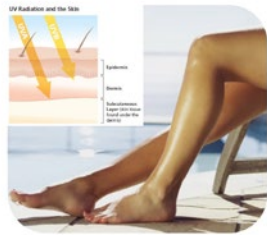


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SEBUM

- Produced by the sebaceous glands
 - Squalene
 - Triglycerides
 - Wax esters
- Fine film on skin surface
- Natural lubricant
- Skin smoothness



WOUND EDUCATION

CLINICAL TRAINING MADE EASY-AGED CARE SERIES ©

DEMONSTRATION VIDEOS – SKIN

Hover the mouse over the image, then press play

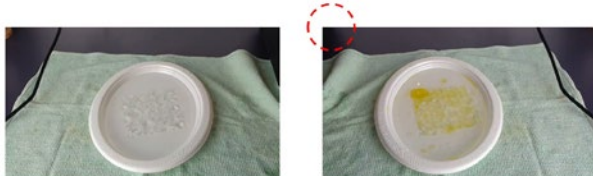


WOUND EDUCATION

CLINICAL TRAINING MADE EASY-AGED CARE SERIES ©

DEMONSTRATION VIDEOS – DAMAGED SKIN

Hover the mouse over the image, then press play



WOUND EDUCATION

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ACID MANTLE

- Protective film over the skin- sebum
- Amino acid from sweat
- pH 5.5 antibacterial



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QUESTION

AS A PERSON AGES, THEIR SKIN CAN ...

- A. Bruise easily
- B. Become drier
- C. Thin & wrinkly
- D. All of the above

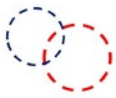
D

WOUND EDUCATI ON

CLINICAL TRAINING MADE EASY-AGED CARE SERIES 9

WOUND HEALING MODES

- Primary Intention
- Delayed Primary intention
- Secondary Intention
 - Superficial
 - Partial Thickness
 - Full Thickness



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CLINICAL TRAINING MADE EASY-AGED CARE SERIES 9

WOUND HEALING PHYSIOLOGY



WOUND EDUCATI ON

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BLEEDING



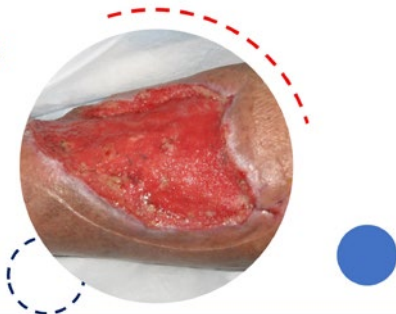
INFLAMMATION

<https://youtu.be/9bvMv5dQ7RU>

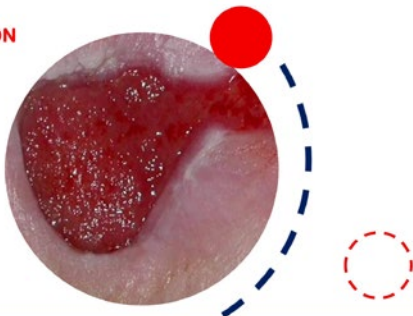
Control + Click on the links to watch a video



BUILD & REPAIR



EPITHELIALISATION

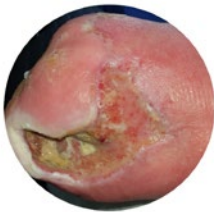


ACUTE WOUND FLUID



- Inflammatory cells and Cytokines
- Proteases and inhibitors (MMP & TIMP) balance
- Matrix Metalloproteinases
- Matrix re-building, Growth factors PDGF, FGF VEGF
- Matrix adhesion proteins. Fibronectin & Vitronectin
- Fibroblasts & Keratinocytes

DELAYED WOUND HEALING FLUID



- Proinflammatory cytokines increased
- Increased proteases MMP, reduced inhibitors
- Tissue Inhibitor MMP (TIMPs)
- Reduced growth factor proteins
- Degradation cellular matrix
- Senescent fibroblast & Mitogenic activity

QUESTION:

There are differences in the composition of wound fluid between wounds that heal quickly and those that take longer to heal.

- True
- False

TRUE

FACTORS AFFECTING HEALING

- Intrinsic
 - General Health
- Extrinsic
 - Environment
- Iatrogenic
 - Wound Practice



INTRINSIC

- Age
- Underlying Disease
- Vascularity
- Obesity
- Mobility
- Sensation
- Psychological



EXTRINSIC

- Radiation
- Drugs - Prescribed/ Illicit
- Stress
- Nutrition
- Hygiene



IATROGENIC

- Local Wound Factors
- Local Ischemia
- Wound Trauma
- Wound Duration
- Standards of Care



PRINCIPLES OF WOUND MANAGEMENT

- Identify the cause & duration of the wound
- Holistic health assessment. Co-morbidities.
- Wound assessment and wound bed preparation
- Adjust the care regime as the wound responds
- Treatment goal. Short term - Long Term.
- Healable or Palliative



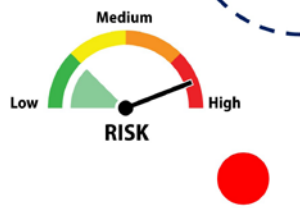
CAUSE OF WOUNDING

- Pathologic aetiology
 - What is the underlying factor for wounding
 - Documentation and coding
 - Legal diagnosis: elder abuse etc.
 - Contributing factors



HOLISTIC HEALTH ASSESSMENT

- History gathering
- Disease management
- Health care team involved. Standard of care (SoC)
- Comprehensive assessment of patient related risks



SKIN FRAILTY

- Older Adults
- Mobility Issues
- Children/Neonates
- Spina Bifida, Cerebral Palsy
- Bariatric
- Oncology
- Chronic illness



Beckman D et al (2020) Best practice recommendations for holistic strategies to promote and maintain skin integrity. Wounds International. Available online at www.woundsinternational.com

SKIN FRAILTY VULNERABILITY RISKS

- Nutrition
- Weight Gain/Loss
- Mobility
- Disease
- Medication
- Incontinence



- Sun Damage
- Skin Conditions
- Pressure
- Skin Irritants
- Genetics

Beckman D et al (2020) Best practice recommendations for holistic strategies to promote and maintain skin integrity. Wounds International. Available online at www.woundsinternational.com

CARE PLANNING WITH SHIRLEY

- Nutrition and hydration monitoring
- Incontinence care
- Personal hygiene supervision
- Skin care and daily inspection
- Mobility supervision and group exercises
- Check-in on quality of life



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REPORTING FINDINGS

ESCALATION

- The PCA alerts the nurse to Shirley's skin inspection findings.
- The PCA also advises the catering staff of Shirley's food likes/dislikes to improve Shirley's nutrition intake.
- The physio aid places protective padding over the walker's sharp edge. Shirley is encouraged to join in the exercises of the morning. Shirley sits on the offloading cushion.
- The nurse explains to the PCA why moisturising Shirley's skin daily is important and encourages hydration with water.
- A barrier cream is used daily in her groin area to prevent excoriation.

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SHIRLEY'S PROGRESS

- After 6 weeks Shirley improves.
- Appetite has returned
- No red areas or rash
- Skin is moisturised with no breaks
- Mobility & balance has increased
- Shirley described herself as happy & healthy



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QUESTION

SKIN FRAILTY INCLUDES THE FOLLOWING ISSUES:

- A. Pressure injury, skin tear, wound infection
- B. Pressure injury, skin tears, IAD,
- C. Pressure injury, skin tears, skin cancer
- D. None of the above

B



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KEY POINTS

- The normal wound repair process follows an orderly sequence
 - Haemostasis - Inflammation - Proliferation - Remodelling
- A holistic assessment can help predict the potential to heal
- Any factor affecting food, water and oxygen reaching the cell can have a negative impact
- Health and Wellbeing, Disease Management, and wound Practice must be considered together rather than dressing selection in isolation.
- The epidermis or outer skin layers constantly rejuvenate whilst the skin provides a protective barrier.
- As a person ages, the ability to maintain skin moisture reduces.
- Skin dryness, loss of the protective barrier, and thinning with wrinkles can increase the risk of skin trauma for older people.
- Best care for the older person can improve skin frailty and reduce skin injury risks.

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Wound Assessment and Product Selection

Welcome to Module 4 of Clinical Training Made Easy - Aged Care Series, “Wound Assessment and Product Selection”. This workbook is designed specifically for dedicated aged care nurses like you. As professionals committed to the well-being of our older adult population, your role in wound management is pivotal to ensuring the highest quality of care.

The comprehensive module has been constructed to provide you with the essential knowledge and practical skills needed to navigate the intricate landscape of wound assessment and product selection within the aged care context. Wound care is a critical aspect of nursing, and your proficiency in this area directly contributes to the comfort, health, and overall quality of life of those under your care.

Our training focuses on the TIMERS framework - a systematic approach to wound assessment that considers Tissue, Inflammation and infection, Moisture, Edge, Regeneration, and Social factors. This holistic approach thoroughly evaluates the wound and its impact on the patient’s overall well-being.

Engage in interactive exercises that simulate real-world scenarios commonly encountered in aged care settings. These exercises are crafted to enhance your decision-making skills and critical thinking abilities.

As you progress through this workbook, envision it as a roadmap guiding you toward mastery in wound assessment and product selection. Whether you are a seasoned nurse or just beginning your career, this resource is designed to empower you with the knowledge and skills needed to elevate your practice.

Relate to practical case studies drawn from actual aged care experiences. These case studies provide valuable insights into the complexities of wound care in a context familiar to you, allowing for a more relevant and enriching learning experience.

Beyond theory, we emphasize practical application. The module has been constructed to bridge the gap between knowledge and hands-on skills, ensuring you can confidently apply what you learn in real-world scenarios.

Thank you for your dedication to providing exceptional care to our elderly population. Your commitment to continuous learning is a testament to your passion for excellence in nursing. We wish you success as you embark on this educational journey positively, striving for excellence in wound care and the well-being of our elderly patients.

WOUND EDUCATION

CLINICAL TRAINING MADE EASY®

- Registered Nurses and Enrolled Nurses
- Assessment and Product Selection
- (0023EM4 CTME Aged Care Series)

Notes

ASSESSMENT and PRODUCT SELECTION

MODULE 4 OVERVIEW

1. Knowledge & Performance Goals
2. Introducing The Wound Management Process
3. Wound Assessment - TIMERS
4. Wound Cleansing
5. Wound Product Selection



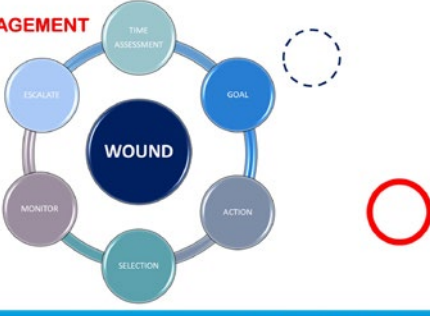
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GOALS

KNOWLEDGE	PERFORMANCE
1. Understand the principles of wound assessment	1. Demonstrate how to accurately complete wound measurements by recording the greatest length and width.
2. Gain skills in prompt detection of risk factors and complications delaying wound healing	2. Determine the most appropriate wound product according to the wound assessment and goal of treatment.
3. Recognise the necessity to customise wound care treatments according to the specific needs of older adults.	3. Reassesses the wound and collaborates with the relevant interdisciplinary team members.

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THE WOUND MANAGEMENT PROCESS



WOUND EDUCATION
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Assessment	<ul style="list-style-type: none"> T (Tissue) I (Infection/Inflammation) M (Moisture) E (Edge) Wound Size - Wound Photograph - Wound Documentation
Goal	<ul style="list-style-type: none"> Wound Bed Preparation/ Manage Moisture; Hydrate or Absorb/Reduce Pain/Palliate Increase Granulation/Reduce Bacteria/Control Oedema/Perfuse Tissue/Protect Skin Integrity
Action	<ul style="list-style-type: none"> Autolytic Debridement/Rehydrate/Absorb/Pain Strategies/Repair/Disinfect/Compress/Protect Realign Tissue/Skin Care - hygiene & moisturise
Selective	<ul style="list-style-type: none"> Understand the action of the wound product and how it can help achieve the goal
Monitor	<ul style="list-style-type: none"> Monitor the wound healing progress, photography and measurement. Assess if goal is being achieved. Reassess the wound. Revise the care plan.
Evaluate	<ul style="list-style-type: none"> Consider scope of practice of the clinician. Refer to the relevant healthcare professional.

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WOUND PLANNING PROCESS – GOAL SETTING

Assessment	<ul style="list-style-type: none"> T (Tissue) I (Infection/Inflammation) M (Moisture) E (Edge) Wound Size - Wound Photograph - Wound Documentation
Goal	<ul style="list-style-type: none"> Wound Bed Preparation/ Manage Moisture; Hydrate or Absorb/Reduce Pain/Palliate Increase Granulation/Reduce Bacteria/Control Oedema/Perfuse Tissue/Protect Skin Integrity
Action	<ul style="list-style-type: none"> Autolytic Debridement/Rehydrate/Absorb/Pain Strategies/Repair/Disinfect/Compress/Protect Realign Tissue/Skin Care - hygiene & moisturise
Selective	<ul style="list-style-type: none"> Understand the action of the wound product and how it can help achieve the goal
Monitor	<ul style="list-style-type: none"> Monitor the wound healing progress, photography and measurement. Assess if goal is being achieved. Reassess the wound. Revise the care plan.
Evaluate	<ul style="list-style-type: none"> Consider scope of practice of the clinician. Refer to the relevant healthcare professional.

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GOAL SETTING – WILL IT HEAL?


- History
- Examination
- Wound assessment
- Investigations
- Provisional diagnosis
- Goal setting



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GOAL SETTING – PATIENT-CENTERED

- Healing or Palliative
- Short & Long term
- Local wound environment
- Patient centered
 - Active engagement
 - Empowering



WOUND EDUCATION CLINICAL TRAINING MADE EASY Aged Care Series®

WOUND PLANNING PROCESS - ACTION

Assessment	<ul style="list-style-type: none"> T (Tissue) I (Infection/Inflammation) M (Moisture) E (Edge) Wound Size - Wound Photograph - Wound Documentation
Goal	<ul style="list-style-type: none"> Wound Bed Preparation/ Manage Moisture; Hydrate or Absorb/Reduce Pain/Palliate Increase Granulation/Reduce Bacteria/Control Oedema/Perfuse Tissue/Protect Skin Integrity
Action	<ul style="list-style-type: none"> Autolytic Debridement/Rehydrate/Absorb/Pain Strategies/Repair/Disinfect/Compress/Protect Realign Tissue/Skin Care - hygiene & moisturise
Selection	<ul style="list-style-type: none"> Understand the action of the wound product and how it can help achieve the goal
Monitor	<ul style="list-style-type: none"> Monitor the wound healing progress, photography and measurement. Assess if goal is being achieved. Reassess the wound. Revise the care plan.
Escalate	<ul style="list-style-type: none"> Consider scope of practice of the clinician. Refer to the relevant healthcare professional.

WOUND EDUCATION | CLINICAL TRAINING MADE EASY Aged Care Series®

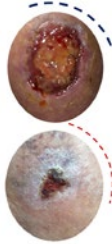
GOAL & ACTION

Wound Bed Prep

- Remove loose slough
- Soft debride twice a week

Re-hydrate wound bed

- Clean & refashion the "crusty" wound edge
- Apply a moisture dressing to the wound bed.



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CHECK-IN

01

Goal setting considers if healing is achievable

02

Short-term goals will change as the wound changes

03

Several goals can be set, working toward a long-term goal

04

Goal setting must be prepared with the patient.

05

Engaging patients and families in the process can improve concordance.

WOUND EDUCATION | CLINICAL TRAINING MADE EASY Aged Care Series®

QUESTION:

The wound management process is a systematic approach to planning wound treatment. This process includes:

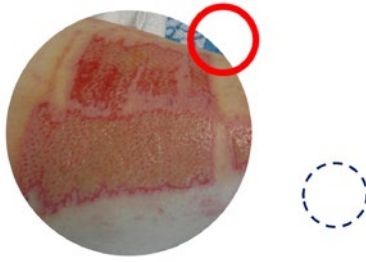
- Wound Assessment & Product Selection
- Wound Assessment, Goals, Action, Product Selection, Monitoring and Escalation
- Wound Assessment, Goals, Action and Product Selection
- Wound Assessment, Product Selection and Interdisciplinary team referral

B

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ACUTE WOUND

- Mode of healing
- Wound cleansing
- Exudate management
- Reassessment - monitoring



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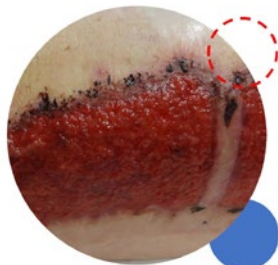


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WOUND HEALING DELAY

...the presence of planktonic bacteria has been correlated with acute infections and biofilms to chronic infections
...the distribution of single cells and aggregates does not seem to be different in cases of acute, compared to chronic, pneumonia.



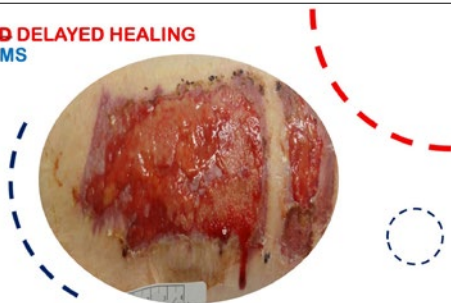
Probst S, Apalducci J, Sparsholt T, Epaly BA, Quary C, Peters EAG. Antimicrobials and non-healing wounds: An Update. Journal of Wound Management, 2022;23(3): Page 133-135. DOI:10.1016/j.jwm.2022.03.007

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CHRONIC WOUND DELAYED HEALING SIGNS & SYMPTOMS

- Hypergranulation/inflammation
- Dressing trauma - adherence
- Moisture Balance
- Bleeding
- Pain
- Infection
- Malodour
- Surrounding tissue
- Scarring/itch



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QUESTION:

Select the **incorrect** answer.
Delays in wound healing can happen due to various reasons such as:

- a. Wound Infection
- b. Dehydration and low blood pressure
- c. Uncontrolled oedema
- d. Moist Wound Healing

D

T.I.M.E.R.S.
Hard-to-Heal Wounds

- 1. Tissue
- 2. Inflammation/Infection
- 3. Moisture
- 4. Edge
- 5. Regeneration
- 6. Social Factors



TISSUE

Granulation

Slough

Non-Viable

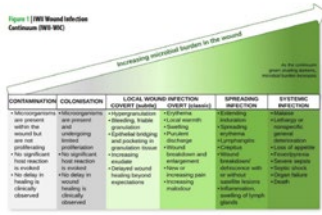


INFECTION/INFLAMMATION



WOUND INFECTION CONTINUUM 2022

Figure 1 | [IWII] Wound Infection Continuum (WIC-2022)



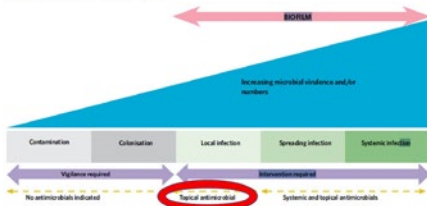
International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International. 2022

WOUND EDUCATION

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WOUND INFECTION CONTINUUM 2016/2022

Figure 1 | [IWII] wound infection continuum^{22,24,25}



International Wound Infection Institute (IWII) Wound infection in clinical practice. Wounds International 2016
International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International. 2022

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Contamination Colonisation LOCAL INFECTION



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MOISTURE



WOUND EDUCATION

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EXUDATE CHARACTERISTIC



Healing **V's** Non-healing exudate

- > **Pro-inflammatory cytokines**
- > **Matrix Metalloproteases**
- < **Growth Factors**
- < **Mitogenic activity**



World Union of Wound Healing Societies (WUWHS) Consensus Document. Wound exudate: effective assessment and management Wounds International, 2019
www.woundsinternational.com

WOUND EDUCATION

CLINICAL TRAINING MADE EASY Aged Care Series®

RECORDING EXUDATE

- Wound Fluid
- Wound Drainage
- Leakage
- ****



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EXUDATE MANAGEMENT- ODOUR



WOUND EDUCATION

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EXUDATE AMOUNT

WET

MOIST

DRY



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EXUDATE CONSISTENCY

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FINDING BALANCE: Goldilocks....

Not too Wet

Not too Dry

Just MOIST...

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WOUND EDGE

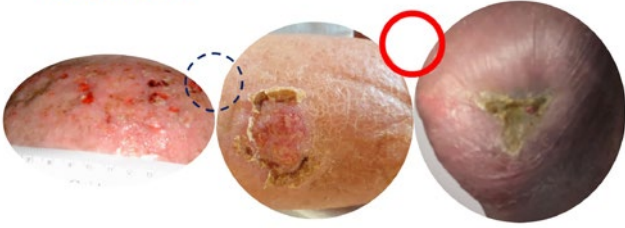
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WOUND EDGE

Thick & Rolled Sloping Thinning Epithialising

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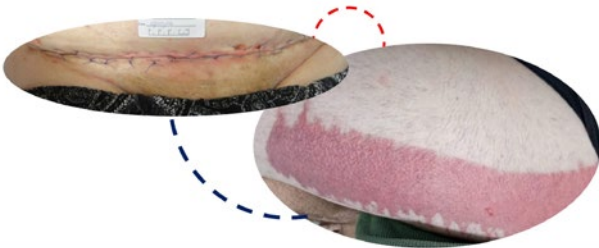
WOUND DEBRIS



WOUND EDUCATION

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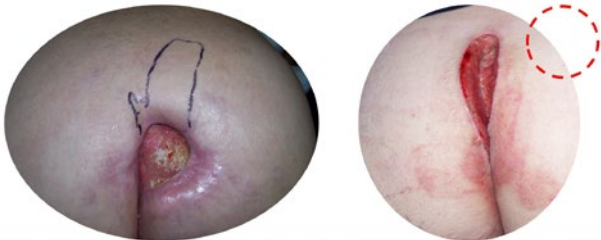
WOUND CLOSURE & SCAR FORMATION



WOUND EDUCATION

CLINICAL TRAINING MADE EASY Aged Care Series®

CAVITY Wound Measurement



WOUND EDUCATION

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DEMONSTRATION VIDEO: "Gently Fill the Cavity"

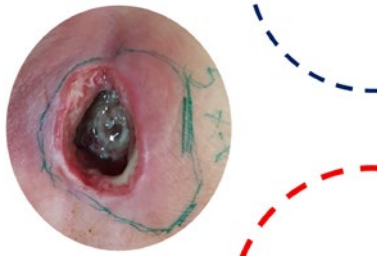


WOUND EDUCATION

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HOW TO MEASURE

- Linear: greatest length x greatest width
 - Head To Foot
 - Left to Right
 - Total Surface Area
- O'clock method
- Wound tracing
- Tunneling
- Undermining
- Depth
- Image software
- Laser technologies



<https://www.youtube.com/watch?v=ZWMaR-ilheGY>
Wound Measurement: Understand Wound Care Video Wound Care

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QUESTION:

Describe how to measure an undermined wound?

Use a soft tip probe and gently palpate under the undermined area.
With a waterproof marker, track the outline of the wound edges.
The wound should be measured from the undermined wound edge.
Greatest width and length. The wound opening should be measured.
Greatest width and length.

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MEASUREMENT CONSIDERATIONS

- Accuracy
- Reliability
- Consistency
- Healing rate prediction
- Frequency of measurement
- O'clock & feet
- When not to measure?

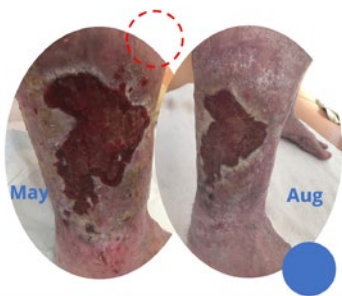


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REASSESSMENT

- Healing
- Deterioration
- Static
- Symptom management
 - Pain, odour, exudate
- Escalation
- Wound wellbeing



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DEMONSTRATION VIDEO: Wound Measurement

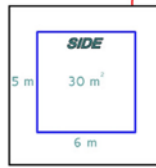


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WOUND HEALING PREDICTION

- 40% reduction in wound total surface area (TSA) over 6 weeks
- How to determine the percentage reduction in wound TSA**
1. Calculate the wound surface area in cm². Length x Width
 2. Following 4 weeks of treatment repeat the TSA measurement
 3. **Current TSA (10) ÷ Previous TSA (15.5) x 100 = 64.51%**
 4. Deduct the % figure (64.51) from 100 (100 - 64.51 = 35.6%)
 5. **The wound TSA has reduced in size by 35.49% over a 4 week period.**



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CHECK-IN

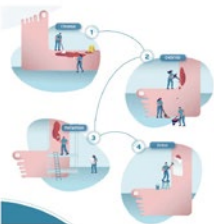
- Accurate wound assessment is pivotal
- T.J.M.E assessment incorporates the wound appearance
- As the wound improves or deteriorates, reassessment should be conducted.
- Wound infection should be classified as local, spreading or systemic
- Wound-related pain is an important component of the wound assessment.
- Measurement reliability, which is consistently completed
- Repeated positioning of the patient to gain an accurate result
- Healing over time can predict the rate of progress
- Not all wounds should be measured



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WOUND CLEANSING




Murphy C, Atkin L, Swanson T, Tashir M, Tan W, Vinga de Geringa M, West D, Wolkart R. International consensus document: Dealing hard to heal wounds with an early antibiogram intervention strategy: wound hygiene. J Wound Care. 2020; 29(suppl 5):10-18.

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Active Cleansing	Exudate Level
Surrounding Edge	Microbe Load



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CHECK-IN

- Traditional methods of wound cleansing are not suitable for all wounds today.
- Saline is not an effective cleansing solution for chronic wounds.
- Early intervention with antimicrobial cleansers for at-risk wounds may prevent wound infection.
- Active wound cleansing is an important procedure to reduce infection risks.



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T.I.A.M.E.	ASSESSMENT	GOAL	ACTION	PRODUCT
TISSUE	Necrosis	Hydrate	Autolytic Debridement	Hydrocolloid Hydrogel
	Eschar	Hydrate	Autolytic Debridement	Hydrocolloid Hydrogel
	Slough	Remove	Clean/Debride	Hypertonic salt Cadexomer Iodine Super oxidized agents Surfactants Medical honey
	Hyper-Granulation & Improve granulation quality	Reduce inflammation & Improve granulation quality	Disinfect/Anti-inflammatory	Super oxidized agents Surfactants Povidone iodine Hypertonic salt Microbe binding dressing PHMB
	Granulation	Moisture balance	Build, Repair & Protect	Foam Silicone foam Hydrofoam Alginate
	Epithelial tissue	Protect & Moisture balance	Cover & Protect	Impregnated gauze Silicone sheet Silicone foam/Foam Hydrocolloid
INFECTION	Infection	Reduce microbes	Disinfect	Super oxidized agents Surfactants Povidone iodine Hypertonic salt Microbe binding Medical honey Chlorhexidine gluconate Silver Products All above
	Colonisation	Reduce microbes/inflammation	Disinfect	

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QUESTION: Match image and wound description

A 2 B 3 C 4 D 1



1. NECROSIS 2. OVERT INFECTION 3. FRIABLE GRANULATION 4. DELAYED HEALING

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QUESTION: select the correct answer

All wounds should be cleaned with warm normal saline?

- True
- False **False**

"Clean it like you mean it" assists in biofilm detachment

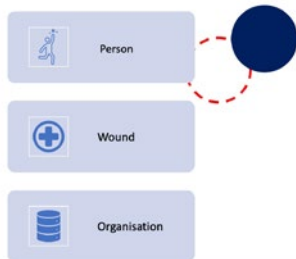
- True **True**
- False

On the wound dressing day lower limb ulcerations should have compression left in place and a clean bag secured over the leg before showering

- True
- False **False**



DRESSING SELECTION CONSIDERATION



...or Wound Care Confusion!



WOUND PRODUCT SELECTION

DRY	MOIST	WET
HYDROCOLLOID	COATED MESH CONTACT	GELLING FIBRE
HYDROGEL	LOW ADHERENT	ABSORBENT PADS
FILMS	FOAMS	SUPER ABSORBENT PADS
GENTLE-Silicone		
DEBRIDEMENT		
ANTIMICROBIAL		
SPECIFIC APPLICATION		
ADVANCED ADJUNCTIVE THERAPY		



WOUND EDUCATI N

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DRY - HYDROCOLLOID



WOUND EDUCATI N

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DRY - HYDROGEL



WOUND EDUCATI N

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DRY - FILM



WOUND EDUCATI N

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MOIST - COATED MESH



MOIST - LOW ADHERENT



MOIST - FOAM



WET - GELLING FIBRE



WET – ABSORBENT PADS

This advertisement shows various Zetuvit products including boxes and individual pads. A red circle highlights a specific product. To the right, a circular inset shows a close-up of a wound with a yellow dressing applied.

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WET – SUPER ABSORBENT PADS

This advertisement displays Relevo and other super-absorbent pad products. A blue circle highlights a product. A circular inset on the right shows a patient's leg with a dressing.

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DEMONSTRATION VIDEO: Testing Absorbency

Three sequential images show a testing procedure where liquid is poured onto different types of dressings in a tray to compare their absorbency.

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WHAT DOES STEPPING UP LOOK LIKE?

A staircase diagram illustrating the progression of wound care products from left to right and bottom to top: Gauze, Foam, Absorbent Dressings, Super Absorbent Dressings, dNPWT, and Reusable NPWT.

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GENTLE

These adhesive dressings are designed to adhere to fragile skin.

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DEBRIDEMENT

CLINICAL TRAINING MADE EASY Aged Care Series®

DEBRIDEMENT

CLINICAL TRAINING MADE EASY®

ANTISEPTICS

CLINICAL TRAINING MADE EASY Aged Care Series®

ANTIMICROBIAL

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SPECIFIC APPLICATION

- Pain
- Odour
- Scar
- Dressing remover
- Surrounding tissue
 - Zinc paste bandages
 - Cyanoacrylate-based

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ADVANCED ADJUNCT THERAPIES

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OUTCOME MEASURES

- Healing over time
- % of surface reduction
- Wound infection
- Amputation reductions
- Pain reduction
- Ulcer free days
- Hospital avoidance

Week	TSA (Foam 1)
Week 1	9.5
Week 2	7.5
Week 3	5.5
Week 4	3.5

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QUESTION: Match the wound to the wound product



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CASE STUDY



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QUESTION: Thick, Tenacious Slough and fibrotic oedematous lower limb. What is the best practice treatment recommendation

1. Soften the limb, trapped oedema
2. Pneumatic pump followed by farrow wraps
3. Surfactant gel "dwell time"
4. Curette wound bed twice a week
5. Absorbent dressing



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T.I.M.E.	ASSESSMENT	GOAL	ACTION	PRODUCT	STOCK PRODUCT
TISSUE	Necrosis	Hydrate	Autolytic Debridement	Hydrocolloid Hydrogel	
	Eschar	Hydrate	Autolytic Debridement	Hydrocolloid Hydrogel	
	Slough	Remove	Curette/Debride	Hypertonic salt Calcium iodine Super oxidised agents Surfactants Medical honey	
	Hyper-Granulation & Improve granulation quality	Reduce inflammation & Improve granulation quality	Disinfect/Anti-inflammatory	Super oxidised agents Surfactants Povidone iodine Hypertonic salt Microbe binding dressing	
	Granulation	Promote Moisture balance	Build, Repair & Protect	Foam Silicone foam Gelling fibre Alginate	
	Epithelial tissue	Protect & Moisture balance	Cover & Protect	Impregnated gauze Silicone sheet Silicone foam/Foam Hydrocolloid	
INFECTION	Infection	Reduce microbes	Disinfect	Super oxidised agents Surfactants Povidone iodine Hypertonic salt Microbe binding Medical honey	

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Skin Tear Management

Welcome to module 5, “Skin Tear Management.” As dedicated healthcare professionals committed to the care and comfort of our elderly residents, your role in preventing, assessing, and managing skin tears is crucial to promoting the well-being of those under your care.

This module is a comprehensive guide tailored specifically for nurses working in aged care settings, recognising the unique challenges and priorities associated with our elderly population. Skin tears are common, and your expertise in managing them is pivotal in minimising discomfort, promoting healing, and enhancing our residents’ overall quality of life.

Practical tasks and simulated scenarios demonstrate critical steps in skin tear treatment, allowing you to apply your knowledge in a controlled environment. A multiple-choice assessment is included to evaluate your understanding of the module’s concepts. Recommended readings and references are also provided to deepen your learning. We encourage you to engage with the content, practice the skills you acquire, and seek further information at your workplace whenever needed.

Let’s begin this journey of mastering skin tear management by equipping you with the knowledge and skills to make a positive difference in the lives of the elderly residents under your care. This will enhance their well-being and wound-healing potential.

WOUND EDUCATION

CLINICAL TRAINING MADE EASY –AGED CARE SERIES®


- Registered & Enrolled Nurses
- Skin Tear Management
- (00237MS CTME-Skin Tear)

Notes

SKIN TEAR MANAGEMENT

MODULE 5 OVERVIEW

1. Knowledge & Performance goals
2. Defining what is a "skin tear"
3. Risk factor reduction
4. Severity of skin tears
5. 1st aid goal & Implementation of best practice
6. Skin tear management
7. Skin tear prevention



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GOALS

KNOWLEDGE	PERFORMANCE
1. Further develop the nurse's knowledge and understanding of the prevention, assessment & 1 st aid care of skin tears.	1. The nurse will complete a practical task demonstrating the key steps in best practice 1 st aid skin tear management.
2. Improve the quality of skin tear documentation	2. Demonstrate best practice in the management and documentation of a skin tear.
3. Promote best practices in the care of older adults with at-risk skin integrity.	

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SKIN TEARS

“ A skin tear is a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through to the subcutaneous or fatty layer of the skin). ”

BEST PRACTICE DOCUMENT 2018

WOUND CARE BEST PRACTICE RECOMMENDATIONS

BEST PRACTICE RECOMMENDATIONS FOR THE PREVENTION AND MANAGEMENT OF SKIN TEARS IN AGED SKIN



Recommendations from an expert working group

Jellison, K et al. Best practice recommendations for the prevention and management of skin tears in aged skin. Wound International 2018. Available to download from www.woundinternational.com

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SKIN TEAR – THE FACTS

- Acute wound, which is caused by a **mechanical force** (shear, friction and/or blunt) resulting in **separated skin layers**
- Traumatic wound predicted to heal within a timely trajectory
- Neonates to elderly sustain this injury
- Depth can be partial or full thickness
- Common on the extremities



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SKIN TEAR PREVALENCE

- 10- 54% across different countries
 - 2.23% - 92% Long-Term Facilities
 - 4.5% - 19.5% Community Care
 - 6.2% - 11.1% Acute Care
 - 3.3% - 14.3% Palliative Care
- Australian Data
 - 8 - 11% prevalence acute care WA
 - 40% (n37/92) 2019 Aged Care Wound Survey



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SKIN TEAR DATA ISSUES

- Undetected
- Classification complexity
- Misdiagnosis wound type
- Documentation standardisation
- ICD international coder data



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QUESTION: Why is skin tear data collection important?

Answer

- Preventable wound
- Adverse event
- Indicator of care
- Consistent documentation leads to reliable data capture
- Data can inform the extent of the issue
- Best practice intervention can be measured accurately

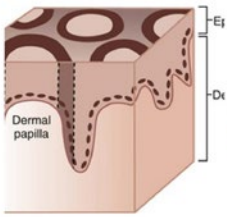
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BEST PRACTICE
RISK FACTOR REDUCTION



EXTREMES OF AGE - VERY YOUNG SKIN



- Stratum Corneum maturity
- Rete ridges
 - red, wrinkled, transparent, gelatinous fragile skin
- Subcutaneous fat layer



QUESTION: Extremes of age increase the risk of skin tears. Why?

ANSWER

- Skin is underdeveloped or deteriorating.
- Less capacity to "anchor" the epidermis/dermis - reduced flaggrins.
- Thin protective layer increasing risk to trauma.





Skin Tear Classification

Type 1: No Skin Loss

Type 2: Partial Flap Loss

Type 3: Total Flap Loss



Linear or Flap* Tear which can be repositioned to cover the wound bed



Partial Flap Loss which cannot be repositioned to cover the wound bed



Total Flap Loss exposing entire wound bed

Benchmark D. & Kim Tigglein N. (2018) International Skin Tear Advisory Panel (ISTAP) Classification System - English version. Skin Integrity Research Group (SIRG), Queen's University. Available to download from www.istap.org.uk

QUESTION: Using the ISTAP tool on the previous slide. What classification is the skin tear in this image?

ANSWER: TYPE 1



Uncomplicated

Complicated



Healing skin tear < 4 weeks



Slow to heal (> 4 weeks) lower limb wound

GOAL:

STOP BLEEDING & CLEAN THE SITE

- Rinse the site with warm clean water or sterile saline
- Direct pressure on the site with a clean gauze
- Elevate the area above the heart
- Reassess if bleeding has stopped

Note: Bleeding caution if the resident is prescribed regular blood thinners



TISSUE RE-ALIGNMENT

1. Cotton tip applicators
2. Roll flap back into place
3. Gently realign the flap into position
4. Use a skin prep film to secure the flap into position.
5. Assess the amount of skin loss to classify the tear
6. Protect the surrounding skin with the skin prep wipe
7. Cover with a silicone dressing and secure into position
8. Mark an arrow on the outside of the dressing (waterproof marker)
9. Use remover wipes if required
10. The RN should assess and determine the improvement/deterioration of the "flap take"



CLEANSE THE WOUND



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APPROXIMATE THE SKIN FLAP



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DEMONSTRATION VIDEO: Securing the skin flap



Care should be taken to use skin glue sparingly and to tack the flap to the intact wound edge, avoiding glue on the wound bed.

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DRESSING SELECTION

YES

- Atraumatic removal
- Non-adherent mesh
- Moisture Balance
- Conformable
- Ease of application
- Wear time
- Mark the dressing
- Adhesive removers
- Skin protection film



NO

- Iodine
- Films
- Hydrocolloid
- Skin Closure Strips
- Dry gauze

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DRESSING SELECTION



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SPECIAL CARE: EXTREME AGE-SKIN INTEGRITY



- Previous skin tear
- Fragile, thin skin
- Dry skin
- Ecchymoses-bruising
- Impaired mobility
- Dependency
- Nutrition - low weight

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SPECIAL CARE: INFECTION



- Systemic infection monitoring
- Local infection
 - Covert
 - Overt
- Cleansing
- Dressing frequency
- Topical antimicrobial

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SPECIAL CARE: HEMATOMA

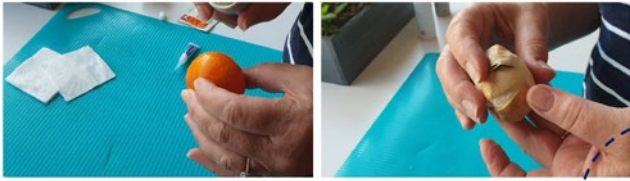
- Debridement
- Pain Management
- Infection prevention
- Immobilisation
- Light compression
- Dressing selection



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DEMONSTRATION VIDEO: SKIN TEARS

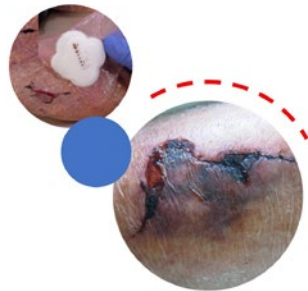


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INCIDENT INFORMATION

1. How did the injury occur
2. What was associated with the incident
3. Consider factors: Skin, Mobility and General Health
4. Has the patient suffered from skin tears previously
5. How will care be changed to minimise risk
6. Wound description & image photo completed
7. Escalation "Stop & Watch" relevant aged care team member
8. Documentation & Reporting



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SKIN TEAR DOCUMENTATION

Person	Environment	Wound
Comorbidities	Movement equipment	1 st aid care
Mobility Status	Lighting	T.I.M.E.
Nutrition	Clutter	Skin Condition - ecchymosis
Dependency	Manual handling equipment	Skin Flap perfusion
Hygiene	Fingernails	Wound Pain
Falls risk	Jewellery	Wound Infection
Vision deficit	Pets	Oedema
Medication/Polypharmacy		Adhesive dressings/tapes
Previous skin tears		Skin Protector
Mental capacity		Reassessment
Age extreme		
Goal of care		
Recommendations		

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QUESTION: Mrs B sustained an injury to the skin around the wound on her forearm as the nurse removed the adhered dressing. Should the injury be reported as an incident?

Yes

Skin trauma is a term commonly used to describe the result or consequence of a specific situation or event. The use of adhesive tapes can cause skin tears, which should be reported to enable learning from the incident and improve clinical practice to minimise injuries.

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QUESTION: Explain why skin tear injuries should be reported as an incident.

Skin tears are wounds that can be prevented. If a skin tear occurs, it is important to investigate its circumstances. This investigation can help identify ways to avoid similar injuries in the future and identify areas for improvement. Collecting data on skin tears can also inform us of the extent of the issue, trends, and opportunities for practice improvement.

SKIN TEAR DOCUMENTATION

- Comprehensive & Accurate
 - Incident report
- Assessments
 - Person
 - Environment
 - Wound



ENABLING SELF CARE

Table 4. Self care checklist for patients with vulnerable skin (adapted from Wounds UK, 2015)

- Have I been given an individualised skin care plan?
- Am I using an emollient every day?
- Am I eating sensibly and drinking enough water?
- Am I keeping as active and mobile as possible?
- Have I thought about wearing clothing to protect my skin - e.g. long sleeves, shin guards or tubular bandages?
- Has my environment been made as safe as possible - e.g. adequate lighting, no obstacles and using padding on furniture if required?
- Am I wearing sensible/comfortable shoes to avoid falls?

SKIN TEAR PATIENT 1ST AID

Stop the bleeding Use sterile gauze to apply pressure to the wound. Do not remove the gauze until the bleeding has stopped. If the wound is deep, use a sterile dressing to cover it.	Reduce the pain Use pain relief if needed. Do not use aspirin as it can increase the risk of bleeding. Do not use alcohol on the wound as it will irritate the skin.	Cover the bleeding Use a sterile dressing to cover the wound. Do not use adhesive dressings on fragile skin. Use a non-adhesive dressing if possible. If the wound is deep, use a sterile dressing to cover it.
---	--	---

If the wound continues to bleed
or
the skin is deep or large
or
there are signs of infection or increasing pain you should contact a medical professional.

QUESTION: Patients should be instructed to always anchor the skin flap into position with skin closure strips.

False.

Patients can be shown how to realign the skin flap into position. A dressing can keep the flap in position, especially if the dressing is not disturbed for up to 5 days. Importantly the dressing should have arrows indicating the correct direction to remove the dressing so as not to disturb or lift the skin flap from the wound bed.



PREVENT RECURRENCE

- Skin moisturising
- Limb protection
- Adhesive remover wipes
- Avoid adhesive
- Daily skin inspection
- Apply protective padding to equipment
- Safe Safe manual handling - slide sheets
- Carer - short nails & no jewellery



QUESTION

CAN YOU IDENTIFY A RISK FACTOR/S IN THIS IMAGE

ANSWER
Jewellery
Dry Skin



KEY POINTS

- Bleeding must be stopped before dressing the wound
- Realigning the flap at the time of injury
- Reduce any blood between the flap and the wound bed
- Secure in position with a silicone dressing
- Date and arrow on the outside of the dressing
- Escalate, document and report the injury
- Incident reporting skin tear injuries offers practice improvement opportunities.
- Consistent and comprehensive documentation allows reliable data collection and team communication offers.

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Moisture Associated Skin Damage

Welcome to Module Six: MASD. This module focuses on preventing, recognizing, assessing, and treating common wet skin conditions that affect older adults. As a nurse, it is crucial for you to have expertise and underpinning knowledge in managing wet skin conditions to ensure the well-being and comfort of the older people under your care.

In this module, you will learn about the most effective ways to prevent, diagnose, assess, and treat common wet skin conditions in older adults. Additionally, you will gain knowledge on how to evaluate skin conditions and select suitable skincare products to protect fragile skin from damage. By the end of this course, you will be able to differentiate between IAD and pressure injury to ensure accurate diagnosis and provide optimal care management.

The module covers common wet skin conditions, including incontinence-associated dermatitis, moisture-associated skin damage, peristomal damage, tinea, and skin damage from wound exudate leakage. You will be able to apply your knowledge and skills in a workplace activity and reinforce your understanding with a multiple-choice assessment.

By completing this module, you will be able to prevent, assess, diagnose, and treat wet skin conditions, which will positively impact the comfort and well-being of the people you care for. We encourage you to engage with the content, practice the skills you acquire, and seek clarification from the recommended reading whenever needed.

Let's start mastering wet skin conditions and equipping you with the knowledge and skills to contribute to the health and quality of life of the elderly in your care!

WOUND EDUCATION

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Aged Care Series

- Registered Nurses & Enrolled Nurses
- Moisture Associated Skin Damage
- (0023065 MASD)

Notes

WET SKIN CONDITIONS

MODULE 6 OVERVIEW

1. Knowledge & Performance Goals
2. Incontinence Associated Dermatitis
3. Moisture Associated Skin Damage
4. Peristomal Damage
5. Tinea



Credit: Sherris L. Lindberg for Thera Skin®. Photo courtesy: Alvin Hoyle/MSD. Used with permission. (© 2011, MSD, All Rights Reserved.)

WOUND EDUCATION
CLINICAL TRAINING MADE EASY – AGED CARE®

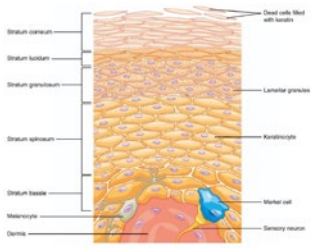
GOALS

KNOWLEDGE	PERFORMANCE
<ol style="list-style-type: none"> 1. Nurses can improve skin health by learning how to prevent, recognize, assess, and treat common wet skin conditions. 	<ol style="list-style-type: none"> 1. The nurse will demonstrate skin assessment and selection of skincare products to prevent damage and to support healing.

WOUND EDUCATION
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SKIN BARRIER FUNCTION COMPROMISE

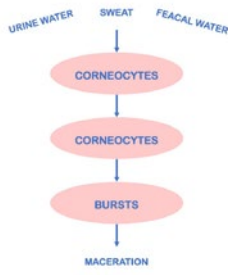
- Lamellar Lipids
- Natural Moisturising Factor (NMF)
- Sebum
- pH Acid Mantle
 - Contact with bodily fluids
 - Sweating
 - Wound Exudate
 - Mechanical force, friction.



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HOW DOES MOISTURE ASSOCIATED SKIN DAMAGE (MASD) OCCUR?

- Contact with bodily fluids
- Sweating
- Wound Exudate
- Mechanical force, friction



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PERISTOMAL SKIN BREAKDOWN



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INCONTINENCE ASSOCIATED DERMATITIS



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CLINICAL PRACTICE IMPORTANCE

- Duration of urine & faeces exposure
- Incontinence devices remaining in contact with the skin
- Skin protectants can reduce continence products absorption
- Frequent skin hygiene can increase risks of further breakdown, Corneocyte damage, lipid reduced, dryness, & friction forces.
- Abrasive cleaning techniques & products
- Use of occlusive products
- Malnutrition, Diabetes, Medications, Immobility



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IAD CATEGORISATION TOOL (GLOBIAD)

IAD Categorisation Tool ²	
Category	Category Description
Category 1A	Persistent redness without signs of infection. A variety of tones may be present. It could be pale or purple in dark skin.
Category 1B	Persistent redness WITH clinical signs of infection, such as white scaling of skin or satellite lesions.
Category 2A	Skin loss without clinical signs of infection. Such as excoriation, denudation or skin erosion.
Category 2B	Skin loss WITH clinical signs of infection. White scaling skin/ulcers may be visible, they wound with excess exudate, green appearance may suggest a bacterial infection with <i>Pseudomonas aeruginosa</i> .

Reference: 1. Doughty D, et al. Incontinence-associated dermatitis. Consensus statement, evidence-based guidelines for prevention and treatment, and current challenges. J Wound Ostomy Continence Nurs. 2012;29:303-313. 2. Beckman B, et al. The Global IAD Categorisation Tool (GLOBIAD). Skin Integrity Research Group - Ghent University 2017. 3. Beckman B, et al. Incontinence-associated dermatitis: moving prevention forward. London: Wounds International; 2015.

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PREVENTION

- Skin damage must be avoided by preventative treatment early
- If faecal incontinence is suspected a barrier film may be preferred
- Frequent application of barrier creams may be required if frequent liquid faeces occurs



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BROKEN SKIN OR FAECAL INCONTINENCE

- Compatible to use on broken skin
- Permits incontinence pads to continue absorption
- Removes from the skin with minimal force
- Visualisation of skin



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PREDICT THE RISK & PREVENT APPROPRIATELY



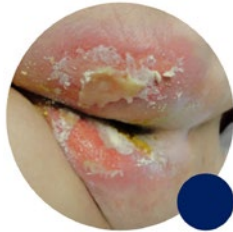
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IAD & PRESSURE INJURIES CO-EXIST!



DIFFICULT BARRIER REMOVAL



SILICONE DRESSINGS



SKIN PROTECTANTS

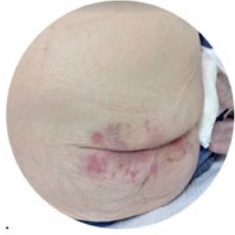
TABLE 4 | Characteristics of the main types of skin protectant ingredients (adapted from^{10,11,12,13,14})

Principal skin protectant ingredient	Description	Notes
Petrolatum (petroleum jelly)	Derived from petroleum processing Common base for ointments	<ul style="list-style-type: none"> Forms an occlusive layer, increasing skin hydration May affect fluid uptake of absorbent incontinence products Transparent when applied thinly
Zinc oxide	White powder mixed with a carrier to form an opaque cream, ointment or paste	<ul style="list-style-type: none"> Can be difficult and uncomfortable to remove (e.g. thick, viscous pastes) Opaque, needs to be removed for skin inspection
Dimethicone	Silicone-based; also known as siloxane	<ul style="list-style-type: none"> Non-occlusive; does not affect absorbercy of incontinence products when used sparingly Opaque or becomes transparent after application
Acrylate terpolymer	Polymer forms a transparent film on the skin	<ul style="list-style-type: none"> Does not require removal Transparent, allows skin inspection

Reidman D et al 2015

QUESTION

CAN YOU IDENTIFY THE CAUSE OF THIS WOUND



COMBINATION
Stage 1 pressure injury & IAD

QUESTION

CAN YOU IDENTIFY THE CAUSE OF THIS WOUND



SCABIES

QUESTION

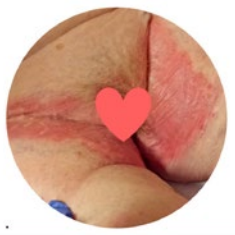
CAN YOU IDENTIFY THE CAUSE OF THIS WOUND



IAD

QUESTION

CAN YOU IDENTIFY THE CAUSE OF THIS WOUND



IAD

QUESTION

CAN YOU IDENTIFY THE CAUSE OF THIS WOUND



COMBINATION
IAD & Stage 1 pressure injury

INTERTRIGO SKIN FOLDS (RASH)

- Inflammatory skin condition
- Opposing skin surfaces
- Friction forces
- Humidity
- Lack of air circulation



INTERTRIGO (WET RASH) GROIN



INTERTRIGO BREASTS



<https://www.woundcare.com.au/intertrigo/>

WOUND and PENDULOUS ABDOMEN



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**INTERTRIGO FEET
BETWEEN TOES**



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049444/>



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WOUND EXUDATE



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WOUND EXUDATE - SKIN DAMAGE

Three circular inset photographs. The first shows a close-up of a wound with a white dressing. The second shows a close-up of a wound with yellow exudate. The third shows a close-up of a wound with red, damaged skin.

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POOR PRACTICE



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KEY POINTS

- Wet skin conditions occur when the skin barrier is breached
- Add more moisture to wet skin causes further harm
- Moisture Associated Skin Damage (MASD) can occur as a result of urine, faeces, wound exudate, sweat,
- Barrier products must be easy to remove
- Barrier films permit the skin to be observed

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Leg Ulceration & Oedema Care

Leg ulcers are prevalent in Australia, with about 0.6 cases per 100 medical encounters. While venous insufficiency is the primary cause of chronic leg ulcers in 70% of cases, there are various other underlying causes, and often, the ulcers have mixed aetiology. To provide the best care, evaluating the cause, treating the underlying issue, managing the wound, and monitoring the progress is essential.

As a health professional, you must comprehensively assess a patient with a lower leg wound. You should identify whether the patient is suitable for compression therapy, which involves selecting and applying the appropriate compression therapy principles for leg ulcers. You should also educate the patient and other team members about the role and types of compression therapy in managing leg ulcers.

To choose the correct compression therapy, it is important to understand the anatomy of the leg, the physiology of the calf pump, and the principles of managing leg ulcers. It is also important to know how to apply different types of compression properly. Nurses who work with elderly patients who have venous leg ulcers play an essential role in selecting the appropriate compression therapy. The best option should be chosen in partnership with the patient.

This module will equip you with the knowledge and skills to effectively care for patients with leg ulcers, whether of venous or arterial origin. By completing this module, you can manage leg ulcers appropriately and provide ongoing monitoring to improve patient outcomes.

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- Registered Nurses and Enrolled Nurses
- Leg Ulceration & Oedema Care
- 00231M7 CTME

Notes

LEG ULCERATION & OEDEMA CARE

MODULE 7 OVERVIEW

1. Knowledge & Performance goals
2. Leg Ulcers/Venous Leg Ulceration
3. Causes of oedema
4. Caring for oedema

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GOALS

KNOWLEDGE	PERFORMANCE
1. Learn the underlying causes of lower limb leg ulceration.	1. Demonstrate clinical decision making capability to select the most appropriate oedema management strategy
2. Differentiate between the various causes of lower limb oedema	2. Imitate a safe method to don lower limb compression hosiery to avoid skin trauma.
3. Best practice care for lower limb oedema caused by problems with the venous blood flow.	

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ARTERIES & VEINS

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VENOUS LEG ULCERATION

The vein system in the leg fails to return blood back up to the heart against gravity.

- Prolonged high pressure in the veins due to:
- Muscle pump failure
 - Venous obstruction
 - Valve incompetence

<https://www.jhhospital.com/learn-more/venous-ulcers/>

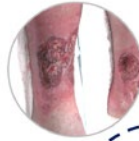


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ARTERIAL ULCERATION

The arterial blood flow is reduced due to blockages in the vessel which limits tissue perfusion.



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MIXED VENO-ARTERIAL LEG ULCERATION

Combination of venous & arterial disease. Blood supply is adequate that limb does not suffer gangrene.



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ATYPICAL LEG ULCERATION

Atypical symptoms unrelated to venous or arterial compromise.



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RHEUMATOID INFLAMMATORY ULCERATION

- Team approach
- Immunologist
- Infectious disease
- Topical management



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RHEUMATOID DISEASE TRAUMATIC INJURY

- Team approach
- Prompt escalation
- Scope of practice
- Look beyond the wound



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QUESTION:

The patient with arterial insufficiency should be referred to a.....

- A) Podiatrist for a doppler
- B) Vascular surgeon for surgical options
- C) Wound Specialist for appropriate topical management
- D) Pain team for optimal management long-term

B

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VENOUS/DIABETES/PYODERMA GANGRENOSUM

- Team approach
- Vascular surgeon
 - Endocrinologist
 - Immunologist
 - Local Doctor
 - Community Nurse
 - Wound Specialist



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RENAL FAILURE/PYODERMA GANGRENOSUM



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HYPERTENSION/MARTORELL'S

- Wound-related pain
- Wound location
- Oedema from immobility



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NEUROPATHIC - PRESSURE DAMAGE

- Diabetes
- Oedema
- Exudate



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BASAL CELL CARCINOMA (BCC) AND SQUAMOUS CELL CARCINOMA—SUN DAMAGED SKIN

- Dermatology
- Topical chemotherapy



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CARCINOMA

- Delayed healing
- Dark friable granulation



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VENOUS LEG ULCERATION/IHD/DIURETICS

- Cardiologist
- Wound Specialist
- Compression
- Exudate management



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SWELLING NOT RELATED TO VENOUS ISSUES

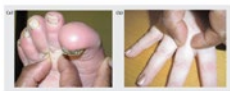


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LYMPHOEDEMA WITH LEG ULCERATION

Tissue swelling due to failure of lymph drainage



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LYMPHOEDEMA - UNDIAGNOSED

- Lymphoedema Specialist
- Wound Specialist
- Compression
- Exudate management



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INVESTIGATIONS

- HEIDI (History, Examination, Investigations, Diagnosis, Indications/Interpretation)
- Bedside vascular assessment
- ABPI/Toe Pressure
- Duplex Scan
- Wound Biopsy



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HISTORY

- Family history
- Surgery
- Fractures
- Occupation
- Pregnancies
- Varicose Veins
- DVT
- Phlebitis
- Mobility
- Occupation
- Obesity
- Nutrition



- Cardiovascular
- Hypertension (HT)
- Cerebral Vascular Accident (CVA)
- Ischaemic heart disease (IHD)
- Smoking
- Cholesterol
- Diet
- Exercise

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WOUND HISTORY

- Current Ulceration Duration
- Previous Ulceration & Time To Heal
- Time Spent Ulcer Free
- Successful Management
- Nutrition Assessment
- Pain Assessment
- Social Impact



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EXAMINATION

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QUESTION: HEIDI can be defined as...

HEIDI is a structured approach to a comprehensive assessment of a patient with an undiagnosed leg ulceration.

- History
- Examination
- Investigations
- Diagnosis
- Indications/Interpretation

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INVESTIGATIONS

- Brachial blood pressure
- Beurger's test
- Pedal & Leg pulses
- Doppler
- Ankle/Brachial Index
- Toe Pressures
- Photoplethysmography
- Arterial/Venous Duplex

- Plain film x-ray
- Blood profiles
- Wound biopsy
- MRI

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SIGNS & SYMPTOMS

Venous Disease

- Oedema, could be leaky
- Brown pigmentation
- Dilated veins
- Ankle flare
- Previous scarring
- Atrophie blanche
- Shaped of leg
- Hair present
- Lower 1/3 leg
- Irregular shape wound
- High exudate
- Elevation relieves discomfort
- Pulses present

Arterial Disease

- Thin, shiny, dry skin
- Thicken nails, absent hair, cool limb
- Straight shaped leg
- Tips of toes, sole foot
- Demarcated edges
- Necrosis present
- Low exudate
- Painful, at night relieved by hanging legs out, claudication pain
- Diminished pulses

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QUESTION: What is the significance of the calf muscle in a patient with a recurrent venous leg ulceration?

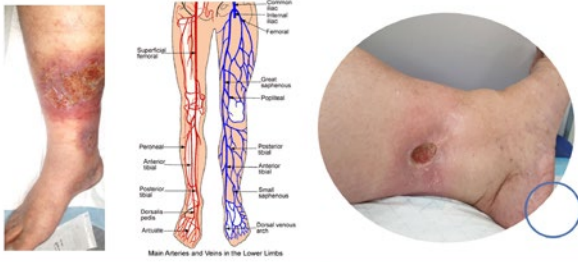
- **Answer:** Ambulation, which involves heel-toe action with calf muscle pump movement, assists venous flow returning to the heart during walking.
- Lack of calf muscle pump action can increase venous hypertension.



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PERIPHERAL VASCULAR ASSESSMENT "in the field"



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ASSESSMENT: CLAUDICATION PAIN

Arterial Blockage (PAD) Can Cause Leg Pain While Walking



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ASSESSMENT: TEMPERATURE



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ASSESSMENT: SENSATION

Sensation

Vibration sensation

Assesses dorsal/posterior column!

1. Ask patient to close their eyes
2. Tap a 128 Hz tuning fork
3. Place onto patient's sternum & confirm patient can feel it buzzing
4. Ask patient to tell you when they can feel it on their foot & to tell you when it stops buzzing
5. Place onto the distal phalanx of the great toe
6. If sensation is impaired, continue to assess more proximally – e.g. proximal phalanx



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ASSESSMENT: COLOUR



Colour changes with elevation (a) and dependency (b)

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ASSESSMENT: BUEGER'S

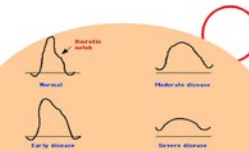
- Used to assess the adequacy of the arterial supply to the legs
- Lie the patient on the bed. Straight leg raise slowly (normal side first)
 - The point at which the ischaemic leg goes pale is Buerger's angle (The smaller the angle the severer the disease)
 - Hang the leg down off the bed: a delay in return of colour followed by reactive hyperemia is seen in the affected side



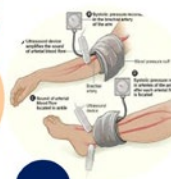
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ASSESSMENT: PULSE



Distal volume plethysmography in peripheral vascular disease
"is in the contours of the pulse volume recording with legging"
"Plethysmography reflect the severity of peripheral vascular"
"characterized by the absence of a diastolic peak"
"In fact, the upstroke and downstroke be"
"inside of the wave!"



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ANKLE BRACHIAL PRESSURE INDEX

- <0.5 Arterial
- 0.5 – 0.7 Mixed Arterial
- 0.7 – 0.8 Mixed Venous
- >0.9 Venous
- >1.2 Calcified Vessels



TOE PRESSURE

- Assess severe arterial disease
- Diabetes
- Gaiter (lower 1/3rd of the leg painful ulceration)
- Warm foot
- Great toe
- 50mmHg healable
- 30mmHg severe disease



QUESTION: A bedside vascular assessment should be attended by health care professionals (HCP). What does this assessment include?

- All HCPs caring for patients with lower limb ulceration should be trained in bedside vascular assessment. This includes:
- Temperature
 - Colour including Buerger angle
 - Sensation including pain
 - Pulse palpation and sound wave.



DIAGNOSIS: DIFFERENTIAL DIAGNOSIS

- Causes of leg ulceration
- Arterial insufficiency
 - Malignancy
 - Infection
 - Metabolic disorders
 - Autoimmune
 - Iatrogenic effects
 - Hypertension



DUPLEX VENOUS & ARTERIAL SCAN

Uses of colour duplex scanning

Arterial	Venous
<ul style="list-style-type: none">Identify obstructive atherosclerotic disease:	<ul style="list-style-type: none">Diagnosis of deep vein thrombosis above the knee
<ul style="list-style-type: none">Carotid	<ul style="list-style-type: none">Assessing competence of valves in deep veins
<ul style="list-style-type: none">Renal	<ul style="list-style-type: none">Superficial venous reflux:
<ul style="list-style-type: none">Surveillance of infraganglial bypass grafts	<ul style="list-style-type: none">Assessing patient with recurrent varicose veins
<ul style="list-style-type: none">Surveillance of lower limb arteries after angioplasty	<ul style="list-style-type: none">Identify and locate reflux at saphenopopliteal junctions
	<ul style="list-style-type: none">Preoperative mapping of saphenous vein



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WOUND BIOPSY

- Purpose of biopsy
- Depth & Area of biopsy
- Prognosis - Plan
- Incision/Excision/Shave/Punch



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QUESTION: HCP should advocate for the doctor to request all tests available to gain an accurate diagnosis? True or False

False

Not all investigations will be appropriate or necessary. Collating individual clinical information assists in determining the rationale of why an investigation may be warranted.

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QUESTION: Is it appropriate to request a biopsy of a wound if it is failing to heal after 3 months of best practice? True or False

True.

- With best practice wound care consistently applied, and a patient motivated to heal it is anticipated wound size reduction would occur.
- Further investigation to determine aetiology for delayed healing is required., a patient is motivated to heal.

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CAUSES OF OEDEMA



TYPE
Chronic Venous Insufficiency
Lymphoedema
Acute: DVT/Infection/Trauma
Systemic disease: Cardiac, Liver, Renal/Hypoalbuminemia, Pulmonary hypertension
Medication
Pregnancy/Obesity
Idiopathic

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CAUSES OF OEDEMA

Type	Signs & Symptoms	Characteristics
Chronic Venous Insufficiency	Bilateral or Unilateral Pitting Immobility associated	Reduces overnight
Lymphoedema	Toe oedema. History of tumour	Does not reduce with elevation alone
Acute: DVT/Infection/Trauma	Unilateral. Pain	Sudden
Systemic disease: Cardiac Liver Renal/Hypoalbuminemia Pulmonary hypertension	Consistent with uncontrolled disease symptoms	Combination of CVI and/or lymphoedema Diuretics beneficial
Medication	Bilateral	Calcium channel blockers, Corticosteroids, NSAID, sex hormones
Pregnancy/Obesity	Bilateral	Weight on lower limbs
Idiopathic	Cyclic associated with menstruation	20 – 30 year females

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LYMPHOEDEMA SIGNS & SYMPTOMS

- Swelling of part or all of the arm or leg, including fingers or toes
- A feeling of heaviness or tightness
- Restricted range of motion
- Recurring infections
- Hardening and thickening of the skin (fibrosis)



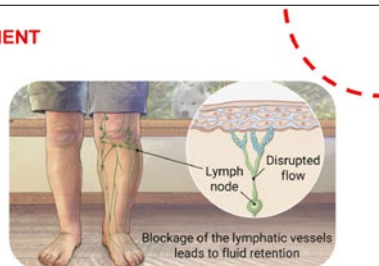
<https://www.painpractice.com/what-is-the-best-compression-sock-for-swelling-and-edema/>

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LYMPHOEDEMA TREATMENT

- Skin Care
- Lymphatic drainage & massage
- Compression
- Deep breathing
- Exercise
- Weight loss



<https://www.totalphysio.com/massage/what-is-lymphoedema/>

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QUESTION:

Lymphoedema reduces if lower limbs are elevated overnight.
True or False

- False.
- Oedema because of CVI alone will reduce with elevation whereas lymphoedema can remain unchanged.

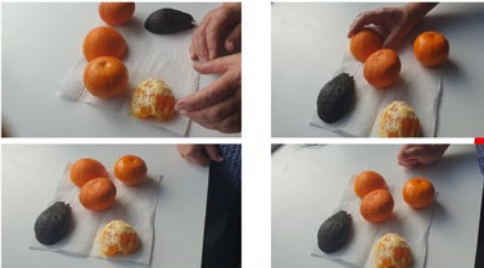


SCALE – CARDIAC FAILURE

- Cardiac oedema



DEMONSTRATION VIDEOS - OEDEMA




Australian and New Zealand Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers



VENOUS LEG ULCERATION TREATMENT/MANAGEMENT

- Elevation
- Exercise, ankle flexion
- Costs: ACFI, Private, 2nd Lymphoedema
- Environmental Heat
- Skin Care/hygiene
- Wound Management
 - Excision
 - Infection
 - Surrounding tissue



COMPRESSION


- Corrective venous surgeries
- Compression options and healthcare settings
- Hosiery - Donning/Removing
- When to use hosiery, bandage, tubular compression, pneumatic pumps and wraps.
- Training & Support

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CLASSIFYING VENOUS LEG ULCERATION


Simple

Good prognosis
Ulcer < 100 cm²
Duration < 6 months
100% healed within 12 weeks
At a minimum 70% healed within 18 weeks
Competent experienced clinician



Complex

Underlying comorbidities
Cardiac failure
Infection or recurrent infection
Uncontrolled pain
Immobility: fixed ankle, foot deformity
Mixed aetiology ulcer
Ulcer > 100 cm²
Duration > 6 months
History of non-concordance
Wound failed to reduce by 20-30% in 4-6 weeks despite best practice
70 - 100% healed within 24 weeks



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QUESTION: LIST THE SIGNS THAT THIS IS AN IMAGE OF AN ULCERATION AS A RESULT OF ARTERIAL COMPROMISE OR VENOUS INSUFFICIENCY.

- Venous insufficiency
 - Dedema
 - Gaiter area
 - Large wound
 - High exudate (towel)
 - Partial thickness
 - No sign of ischaemia
 - Varicose veins visible
 - Complex VLU




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QUESTION

PEOPLE WITH OEDEMATOUS LEGS AND VARICOSE VEINS MAY SUFFER FROM LEG ULCERS.

- True
- False



TRUE

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WIDTH

The slide illustrates methods for measuring limb width. It features three circular diagrams: the first shows a person's back with red lines indicating shoulder width; the second shows a hand with a black line indicating wrist width; the third shows hands with white tape being applied to a limb. Below these are images of medical supplies: a roll of white tape, a box of Comprilan, a roll of white gauze, and a roll of grey elastic bandage.

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SHAPE - SIZE: LIMB CIRCUMFERENCE

The slide shows how limb shape and size affect measurement. It includes a photo of a person's leg with a large, irregular wound. Next to it is a diagram of two legs, one with a red double-headed arrow indicating a wider circumference. A green arrow points to a second diagram of a narrower leg. To the right is a photo of a person's legs in shorts, with a dashed blue circle around the waist area.

<https://styleatlife.com/articles/exercises-to-get-slim-ekans/>

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WHAT IS PNEUMATIC COMPRESSION?

- Pneumatic compression **pump** that is attached to inflatable **garments**
- Air filled garments exert a pressure on the limb in sequential pattern
- Treatment **setting variation**:
 - Pressure
 - Cycle time
 - Duration
 - Order of inflation

The slide features a circular inset showing a person sitting in a chair with a pneumatic compression pump on their leg. Another circular inset shows a close-up of the pump's control panel with various buttons and a digital display.

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REDUCING OEDEMA

IMPROVING SKIN

The slide shows two circular images. The left one shows a close-up of a person's leg with a large, red, inflamed area of skin. The right one shows a person's leg in a black pneumatic compression sleeve, with a red circle highlighting the lower calf area.

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HOISERY APPLICATION HINTS

- Ensure skin is dry
- Use gloves to apply
- Nails trimmed no jewellery, hands moisturised
- Stocking inverted to heel section
- Use stocking applicator or slide to glide hosiery onto leg
- Slide to heel and position



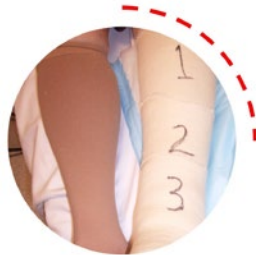
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LIGHTER COMPRESSION

“

... patients can be prescribed up to 17 mmHg compression in the absence of a full vascular assessment if no risk factors for arterial insufficiency are identified.



Best Practice Statement: holistic management of venous leg ulcers. London: Elsevier UK. Available to download from www.nursingtimes.uk

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COMPRESSION WRAPS

- Ease of application
- OH&S issues
- Durability
- Flexibility
- Footwear
- Cost effectiveness



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APPLICATION GUIDE – STEP BY STEP

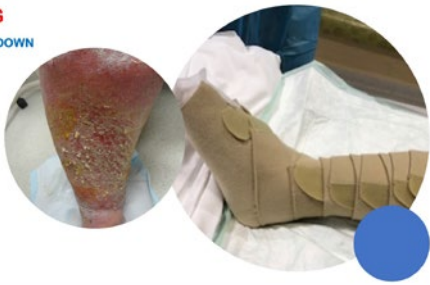
- Apply a JOBST® narrow liner and topwrap if applicable. Please fasten on top of the footpiece, resting the heel over the hole in the footpiece.
- When removing the footpiece, lift the VELCRO® over on itself and back on the same band.
- Unwrap the legpiece and lay the wrap on the floor behind your leg with the label side furthest back and facing up. The attached bands will be closer to your foot.
- Grab each side of the band closest to your ankle and pull forward wrapping the band around the lower part of the leg at its base and stretch and affix with the VELCRO®. Unroll the top band before applying the second band and to ensure the foot band sits over the top. If wearing a footpiece, the bottom band should overlap the footpiece.
- Repeat with each band moving up the leg, smoothing out any wrinkles as you go. Try to ensure a 50% overlap between adjacent strips.
- Place in wash bag. Please note some manufacturers (JM Liners, Strong and Life Compression Systems) Machine wash in cold water with a mild detergent, turning up with the inside, do not iron, do not dry clean. Dry on a flat surface, do not hang or peg.

For video on "How to Apply a Knee FarrowWrap™" see www.youtube.com/watch?v=A4ApfGqmM

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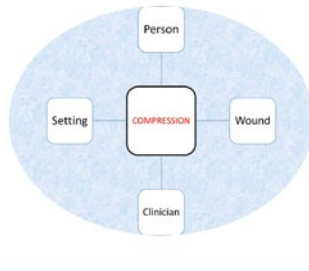
WET LEG
SKIN BREAKDOWN



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WHY IS COMPRESSION UNDER UTILISED?



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QUESTION: The person suffering from a Venous Leg Ulcer may have previously experienced a negative result from the selected compression. Provide some examples.

- Previous negative experience
- Pain – discomfort
- Leakage – odour
- Cosmesis – self-image
- Access to experts – confidence in the clinician
- Costs and affordability
- Lack of patient-centred care.



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QUESTION - SCENARIO
COMPRESSION APPLICATION

Mary has been wearing compression hosiery for over five years since being diagnosed with vein problems in her lower legs. In the past week, Mary has complained of aching legs, tight shoes, and skin breakdown from weeping fluid from her legs. Mary decides not to wear the stockings as they hurt, trying to get on over her sore skin. As a nurse caring for Mary do you have any recommendations on what should be your next steps?

- Stop & Watch form
- Escalate to the medical officer
- Take an image of the skin breakdown
- Explain to Mary that the swelling is increasing as her compression has not been worn.
- Suggest other methods of compressing her lower limbs such as wraps and/or a pneumatic pump
- You will arrange for the doctor to review her legs and approve agreed compression.

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SIMPLE VLU SCENARIO

- Recurrent VLU following absence of compression for 3 months.
- Partial thickness, non-infected ulceration of 3 weeks
- Malleolus prosthesis



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COMPLEX VLU SCENARIO

- CVI, Arterial compromise with Lymphoedema
- Diabetes and Heart failure
- Previous amputation
- High output ulceration
- Immobility

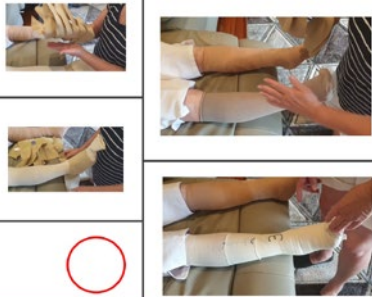


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DEMONSTRATION VIDEO

Farrow wrap, Hybrid liner and layered tubular bandage.

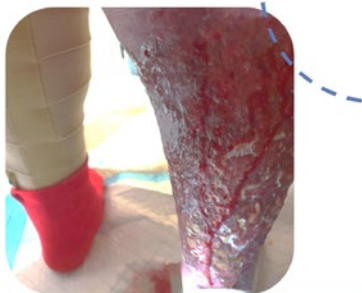


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CASE STUDY

- 79 year old Lady
- Venous Leg Ulceration
 - Over 5 years duration
- Chronic health
 - Diabetes type 2
 - Asthma
 - CCF
 - Hypertension
 - CKD
 - Anaemia
 - cMRSA



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COMPREHENSIVE WOUND CARE

Wound Type	Wound Issue	Goal	Strategy
Slow to heal	Slough/Debris	Prepare wound bed	Debriclean
Post-op Infection risk	Infection risk	Reduce wound microbes	Sorbact
Venous Leg Ulceration	High Exudate	Prevent tissue breakdown/Absorb exudate	Sorbion
Venous/Mixed/ Lymphoedema	Uncontrolled Wound Care	Reduce & maintain oedema control	Farrow Wrap

COST CALCULATIONS

- Direct Costs
- Dressing Frequency
- Staff Resources
- Hospital Avoidance
- Indirect Costs
- Infection Prevention
- Pain Control

HEALTH ECONOMICS

Product	Frequency	Cost	Weekly Total	Monthly Total	Healing Outcome
Compri 2	3-4/7days	\$42.00	\$84.00	\$336.00	Static
Hybrid Liner	Daily	\$55.00	\$55.00	\$55.00	Healing
Farrow Calf Wrap	Daily	\$147.00	\$147.00	\$147.00	Healing
Total				\$202.00	

Product	Frequency	Cost	Weekly Total	Monthly Total	Healing Outcome
2 x Polymen 10 x 10 cm	3 x week	\$18.80	\$56.40	\$225.60	Deteriorated
Zetuvit Plus 15 x 20cm	3 x week	\$5.23	\$15.69	\$62.76	Deteriorated
Total				\$288.36	
Sorbion 20 x 20cm	2 x week	\$29.40	\$58.80	\$235.20	Healing
Savings				\$53.16	

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- ### KEY POINTS
- Most leg ulcerations are a result of the veins not taking blood back up to the heart
 - Correct diagnosis of the cause of the leg swelling (oedema) is pivotal to selecting the correct treatment
 - The HCP must apply a structured process to assess a patient with a lower limb wound.
 - Leg ulceration is not a diagnosis but a symptom of an underlying aetiology
 - Gathering information systematically can help diagnose undiagnosed leg ulceration accurately.
 - Compression is the best treatment for vein or calf causes of oedema
 - LaPlace's law determines the pressure exerted, which is controlled by the tension, width, number of layers and limb circumference.
 - Compression can be delivered via a bandage, hosiery, wrap or pneumatic pump, depending on the individual clinical requirements.
 - Safe, effective compression can be achieved with compression wraps that a PCA could apply.
 - Earlier escalation is pivotal for patients with atypical presentations.
 - HCP must consider systemic treatments that control underlying health conditions
 - VLU can be classified as simple or complex depending on the patient's comorbidities, mobility, and wound characteristics.
 - Team approach will offer optimal care.
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WOUND EDUCATION

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Wound Infection and Antimicrobial Resistance

Welcome to the comprehensive module on “Wound Infection and Antimicrobial Resistance.” In the dynamic healthcare landscape, the care of elderly individuals poses unique challenges, particularly in wound management. This module has been designed to equip you with the essential knowledge and skills to navigate the important topic of wound infections and antimicrobial resistance within the aged care context.

As a professional aged care nurse, you are aware of the increased vulnerability of the elderly population to various health concerns, including wounds that can compromise their overall well-being. Wound infections in this demographic demand a current understanding and specialised approach, especially in the global challenge of antimicrobial resistance.

Throughout this module, we will explore the details of wound assessment, product selection, and infection management, focusing on the elderly population’s distinct needs. Moreover, we will explore the critical connection between wound care practices and the growing concern of antimicrobial resistance. The judicious use of antimicrobials is paramount for effective wound management and pivotal in addressing the global health threat of resistance.

We invite you to engage actively in this learning experience as it goes beyond traditional wound care practices. It delves into the emerging landscape of antimicrobial stewardship, encouraging you to adopt a holistic approach that prioritises patient well-being, infection prevention, and responsible antimicrobial use.

As you progress through this module, you will gain insights into the latest evidence-based practices, diagnostic methodologies, and interdisciplinary collaboration strategies. We aim to expand your theoretical knowledge and empower you to translate this knowledge seamlessly into your daily clinical practice.

Your dedication to providing optimal care for the elderly population is honourable, and we believe that this module will further enhance your capabilities in addressing the complex interplay of wound infections and antimicrobial resistance.

Thank you for being so committed to continuous learning and, more importantly, for your unwavering dedication to the well-being of our elderly community members.

WOUND EDUCATION

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- Registered Nurses and Enrolled Nurses
- Wound Infection and Antimicrobial Resistance
- (0023108 CME- Aged Care Series)

Notes

WOUND INFECTION AND ANTIMICROBIAL RESISTANCE

MODULE 8 OVERVIEW

1. Knowledge & Performance goals
2. Identify and Assess Wound Infections
3. Wound Infection Risk Management
 - Who is vulnerable
4. Reducing Antimicrobial Resistant through Stewardship
 - Relevance to aged care
5. Management Strategies



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GOALS

KNOWLEDGE	PERFORMANCE
1. Recognise the signs and symptoms of wound infections in elderly patients	1. Provide clear and concise education to elderly patients and their caregivers on wound care practices and infection prevention measures.
2. List and explain the risk factors for wound infections in the elderly population.	2. Incorporate infection control protocols into wound care routines tailored to the needs of elderly care residents.
3. Advocate for policies and practices that promote infection prevention and responsible antimicrobial use in aged care settings.	3. Demonstrate knowledge of antibiotic stewardship principles and their relevance to wound care in aged populations.

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ANTIMICROBIALS AND NON-HEALING WOUNDS: AN UPDATE

INCLUDING A CONCISE APPROACH TO TREATING POTENTIALLY INFECTED WOUNDS



DELAYED-HEALING

"...infection is one of the most frequent factors associated with stalled wound healing; prevention of infection and the proper use of antimicrobial agents is key in wound management."

Probst L, Azeiteiro J, Barnhill T, Lipby M, Pines K, Peters DG. Antimicrobials and Non-healing Wounds: An Update. *Journal of Wound Management*. 2022;25(3 Suppl):S15-S18. DOI:10.1053/j.jwm.2022.03.001

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INFECTION / INFLAMMATION

WOUND INFECTION INSTITUTE

International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International. 2022

WOUND INFECTION IN CLINICAL PRACTICE Principles of best practice




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WOUND INFECTION CONTINUUM 2022

...a recent retrospective analysis found introduction of early detection of infection combined with improved wound hygiene practice was associated with a 33% reduction in use of antimicrobial dressings.

Figure 1 | Wound Infection Continuum (2019-2022)



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Contamination **Colonisation** **Local Infection**



Spreading Infection **Systemic Infection**

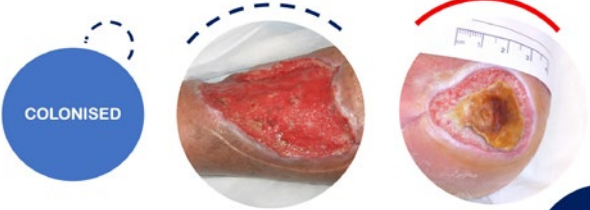


Hypergranulation

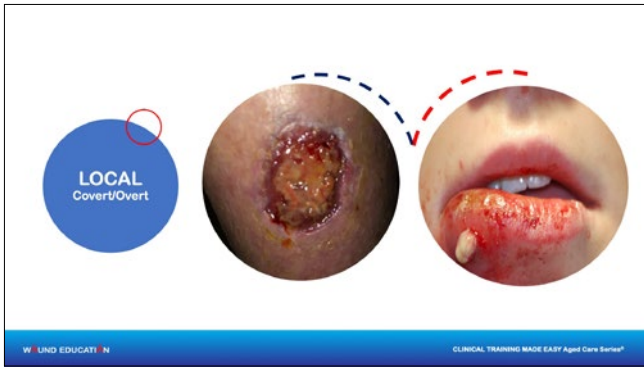
Bacteria exist either as planktonic organisms or in aggregates called biofilms

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COLONISED



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SIGNS NON HEALING

Tolerance enables the cells in biofilms to withstand long-term exposure to antimicrobial agents without a loss of viability

Tolerance is distinct from resistance,...

Polster S, Apollonio S, Sparacchioli T, Caselli BA, Casati K, Petersen CG. Antimicrobials and Non-healing Wounds: An Update. Journal of Wound Management. 2022;24(3):141-151. DOI:10.1016/j.jwm.2022.03.007

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DEMONSTRATION VIDEOS – BIOFILM

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WOUND INFECTION RISK MANAGEMENT

Person

- Food, Water & Oxygen
- Education
- Mental health

Wound

- Cross infection prevention
- Wound hygiene
- Antimicrobial
- TIMERS

Environment

- Aseptic technique
- Storage
- Carer education
- Local policy

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THE PERSON (RISK FACTORS)

- Increasing aging population
- Increasing co-morbidities
- Increasing health behaviours
 - Falls, Medications, Obesity, Alcohol, Smoker, Poor Nutrition, Depression
- Mental health & isolation
- Wound care access confusion & negative experiences, compliance

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STOP ANOINTING WOUNDS



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SALINE OR CHRONIC WOUND CLEANSERS



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SURROUNDING EDGE



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MICROBE LOAD



WOUND INFECTION IN CLINICAL PRACTICE

Principles of best practice



The emergence of microbes with reduced susceptibility to antiseptics is a continuing problem
A Cochrane review of honey-based dressings in all wound types was published in 2015 and concluded, as did the 2020 IWGDF guidelines health services should avoid the routine use of honey dressings until sufficient evidence of effect is available.

Probst S, Agripino J, Eggenbroten L, Eggenbroten S, Choo K, Probst K, Bartholomew and Non-healing Wounds: An Update. *Journal of Wound Management*, 2022;26(1):40-50. DOI:10.1016/j.jwm.2021.11.001

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QUESTION: Should antibiotics be prescribed for a wound opened longer than 6 weeks?

- This depends on the wound status. If the wound is healing - progressing, antibiotics are not warranted.
- Antibiotics should be prescribed for wounds failing to progress and with signs of covert/overt or chronic infection.
- Antibiotics do not debride or clean the wound. This step must be included in the treatment plan.

WHAT IS ANTIMICROBIAL STEWARDSHIP?

Educate	Educate patients, their families and healthcare professionals regarding AMR and responsible use of antimicrobial agents
Avoid	Avoid use of antimicrobials as a prophylactic therapy, except for wounds identified at high risk of infection
Access	Access non-medicated options (e.g. non-medicated wound dressings) to manage infection when possible
Choose	Choose antimicrobials only when a wound has been clinically identified as infected.
Base	Base antimicrobial selection on identification of the infecting organisms
Select	Select antimicrobial agents with narrow-spectrum activity where possible
Reserve	Reserve broad-spectrum agents for more resistant bacterial infections where possible
Continue	Continue the use of antimicrobial therapy for an appropriate duration to prevent development of resistance
Monitor	Monitor therapeutic response to guide ongoing selection and use of antimicrobials

Probst L, Apfahart L, Spornholt T, Lipky BA, Cooney K, Peters SAG. Antimicrobials and Non-Healing Wounds: An Update. Journal of Wound Management, 2022;23(1):4-11. DOI: 10.1016/j.jwm.2021.11.001

ANTIMICROBIAL STEWARDSHIP FOR WOUND CLINICIANS

The Lancet... statistical modelling approximated that, in 2019, there were 4.95 million global deaths associated with, and 1.27 million deaths directly attributable to, bacterial AMR
 ...judicious use of topical antiseptics also plays a role in preventing and managing wound infection.



Evidence Based Best Practice	Patient Empowerment	Hand Hygiene
Skin Hygiene	Wound Cleansing - Sterile/Clean Asepsis WBP	Predict & Prevent
Environment Universal Precautions	Prompt Identification	Dressing Selection Dressing Storage
Reassess & Monitor wound response	Team Collaboration Escalation	Wound Sampling

Probst L, Apfahart L, Spornholt T, Lipky BA, Cooney K, Peters SAG. Antimicrobials and Non-Healing Wounds: An Update. Journal of Wound Management, 2022;23(1):4-11. DOI: 10.1016/j.jwm.2021.11.001

EVIDENCE BASE PRACTICE

PATIENT EMPOWERMENT

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HAND WASHING

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SKIN HYGIENE

- Showering
 - Dressing on or off?
 - Setting
- Bucket/Bowl
- Cleansing wipes
- Soap free wash
- Potable tap water

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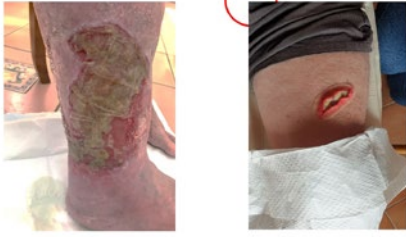
WOUND CLEANSING

- Sterile procedure
- Clean procedure

Active cleansing not "rubbing"	"Clean is like you mean it" Gentle rub
Irrigation using a 30ml syringe/30 gauge	Surfactant lowers wound surface tension
Surfactant & combined antimicrobials (PHMB)	Super-oxidized agents: Hypochlorous acid & sodium hypochlorite

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DEMONSTRATION VIDEOS —CLEANING



WOUND EDUCATION

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DEMONSTRATION VIDEO
WOUND BED PREPARATION - Soft Debridement

...a time-dependent "window of opportunity" is thought to exist after wound debridement during which biofilms are increasingly susceptible to treatment, in particular topical antiseptics.



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DEBRICLEAN DEMONSTRATION



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QUESTION: Can you describe a treatment for this wound bed?

Antimicrobial cleaning
Sodium Dressings
Soft debridement



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QUESTION: Can you describe a treatment for this wound bed?

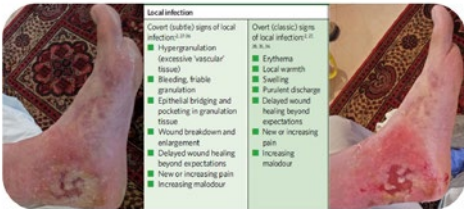
Surfactant Gel or
Hypochlorous acid gel
Soft debridement



Environment Universal Precautions



PROMPT IDENTIFICATION



International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International, 2022

DEMONSTRATION VIDEO

Dressing Storage

CAN YOU SPOT THE ERRORS?



Antimicrobial Products



Antimicrobial Product	Action	Brands/Product
Povidone-iodine	WSP	Genie/DerPhix
Triclosan	WSP/Hydrogen peroxide/ Antifungal	Liquor Alginate hydrocolloids
Melaleuca Oil, Tea Tree	Antiseptic/Ant-inflammatory/Antimicrobial	Wounded
Saline	WSP, Antiseptic, Broad spectrum	Saline/sterile gauze Silver nitrate cadexomer Povidone iodine
Silver	Broad spectrum, High & Low formulas	All forms
Enzyme Complex (Stucco sealant & Isoctanamide)	WSP Antimicrobial	Electrol Forte/Nebris
Dialkylcarbamoylchloride (Sorbact)	Hydrophobic action, Molecule binding	Sorbact All forms
PHMB	WSP broad spectrum	Genie, Gel, Foam, Solutions
Polyhexanethylene, Iopavide	WSP Antimicrobial	Microban gel

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SORBACT SELECTION

Sorbact®

all-around
infection management



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TRIAL RESULTS



First line treatment	Wound infection did not increase
5 clients had wound product change to an alternative product	50% of wounds improved or healed
40% antimicrobial product expenditure could be saved	\$1359.05 savings

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CLINICAL EVIDENCE, ANTIMICROBIAL RESISTANCE & STEWARDSHIP

- Higher complete healing rates at 30 days for phorbol ester versus negative dressing
- Significantly greater reduction in bacterial load for 30 days versus non-dressing after dressing
- Non-medicated wound dressings – ability to encourage healing from the wound bed and protection from the dressing against all bacteria when the dressing is changed?
- Lower rate of signs/symptoms of heel wound infection in negative versus non-antimicrobial dressing



International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International, 2022.

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GETTING AHEAD OF INFECTION

- 1st line treatment
- Simplifying selection
- Reduce reaction risk
- Cost savings



Antimicrobial stewardship strategies in wound care: evidence to support the use of diquarycarbonyl chloride (DQCC) coated wound dressings

Abstract

DRESSING STORAGE



REASSESS & MONITOR Wound Response



TEAM COLLABORATION & ESCALATION



PREDICT AND PREVENT

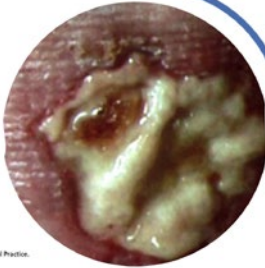


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WOUND SAMPLING

*Only collect a wound sample in the presence of clinical signs and symptoms of wound infection.
...a wound swab will only collect surface microbes.
...most clinicians still treat the patient based on wound culture*



International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International. 2022.
Probst S, Apollonio J, Ejanoshvili T, Lipshy BA, Ousey K, Peters E. Antimicrobials and Non-healing Wounds: An Update. Journal of Wound Management. 2022;2(3):151-153.

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DEMONSTRATION VIDEOS – WOUND SWAB



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QUESTION:
YES/NO



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QUESTION:
YES/NO



WOUND EDUCATION

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QUESTION:
YES/NO



WOUND EDUCATION

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QUESTION:
YES/NO



WOUND EDUCATION

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QUESTION:
YES/NO



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QUESTION:
YES/NO



QUESTION:
YES/NO



QUESTION:
YES/NO



QUESTION: List the important information to record on the specimen labelling and laboratory request

- Patient's details
- Medical number or DOB
- Date collected
- Time collected
- Type of specimen
- Location of wound
- Medical diagnosis
- Diabetic/Non-Diabetic
- Wound duration
- Relevant sign & symptoms
- Any antibiotics prescribed
- Date Ordered, Name/Contact requesting HCP

KEY POINTS

- The microbes must evoke a host response – hence a tissue reaction to be considered a wound infection.
- Wound infection is classified into Local, Spreading or Systemic.
- Delayed healing is associated with wounds containing biofilm
- Antimicrobial products should be selected for local wound infection.
- Distinguishing between the Covert and overt signs and symptoms can help in the early detection and prevention of wound infection.
- Acknowledging individual risk factors can facilitate the prevention of wound infection.
- Wound infection risk factors can be multifactorial
- Traditional methods of wound cleansing are not suitable for all wounds today.
- Saline is not an effective cleansing solution for chronic wounds
- When a wound can and can't be showered requires careful consideration, which is reflected by best practice consensus.
- Active cleansing is the first step in wound bed preparation
- Depending on the moisture content and adherence of tissue, different options to prepare the wound bed will be selected
- Wounds should be prepared to receive the dressing to improve the product's effectiveness
- General wound practice includes a soft debridement method to prepare the wound bed.
- Empirical prescribing of antibiotics for wounds infected and delayed in healing is best practice.

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Pressure Injury Development

Welcome to Module 9 of the “Clinical Training Made Easy” Aged Care Series – Pressure Injury Development. As nurses, you may feel confident in predicting and preventing pressure injuries. However, in this module, we’ll explore pressure injuries in a different light by delving into the various forces that contribute to their development.

Starting with examining terminology and the definition of pressure injuries, we will unravel the complexities of forces such as pressure, shear, and friction. Understanding these forces is crucial for recognising potential risks and implementing effective preventive measures.

Throughout this module, we’ll address fundamental questions: What exactly is a pressure injury, and how does it differ from other types of wounds? Who is more vulnerable to these injuries, and what factors contribute to their severity? By the end of this module, you will be equipped to identify the forces causing damage, identify individuals at higher risk, and assess the stage of pressure injury, if present.

The journey through this module will enhance your comprehension of pressure injuries and provide practical insights into assessing and predicting these challenging conditions. Be prepared to engage in activities illustrating the diverse forces capable of causing damage.

Let’s dive into the critical aspects of pressure injury development, paving the way for a deeper understanding of the forces at play, predicting risks, and staging the extent of damage. Your newfound knowledge will empower you to make a positive impact in your role as an aged care nurse.

WOUND EDUCATION

CLINICAL TRAINING MADE EASY®

- Registered Nurses and Enrolled Nurses
- Pressure Injury Development
- (0023KMS CTMC- Aged Care Series)

Notes

PRESSURE INJURY DEVELOPMENT

MODULE 9 OVERVIEW

1. Knowledge & Performance goals
2. Terminology
3. What is a pressure injury?
4. What causes a pressure injury?
5. Who is vulnerable
6. Pressure injury stages



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GOALS

KNOWLEDGE	PERFORMANCE
1. Learn what forces contribute to pressure injury development	1. By completing activities that mimic friction, shear, & pressure forces, the learner will understand prevention strategies.
2. Highlight the risk factors which make a person more vulnerable to developing a pressure injury	2. Demonstrate ability to accurately identify pressure injury, friction damage and incontinence-associated dermatitis
3. Recognise the severity staging of a pressure wound	

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PRESSURE INJURY DEFINITION

“
A pressure injury is a 'localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction'.
 ”

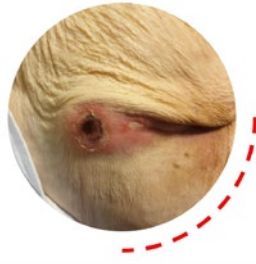


Australian Commission on Safety and Quality in Health Care, Safety and Quality Improvement, Look Good! 8 Preventing and Managing Pressure Injuries (October 2015). Sydney: ACSQHC, 2015. Accessed June 2017.

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TERMINOLOGY

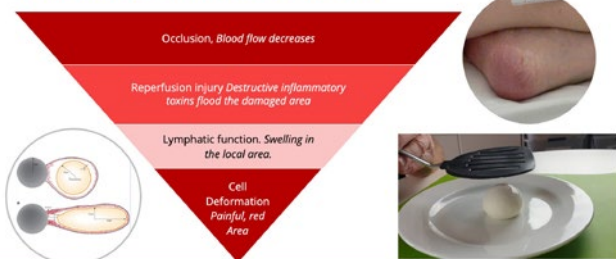
- Decubitus 'dead tissue due to lying down', (Wohleben 1777)
- Bedsores (Glasgow 1975)
- Pressure Sore (1980's)
- Pressure Ulcer
- Pressure Injury
- Cause
 - Avoidable/Unavoidable



FRICTION



PRESSURE (THE INSIDE OUT WOUND)



PRESSURE FORCE SCENARIO

Jack cannot mobilise by himself around the facility. The nurses have secured an alternating pressure mattress over his existing mattress to minimise pressure on his body.

On Friday nights, Jack enjoys watching the two televised football games in the lounge room.

On Saturday, the PCA caring for him noticed two red areas on Jack's sacrum.



MEDICAL DEVICE RELATED PRESSURE INJURY (MDRPI)

- Scope of the MDRPI problem
- Risk Factors
- Common causes
- Common sites
- Avoidable or Unavoidable



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FRICITION STRESS NOT A PRESSURE INJURY

- Fluid filled blister from rubbing.
- Superficial damage to the epidermis.
- Not associated with sustained pressure or shear force.



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FRICITION FORCE SCENARIO

Bill Jones is bedridden and unable to communicate verbally. The PCA notices he has become more agitated following repositioning. He witnessed him vigorously rubbing his heel across the sheet-covered mattress. This has caused a small fluid-filled blister on the heel. The RN assesses Bill and determines he is in discomfort from his arms contracting. The healthcare team notifies his GP and asks them to review his pain medications.



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SHEAR STRESS

Shear strain, deforms the cell wall and interferes with cell metabolism causing cell death.

Before movement

After movement



Deformation Blanching

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SHEAR STRAIN

- Shear strain requires mechanical force and friction.
- Sliding bare skin on a slippery dip – no friction BUT tissue loading
- Add a sliding sack reduces friction



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SHEAR FORCE SCENARIO

June is a frail lady who has been unwell for the past seven days. Her appetite is poor and she is reluctant to sit out of bed as she feels weak. Cathy her PCA sits her upright in bed to assist her with her lunchtime meal. After lunch, Cathy notices that June has gradually slid down the bed.



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MICROCLIMATE

A small area of increased skin temperature and moisture. Increases the risk of pressure injury development.



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MICROCLIMATE SCENARIO

Two days ago, Fred returned to the facility following a day surgery procedure. During his stay in the recovery ward, he noticed a slight burning pain in his left heel. The nurse quickly fixed the issue by covering the heel with a waterproof silicone dressing. The dressing has remained in place since being back at the facility. Today, he felt his sock to be damp. The PCA removed the dressing to find wet soggy skin.



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SKIN ASSESSMENT

- Colour
- Temperature
- Oedema
- Turgor
- Moisture
- Integrity
- Sensation
- Medical Device
- Daily Inspection
- Head to Toe
- Nails & Hair
- Skin Folds
- Pressure Points

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FACTORS OUTSIDE THE BODY & INSIDE THE BODY

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QUESTION

WHO IS MORE AT RISK OF PRESSURE DAMAGE

- A resident independent in mobilising with a walking frame
- An elderly resident confined to bed and requires assistance to reposition
- A 55-year-old resident who mobilises unaided but suffers from dementia
- A 20-year-old male admitted to hospital with appendicitis

B

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SKIN INSPECTION CHART

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QUESTION: The red area on this patient's heel is the site of a previously healed pressure injury. Select the most appropriate response (more than one answer) The patient's heel is the site of a previous pressure injury.

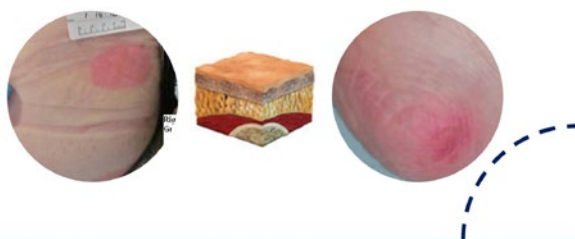
- A. Very High Risk due to the previous injury
- B. Reported as a stage 1 pressure injury
- C. Not concerning as erythema remains from the previous injury
- D. No further action as the scar tissue has toughen the heel preventing further breakdown

Answer

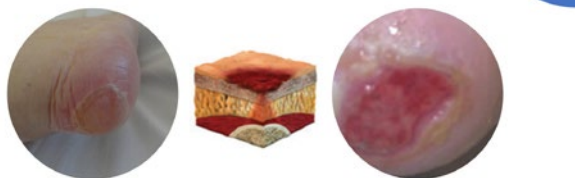
A & B
Intrinsic risk factor due to previous injury
Non-blanching erythema is classified as a stage 1 pressure injury.



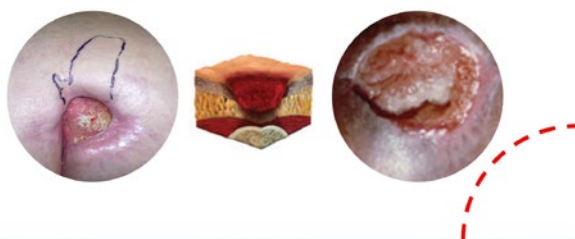
STAGE 1



STAGE 2



STAGE 3



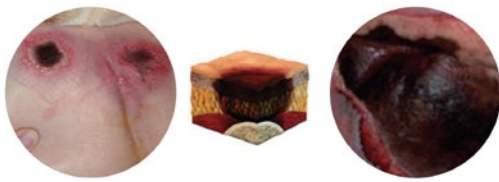
STAGE 4



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UNSTAGEABLE



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DEEP TISSUE INJURY



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HEALING PRESSURE INJURY

No reverse staging



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QUESTION

WHAT STAGE?

- Multiple non-blanchable areas bilateral feet

STAGE 1



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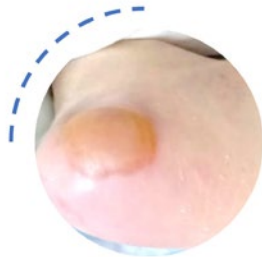
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QUESTION

WHAT STAGE?

- Painful fluid filled blister on the heel

STAGE 2 WATCH & ACT



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QUESTION

WHAT STAGE?

- Dry blood blister on the heel.

UNSTAGEABLE



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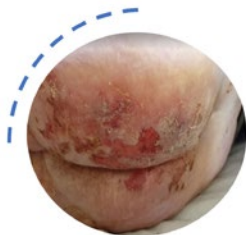
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QUESTION

WHAT STAGE?

Superficial wounds buttocks

IAD



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SKIN FAILURE

Kennedy's Terminal Ulcer
Dying process
Reperfusion injury
Hypoperfusion



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HISTORY



1989: Kennedy described the "butterfly" sacral wound. Over 50% of the patients died within 6 weeks.



1991: Hanson et al 62.5% of pressure ulcers were identified 2 weeks prior to death



1877: Over 110 years earlier Jean-Martin Charcot also published the description of the "butterfly" sacral wound in the dying patient.



1901 Dr Alois Alzheimer "...all the care and attention given to her, she suffered from decubitus"



1990's: Parish & Wikowski (discussed end of life and pressure ulcers not being preventable due to multi organ failure.



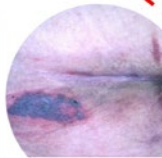
2006 Langemo & Brown Literature review. Skin failure: acute, chronic and end of life

<http://www.scvwa.org/leg/content/cyber/02/12/SCALE-Final-Version-2003.pdf> SCALE skin changes at life's end. EUPAF Final consensus statement. Oct 2000 Kennedy K The prevalence of pressure ulcers in an intermediate care facility. Decubitus 1989; 2: 44-45

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SKIN CHANGES AT LIFE'S END



Kennedy K The prevalence of pressure ulcers in an intermediate care facility. Decubitus 1989; 2: 44-45

www.kennedykennedy.com

<http://www.scvwa.org/leg/content/cyber/02/12/SCALE-Final-Version-2003.pdf>

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IDENTIFY and EDUCATE



- KEY POINTS TO REMEMBER**
- The following are essential differences between HTU and pressure injuries
 - HTU do not occur from lack of care
 - End of life organ failure can reduce blood flow to the skin
 - HTU are treatment which is described as a symptom of the dying process
 - HTU are unavoidable
 - HTU do not occur equally on the patient's health decline
 - HTU are unlikely to heal
 - Pressure injuries may be treatable
 - Pressure relief equipment can reduce blood flow to the skin
 - Pressure injuries may be preventable
 - Pressure injuries can be a sign of a deeper wound and require treatment as soon as possible
 - Be aware of the signs of a developing pressure injury
 - Talk to your health care professional if you are at risk
 - If you suspect you have a HTU or pressure injury, please see your local doctor

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SKIN ORGAN FAILURE

"Skin ulcers that develop in patients who have **terminal illness** or are at the **end of life** should be assessed and staged as pressure ulcers until it is determined that the ulcer is part of the **dying process** (also known as Kennedy ulcers). Kennedy ulcers can develop from 6 weeks to 2 to 3 days before death. These ulcers present as pear-shaped purple areas of skin with irregular borders that are often found in the sacrococcygeal areas. When an ulcer has been determined to be a Kennedy Ulcer, it should not be coded as a pressure ulcer."



<http://www.affinitywound.com/assessable-kennedy-ulcer-in-long-term-care-hospitals>

<https://www.clinicaladvisor.com/ulcers/ulcers/kennedy-terminal-ulcer-in-a-persistent-patient/>

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REPERFUSION INJURY

Restoration of blood flow following a period of ischaemia. This may cause further damage to the cells. Inflammatory cytokines, reactive oxygen species & proteases are released



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HYPOPERFUSION

Inadequate cell perfusion
Reduced circulating volume/output
Dehydration
Low blood pressure
Cardiac disease
Sepsis
Organ failure



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INCONTINENCE ASSOCIATED DERMATITIS & PRESSURE INJURY



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ARTERIAL DISEASE



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SCABIES



MIRRORS BOTH SIDES OF BUTTOCKS

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MICRO VESSEL DISEASE



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World Stop Pressure Injury Day



<https://www.epuap.org/stop-pressure-ulcers>

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KEY POINTS

- Regular skin checks and assessing risk factors are essential in preventing pressure injuries.
- The degree of mechanical strain or load on the body surface will determine the tissue strain or damage.
- Pressure applied to the skin against an internal bone causes small blood vessels to be squeezed closed, which reduces blood flow.
- Educating residents and families can help prevent pressure injuries and support the healthcare team.
- Different ways of learning are available for training preferences
- The nurses can reinforce critical messages using appropriate terminology and language.

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Pressure Injury Prevention & Management

Welcome to Module 10 of our comprehensive training series. This module focuses on a topic of utmost significance in healthcare – Pressure Injury Prevention and Best Practice Management, specifically in Australian aged care.

As nurses in the aged care sector, you play a crucial role in ensuring the well-being of older adults. Pressure injury prevention is a critical aspect of your responsibilities, and this module will delve into the principles and practices that underpin effective prevention strategies. We will place particular emphasis on the importance of skin inspection and documentation.

We will begin by exploring the fundamentals of pressure injury prevention, examining the key factors contributing to the development of these injuries, and understanding the principles of best practice management. This module will equip you with the knowledge and skills to proactively address the risk factors associated with pressure injuries, recognising that prevention is often more effective than treatment.

A significant component of this module will be devoted to the importance of pressure injury surveillance and documentation, particularly in Australian aged care. Nurses play a central role in this process, meticulously documenting residents' conditions and implementing preventive measures. We will explore the best practices for surveillance, emphasising the crucial role of accurate and comprehensive documentation in maintaining high standards of care.

Australian aged care facilities operate within a unique regulatory framework, and compliance with national standards is paramount. Therefore, we will investigate how pressure injury prevention aligns with these standards, ensuring that your practices align with the expectations of relevant regulatory bodies.

By the end of this module, you will have a deepened understanding of pressure injury prevention, best practice management, and the specific considerations and responsibilities pertinent to Australian aged care. The knowledge gained here will empower you to contribute effectively to the well-being of the older adults under your care, promoting a culture of prevention and excellence in aged care practices.

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CLINICAL TRAINING MADE EASY®

- Registered Nurses and Enrolled Nurses
- Pressure Injury Prevention & Management
- (0023LM10 CIME- Aged Care Series)

Notes

PRESSURE INJURY PREVENTION & CARE

MODULE 10 OVERVIEW

1. Knowledge & Performance goals
2. Pressure injury prevention actions
3. Appropriate equipment
4. Inappropriate equipment
5. Documentation



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GOALS

KNOWLEDGE	PERFORMANCE
1. Learn what equipment and/or action minimises skin damage from the various forces.	1. Nurses will perform activities to assess the amount of pressure reduction.
2. Choose appropriate equipment to avoid pressure damage	
3. Recognise why equipment can be inappropriate	

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MOBILITY & REPOSITIONING

- Assess independence
- Monitor tissue tolerance
- Minimise shearing force
- Slide sheets & movement devices
- Bed sticks and independent movement
- Tilting & load shift
- Turning clocks & documentation



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EQUIPMENT

PREVENTION DRESSINGS

- Use a prevention dressing to reduce heel/sacrum injuries.
- Several layered silicone dressings
- Elastic adhesive dressing
- Effective for friction, microclimate & shear forces.



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PREVENTION DRESSING INDICATION

- Immobility or Planned immobility
- Reduced spontaneous movement
- Unusual/uncontrolled movements
- Medical device in place
- Previous pressure injury

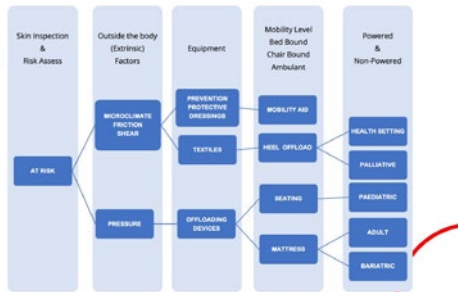


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EQUIPMENT

SELECTION PREVENTION



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EQUIPMENT

EFFECTIVENESS & MAINTENANCE

- Inflation pressure to weight
- Interface pressure mapping
- Valves and effective inflation
- Cleaning standard
- Reusable equipment pool
- Skin assessment



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APPROPRIATE EQUIPMENT



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QUESTION

IS IT INAPPROPRIATE FOR A NURSE TO ACCEPT A RESIDENT'S/FAMILY'S PREFERENCE NOT TO HAVE AN ALTERNATING MATTRESS IN PLACE?

- YES. It is important to consider the wishes of the resident and family when a patient is receiving palliative care.
- Importantly the patient & family must be educated in pressure injury prevention/management to allow an informed decision and all alternative offloading options should be offered.

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INAPPROPRIATE EQUIPMENT



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INAPPROPRIATE EQUIPMENT



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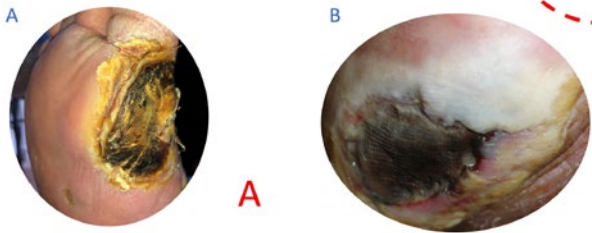
QUESTION

DESCRIBE WHEN A NURSE WOULD APPLY A PREVENTATIVE DRESSING FOR A RESIDENT WITHOUT SIGNS OF PRESSURE DAMAGE ON THEIR SKIN.

- A. Immobility or Planned immobility
- B. Reduced spontaneous movement or uncontrolled movement
- C. Medical device in place
- D. All of the above

D

QUESTION: Which wound image is indicated for daily Povidone Iodine?



DEMONSTRATION VIDEO

Heel PIs And Device Related Pressure Injuries



QUESTION: CAN YOU IDENTIFY THE CLINICAL ISSUES IN BOTH IMAGES?



- 1. Pulling the buttock, stretching & splitting the coccyx.
- 2. IAD together with Pressure injury
- 3. Zinc "leftover" increases the potential for fungal issues
- 1. Stage 1 pressure injury
- 2. Microclimate risk increased with incontinence
- 3. Dressing seal an issue.
- 4. Dressing size is not large enough to minimise shear force.

JET'S STORY

- 21 year old man
- C4 Tetraplegia - 16 January 2009
- Previously employed as a chef
- Discharged home from Spinal Unit 1 September 2009



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SITUATION

- 03:40 hrs on 29th June Jake presented to an Emergency department with a headache (?Autonomic Dysreflexia & UTI)
- 15 hours in emergency.
- Carers noticed a mark on his left buttock the following day, which she described as "like a cigarette burn"
- Over the next few days the pressure injury deteriorated

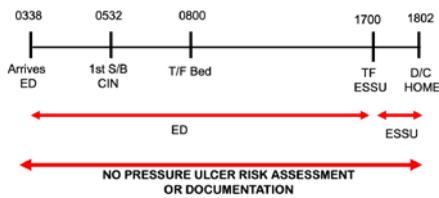


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ED JOURNEY TIMELINE

Approx 4 ½ hours on an Ambulance Trolley



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9th AUG – 9th SEPT



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25th – 29th SEPT

3rd NOV

- Re - admitted to hospital. Febrile, moist cough, tachycardia, vomiting & haematuria
- Acute renal impairment due to dehydratic
- Blocked catheter (over 1 litre seen on U.S.)
- UTI managed



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JET & WELLBEING

- Bed rest since 1 July
- High risk of sepsis
- Complicated renal failure
- Weight loss
- High risk of autonomic dysreflexia
- Mental health impact (social isolation)
- Loss of confidence in the health system
- Zero fun factor
- Interruption to rehab and work
- Reduced independence
- Financial strain



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POINTS FOR FURTHER CONSIDERATION:

- Pressure mapping indicates greater pressures are exerted over the sacrum when the head of the trolley is raised.
- Length of time spent on surfaces exerting high pressure causes adverse events with major consequences.
- Priorities of care can have long-term consequences
- Jet's story highlights the need for timely pressure care, including early assessment and intervention in ED.



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DOCUMENTATION & TRANSFER OF CARE

- Screening, Preventing & Management Strategies
- Alert or Flagging if a patient has a pressure injury
- Management plan with rationale for each intervention
- Ongoing monitoring and intervention effectiveness evaluated
- Timing for reviews, referrals or escalation plan
- Clear communication with the team



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QUESTION: WHAT SHOULD A LOCAL PRESSURE INJURY PREVENTION & MANAGEMENT POLICY INCORPORATE?

- Screening & Frequency
- Skin Assessment
- Risk Assessment
- Wound Assessment
- Prevention Plan/Strategies
- Management Plan/Strategies
- Monitoring & Documentation
- Staff Training
- Incident Reporting
- Transition of Care



QUESTION: When transferring a patient with a heel stage 3 PI from community care to a RACF what should be included in the written and verbal handover?

- History of the pressure injury occurrence, including incident reporting
- Recent (within 24 hours) pressure injury risk assessment and skin assessment, highlighting any clinical issues.
- The effectiveness of treatment reports and equipment. Together with an image and current wound assessment of the pressure injury. Anticipated healing rate and measurement
- Current management plan for the wound and any related pain.
- Information provided to the patient and their significant other/s regarding pressure injury
- Limitations along with patient's preference and current well-being concerns
- Referrals, escalations and any follow-up appointments with the health care team.



PIPP STUDY OVERVIEW

- Rigorous methodology
- Compare results - Bench mark
- Stage 1 inclusion/exclusion
- Define study population
- Surveyor training
- Inter-rater reliability
- Head to Toe skin inspection
- 2 Surveyors each inspection



<https://www.pressureinjuryandwound.com/blog/head-to-toe-skin-examination-why-is-it-important-dermatologist-is-better-oh/>

WOUND SURVEILLANCE PURPOSE

- Identify the prevalence of wounds in 4 Residential Aged Care Facilities
- Establish trending data of wound and facility acquired pressure injuries
- Determine the severity and anatomical location of identified wounds
- Appropriateness and condition of equipment
- Assessment/reassessment and completion of documentation
- Review practice and recommend improvement strategies
- Identify compliance with the national aged care standards



AGED CARE SURVEY

- Resident information/Consent
- Wound Images
- Administration demographic data
- AIN/Wound specialist
- Skin inspection
- Equipment review
- Medical record validation

WOUND & SKIN EXAMINATION TOOL

Medicare Number: _____ Date of inspection: ____/____/____

1. SKIN INSPECTION

Site	Inspected	Documented
Head	Yes/No	Yes/No
Face	Yes/No	Yes/No
Neck	Yes/No	Yes/No
Chest	Yes/No	Yes/No
Abdomen	Yes/No	Yes/No
Back	Yes/No	Yes/No
Legs	Yes/No	Yes/No
Feet	Yes/No	Yes/No

2. WOUND

Has the resident been assessed	Yes/No	Yes/No
Has the wound been assessed	Yes/No	Yes/No
Has the wound been documented	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No
Has the wound been assessed by a specialist	Yes/No	Yes/No

3. MOBILITY

Can the resident walk	Yes/No	Yes/No
Can the resident walk	Yes/No	Yes/No
Can the resident walk with assistance	Yes/No	Yes/No
Can the resident walk with assistance	Yes/No	Yes/No

4. CURRENT PRESSURE REDISTRIBUTING DEVICE

Is the resident currently using a pressure redistributing device	Yes/No	Yes/No
Is the resident currently using a pressure redistributing device	Yes/No	Yes/No

5. ALTERNATING MATRESS MONITORING

Is alternating mattress monitoring used	Yes/No	Yes/No
Is alternating mattress monitoring used	Yes/No	Yes/No
Is alternating mattress monitoring used	Yes/No	Yes/No
Is alternating mattress monitoring used	Yes/No	Yes/No

6. PRESSURE INJURY RISK ASSESSMENT SCORE

Score	Low Risk	High Risk	Very High Risk
Score	Low Risk	High Risk	Very High Risk

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SURVEILLANCE DEMOGRAPHICS & RESULTS

4 Residential Aged Care Facility	2019	2019 RACF	Results
Eligible	298	Residents with Wounds	32% (n92)
Consented	96% (n286)	Residents with Healable Wounds	31% (n89)
No Consent	4% (n12)	Residents with Pressure Injuries	13% (n36)
Female	n224	Total number Pressure Injuries	47
Male	n74	Stage 1 & 2 Pressure Injuries	41
85 years old >	85% (n244)	RACF Source of Pressure Injury	97% (n91)
Chair/Bed Bound	41% (118)	Location of Pressure Injury	Sacrum
High/Very High Risk	68% (n194)		
No risk reassessment recorded 3 months	80% (n229)		
No skin inspection recorded	80% (n229)		



UNIDENTIFIED WOUNDS



INAPPROPRIATE EQUIPMENT



RESULTS – POLICY BUNDLE FINDINGS

- High/Very high-risk residents lacked risk inspection or skin inspection > 3 months
- Pressure injuries were not identified or diagnosed as IAD or staged incorrectly
- Wounds were not identified or documented
- Failure to have current and/or best practice management plans
- Inappropriate use of equipment or not utilised for residents with existing pressure injuries
- According to risk, equipment was allocated incorrectly
- Equipment was identified to be damaged

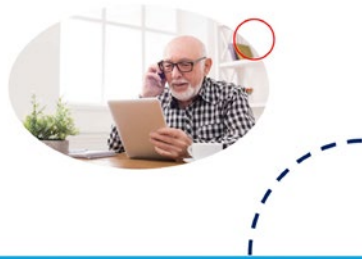


QUESTION: Why is describing the pressure injury point prevalence methodology important?

- Accurate measure of the clinical issue. Validity
- Inclusion & exclusion criteria. No bias in the study population
- Reliability of the results
- Benchmarking with "like" organisations
- Reproducible and consistent trending data.

PATIENT EDUCATION

- Patient Information Brochures
- Patient Fact Sheets download
- Electronic Fact Sheet
- Posters - Campaign
- Patient & Carer consultation
- World Stop Pressure Injury
- App Pressure Injury Prevention
- Short Animation Videos



What you can do:

- ✓ **Move, move!**
 - Keep moving as often as you can. Even small movements help.
 - Change your position frequently when in bed or sitting in a chair. Talk to your healthcare professional about position changes.
 - If you are unable to move yourself, the staff will help you to change your position regularly.
- ✓ **Look after your skin**
 - Advise staff if you have any tenderness or soreness over a bony area or if you notice any change in skin colour, texture or broken skin.
 - Keep your skin and bedding dry. Let staff know if your clothes or bedding are damp.
 - Special equipment such as air mattresses and cushions may be used to reduce the pressure in particular places.
 - Avoid massaging your skin over bony parts of the body.
 - Use a mild skin cleanser and moisturise.

For more information, speak with your healthcare professional.
www.clinicalexcellence.qld.gov.au

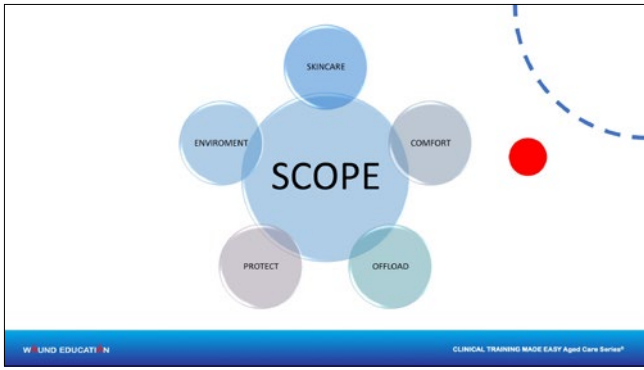
Patients, families and carers are encouraged to be involved in discussions and decisions about the prevention and management of pressure injuries.



Who is at risk: Any one! Any time! Any age!

Developed by the Patient Safety and Quality Improvement Service in partnership with clinicians and consumers. The content reflects current practice and is a member of the National Health and Medical Research Council.

<https://clinicalexcellence.qld.gov.au/sites/default/files/docs/factsheet-and-qa/pressure-injury-brochure.pdf>



- KEY POINTS**
- Equipment continues to grow and improve. Addressing the cause of the pressure risk/damage will support appropriate equipment selection.
 - Dressings have a role in preventing micro-climate, friction, and shearing forces.
 - Medical Device Related Pressure Injury (MDRPI) can be avoided if pre-empting potential damage and preventing injury with appropriate products
 - Accurate documentation is important to communicate to the health care team for ongoing care.
 - Data is extracted from the documentation by coders and risk management investigations.
 - Incident and prevalence studies can reveal the effectiveness of prevention strategies and policy adherence.
 - Patient and family education to minimise pressure injury development is important to support the HCP management plan
 - Different modalities are available for various learning preferences
 - HCP can reinforce key messages using appropriate terminology and language.
- WOUND EDUCATION CLINICAL TRAINING MADE EASY Aged Care Series®

WOUND EDUCATION
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Conclusion

Congratulations on completing the Wound Management Aged Care Online Course! We hope this comprehensive workbook has been a valuable resource in expanding your expertise and preparing you to deliver optimal wound care in the unique context of aged care settings.

Throughout this course, you've delved into essential topics such as Aged Care Standards, Quality Indicators, Code of Conduct, legal and ethical practices, skin anatomy, wound healing physiology, and more. The knowledge and skills gained are pivotal for addressing the diverse and specialised needs of our aging population.

As you navigated the intricacies of wound assessment and documentation, the integration of photography as a communication tool, and the importance of skincare and frailty, you've acquired a robust skill set to enhance collaboration among healthcare professionals.

The exploration of product selection, moisture-associated skin damage, challenges posed by skin tears, wound infection, antimicrobial resistance, leg ulceration, oedema management, pressure injury development, and effective strategies for pressure injury management has provided you with a comprehensive understanding of wound management in aged care.

We trust that the knowledge and performance assessments at various intervals have reinforced the theoretical aspects of the course. The practical learning experience, supplemented by the demonstration videos in the Clinical Training Made Easy - Aged Care Series, has further enriched your understanding of best practices.

This meticulously curated workbook is designed to empower you with the skills, knowledge, and confidence needed to provide exceptional wound care within the dynamic and challenging aged care landscape. As healthcare professionals privileged to care for our older adults, let us collectively work to elevate the standard of care. Embrace the insights gained during this learning journey and apply them compassionately in your daily practice.

Thank you for being so dedicated to advancing your skills in wound management for the betterment of aged care. We wish you continued success in your career, and may your commitment to excellence contribute to the well-being of the elderly individuals under your care.

WOUND EDUCATION

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