1

DEBRIDEMENT HANDS-ON WORKSHOP

Dea Kent DNP RN NP-C CWOCN

Jody Scardillo DNP RN ANP-BC CWOCN—not present but instrumental

2

DISCLOSURE OF FINANCIAL RELATIONSHIPS

- We do not have any relevant relationships to disclose.

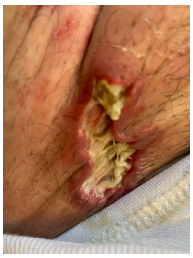
3

AT THE END OF THIS PRESENTATION LEARNERS WILL:

1. Demonstrate safe techniques for handling instruments & debridement of model wound.
2. Describe Indications/contraindications/precautions for CSWD
3. Learners will know how to recognize an appropriate wound for CSWD based on wound appearance.
4. Perform simple debridement on an uncomplicated wound.
5. Describe the process to add this skill to their wound care practice

4

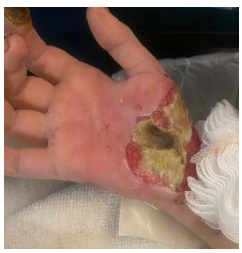
SOMETIMES SITUATIONS MORE COMPLICATED THAN THEY SEEM



- Melanoma excision in left groin
- Vascular injury
- Sartorius muscle flap
- Primary wound closure
- Lymph leak with output about 2L day
- Patient at home, Lives alone

5

LET'S TALK ABOUT THIS



- What would you do to manage this wound in acute care or rehab?
- Anything different in the home setting with caregivers doing dressing?
- What other disciplines would you involve?

6

OUR GOALS

Discuss the types of debridement, indications & contraindications, and practical strategies to incorporate conservative sharp wound debridement (CSWD) into clinical practice

And

Provide some resources if you need to teach about debridement

and/or

Serve as a refresher!

7

DEFINITIONS

Removal of necrotic tissue, debris, dysfunctional cells & biofilm from a wound.

Necrotic tissue- fibrinous exudate, avascular tissue, bacteria.

Presents in two forms:

- Eschar
- Slough

Hyperkeratosis- seen in DFU with decreased sensation & chronic trauma. Removal associated with reduction in plantar pressure to support healing.

General goal is to use most effective means in the least complex site of service(Rogers et al). Debridement allows visualization of the wound bed, determination of tissue damage.

It can be critical to wound healing as removable of non-viable tissue promotes healing.

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WHY DEBRIDE ?

To remove devitalized tissue
Improve microcirculation in the wound
Decrease substances that limit healing
Decrease bacterial growth
Prepare wound bed for grafting, advanced wound products
Remove physical barrier made by necrotic tissue for new tissue growth.
Stimulation of wound edges
Decrease in odor
Decrease risk of infection
Improved QOL
Consistent with clinical practice guidelines
But
Associated with a high degree of clinical risk

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OTHER FACTORS TO CONSIDER

Type and amount of necrotic tissue
slough vs eschar
Location on the body
How much of a hurry are you in?
Goals of therapy- will this wound heal?
What does the patient want?
Personal limitations(clinicians)
Site of care - lighting, cleanliness,
Risk for pain and bleeding

10

POTENTIAL ADVERSE EFFECTS

Pain
Infection
Excess bleeding
Damage to surrounding structures
Loss of normal bodily function
Increased length of stay

11

SO WHAT'S NEW IN THE LITERATURE?

Most evidence based on observational retrospective studies.

Many studies on use of specific products i.e...enzymes, medicinal honey, larva, LF ultrasound .

NSWOCC - 2021 Best Practice Document with 12 recommendations to promote + patient outcomes and safety. Task force completed scoping review and evaluated:

Scope of practice
Credentials
Training
Competencies
Regulatory requirements

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SO WHAT'S NEW IN THE LITERATURE?

HOT OFF THE PRESS:
U.S. Based Consensus Debridement Guidelines

Toward a Practical Framework for Debridement in Chronic Wounds: Findings From a United States-Based Multidisciplinary Consensus Panel

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Citations

Van Wicklin, S. (2025). Wound Debridement. *Plastic and Aesthetic Nursing, 45* (3), 136-141. doi: 10.1097/PSN.0000000000000645. https://journals.lww.com/psnjournalonline/citation/2025/07000/wound_debridement.5.aspx

Lantis JC, Dove C, McFee K, et al. Toward a practical framework for debridement in chronic wounds: findings from a united statesbased multidisciplinary consensus panel. Wounds. 2026;38(Suppl 3):S1-S20. doi.10.25270/wnds/25155 https://www.hmpgloballearningnetwork.com/site/wounds/supplement/toward-practical-framework-debridement-chronic-wounds-findings-united-states?hmpid=&utm_medium=email&utm_source=OG_Wounds&utm_content=3330151503

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ANATOMY & PHYSIOLOGY

- Structures- know what's under where you are planning to debride.
- Difference between viable vs non-viable tissue.

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TYPES OF DEBRIDEMENT

- Selective vs non-Selective
- Selective removes only necrotic tissue & leaves healthy tissue intact.
- Non-selective removes viable & non-viable tissue from the wound.
- Common to utilize more than one type of debridement over the trajectory of the wound.

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LADDER OF COMPLEXITY

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MECHANICAL

Non-selective. Can be done without pain.

Low frequency ultrasound- decreases exudate & slough, disperses biofilm via use of acoustic energy.

Hydrotherapy- Pulsatile lavage uses intermittent high pressure (4-15 psi) lavage & suction to loosen necrotic tissue. Costly & time consuming. Stop when necrotic tissue gone. Beware of aerosolized bacteria. Use caution over vessels, muscle, tendon, bone & graft sites

Therapeutic irrigation- #19 gauge needle/35 cc syringe or pre-packaged sprays of pressurized NS.

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MECHANICAL, cont.

Wet to dry dressings- archaic but widely used, can be painful & disrupt newly forming tissue. Moistened woven gauze packed into wound, allowed to dry then removed.

Gauze abrasion-course texture used to wash the wound.

Monofilament debridement pad- pad moistened and rubbed over wound surface, penetrate slough or biofilm.

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AUTOLYTIC

Use of moisture retentive or moisture donating dressings that allow the enzymes within the wound fluid to liquefy necrotic tissue.

Slow, selective.

Useful on dry hard eschar to soften before CSWD.

Not appropriate for infected wounds or deep cavity wounds.

Expect a large amount of drainage early on as necrotic tissue is liquefied.

Protect peri-wound skin.

Educate patient and family.

20

ENZYMATIC

Proteolytic enzymes digest and dissolve the necrotic tissue.

Selective so does not harm the healthy tissue.

Collagenase can shorten inflammatory phase by decreasing inflammatory cytokines.

Useful in those who are poor surgical candidates, as an adjunct to other debridement modalities, or with lack of access to provider for sharp debridement.

Most effective on slough, can use on eschar if cross hatching.

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BIOLOGIC/MDT

Maggot therapy is selective method as only eat devitalized tissue.
Initially thought only mechanical but know now that maggots release proteolytic enzymes that inhibit gm + and (-) such as MRSA, e.coli & pseudomonas.
Costly . Requires coordination of care for transport.
Contraindicated with active bleeding, proximity to blood vessels, copious exudate, deep cavities or sinus tracts.
Expect moderate to large drainage as necrotic tissue liquefies.
"EEEW" factor
Manage pain if indicated.

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CHEMICAL DEBRIDEMENT

Sodium hypochlorite- loosens anchoring strands that keeps eschar attached to the wound.
Effective against many organisms including yeast.
Decreases odor.
Dressing change 2x/day so is labor intensive.
Inexpensive
Use is controversial.
Short term use while treated with antibiotics and debrided seems to be consensus

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SURFACTANTS

Hydrophilic & hydrophobic structures that reduce surface tension between a liquid & solid or two solids.
Contained in many wound cleansers.
Soften and loosen necrotic tissue and debris.
Helpful in management of biofilm.

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SURGICAL

Need to quickly remove large amount of necrotic tissue.
Most expensive & fastest. In OR or procedure area under anesthesia.
Rec for wounds with:
- advancing cellulitis
- sepsis
- large amounts of necrotic tissue
- infected bone/hardware.

Hydrosurgical water knife or laser more recent additions to this option.

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CSWD

Selective
Removal of non viable tissue with scalpel, forceps, scissors, curette.
More rapid than other methods but slower than surgical.
May be used alone or in conjunction, often performed serially.
Control minor bleeding with pressure or silver nitrate.

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DOCUMENTATION/Procedure

Etiology and duration of wound
Prior treatment by a physician, non-physician practitioner, nurse and/or therapist

Indication for procedure

Description of wound: l x w x d, grid drawing and/or photographs, anatomical location. Stage if indicated.

Amount, frequency, color, odor, type of exudate

Evidence of infection, undermining, or tunneling

Nutritional status

Comorbidities (e.g., diabetes mellitus, peripheral vascular disease)

Pressure support surfaces in use

Patient's functional level

Skilled plan of treatment, including specific frequency, modalities and procedures

27

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DOCUMENTATION/Procedure

Pre/Post Photograph!~

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DOCUMENTATION/Procedure

CMS guidance
https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleId=56617&ver=25

30

Tool options- disposable vs reusable

Curette- 3 and 5mm size. Hold horizontally. Good for little nooks and crannies, places that are hard to reach with scalpel or scissors.

Scalpel- #11, 10, 15 blade. #10 most common, #11 good for thick eschar.

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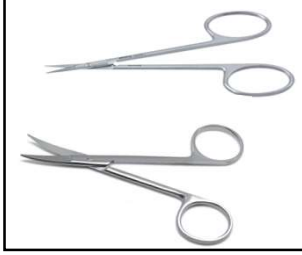
Tool options

Scissors- curved or straight iris



Forceps- teeth or no teeth.

Use the one with no teeth for viable tissue to decrease pain.

32

REIMBURSEMENT /terminology to maximize

CMS

https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=58565&ver=46&keyword=wound%20debridement&keywordType=starts&areaId=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1

Updates noted from 1/1/26.

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IMPORTANT TO KNOW

Wound photo documentation is recommended to support.
The depth of debridement determines the code.
Report the deepest layer that the wound was debrided not the depth or stage of the wound.
If you debride then apply zinc/glycerin/calamine wrapped boot or layered wrap, only charge for the debridement. The dressing should not be charged separately.

34

SCOPE OF PRACTICE

Do you have knowledge, skills, judgement & authority to perform?
You are responsible to know this.
Check state practice act.
Follow it.
Are you credentialed in your organization for CSWD if you are an APP?
Do you need to be?
Is there a policy for maintenance of competency?

35

ORGANIZATIONAL POLICY & PROCEDURE

Policy & Procedure
- Type of debridement allowed
- Education & training required
- Competency & maintenance of competency
- Consider use of checklist that includes demonstrable skills & assessment parameters.
  - Example- Procedure in WOC Core curriculum ch 10.

Informed consent- minimally verbal, follow organizational policy.

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Informed consent- minimally verbal, follow organizational policy.

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NEWER TECHNOLOGIES & PRODUCTS

Imaging to help determine amount of tissue needing removal. Optical coherence tomography could help determine depth of injury and amount of tissue to remove.

Real time imaging of skin microstructures.

Found some studies using scars and in ophthalmology.

DCLFU- direct contact low frequency ultrasound

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SOME NEWER OPTIONS

Soft polyester fibers. Angled fibers help loosen debride, hyperkeratotic edges.

Blue thread is x-ray detectable.

Gentle on newly formed granulation tissue.

Decreased pain compared to other methods.

Comes in a pad form also.

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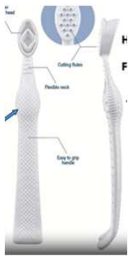
ANOTHER ONE…



Decrease bleeding
Minimal pain
Design controls depth of debridement.

40

PAIN MANAGEMENT

Lidocaine/prilocaine topical- use as small amount as possible.

Lidocaine gel or solution

Depends on individualized patient assessment.

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BLEEDING

Assess for anticoagulation, clotting problems before starting.
Have supply to assist with bleeding on hand.
Elevate area if appropriate.
Pressure for 5 minutes non-stop. Avoid temptation to look sooner.
Topical agents- ex include
Absorbable gelatin sponge,
https://www.pfizermedicalinformation.com/en-us/gelfoam/

Thrombin-proteolytic enzyme that converts fibrinogen to fibrin.

Calcium alginate

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BLEEDING,CONT

Hemostatic gauze- https://quikclot.com/

Oxidized regenerated cellulose- in powder form or loose knit fiber, absorbable
https://www.jnjmedtech.com/system/files/pdf/SURGICEL-Powder-Optimized-Device-Performanc

Silver nitrate applicator- 75% silver nitrate and 25% potassium nitrate
procedure in Core curriculum

Electrocautery if available in setting

43

SAFETY

Patient positioning optimized.
If you aren't sure what you are looking at do not put anything sharp near it.
Don't recap sharps.

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WHAT MIGHT YOU DO WITH THIS WOUND ?

Autolytic debridement

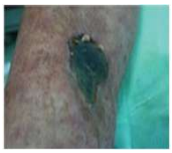
Mechanical debridement

Barrier cream

Surgical debridement

45

WHAT WOULD YOU DO HERE?



Enzymatic

Mechanical

CSWD

Autolytic

Surgical

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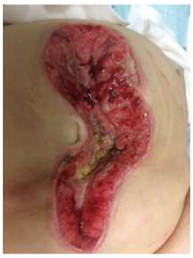
WHAT ABOUT THIS MIDLINE WOUND?



Enzymatic

Mechanical

CSWD

Autolytic

NPWT

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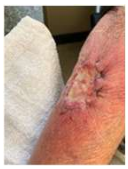
THIS IS FROM EXCISION OF MELANOMA



Enzymatic

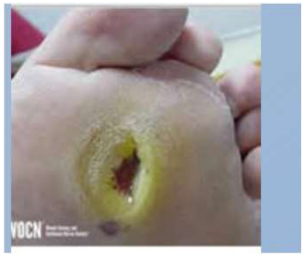
Mechanical

CSWD

Autolytic

48

Neuropathic ulcer- what would you do with the peri-wound here?



CSWD of callous

Off load

Enzymatic

A&B

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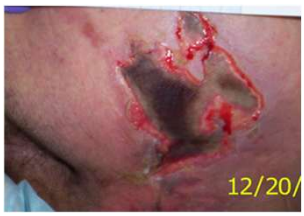
HOW MIGHT YOU DEBRIDE THIS WOUND?



Enzymatic

Mechanical

CSWD

Autolytic

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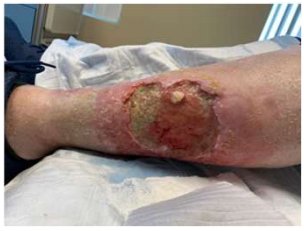
93 YR OLD WITH REC SCC



Had wide excision.

This photo from post-op visit 1 week later. Note peri-wound MASD from drainage. Pain score 8-9.Daughter able to perform dressing changes.

How would you debride the distal aspect of this wound?
How to protect peri-wound skin?
When would you re-evaluate?

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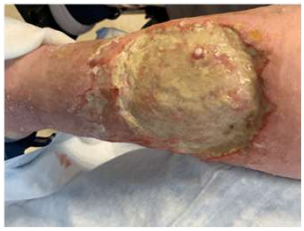
ONE WEEK LATER



Return to OR for debridement & biopsy of lesion.

NPWT placed.

Patient unable to tolerate dressing change with max pain mgt.

Comfort care

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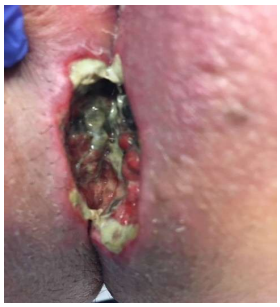
HOW WOULD YOU MANAGE THIS ONE?



- Enzymatic
- Mechanical
- CSWD
- Autolytic
- Surgical

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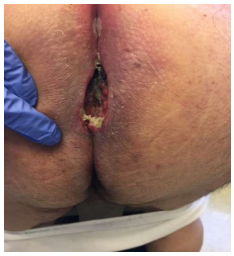
TWO WEEKS LATER



- Enzymatic
- Mechanical
- CSWD
- Autolytic
- Surgical

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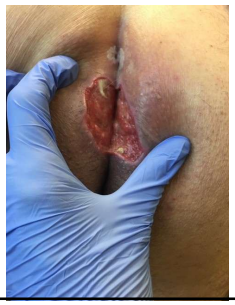
TWO WEEKS LATER



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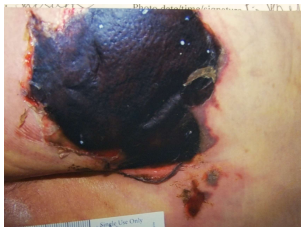
HOW ABOUT THIS ONE?



Enzymatic

Mechanical

CSWD

Autolytic

Surgical

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- THANK YOU!
- QUESTIONS

- djkent@iu.edu
- SCARDJ2@SAGE.EDU

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