Wound Prevention and Management in Long Term Care 2.0

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No Conflict of Interest to Declare

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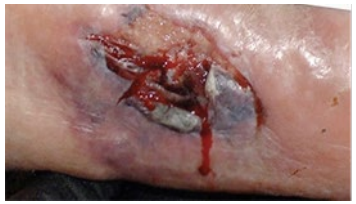
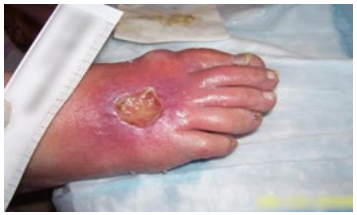
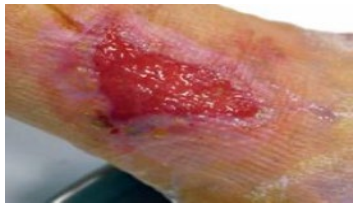
Objectives

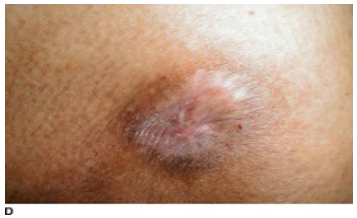
- **Review skin anatomy and physiology, and principles of wound healing and prevention strategies**
- **Assessment – the key to it all!**
- **Wound Types and case studies (skin tears, palliative, and lower leg dermatitis)**
- **Resources**
- **Discussion**

How Wounds Heal (a review)









- Hemostasis – immediate (10-15 min)

  Goal: stop bleeding, start healing cascade

- Inflammation – 1-4 days

  Goal: establish clean wound bed, control infection

- Proliferation/granulation – begins day 1, usually complete day 21-30.

  Goal: Reduce wound volume, promote wound closure

- Remodeling or maturation – up to 2 years

  Goal : increase tensile strength.

  Results in scar-active dynamic tissue

  Stage 1: (up to 4 wks.) soft fine and weak

  Stage 2: (4-12 weeks) red and hard

  Stage 3: (12wks to 2 yrs.) soft, white and supple scar

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Barriers to Wound Healing

Consider the whole patient, not the hole in the patient!

- Age
- Client buy-in
- Infection
- Lifestyle
- Nutrition, Hydration
- Pain
- Pharmacology
- Pressure, Mechanical Damage
- Vascular Perfusion

Is it Infected?

Critical colonization (NERDS)

- N = Non-healing wound
- E = Exudative wound
- R = Red and bleeding wound
- D = Debris
- S = Smell from the wound

Deep tissue infection (STONESS)

- S= Size is bigger
- T = Temperature increased
- O = Os (probes to or exposed bone)
- N = New area of breakdown
- E = Erythema/Edema
- E = Exudate
- S = Smell

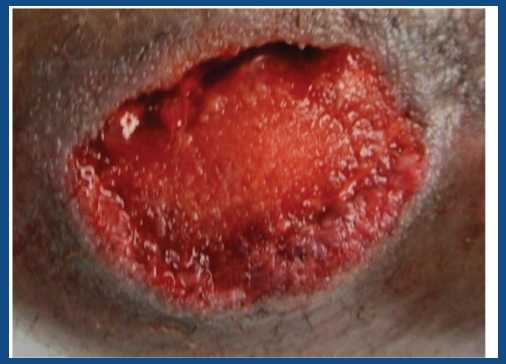
1:

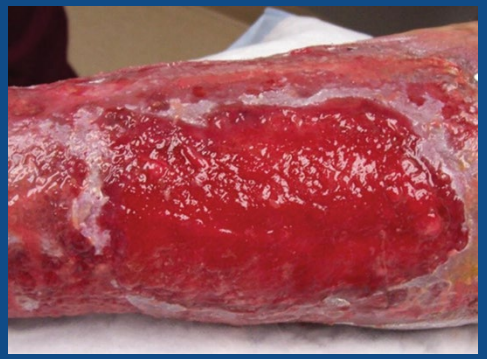
2:

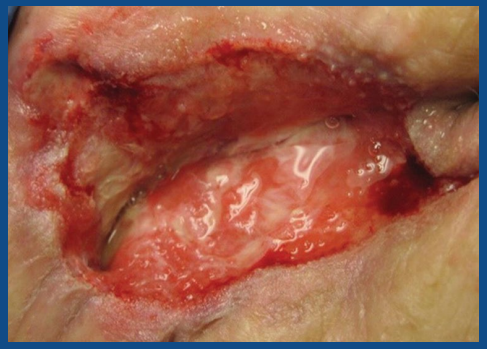
3:

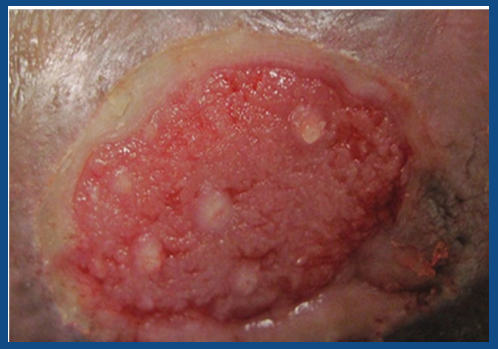
4:

Infected, colonized, critically colonized or contaminated?









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BIOFILM

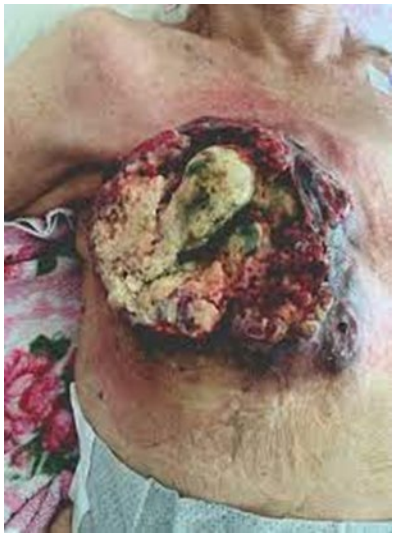
- Not detected with wound cultures
- May appear as mucousy film
- Detrimental to wound healing
- Suspect in older and stalled wounds
- Debridement required for wound healing to progress

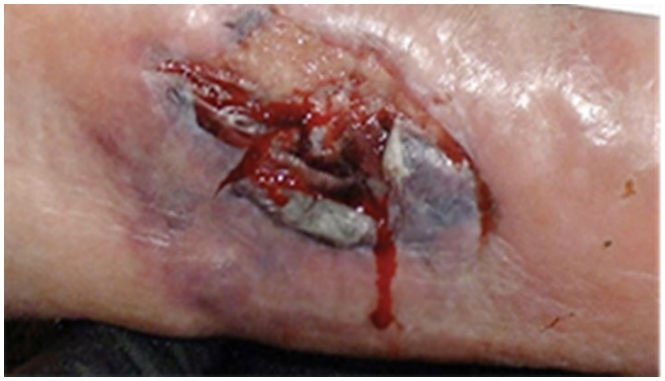
https://intranet.islandhealth.ca/departments/professional_practice/Documents/island-health-limits-conditions-lpn.pdf#search=limits%20and%20conditions%20LPN

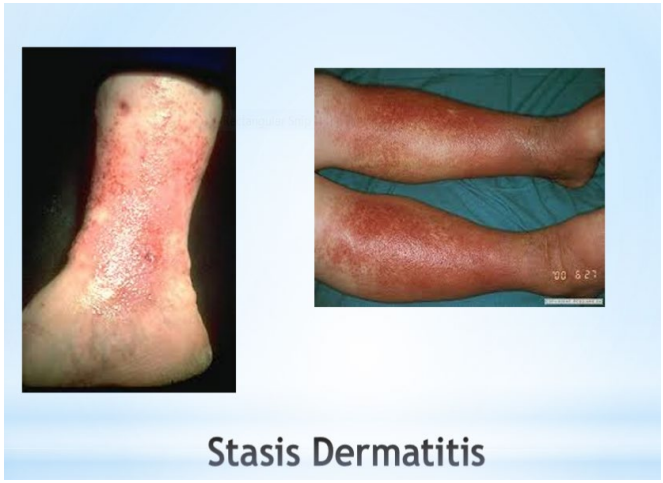
https://intranet.islandhealth.ca/departments/professional_practice/Documents/rn-limits-conditions.pdf#search=limits%20and%20conditions%20rn

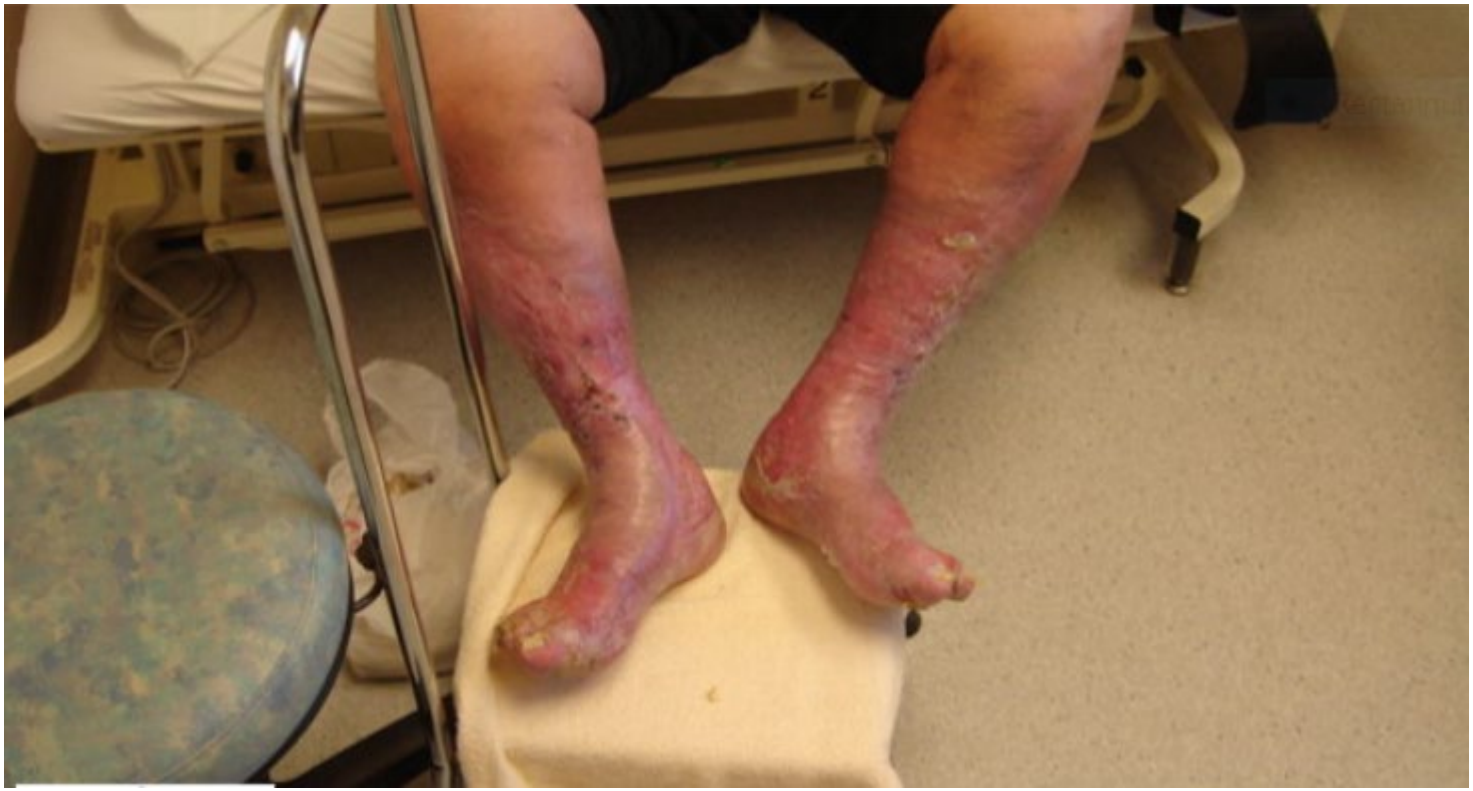
Care by Wound Types

- Palliative wounds
- Skin tears
- Stasis dermatitis









COMPRESSION

Sedentary:

Profore

30-40mmHg.

Profore Lite: 20-30 mmHg

SurePress

30-40mmHg.

Active:

Coban 2

30-40 mmHg.

Coban 2 lite: 20-30 mmHg

Comprilan

30-40 mmHg.

CLWK website:

https://www.clwk.ca/modules/CompressionTherapy/story_content/external_files/Compression%20Therapy%20Education%20Module%202016%2010%20Revision.pdf

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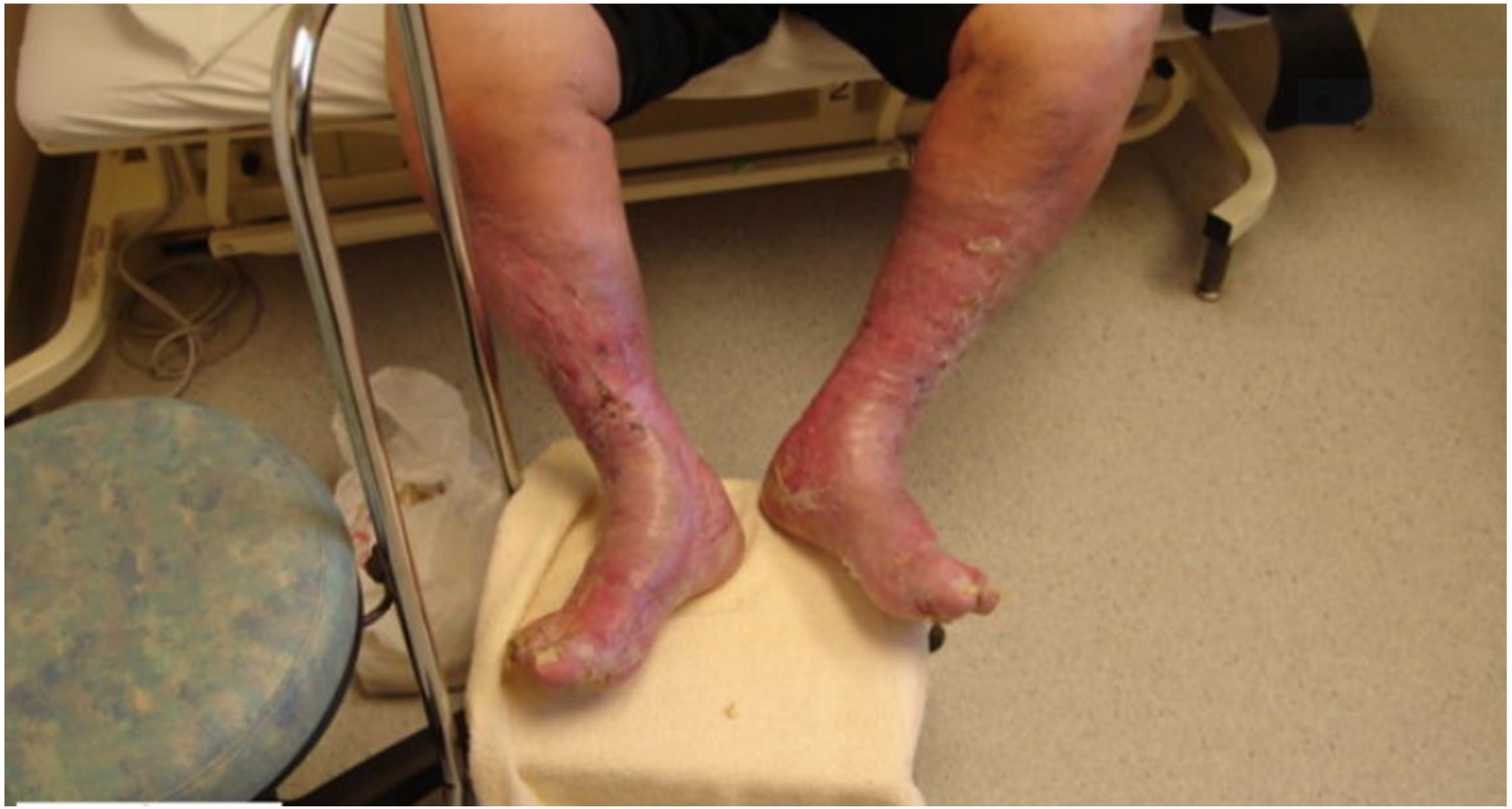

Compress, compress, compress!

Care plan:

- Assess ABI/PPG
- Cleanse
- Topical (zinc, steroids)
- ?absorbent pads?
- COMPRESS (Coban 2, Coban 2 lite, Profore, Profore lite)

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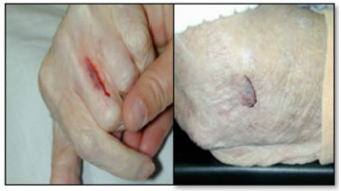
Skin Tears

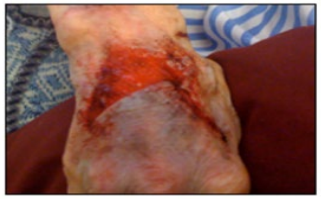
International Skin Tear Advisory Panel (ISTAP)

Type 1: No Skin Loss



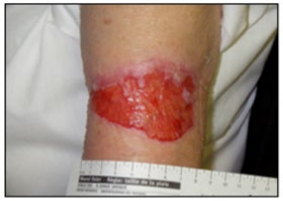
Linear or Flap Tear which can be repositioned to cover the wound bed

Type 2: Partial Flap Loss



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

Type 3: Total flap loss



Total Flap loss exposing entire wound bed

LeBlanc et al 2013

Person with a Skin Tear

Treat the Cause
GENERAL HEALTH cognitive, sensory, visual, auditory, nutrition chronic/critical disease, polypharmacy
AMBULATION history of falls, impaired mobility, activities to daily living (ADLs)
SKIN age, mechanical trauma, fragile skin, previous tears

Local Wound Care
Atraumatic (dressing) removal, Cleanse,
Control bleeding,
Approximate wound edges,
Assess
& Classify according to ISTAP Classification system

Patient-centered Concerns
ADLs
Pain control
Educate client & circle of care/caregivers

Debridement
Non-viable tissue only
Avoid sutures/staples

Infection/Inflammation
Topical Antimicrobials for local infection
Systemic antibiotics for deep tissue infection
Consider Tetanus immunization

Moisture Balance
Peri- Wound Protection *(e.g., film forming liquid acrylate)*
Wound: Non-adherent or low tack dressing
Facilitate moisture balance

Non Advancing Edge
Re-evaluate
Consider Active Therapy

Adapted from: Sibbald et al modified from. : LeBlanc, Christensen, Orstead, Keast.. 2008

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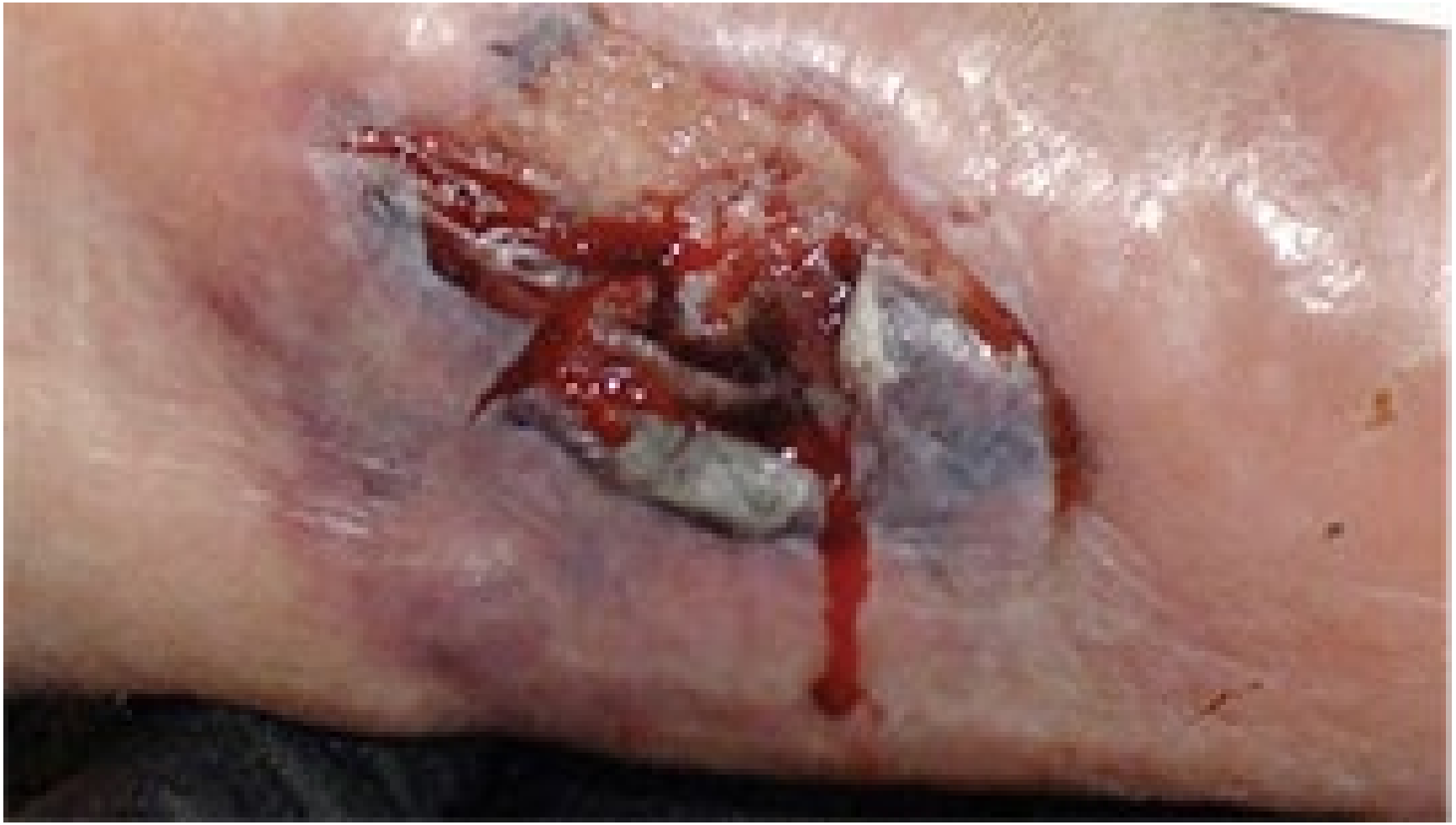

Protect

Care Plan:

- Irrigate with NS
- ?pressure?
- Repostion skin flap/debride
- Cover (
- Tetanus?

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Wound Management principles

- Goals of care
- Wound etiology, stage, and age
- Manage moisture and bacteria.
- Comorbidities, pharmacology, resident compliance.
- COST
- Scope of Practice

The Ideal Dressing…Is one that closes the wound the fastest

Manage exudate

Provide thermal insulation

Protect against secondary infection

Trauma-free removal

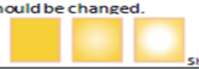
Decreased pain for client

CLWK-Connecting Learners With Knowledge

https://www.clwk.ca/buddydrive/file/inadine/

Skin and Wound Product Information Sheet

Inadine	
Classification	**Antimicrobial: Iodine - Povidone**
Key Points	• Broad spectrum topical antimicrobial dressing • A non-adherent viscose sheet impregnated with a polyethylene glycol base containing 10% povidone-iodine; equivalent to 1% available iodine
Indications	• For shallow wounds which show signs and symptoms (S&S) of local wound infection • For maintenance/non-healing shallow wounds
Precautions	• Use with caution in new-born babies and infants less than 6 months old • Avoid using before and after radio-iodine diagnostic tests. • Make Physician/NP aware of Iodosorb usage for clients: o Taking lithium as Iodosorb may increase the possibility of hypothyroidism when used in combination with lithium. Blood work should be monitored on a regular basis. o With renal impairment, as poor renal function is thought to be a factor in increased iodine levels in serum and urine with prolonged use and use in large wounds. o With thyroid disorders as they are more susceptible to thyroid metabolism changes in long-term therapy. Thyroid function should be monitored if large areas are being treated for a prolonged period of time.
Contraindications	• Known iodine sensitivity or allergy • Do not use in pregnant or breast feeding women • Do not use in cases of Duhring's herpetiform dermatitis (a rare skin disease)
Formats & Sizes	• Sheet ▪ 5 x 5 cm ▪ 9.5 x 9.5 cm 

Application Directions	Rationale
Cleanse/irrigate wound with sterile normal saline or agency approved wound cleanser; dry periwound skin.	Reduces wound debris and allows for adhesion of dressing or tape.
If required, apply skin barrier to periwound skin.	To protect the periwound skin from maceration and to improve the adhesion of the dressing or tape.
To Apply	
Inadine may be cut to wound size. Remove backing paper from both sides of product. Apply Inadine directly to the wound bed. Apply only one layer of Inadine.	Do not apply Inadine to the wound with backing paper still attached. Applying more than one layer may block exudate from going up to the cover dressing causing periwound maceration.
Apply appropriate cover dressing to maintain a moisture-balanced wound environment.	The choice of cover dressing is depended upon the amount of exudate expected.
To Remove	
Remove cover dressing, then carefully remove Inadine from wound bed. If there is difficulty removing the dressing then gently stretch the dressing at diagonally opposite corners.	To avoid trauma to the wound bed.
Frequency of Dressing Change	
Will depend upon the amount of exudate. Dressing can last up to 7 days. Fading of the colour of the product indicates the loss of antimicrobial efficacy and indicates when the Inadine dressing should be changed.  Newly applied Should be changed	
Expected Outcome	
S&S of local wound infection are resolved within 2 weeks.	
For further information, please contact your NSWOC/Wound Clinician.	

Formulary Wound Care Products

Cleansing Solutions: NS, Anasept, Vashe

Non Adherents: Jelonet, Adaptic, foams

Antimicrobials: Iodosorb, UrgoTul AG, PHMB, Hydrofera Blue, Honey

Compression: Comprilan, Coban 2, SurePress, Profore

Cover dressings: Mepore, Silicone Borders, foam

Resources and referrals

Connecting Learners with Knowledge (CLWK)

SCAN ME

https://www.clwk.ca/communities-of-practice/skin-wound-community-of-practice/buddydrive/

Wounds Canada

SCAN ME SCAN ME

LTC NSWOC – *anyone can refer*

https://intranet.islandhealth.ca/departments/ltc-serv-support/Documents/referral-form-wound-ostomy-continence-consultation.pdf

Community Health Services: *anyone can refer, for community clients*

ET: out-patient clinic at RJH (Stoma care, Pressure Injury) -*Physician referral needed, for community clients*

Urgent Vascular limb clinic- *Physician referral needed*

Burn and Wound Clinic- *Plastics referral needed*

Questions?

References

Flemister, B. (2016). Skin and Wound Care for the Geriatric Population. In D.B. Doughty & L.L. McNichol (Eds.), *Wound, Ostomy, and Continence Nurses Society Core Curriculum: Wound Management* (pp. 220-241). Philadelphia: Wolters Kluwer

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