Wound Care Topical Treatments

OMG…….What the heck do I put on that????

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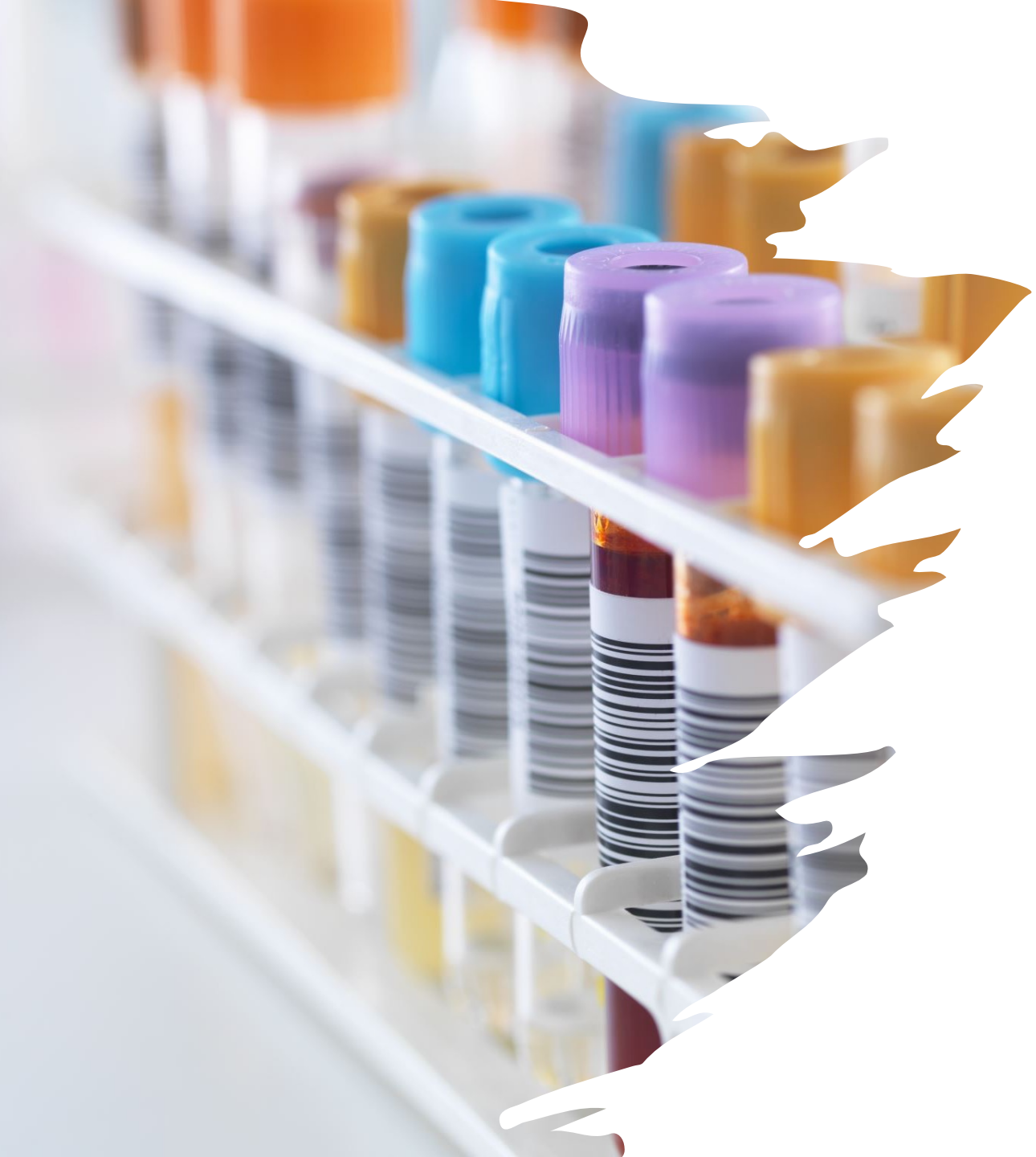
Your Attention for this Brief Safety Demonstration

Wound Dressing Selection

- Based on the etiology, condition, and moisture content of the wound
- Application ease and dressing frequency play a secondary role
- Cost considerations optimize health care dollars
- It is assumed the underlying cause of the wound has been addressed
- Non/slow response warrants further consideration and/or investigation



Wound Dressing Guidelines

- WHS and NPIAP guidelines 2015/2019
- Maintain moisture and select dressings that:
  - Manage exudate and odor
  - Minimize pain
  - Protect wound and peri-wound
  - Prevent tissue damage
  - Secure in place
  - Address bioburden
  - Provide wound needs
  - Is cost effective

Treatment Categories - functional

Moisture donating

- Hydrogels
- Honeys
- Impregnated gauzes
- Combination gels

Moisture absorbing

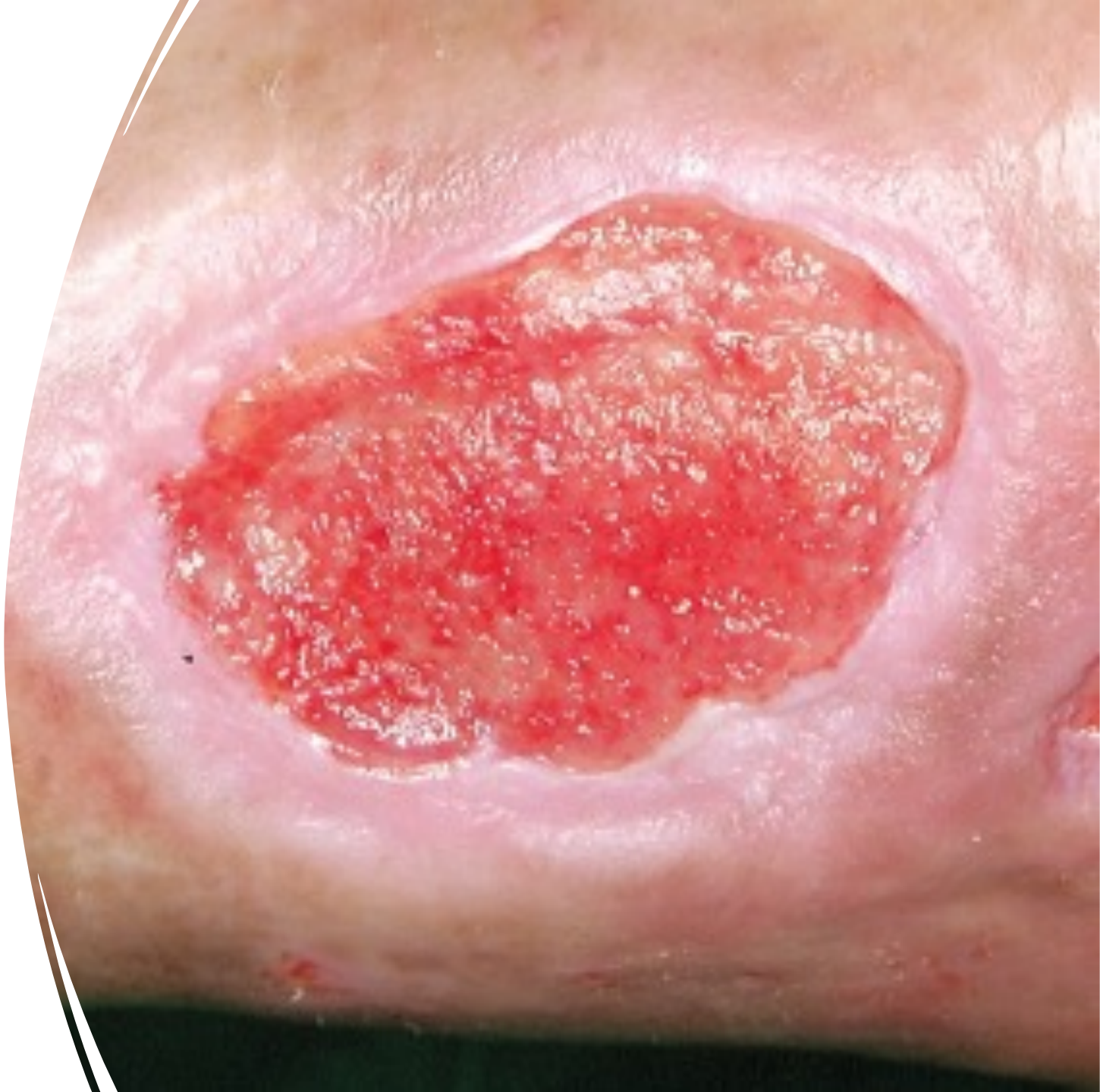
- Alginates
- Hydrofiber
- Foams
- Superabsorbants
- Hydroductive

Cavity filling

- Packing strips
- Gauze
- Hypertonic gauze
- Antimicrobial gauze
- Impregnated gauze

Case 1

- 69 year old female with PMH of DM, Obesity, HTN, and Anxiety. While in wheelchair banged right arm 3 days ago. Now has a dry open wound 3 cm by 4 cm with a depth of 0.3 cm. No drainage and no sign of infection.



Case 2

- 74 year old male with a history of CAD and chronic venous insufficiency. Has recurring wounds of the lower extremity along with increased swelling as the day progresses.

Case 3

- 84 year old bedridden female with history of CVA and hemiparesis. Large sacral pressure injury with moderate exudate.

Treatment Categories - functional

Antimicrobial

- Topical antibiotics
  - Mupriocin
  - Gentamicin
  - Bacitracin/TAO
- Silvers
- Iodines
- Dyes – methylene blue, Gentian Violet
- Polyhexanide (PHMB)

Enzymatic

- Collagenase
- Trypsin

Surfactants and Cleansing agents

- Surfactant
  - P-188
  - Betaine
- Antiseptic solutions
  - Benzalkonium chloride
  - Chlorhexidine
- Acid solutions
  - Sodium Hypochlorite
  - Hypochlorus acid
  - Acetic Acid

Case 4

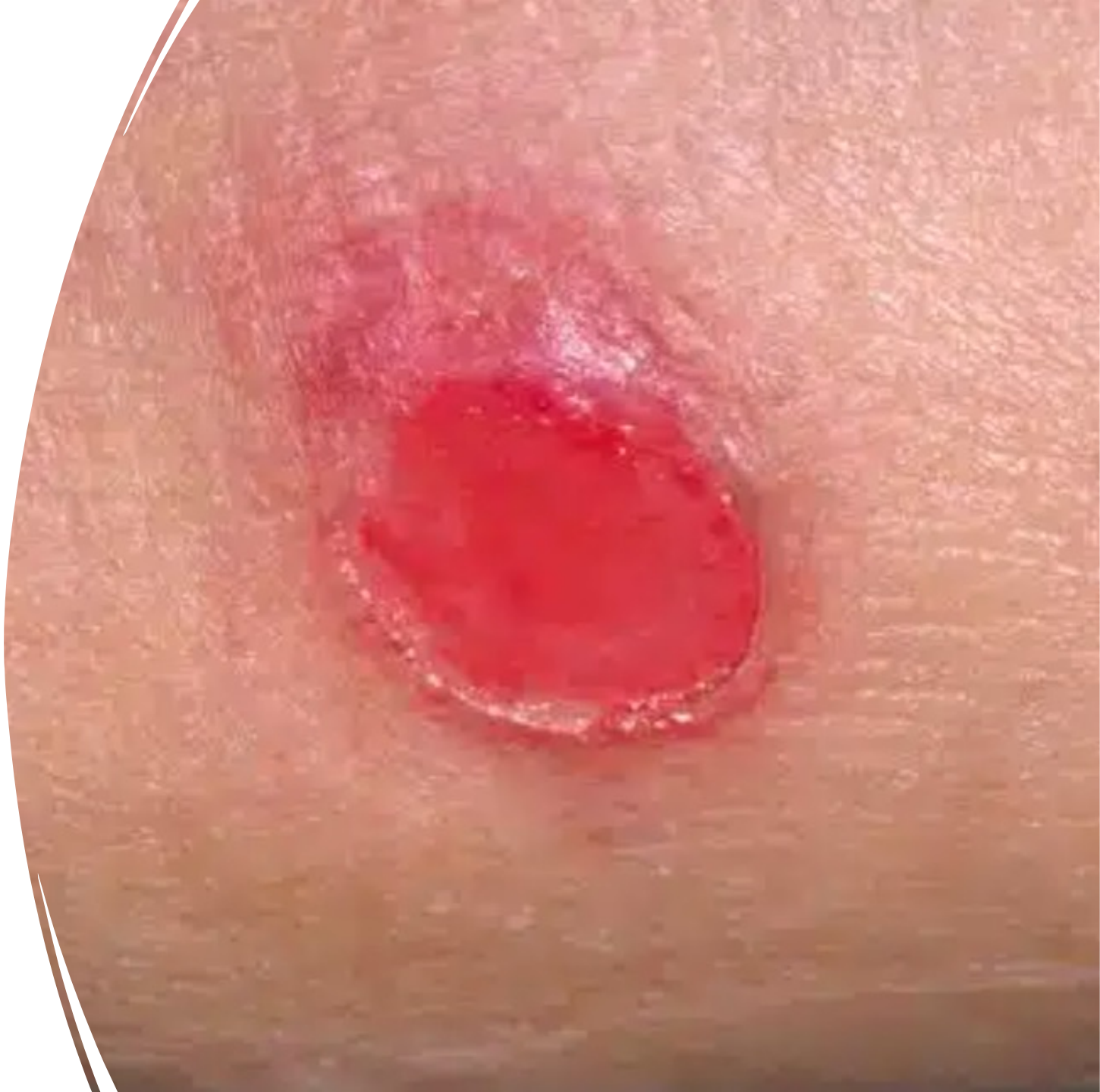
- 59 year old female MVA accident victim who received multiple lacerations and sutures about 2 weeks ago. Leg wound previously sutured has dehisced and has a yellow/green discharge.

Case 5

- 82 year old male with Right hip wound 6 that had been doing well until the past couple of weeks where you have noticed increased amounts of necrotic tissue. Patient refuses surgical debridement. Otherwise no signs of infection.

Case 6

- 87 year old female with dementia, HTN, and high cholesterol has a left buttock pressure wound that has been doing well but progress has slowed over the past few weeks. Wound is now about 8 weeks old and you suspect biofilm. After debridement, you would like to decrease the reformation of biofilm



Treatment Categories - functional

Contact Layers

- Silicone
- Vaseline gauze
- Vaseline gauze with Bismuth
- Film
- Hydrocolloid

Stimulatory

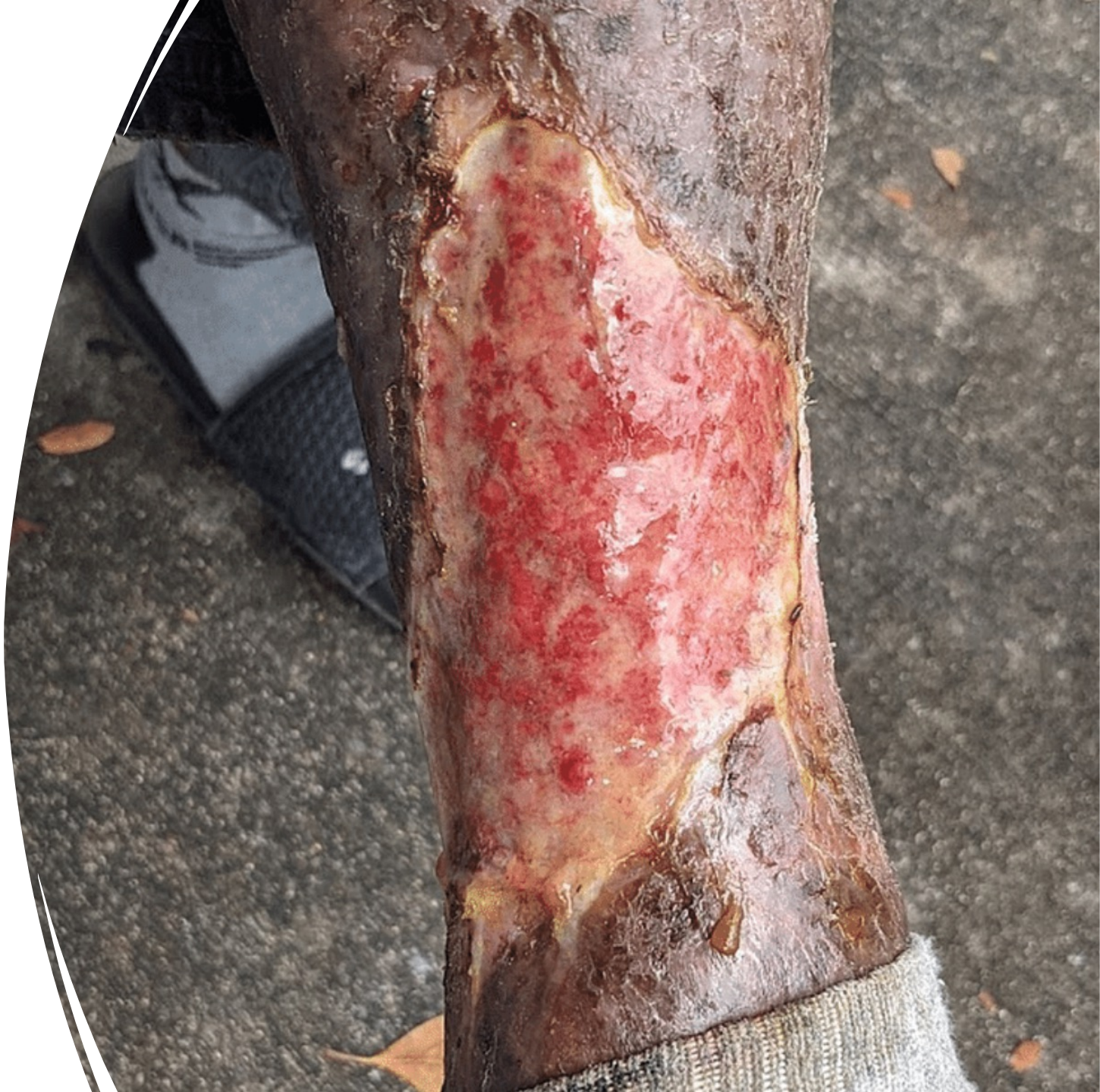
- Growth factors
  - PDGF
- Osmotic gradients
  - Honey
  - Hypertonic
- Lipid-Colloid particles

Negative Pressure

- Traditional wound vac
- Single use wound vac
- Mechanically powered

Case 7

- Mr Jones is a 91 year old man with a history of lower extremity wounds. He complains of pain with dressing removal.
- What dressing might you use to reduce the bandages from adhering to the underlying tissue?



Case 8

- 83 year old female with a wound on her left thigh. Her past medical history is unremarkable, but this long standing wound seems to be stalled. You have re-assessed your plan of care and everything seems to be correct. You decide to change to a dressing in hopes of kick starting further healing.

Case 9

- 72 year old recently admitted from the hospital after receiving abdominal surgery. Initially suture line was healing well but the wound dehisced and now is back on a path to healing.
- What post surgical application might aid in closing of this wound?

Treatment Categories - functional

Substrate Providing

- Collagens
- Oxidized regenerated cellulose
- ECM sheets

Tissue membranes

- Tissue derived skin substitutes (a-cellular)
- Preserved tissue matrix (cellular)

Other

- Compression bandages
- Moisture barrier creams
- Maggots

Case 10

- You have been asked to see a 58 year old burn patient who recently received split-thickness skin grafts to wounds on their arms. The donor site was the patient's thigh. While the graft site is doing well, the donor site has been slow to heal and has basically stalled. The wound is free of necrosis with moderate exudate.

Case 11

- This is a 69 year old with a history of chronic LE edema. Both LE have stasis dermatitis and the left leg has a recalcitrant 8 cm by 4 cm wound with moderate to large exudate. Wound has failed despite compression and elevation.

Skin Substitutes:Cellular and/or Tissue Based Products (CTPs)

- Human Skin Allografts
- Allogeneic Matrices
- Composite matrices
- Acellular matrices

CTPs most appropriate use

- DFU
- VLU
- Must first treat with standard treatments: 30 days
  - Edema control
  - Mechanical offloading
  - Mechanical compression
  - Limb elevation
  - Debridement
  - Manage comorbid conditions
  - Appropriate therapeutic dressings

Failed Response

- **Failed Response** is defined as an ulcer or skin deficit that has failed to respond to documented appropriate wound-care measures, has increased in size or depth, or has not changed in baseline size or depth and has no indication that improvement is likely (such as granulation, epithelialization or progress towards closing).

Conditions to be met

- Presence of neuropathic ulcers and diabetic foot ulcer(s) having failed to respond to documented conservative wound-care measures of greater than four weeks, during which the patient is compliant with recommendations, and without evidence of underlying osteomyelitis or nidus of infection.
- Presence of a venous stasis ulcer for at least 3 months but unresponsive to appropriate wound care for at least 30 days with documented compliance.
- Presence of a full thickness skin loss ulcer that is the result of abscess, injury or trauma that has failed to respond to appropriate control of infection, foreign body, tumor resection, or other disease process for a period of 4 weeks or longer.
  In all wound management the ulcer must be free of infection and underlying osteomyelitis with documentation of the conditions that have been treated and resolved prior to the institution of CTP therapy. For purposes of this LCD, appropriate therapy includes, but is not limited to:
  - ☐ Control of edema, venous hypertension or lymphedema
  - ☐ Control of any nidus of infection or colonization with bacterial or fungal elements
  - ☐ Elimination of underlying cellulitis, osteomyelitis, foreign body, or malignant process
  - ☐ Appropriate debridement of necrotic tissue or foreign body (exposed bone or tendon)
  - ☐ For diabetic foot ulcers, appropriate non-weight bearing or off-loading pressure
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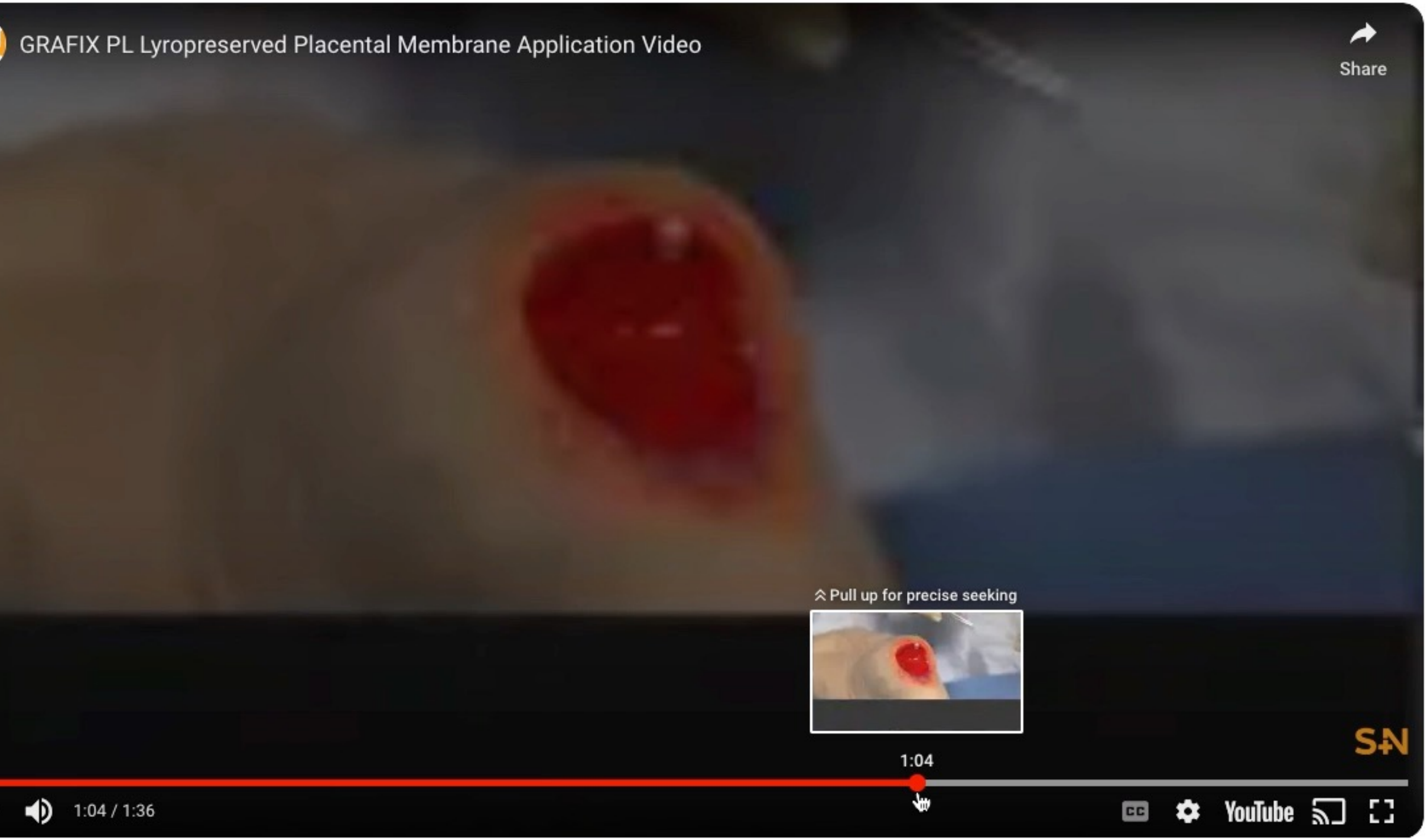
- ☐ For venous stasis ulcers, compression therapy provided with documented diligent use of multilayer dressings, compression stockings of > 20mmHg pressure, or pneumatic compression
- ☐ Provision of wound environment to promote healing (protection from trauma and contaminants, elimination of inciting or aggravating processes)


GRAFIX PL Lyropreserved Placental Membrane Application Video
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Other Products:

- Compression bandage
- Biological (debridement)
- Moisture barrier creams
- Antifungals

Summary

WOUND BED

SURROUNDING SKIN

OPTIMAL HEALING ENVIRONMENT

- Still necrosis?
- Bioburden too high?
- Moisture balance wrong?
- Patient non-compliance?
- Nutritional concern?
- Inadequate blood supply?

Reassess

Healing

Non-healing

Putting it All Together:
Patient scenarios

- Dressing selection:
  - Moisture donating, moisture absorbing, cavity filling
  - Contact layer
  - Antimicrobial
  - Debridement
  - Substrate-providing
  - Negative pressure, CTPs, growth factors, etc

Case #12
Sacral Wound

- 78 year old woman with end-stage MS
- Hip DTIs, lower extremity contractures
- Wound 4 x 5 x 0.4cm. Heavy exudate
- What are the important factors in dressing selection for this wound?
  - Wet or Dry?
  - Cavity?
  - Infected?
  - Appropriate for CTPs?
  - Wet
  - No cavity
  - Not infected
  - Possibly

Case #13

Diabetic Foot Wound

- 68 year old man with NIDDM, neuropathy, and PAD.
- DFU 1.0 x 0.5 x 1.6cm; odor, increased exudate
- What are the important factors in dressing selection for this wound?
  - Wet or Dry?
  - Cavity?
  - Infected?
  - Appropriate for CTPs?
  - Moderate exudate
  - Cavity/tunnel
  - Possibly infected
  - No

Case #14

Lower Extremity Wound

- 57 year old woman with chronic venous hypertension
- Bilateral stasis dermatitis, edema
- What are the important factors in dressing selection for this wound?

- Wet or Dry?
- Cavity?
- Infected?
- Appropriate for CTPs?
- Other considerations?

- Heavy exudate
- None
- No
- Possibly
- Compression

Case #15

Sacral Wound

- 82 year old woman with stage 4 sacral wound
- Patient is less alert, afebrile. Odor and heavy purulent drainage.
- What are the important factors in dressing selection for this wound?

- Wet or Dry?
- Cavity?
- Infected?
- Appropriate for CTPs?
- Other considerations?

- Heavy exudate
- Yes, plus undermining
- Yes
- No
- Necrotic tissue