

Wound Care Strategies – Stump the Professor!



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**OREGON
HEALTH & SCIENCE
UNIVERSITY**

*Where Healing, Teaching
& Discovery Come Together*

Objectives



At the end of the session, you should be able to:

- ✓ Describe a systematic approach to all chronic wounds
- ✓ Determine best practices for wound dressings

But How Did We Get Here?



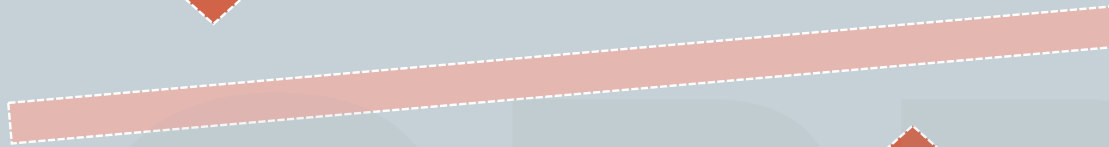
nature

- 1962, George D Winter
- Papillary dermis removed on pigs
- Covered with polythene film versus exposure to air
- Film epithelialized twice as fast compared to air exposure

But Too Much of a Good Thing...



Open To Air =
Scab



Too Occlusive
= Risk of
Infection



But Too Much of a Good Thing...



Open To Air =
Scab

Air Permeable Dressings Were Born

Too Occlusive
= Risk of
Infection

Wound Base Descriptors

**1. Viable
(granulation) tissue**

**2. Nonviable dry
tissue**

**3. Nonviable wet
tissue**

4. Structure

A



C



B



D



Wound Edge Descriptors

1. Erythema

2. Hyperkeratotic

3. Maceration

4. Rolled Edge/Epibole

5. Epithelialization

6. Callous

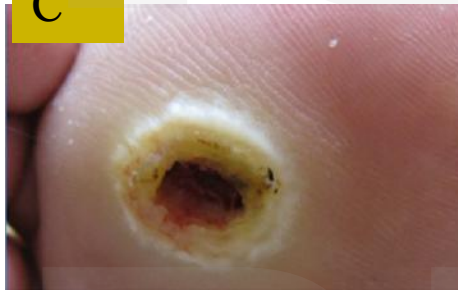
A



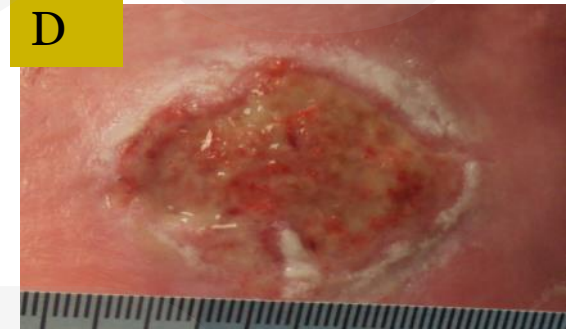
B



C



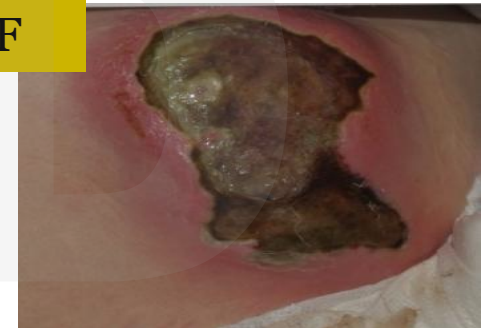
D



E



F



Undermining



Don't Forget to Probe!



Don't Forget to Probe!



**WHAT DO I PUT ON THE
WOUND???**

**Moistur
e**

Balance

**Debridemen
t**

**Bacteri
al**

Balance

Moisture Balance

- Wet wound =
 - Damaged, macerated edge
 - Biofilm development
- Dry wound =
 - Eschar formation



Choose a dressing that is...

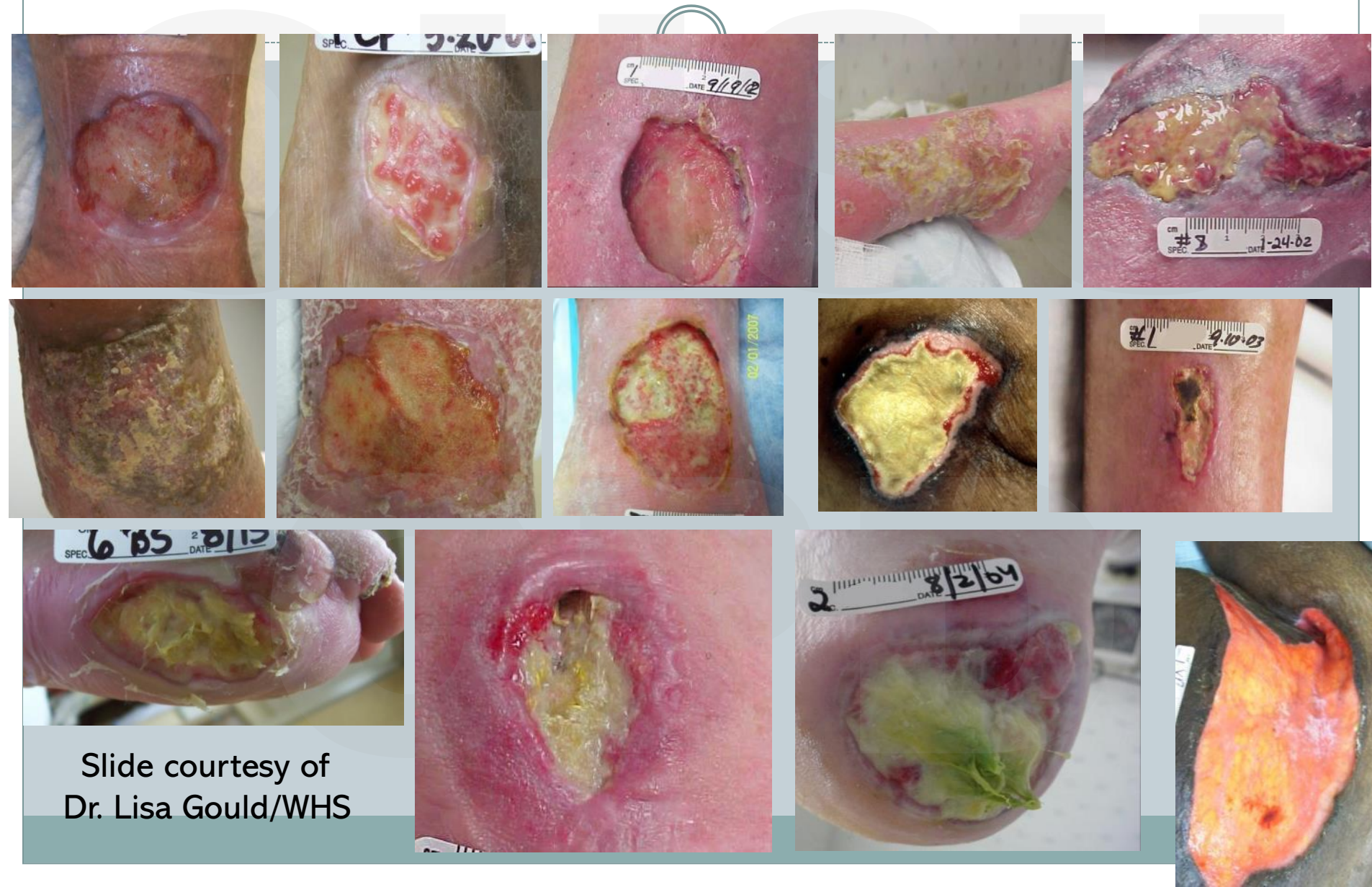
NOT bulky, NOT painful, NOT changed often

Moisture Balance

- Products that “Wet It”
 - Hydrogel
 - Hydrocolloid
 - Vaseline/oil based products
- Products that “Dry It”
 - Alginate
 - Hydrofiber
 - Foam
 - Extra-absorbent dressings

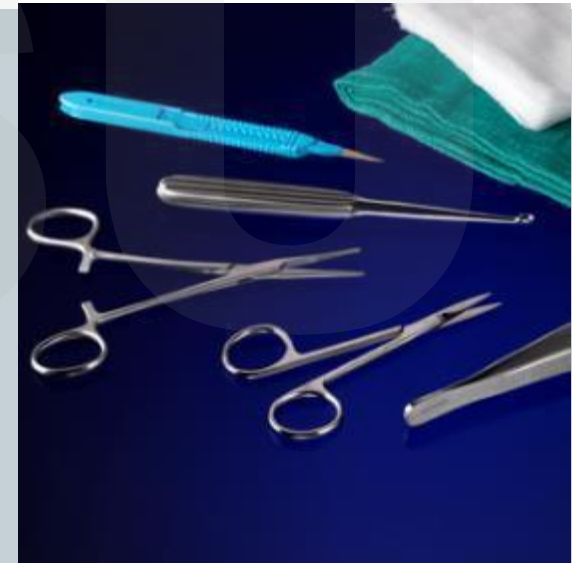


What IS That Yellow Stuff?



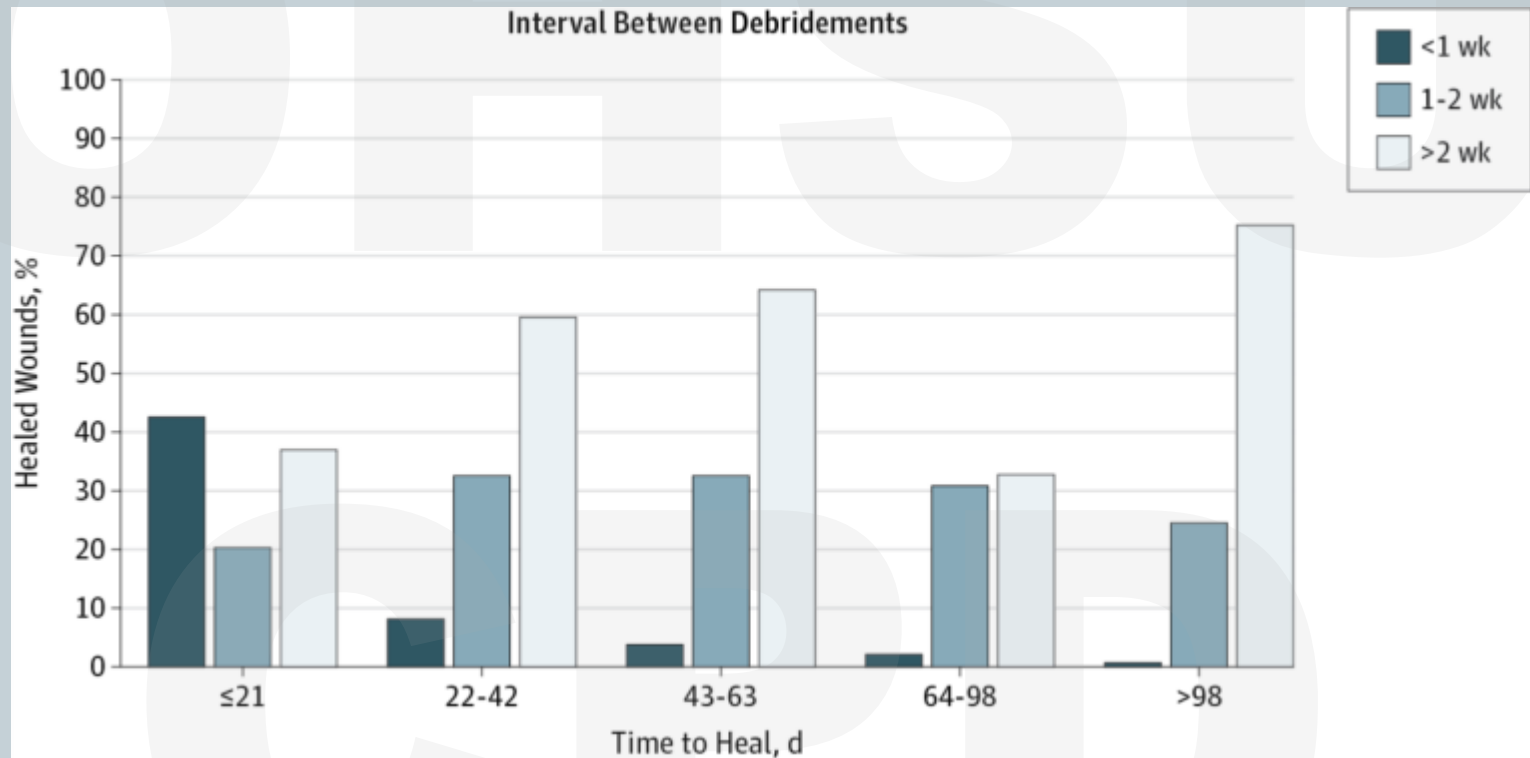
Debridement

- Sharp Debridement for:
- Necrotic, Non-viable tissue
 - Eschar
 - Slough
 - Multiple organism-related Biofilm
 - Debris
 - “That Yellow Stuff”



GET RID OF IT!

Why do Wounds Need Debridement?



JAMA Dermatol. 2013;149(9):1050-1058. doi:10.1001/jamadermatol.2013.4960

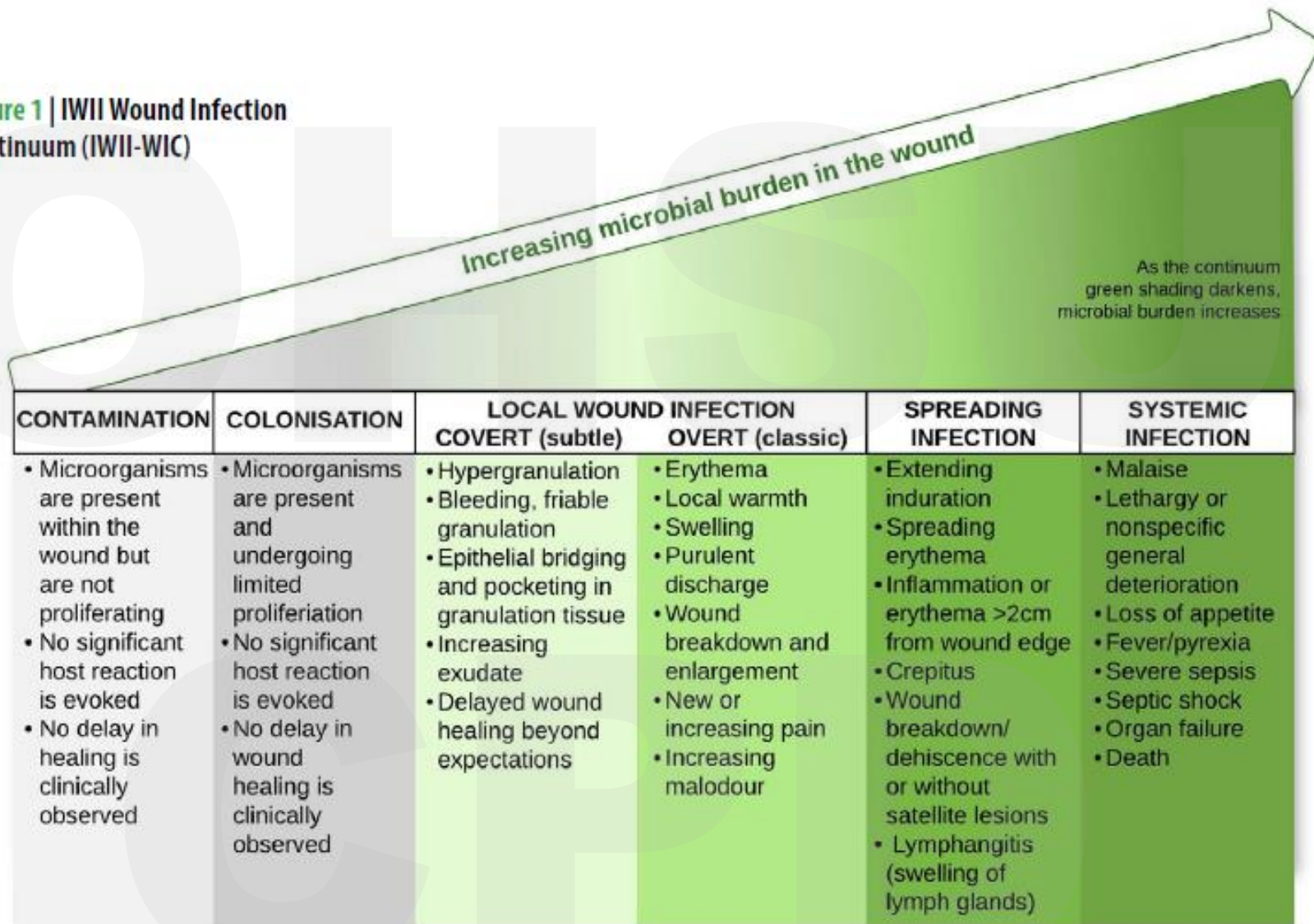
Other Forms of Debridement



- Autolytic
 - Slowest, least painful
 - Hydrogels, hydrocolloids, films
- Enzymatic
 - Faster than autolytic, but requires daily dressing changes
- Biological
 - Most selective
 - In place for 1-4 days
 - Palliative Care Option
 - Patient/Staff may Object



Figure 1 | IWII Wound Infection Continuum (IWII-WIC)



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

Biofilm

- **Definition:** Communities of bacteria that attach to one another and interact synergistically.
- “Quorum Sensing”
- Cultures not helpful
- Render antibiotics useless



**Treatment = Reduce burden +
prevent it coming back!**

Bacterial Balance

- Silver-impregnated products
 - Anything with “Ag”
- Cadexomer Iodine
- Medical-Grade Honey
- Bacteriostatic Dressings (Gentian Violet,



Avoid the use of topical antibiotics
If you can take it systemically,
don't put it on topically

Lee Am J Clin Dermatol. 2011

Panuncialman. Clinics in Plastic Surgery 2007

Reddy JAMA 2008

Negative Pressure Wound Therapy

- Manages Drainage
- Reduces Wound Edema
- Reduces Bioburden
 - Loosens slough and necrosis
 - *Must have less than 20% necrotic tissue in wound*
- Increases Perfusion
- Promotes Wound Contraction



REMEMBER THAT EDGE

Wound	Prognostication Tool
Venous Leg Ulcer	Size $\geq 10\text{cm}^2$ PLUS Duration ≥ 12 months = 78% chance of not healing in 3 months
Neuropathic Foot Ulcer	Size $> 2\text{cm}^2$ PLUS Duration > 2 months PLUS Deep ulcer with abscess/osteo = 79% chance of not healing in 5 months

Margolis J Amer Med 2003
Margolis Wound Repair Regen 2004

Edge Protectors



Don't Forget Our 4M's



What Matters Most?

Mentation?

Mobilization?

Medication?

Write your Treatment Plan:



- Offloading
- Edema management
- Nutrition
- Arterial Question
- Infection Question
- Local Wound Care...see next slide

Write your Wound Order



- Location:
- Cleanse with:
- Protect Edge:
- Apply:
- Cover:
- Secure:

Some Rules Are Made to be Broken



- Inadequate Arterial Supply
- Stable Eschar on Heels
- Ventilated Patient
- Fecal Incontinence for Sacral Pressure Injury

Heel Pressure Ulcer

- 72 y.o. Male
- PMHx of cardiac disease, TIAs, diabetes, and Tobacco Use
- Admitted to hospital with systemic symptoms
- Source of sepsis: Left heel wound



PATIENT No: 01
PROTOCOL No:

STUD



CFR

Wound Order



Wound Order



Wound Order



Wound Order



Wound Order



Wound Order



Questions?



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