Woundcare 101

A Review for Bedside NICU Nurses

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Disclosures

- I am a speaker for Urgo Medical and Kerecis.
- I have no financial interests or relationships with any organizations or companies that could potentially create a conflict of interest for purposes of this lecture.

Objectives

- Review various wounds which arise in the NICU patient.
- Review important components for proper documentation of a wound
- Present 3 cases to illustrate the necessary components for a wound assessment.
- Review before and after case discussions to illustrate the role of wound care in the NICU

So What is Wound Care?

Wound Care - defined as the clinical science dedicated to using advanced wound dressings and techniques to promote wound healing and prevent wounds from arising.




Adult Wound Care

Common Neonatal Wounds

Contact Irritation

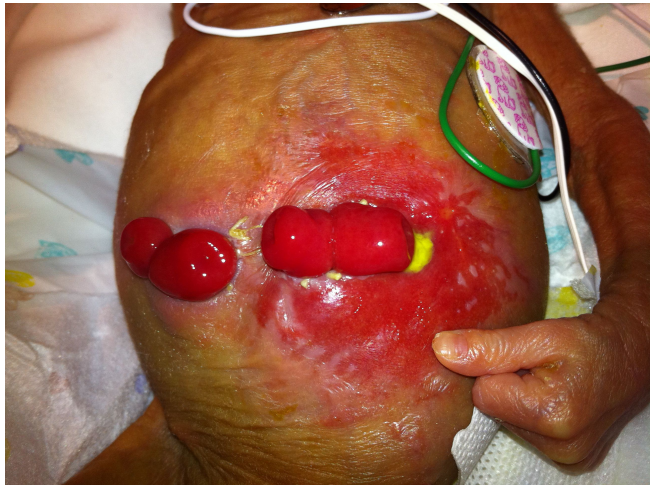
Surgical Wounds

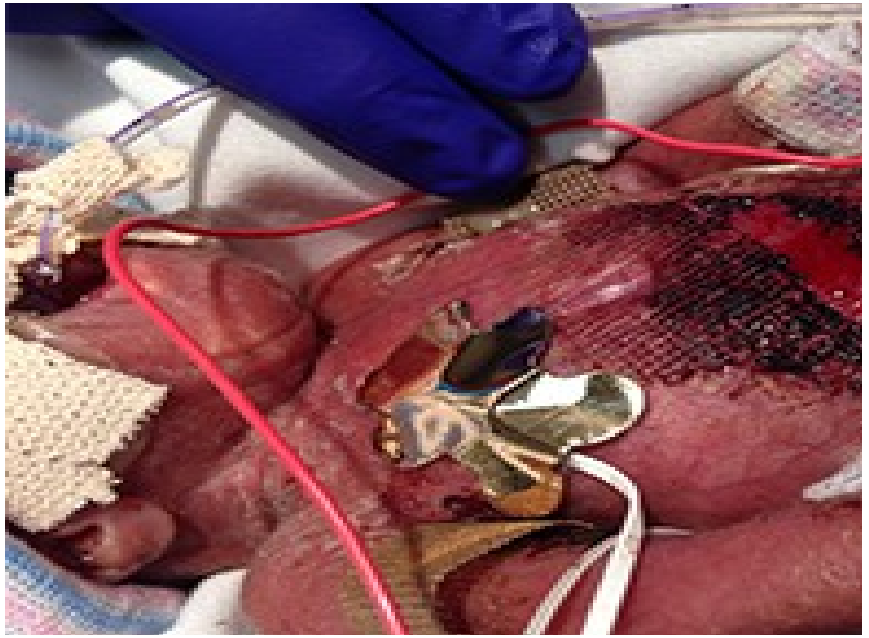
Complex Ostomy Care

Pressure Ulcers

IV Infiltrates

Infections





Contact Irritation

Surgical Wounds

Complex Ostomy Care

Pressure Ulcers


PATIENT NAME
11/23/19
DATE
WOUND SIZE
LENGTH
WIDTH
DEPTH
Discard After Single Use


PATIENT NAME
12/23/16
DATE
WOUND SIZE

Infections

IV Infiltrates

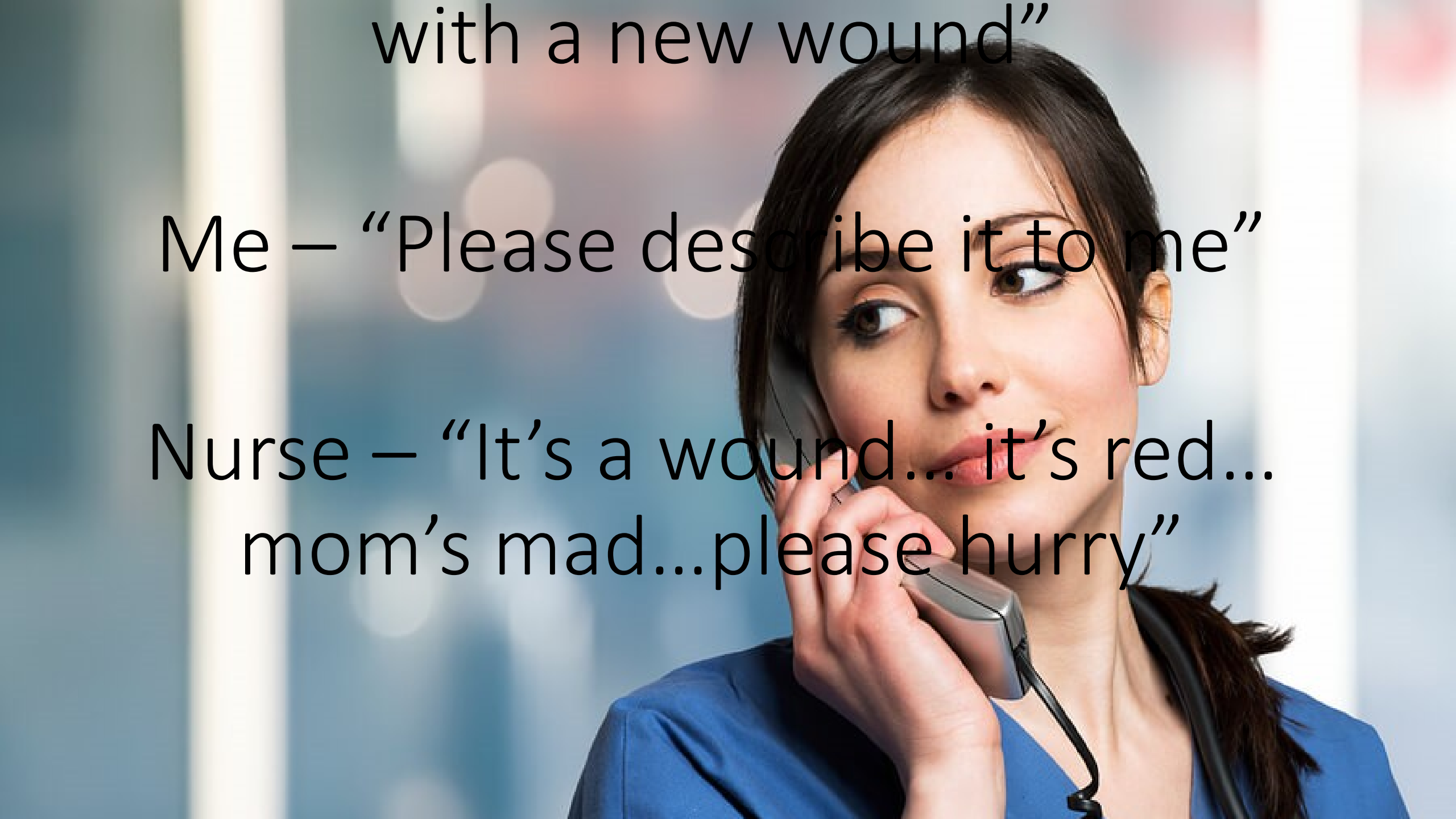
Birth Injuries/Congenital Wounds

Important Factors Unique to NICU Wound Care

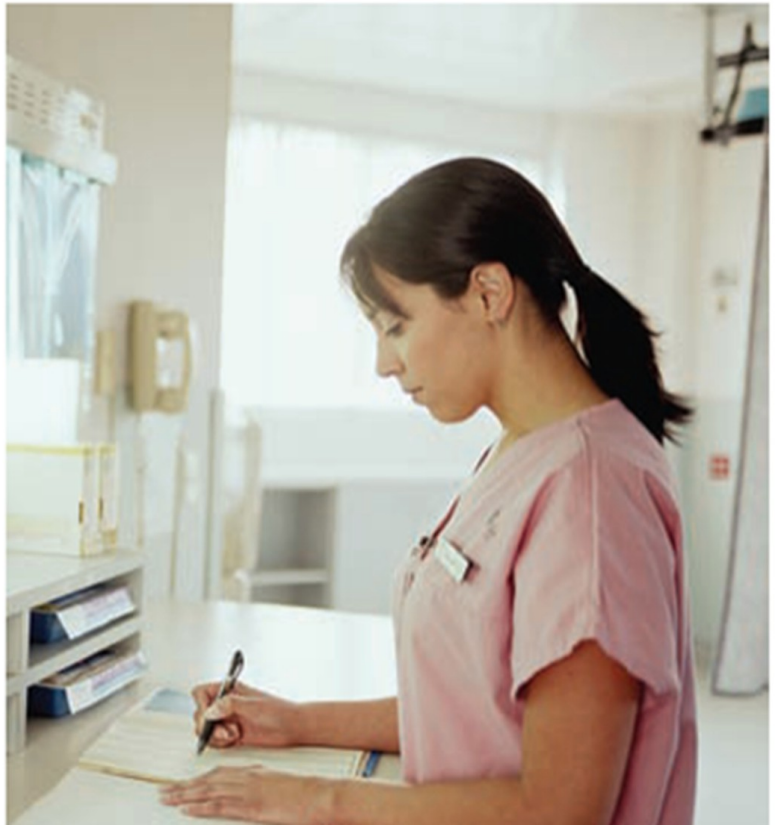
with a new wound”

Me – “Please describe it to me”

Nurse – “It’s a wound… it’s red… mom’s mad…please hurry”



Wound Documentation



Components of Wound Description

Infection/
Contracture

Location

- Be as specific as you can when describing the location of the wound.
  - *Right/Left*
  - *Dorsal/Palmer*
  - *Dorsal/Plantar*
  - *Proximal/Distal*
  - *Medial/Lateral*
  - *Superior/Inferior*
  - *Anterior/Posterior*

Palmer surface

Dorsal surface

Plantar Surface

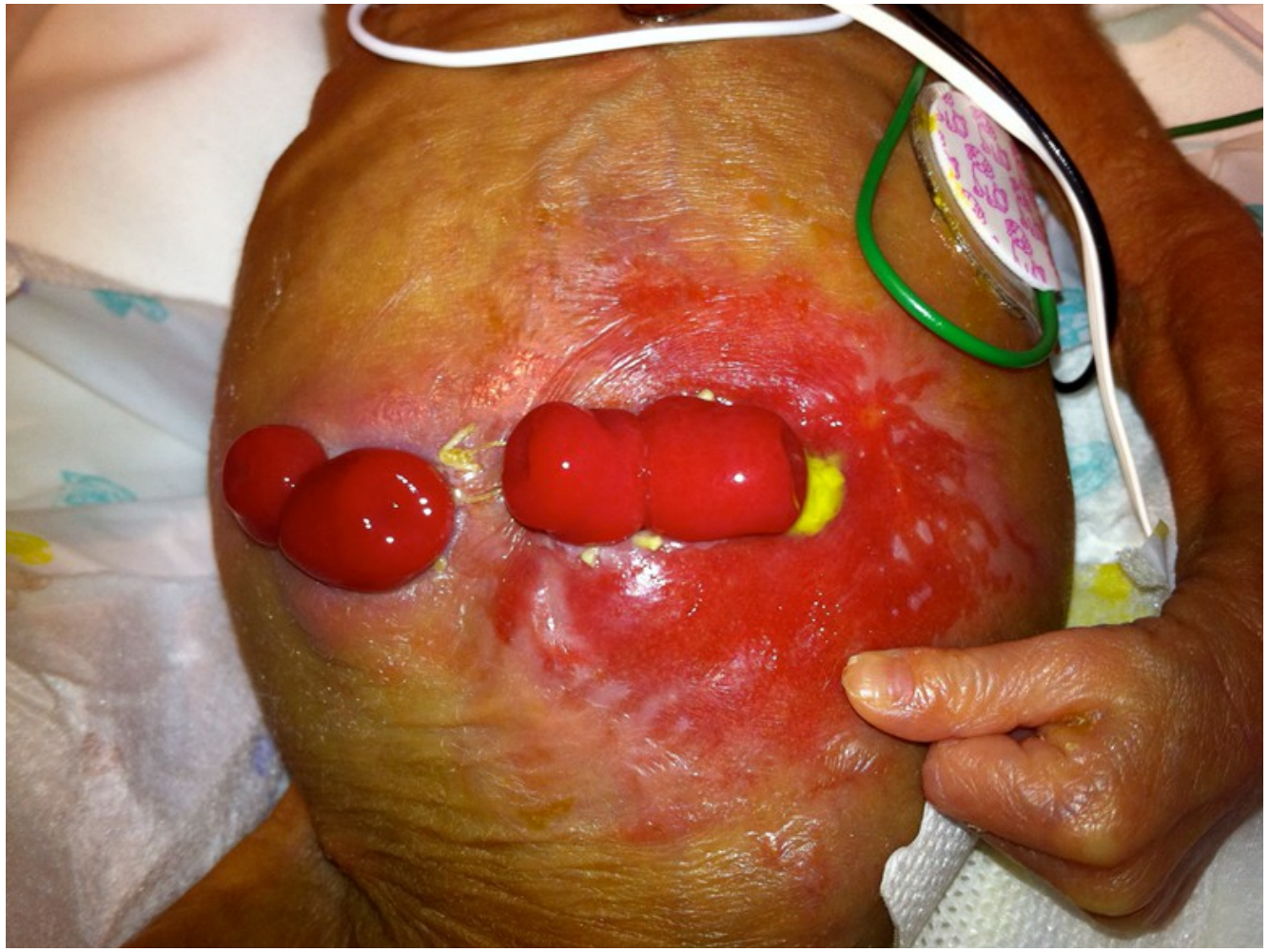
Dorsal Surface

Anterior

Posterior

Example #1

Open wound on the medial aspect of the right leg distal to the knee extending inferiorly to above the ankle



Example #2

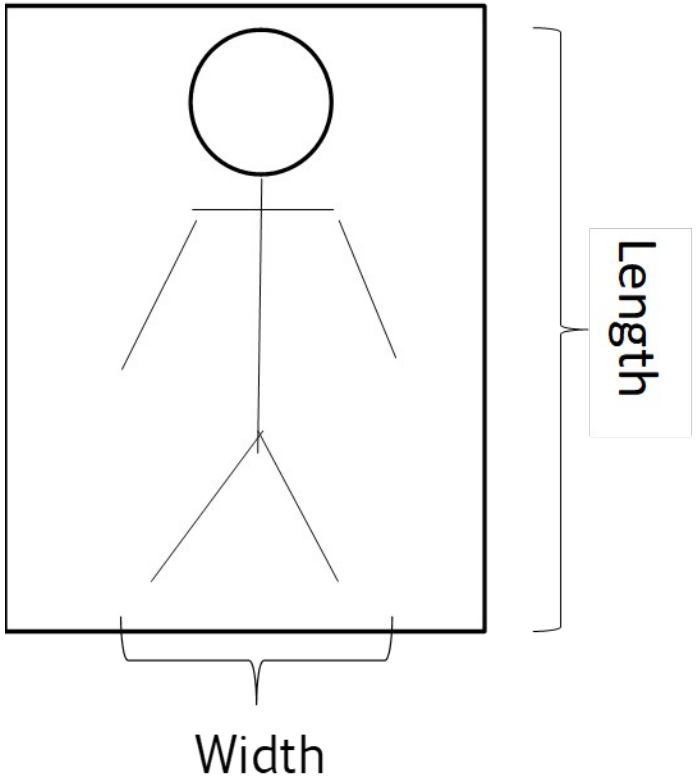
Open superficial wound of the left anterior abdominal wall surrounding an ostomy extending inferiorlaterally towards the LLQ.

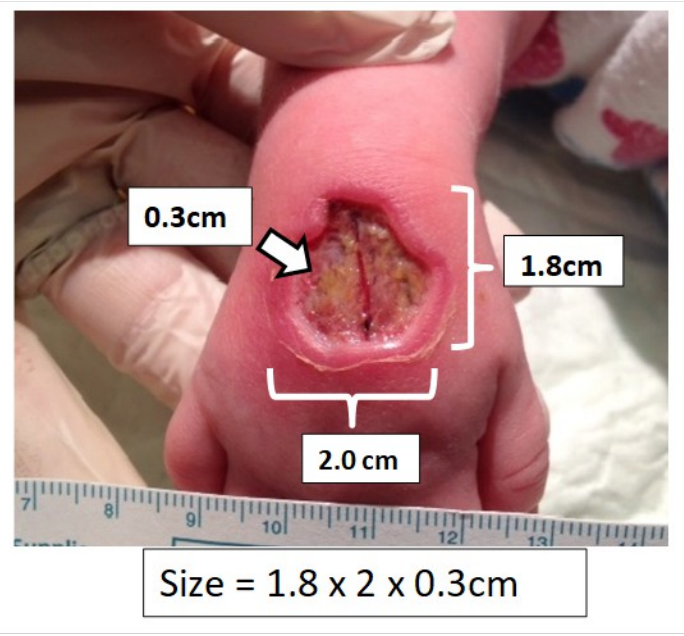
Wound Size

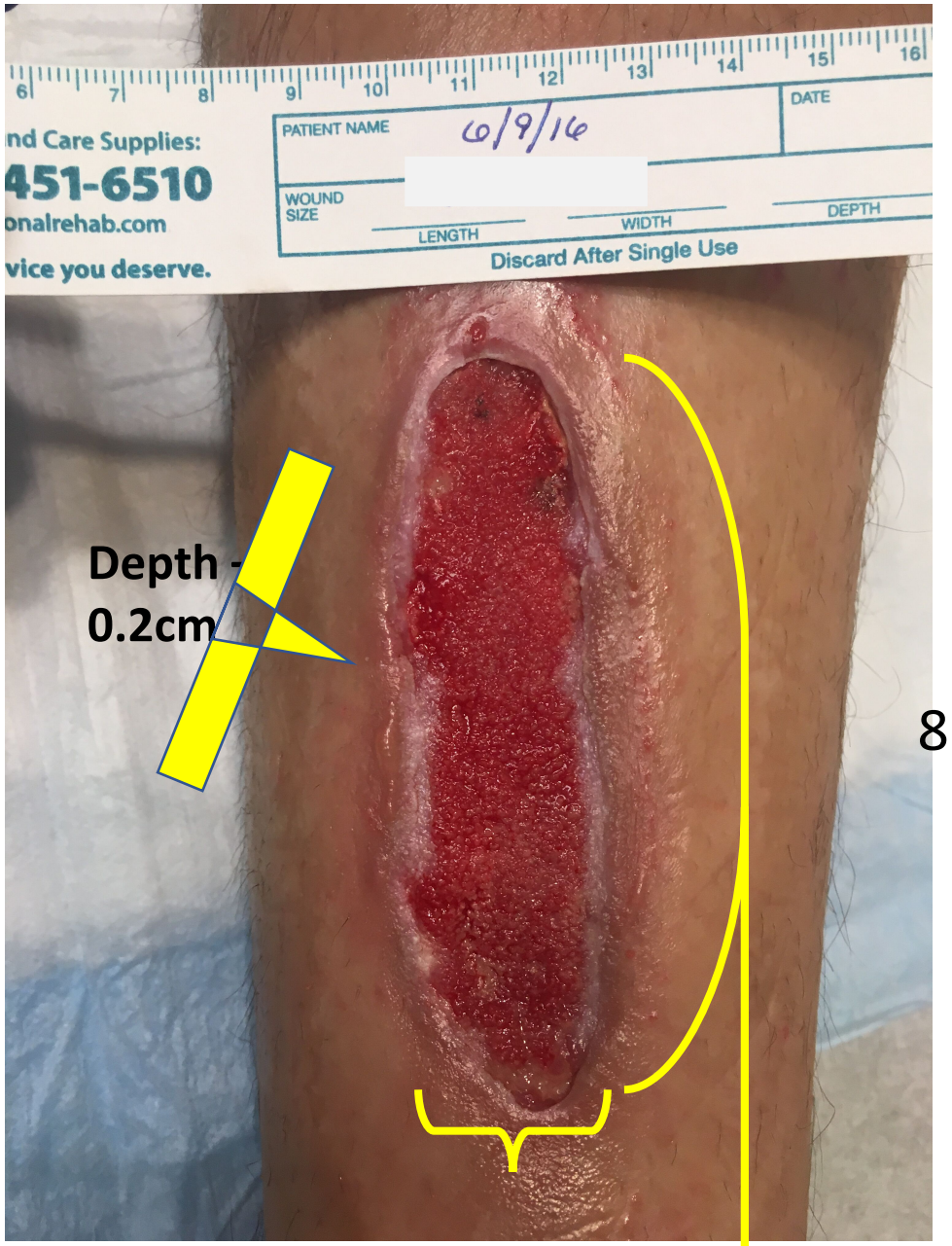
- Integral component to wound assessment
- Critical for objective assessment of treatment.
- Size determines choice of wound dressings
- Size is important factor in determining risk for complications.
- Can be measured using simple ruler.

Wound Size

- Length is measured Head to Toe, North/South
- Width is measured perpendicular to length – East/West.
- Depth is measured using specialized wound measurement devices or cotton tipped applicators.
- Depth can also be described by the layer of penetration – limited to epidermis, extends past dermis into musculature, visible bone and musculature.
- Documented as L x W x D







Which is correct measurement?

A. 2 x 0.2 x 8.5cm

B. 2 x 8.5 x 0.2cm

C. 8.5 x 0.2 x 2cm

D. 8.5 x 2 x 0.2cm

Wound Bed

The wound bed - defined as the area of skin, tissue and muscle that is traumatized, necrotic or inflamed and bordered by healthy tissue. Typically comprised of following factors:

- Eschar – hyperpigmented/black, firm nonviable devitalized tissue within the wound bed.
- Necrotic tissue – Nonviable black tissue loosely adherent within the wound bed.
- Slough – nonviable tissue containing proteinaceous tissue, fibrin, neutrophils, bacteria. Typically yellow/white. Gelatinous/slimy.
- Granulation – healthy viable tissue typically pink/red. No overlying epidermis.

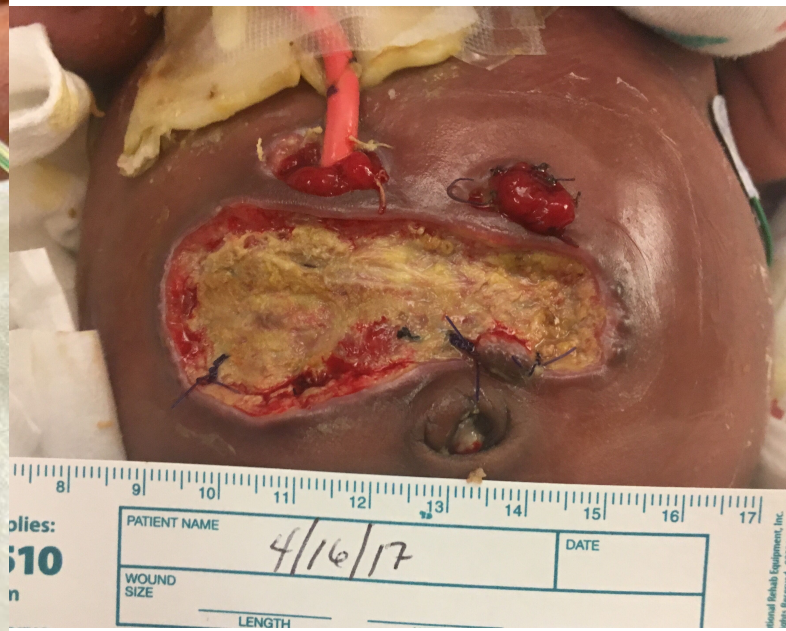
- Documentation requires comment on the percentage/presence of these factors in the wound bed.


1/22/20
DATE
LENGTH
WIDTH
DEPTH
Discard After Single Use


TIENT NAME
1/27
DATE

Eschar

Necrotic Tissue



Slough

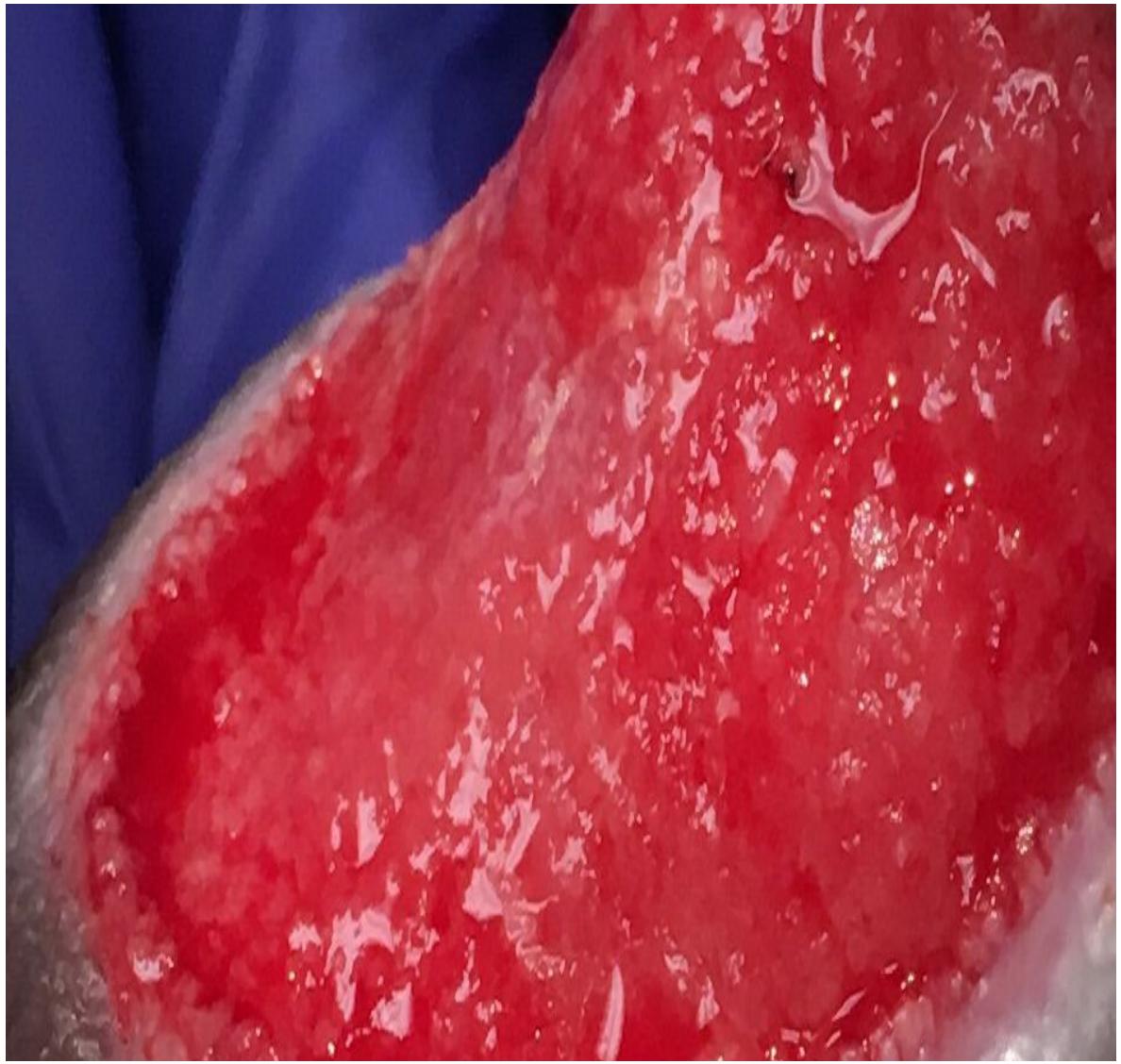
Granulation tissue

Wound Edges

The borders of the wound bed require documentation to describe the continuity between the wound bed and adjacent healthy tissue.

- Healthy wound edges present as advancing pink epithelium growing over mature granulated tissue.
- Color - pink edges indicate growth of new tissue; dusky edges indicate hypoxia; and erythema indicates physiological inflammatory response or cellulitis
- Raised - wound edges (where the wound margin is elevated above the surrounding tissue) may indicate pressure, trauma or malignant changes
- Rolled -wound edges (rolled down towards the wound bed) may indicate wound stagnation or wound chronicity
- Contraction - wound edges are coming together, signs of healing

Wound Edges



Smooth/Flat/Attached

Wound Edges

Smooth/Raised/Attached

Wound Edges

Hard/Firm/Calloused

Wound Edges

Ragged/Indistinct/Unattached

Drainage

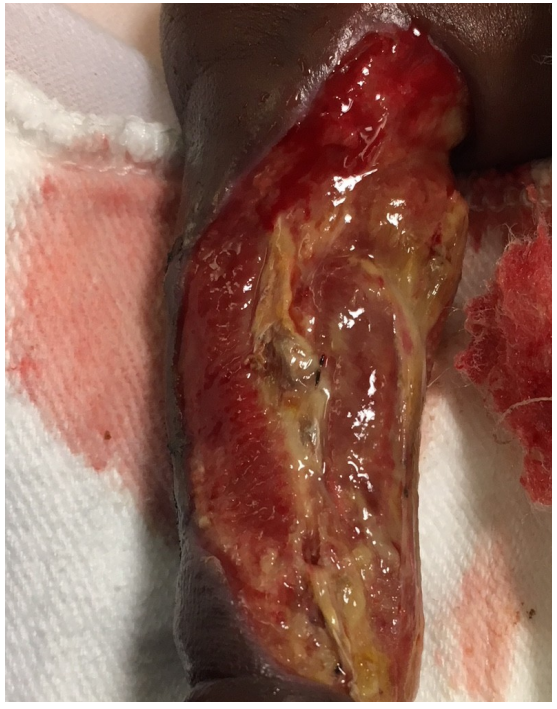
- Characterized by type and amount

Drainage: Type

Serosanguineous, Serous, Purulent, Sanguineous

Drainage: Amount

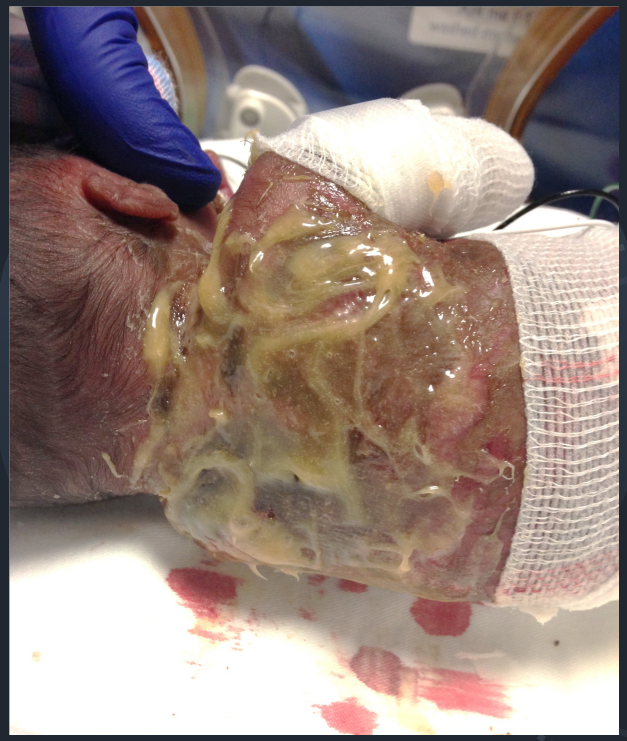
- None – Dry wound bed.
- Scant – Wound tissues are moist. Barely detectable stain on dressing.
- Small – Drainage involves <25% of the overlying dressing.
- Moderate – Drainage saturates the overlying dressing >25% to <75%.
- Large – Wound tissue is completely bathed in fluid drainage.

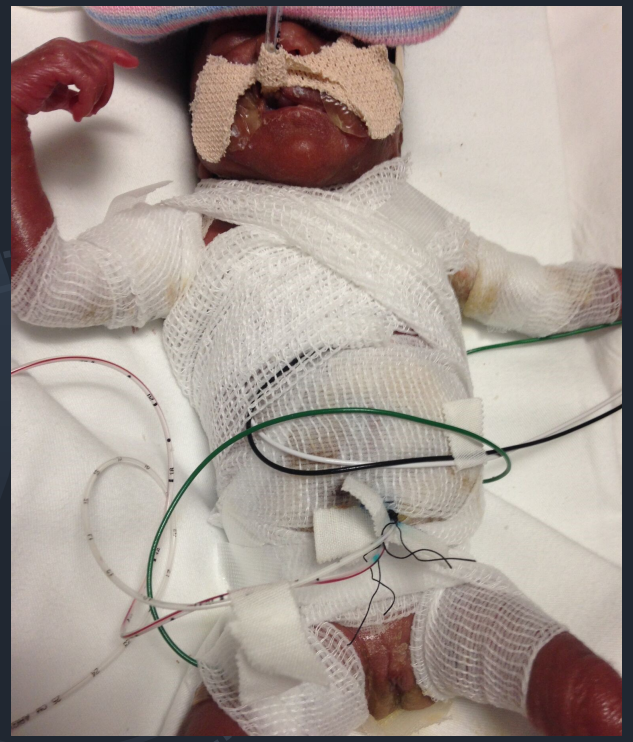


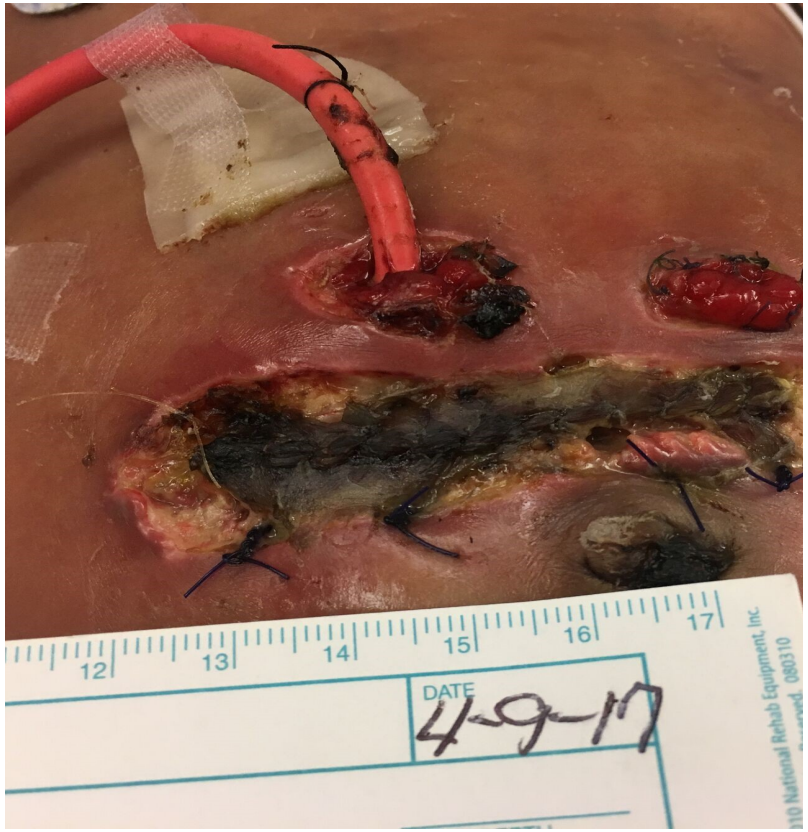
Cases and Outcomes

23-week preemie with invasive fungal dermatitis

Skin cleansing resulted in active bleeding and severe pain

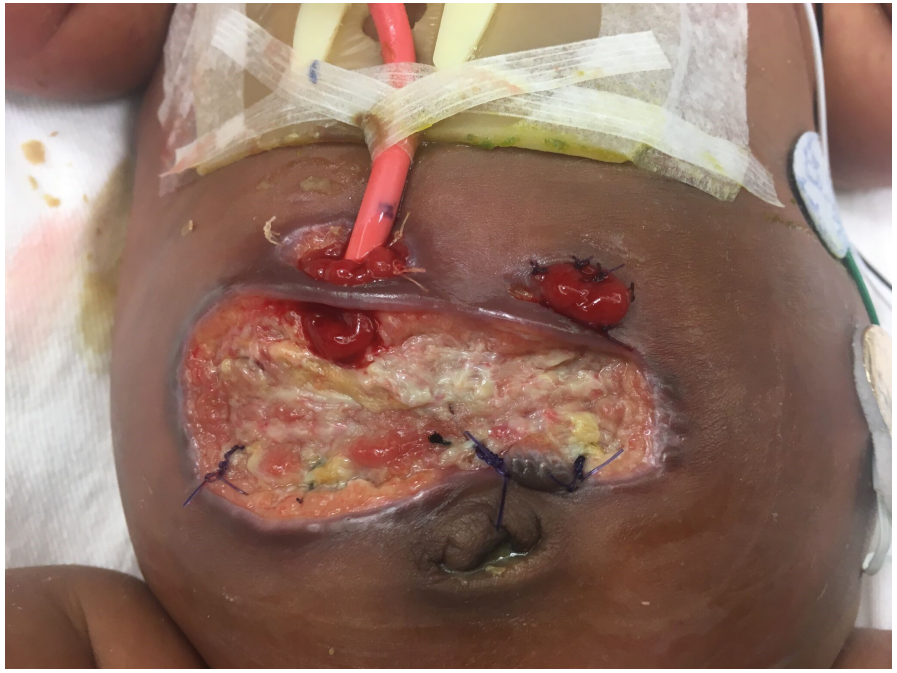






Abdominal Surgical Wound

15 d/o 36-week preemie with NEC and multiple surgeries for complex bowel resection



Successful closure

IV Infiltrate

26-week premature infant female with severe IV infiltrate secondary to Vancomycin

Eschar crosshatched using scalpel at bedside to facilitate penetration of Leptospermum honey into wound bed


9
10
11
12
13
14
PATIENT NAME
7/21/15
WOUND SIZE
LENGTH
WIDTH
DEPTH
Discard After Single Use


PATIENT NAME
7/28/15
WOUND SIZE
1.3 x 1.7 x 0.1
LENGTH
WIDTH
Discard After Single Use

Quiz Time

Case #1

DOL 30 29 week premature female

Incisional breakdown

POD 10 for anastomosis of small bowel repair.

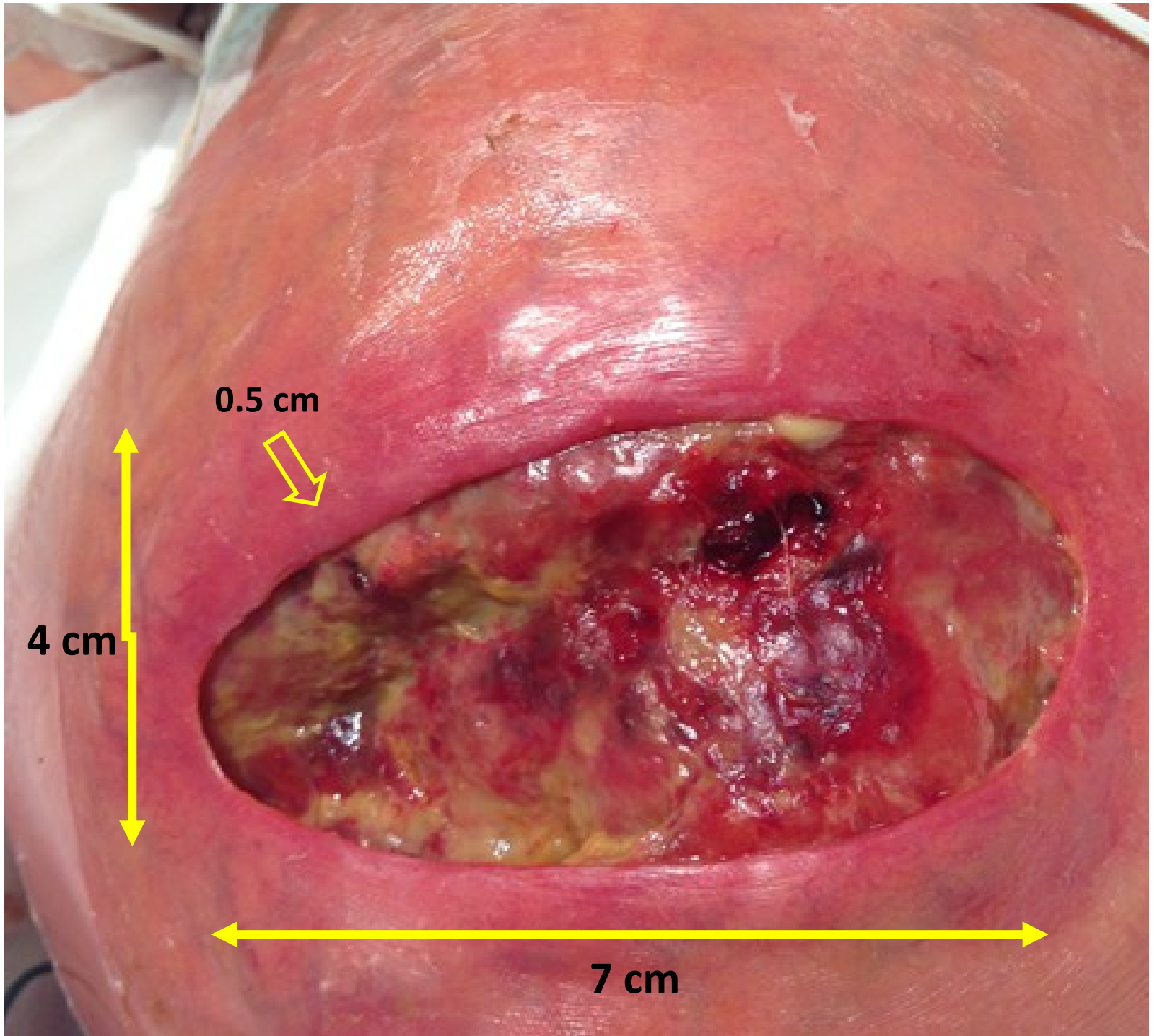
No pressors

NPO on TPN/IL

Stable on convent vent

On abx per surgery

Describe the Wound



Case #2

DOL 7 36-week preterm infant female

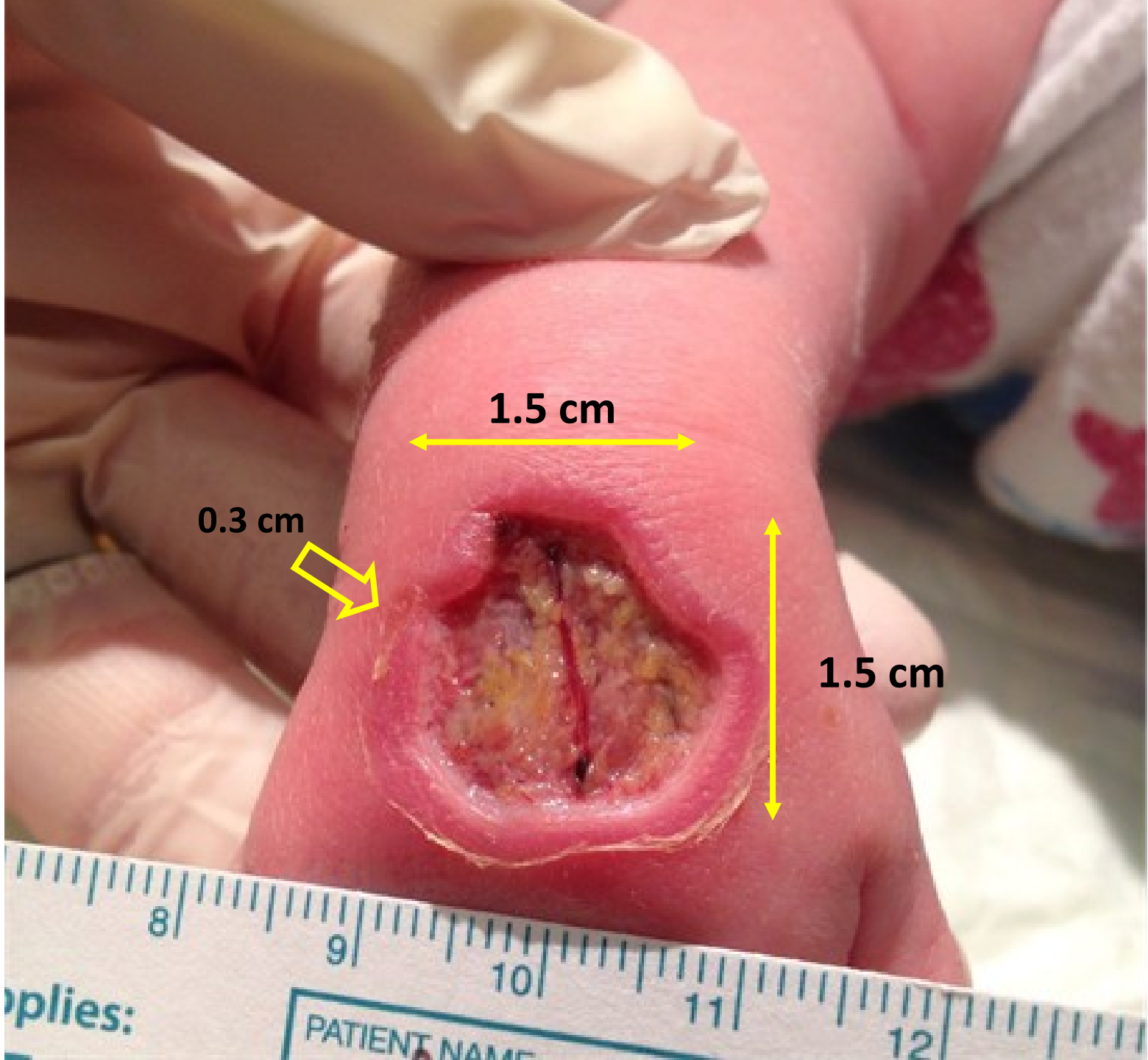
IV Extravasation with Ampicillin

On room air

Full feeds

No pressor support

Describe the Wound



Case #3

Describe the Wound

9 m/o former 24 week preemie with pressure ulcer

s/p debridement of eschar

Hx for IVH requiring reservoir placement

Hx for NEC but now on full feeds

No cardiac or pulmonary complications

Thank you!

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