

## Session 111

## Wound Care Competencies for 2015: Implications for Nurse Managers

### Elizabeth A. Ayello

PhD, RN, ACNS-BC, CWON, ETN, MAPWCA, FAAN



Clinical Editor, Advances in Skin and Wound Care  
Faculty, Excelsior College School of Nursing  
Co-Director and Course Coordinator, IIWCC-NYU  
Vice President World Council of Enterostomal Therapists (WCET)  
Executive Editor Emeritus, JWCET  
Senior Adviser, Hartford Institute for Geriatric Nursing  
President, Ayello Harris & Associates, Inc

Presented at the Nursing Management Congress  
Orlando Florida October 15, 2015

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Lippincott Nursing Management Congress 2015

## Wound Care Competencies for 2015: Implications for Nurse Managers

### Participants will:

1. Discuss gaps in nursing knowledge based on the 2014 wound care survey.
2. Review essential nursing competencies for specific skin conditions and wounds.

Content is true as this moment,  
anything could change by this evening

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### • Competence

– Ability of an individual to do something  
(a job) properly



### • Competency

– set of defined behaviors that provide a structured guide enabling the identification, evaluation and development of the behaviors of the individual

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## NURSING 2014 Survey Results



- I received sufficient education on chronic wounds in my basic nursing education program.

	2012	2005
– Yes	31.5%	30%
– No	68.5%	70%

Ayello, EA, Baranoski, S. Nursing2014 survey results. Wound Care and Prevention. *Nursing2014*. 44(4):32-40  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. *ASWC*. 2014.; 27(8):371-380

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## NURSING 2014 Survey Results

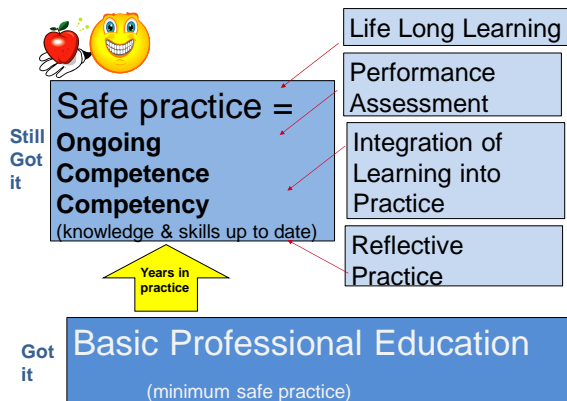


- Did the number of years of nursing experience influence a yes response to the above question?

YEARS	Percent
2-3	47%
4-5	42.3%
6-10	42.6%
16-10	32.4%
Over 20	22.7%

Work Setting	Percent	Role	Percent
Home HC/Community	43.0%	Staff nurse	39.4%
LTC	32.8%	Charge/Assist Manager	36.0%
Hospitals	28.9%	Manager/supervisor	21.7%
Hospice	28.6%	Advance Practice	5.4%

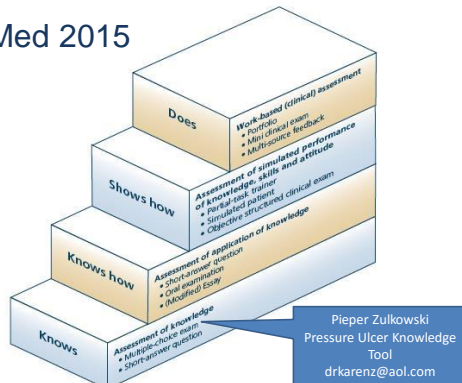
Ayello, EA, Baranoski, S. Nursing2014 survey results. Wound Care and Prevention. *Nursing2014*. 44(4):32-40  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. *ASWC*. 2014.; 27(8):371-380  
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Figure 8.1: Matching assessment instruments to progression of competence

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Wound Care Competencies for 2015: Implications for Nurse Managers

### Wound Care Competencies Checklist:

- Direct Care Providers
- Nursing Managers

- ✓ Pressure Ulcers
- ✓ Venous Leg Ulcers
- ✓ Moisture Associated Skin Damage (MASD)
- ✓ Diabetic Foot Ulcers (DFU)
- ✓ Skin Tears

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Lippincott Nursing Management Congress 2015  
Wound Care Competencies for 2015: Implications for Nurse Managers

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## Pressure Ulcer Incidence

Do you know your **facility's**  
PrU incidence rate?

	2012
Yes	36%
No	64%

Do you know your **unit's**  
PrU incidence rate?

	2012
Yes	38%
No	62%

Reference: Ayello, EA, Baranowski, S. 2014 Survey results: Wound Care and Prevention. *Advances in Skin and Wound Care*. 2014;27(8):371-380

[www.woundcarejournal.com](http://www.woundcarejournal.com)

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Sometimes you need to look at things differently



**“the problem of pressure ulcers belongs to no one group of healthcare professionals:  
all on the healthcare team must work together to diminish the incidence and severity of pressure ulcers.”**

Roberta Abruzzese, 1988 Editorial. *Decubitus* 1(1) P. 7

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## NJHA Collaborative Goals

- Close the gap between what is known and what is practiced 
- Reduce pressure ulcer incidence by **25 %**
- Achieve 95% compliance with the PU Prevention Bundle
  - **Skin assessment on admission**
  - **Risk assessment on admission**
  - **Reassessment of skin and PU risk**
  - **Prevention strategies implemented within 24 hrs**
- Improved communication across care settings

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## The **ABCDE** of Pressure Ulcer Incidence Reduction Initiatives

- **A**dministrative support backed by support at the patient care level is vital
- **B**undling care practices and having an identifiable theme
- **C**reating a culture of change, commitment, and communication
- **D**ocumentation of pressure ulcer prevention practices must be visible
- **E**ducation is essential



Lyder CH, Ayello EA (October 2009) Annual Checkup: The CMS pressure ulcer Present-On-Admission Indicator. *Advances in Skin and Wound Care*. 22(10):476-84, quiz 485-6

© Ayello, 2009

## Need for system-wide change including a culture change

### Key Concepts

- No more “Blame”
- “Process”
- “Catch” – build redundancy into the system

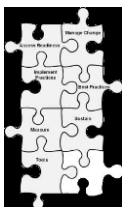


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## ORGANIZATION OF TOOLKIT

- **Six chapters each addressing a key question:**

1. Are we **ready** for this change?
2. How will we **manage** change?
3. What are the **best practices** in pressure ulcer prevention that we want to use?
4. How should those practices be **organized** in our hospital?
5. How do we **measure** our pressure ulcer rates and practices?
6. How do we **sustain** the redesigned prevention practices?



- **Appendices with tools and resources**

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<http://www.ahrq.gov/research/lrc/pressureulcertoolkit/>

## Importance of ICU clinical rounding with WOC nurses

### Universal PU Prevention Bundle (UPUPB)

- Skin emollients
- Assessment of skin head-to-toe
- Floating heels off the bed
- Early identification of sources of pressure, using pressure redistribution surfaces
- Repositioning

### Results

- Incidence decreased  
**15.5% to 2.1%**
- Increased adherence to:  
**Heel elevation**  
 $t=-3.905, df=325, P<.001$   
**Repositioning**  
 $t=-2.441, df=325, P<.015$

Andersson M, Guthrie PF, Kraft W, Reicks P, Skay C, Beal AL. Universal pressure ulcer prevention bundle with WOC nurse support. *JWOCN*. 2015;42(3):217-225.

## Rethink forms- how you use your CNAs for skin care

- **Documentation** and knowledge of CNA staff
- **Support collaborative clinical decision making**
  - multidisciplinary team using clinical decision support tools
- **Establish practices**
  - identification and early intervention to prevent pressure ulcers (PrUs)
  - part of frontline caregivers' daily work

Horn, S, et al. Leveraging certified nursing assistant documentation and knowledge to improve clinical decision making: The on-time quality improvement program to prevent pressure ulcers. *ASWC 2011, 24(4):182-187*.

FREE DOWNLOAD  
[www.woundcarejournal.com](http://www.woundcarejournal.com)

© Ayello, 2011



## NURSING 2014 Survey Results



- The Braden Scale is use to assess a patient's potential to develop a vascular ulcer.

	2012	2005
– True	<b>38%</b>	<b>44%</b>
– False	<b>62%</b>	<b>56%</b>

Ayello, EA, Baranoski, S. Nursing 2014 survey results. *Wound Care and Prevention. Nursing 2014, 44(4):32-40*  
Ayello EA Baranoski S. 2014 Survey results : *Wound Care and Prevention. ASWC. 2014;: 27(8):371-380*

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## Braden Scale

<http://www.bradenscale.com.braden.pdf>

### Levels of Pressure Ulcer Risk

19 to 23 = not at risk

15 to 18 = at risk

13-14 = moderate risk

12 to 10 = high risk

9 or below = very high

- Advanced age
- Fever
- Poor dietary intake Protein
- Diastolic pressure below 60
- Hemodynamic instability

Must address **low subscale scores** also

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## Pressure Ulcer Risk Assessment



Because some clinicians:

- Believe its just a **task**
- Complete scale **incorrectly**
- “**Copy forward**” rather than assess
- Have **lost** the **critical thinking piece**

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A comprehensive pressure ulcer risk assessment  
also includes:

Nutrition Assessment	History and Co- morbidities
	 <p>History Assess co-morbidities, medications Look at the skin Touch the skin</p>

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## 4 Risk factors associated with heel pressure ulcers in hospitalized patients

Main analysis results showing significant and independent predictors of HPUs in the final logistic regression model (N=337)

Predictor Variable	Regression Coefficient	SE	P	Odds Ratio	95% Confidence interval
Diabetes	1.08	0.46	.02	2.9	1.2-7.2
Vascular Disease	1.35	0.54	.01	3.8	1.3-11.1
Immobility	1.55	0.51	.003	4.7	1.7-12.9
Admission Braden Score $\leq 18$	3.08	0.64	<.001	21.8	6.3-76.1

Delmoro B, Lubowitz S, Sogge B, Ricksday L, Ayello EA. Risk factors associated with heel pressure ulcers in hospitalized patients. JWOCN 2015; 42(3): 242-248.

© Ayello 2015

## Higher rates of HAC Pressure Ulcers

- Corticosteroid use
- Congestive heart failure (CHF)
- Chronic obstructive pulmonary disease (COPD)
- Cerebrovascular disease (CVD)
- Diabetes Mellitus (DM)
- Obesity



Reference: Lyder, CH, Wang, Y, Metersky M et al. Hospital-Acquired pressure ulcers: Results from the National Medicare Patient Safety Monitoring System Study. JAGS 2012;60(9):1603-1608.

© Ayello 2014

## When to Do Risk Assessment\*

- On admission
  - Within 8 hours
- Reassessment frequency
  - Based on patient's acuity
- Significant change in patient's condition



\* Based on recommendations of NPUAP/EPUAP/PPPIA 2014 PU Guideline



## Risk Assessment

### • Critically ill patients

- Number of hypotensive episodes, hemodynamic instability
- Medical devices



### • Perioperative patients

- Length of surgery
- Number of hypotensive episodes during surgery
- Low core temperatures during surgery
- Amount of time immobilized before and after surgery

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## Pressure ulcers in surgical patients

7.3% to   % in 3 years of HAPU's

- ☐ Indications for wrist band application:
- Patients who are positioned for 4 hours or more.
  - Any patient with a noted skin assessment change upon discharge from the OR.



#### Post Operative Interventions for all positions:

- Head to toe assessment
- Complete the Braden Scale
- If breakdown is noted: stage as per NPUAP pressure staging guidelines
- Follow prescribed treatment protocol and procedure
- Follow specialty support surface protocol and procedure
- Notify MD/NP/CWOCN

Delmore, B, Lebovits, S, Baldock P, Suggs, B, Ayello, EA. (2011). Pressure Ulcer Prevention Program: a Journey. JWOCN 38(5):505-513

© Ayello 2012

## After identification of PU risk

### Is the problem:

- **Don't have** the prevention products
- Staff do **not know now** to **use** prevention products or reposition patients?
- Equipment **not** being:
  - used
  - used **inconsistently**
  - used **timely**
  - used **effectively**



© Ayello, 2009

## Don't wait to do pressure redistribution

The study data:  
792 patient aged 65 years of older  
Evaluated on day 3 of admission

### RESULTS:

Only 15% had any preventive device at day 3 of admission  
51% of at risk patients had a preventive device  
68% of patients with pressure ulcer had documented PU in record



Shayna E, Rich, Shardell, M, Margolis, D, Baumgarten, M (2009)  
Pressure ulcer prevention device use among elderly patients early  
in the hospital stay. *Nursing Research* March/April 2009 58(2) 95-104

© Ayello, 2009

### Evidence informed practice



## Look at communication processes and identify any need for system-wide change

### Automatic triggers

- One hospital improved communication across departments by building in an automatic trigger within its electronic system



Griffin B, Cooper H, Horack C, Klyber M, Schimmekpfenning D.  
Best practice protocols: reducing harm from pressure ulcers.  
*Nurs Manage* 2007;29-31, 69.

© Ayello, 2008

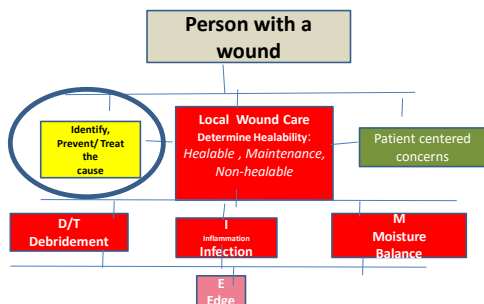
## Can Dressings Reduce Shear Forces and Prevent Pressure ulcers?



- Ohura, R, Takahashi, M, Ohura, N. (2008) *Wound Repair and Regeneration* 16;102-107  
5 dressings tested on porcine skin reduced shear force by 35% compared to control or no dressing
  - Brindle, CT (2010) *WCET* 30(1):11-18  
0 PrUs in 41 high risk Critically ill patients when foam dressing used prophylactically
  - Brindle, CT, Wegelin, JA (2012) *JWOCN* 39(2):133-142  
Reduction in PrUs in high risk Critically ill patients 12/50 foam dressing used prophylactically (12.0%) vs. 4/35 no foam (11.7%)
  - Chaiken, N (2012) *JWOCN* 39(2):143-145  
Reduction in HAPU in ICU patients (n=273 over 35 months from 12.3 % to 1.8% when foam dressing used prophylactically
  - Walsh, NS, Blanck, AW, Smith, L, Cross, M, Andersson, L, Polito, C. (2012) *JWOCN* 39(2):146-149  
Reduction in HAPU in ICU patients (n=62) from 12.5% (50 PrU in 2009) to 7% 13 PrU in 2010) when foam dressing used prophylactically
  - Kiely, C. (2012) *JWOCN* 39(4):443-446  
Reduction in PrUs in ICU patients (5 per month to 0) when foam dressing used prophylactically
  - Cubit, K, McNally, B, Lopez, V. (2012) *International Wound Journal*. 10(4):579-584  
ED patients without foam dressing used prophylactically were 5.4 times more likely to develop PrU
  - Santamaria, Gerdtz, Sage et al (2013) *International Wound Journal*  
Reduction in ED followed into ICU patients 4.3% versus 17.8%, heel 3.1% vs 12.5%, sacral 1.25 vs 5.2% when foam dressing used prophylactically
  - Phibbs, Shaw, Walker et al. (2013)  
0% to 32.2% pre intervention to 0% to 5.3% when sacral foam dressings used -med surgical unit patients Braden 18 or below
  - Park, KH. (2014) *JWOCN* 41(5): 424-429  
6% vs 46% incidence of PrU when sacral foam dressings used prophylactically on ICU patients
- NPUPAEUPAP PPPA Pressure Ulcer Clinical Practice Guideline 2014 strength of evidence = R, 1 thumb up  
Consider applying a polyurethane foam dressing to bony prominences (e.g., heels, sacrum) for the prevention of pressure ulcers in anatomical areas frequently subjected to friction and shear.

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## Wound Bed Preparation



© Sibbald, Ayello &amp; Smart 2014

Modified from Sibbald, Goodman, Kraemer et al. Special consideration in wound bed preparation 2011. An update. ASWC. 2011. 23(3): 415-436.



## Differentiate wounds

- Pressure Ulcers



- Vascular ulcers

- Venous
- Arterial



- Neuropathic/DM ulcers

- Other skin problems

IAD  
Periwound maceration  
Perspiration  
Peristomal/ostomy





Free download  
[www.woundcarejournal.com](http://www.woundcarejournal.com)

LeBlanc K, Baranowski S, Holloway S, Langemo D. Validation of a New Classification System for Skin Tears. *Advances Skin Wound Care* 2012;26:263-66.  
LeBlanc et al. *Advances in Skin and Wound Care* 2013. 26 (10):459-76.

© Ayello, 2013

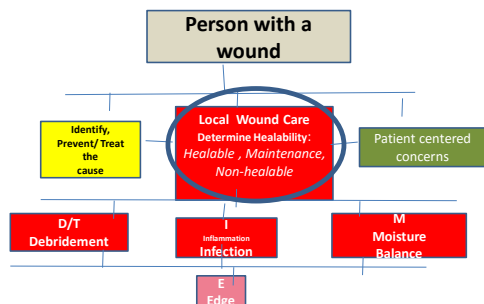
## Differentiating Moisture Damage from Pressure

Characteristics	MASD	Pressure Ulcer
		
	© Sibbald	© Ayello
Location	Larger skin area in contact with moisture	Usually localized over bony prominence
Edges	Irregular	Distinct
Color	Red, usually blanchable erythema	Varies, Non blanchable erythema
Depth	Superficial	Superficial to full thickness
Necrosis	None	Yes Unstageable

Gray, M. et al. Moisture-Associated Skin Damage: Overview and Pathophysiology. *JWOCN* 2011; 38(3):233-241Black J et al. MASD Part 2: Incontinence-Associated Dermatitis and Intertriginous Dermatitis. *JWOCN* 2011;38(4):359-370Colwell J. et al. MASD Part 3: Peristomal moisture-Associated dermatitis and periwound moisture-associated dermatitis. *JWOCN* 2011 38(5):541-553.Zufkowski, K. Perineal dermatitis versus pressure ulcer: Distinguishing characteristics. *ASWC* 2008 21(8):382-8Wolfman, A. Preventing incontinence-associated dermatitis and early stage pressure injury. *WCET* 2010 30(1):19-24.

© Ayello &amp; Sibbald

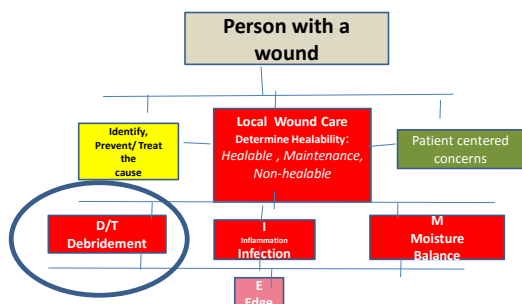
## Wound Bed Preparation



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Modified from Sibbald, Goodman, Krasner et al. Special consideration in wound bed preparation 2011: An update. ASWC. 2011; 23(3): 415-436.

## Wound Bed Preparation



© Sibbald, Ayello &amp; Smart 2014

Modified from Sibbald, Goodman, Krasner et al. Special consideration in wound bed preparation 2011: An update. ASWC. 2011; 23(3): 415-436.

## NURSING 2014 Survey Results



- Nurses are licensed in my state or province to do minor surgical debridement.

	2012	2005
— Yes	12%	18%
— No	58%	53%
— I don't know	30%	29%

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care Survey. Nursing 2014. April.  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014; 27(8):371-380

© Ayello. 2015

## NURSING 2014 Survey Results



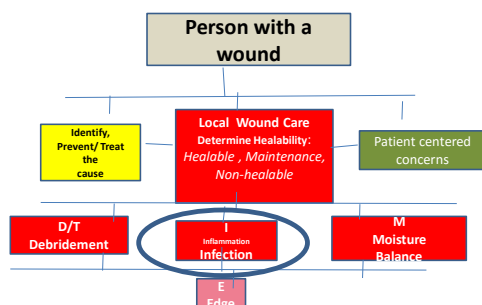
- Topical enzymes are effective or removing necrotic tissue in chronic wounds.

	2012	2005
— Yes	<b>78%</b>	<b>89%</b>
— No	<b>22%</b>	<b>11%</b>

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. *Nursing* 2014. 44(4):32-40  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. *ASWC*. 2014;: 27(8):371-380

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## Wound Bed Preparation



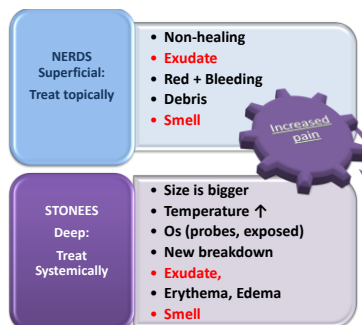
© Sibbald, Ayello & Smart 2014

Modified from Sibbald, Goodman, Kraemer et al. . Special consideration in wound bed preparation 2011: An update. *ASWC*. 2011; 23(3): 415-436.

## Wound INFLAMMATION/ INFECTION

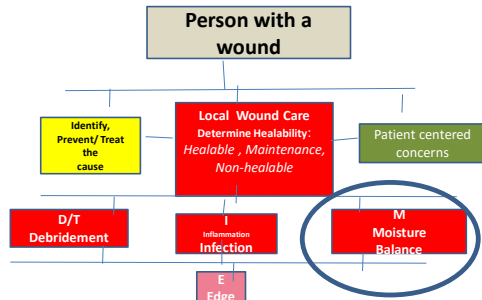


Sibbald, Woo, Ayello 06  
 Woo, Sibbald 09



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## Wound Bed Preparation



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Modified from Sibbald, Goodman, Krasner et al. Special consideration in wound bed preparation 2011: An update. ASWC. 2011; 23(3): 415-436.

## NURSING 2014 Survey Results



- Wet-to-dry dressings are best to treat clean granulating chronic wounds.

	2012	2005
— True	<b>44%</b>	<b>38%</b>
— False	<b>56%</b>	<b>63%</b>

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. Nursing 2014; 44(4):32-40

Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014;: 27(8):371-380

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## Dressing Categories & Moisture



Increasing Absorbency



Hydrogel	Transparent Films	Hydrocolloid	Hydrofibers /Alginates	Foams	Super-Absorbents
Donates moisture	Neither donates or absorbs moisture	Donates and absorbs a small to moderate amount of moisture	Fluid lock Absorbs moderate moisture – bioresorbable	Absorbs moderate moisture- gives back	Absorbs large amt. moisture + fluid lock (diaper technology)



© 2013 IHWCC

## Look at skin under tubes, drains, skin folds, other vulnerable areas



Photos © B.Delmore, PhD, RN



Photos © E A Ayello



Photos: J Flores

© Ayello, 2011

### Medical Device Pressure Ulcer Guideline recommendations

- "Inspect the skin under and around medical devices at **least twice daily** for signs of pressure ulcer related injury on the surrounding skin."  
(SOE=C, SOR= )
- "Conduct **more frequent (greater than twice daily)** skin assessments at the skin-device interface in individuals **vulnerable to fluid shifts** and/or exhibiting signs of **localized or generalized edema**."  
(SOE=C, SOR= )
- "Classify medical device related pressure ulcers using the International NPUAP/EPUAP Pressure Ulcer Classification System with the **exception of mucosal pressure ulcers**." (SOE=C, SOR= )

Reference: NPUAP/EPUAP/PPPIA Quick Reference Guideline 2014 p. 30-31

[www.internationalguideline.com](http://www.internationalguideline.com)


## NURSING 2014 Survey Results



- **My facility has a policy for how often a wound assessment should be completed and documented.**


	2012	2005
— Yes	90%	88%
— No	5%	5%
— I don't know	5%	7%

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. Nursing 2014. 44(4):32-40  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014; 27(8):371-380

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## Minimal pressure ulcer documentation

- **S**ize
- **L**ocation and staging
- **E**xudate
- **E**dge and surrounding tissue
- **P**ain 
- **Bed-** color and type of wound tissue

[www.hartfordign.org](http://www.hartfordign.org)



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From Tag F 314

## Measuring Wounds

### Length

head to toe

### Width

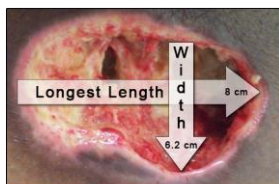
side to side perpendicular (90° angle) to length.



### Depth



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Toe

Head

## NURSING 2014 Survey Results



### • A pressure ulcer with full thickness tissue loss is staged/classified as:

- Stage I **1%**
- Stage II **11%**
- Stage III or IV **88%**

### • I can identify the six stages of pressure ulcers in my patients

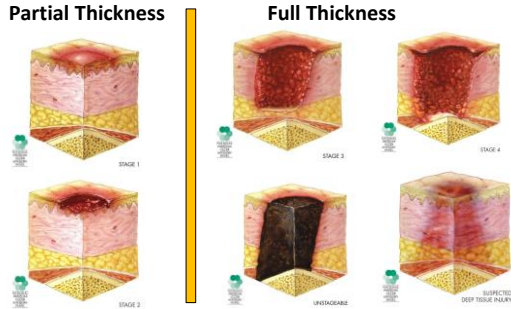
	2012	2005* (4 stages)
Yes	55%	70%
No	35%	5%
Sometimes	10%	26%

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. Nursing 2014. 44(4):32-40  
Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014.; 27(8):371-380

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## Pressure Ulcer Staging



NPUPAP/EPUAP/PPPIA International Pressure Ulcer Guideline 2014  
Verify that there is clinical agreement in pressure ulcer classification amongst the health professionals responsible for classifying pressure ulcers.  
(SOE =B, SOR= 1 thumb up) Diagrams Copyright NPUPAP

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

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## Pressure Ulcer Classification at a glance

Ulcer Characteristics	Category /stage
• Intact skin, non blanchable erythema	I 
• Open shallow ulcer with <b>no slough</b> • Serum, sero-sanguineous filled or ruptured <b>blister</b> <b>Blister- CMS- no signs of DTI</b>	II 
• full thickness ulcer • can have necrotic tissue, but can see wound bed • <b>No bone, tendon, muscle visible</b>	III 
• Full thickness ulcer • Can have necrotic tissue, but can see wound bed • <b>Bone, tendon, muscle visible</b> • <b>Presence of cartilage</b>	IV 
• Necrotic tissue covers wound bed	Unstageable 
• <b>Purple, maroon discoloration of intact</b> • <b>Blood filled blister</b> <b>Blister- CMS- with signs of DTI</b>	sDTI 

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## How should you stage this wound?




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## Are **all pressure ulcers** staged?

**CMS provides guidance that**

### Mucosal pressure ulcers:

- Are **not staged** using the pressure ulcer staging system because **anatomical tissue comparisons cannot be made.**
- Are **not reported in the pressure ulcer section.**



CMS LTC RAI Manual MDS 3.0 Section M, page M-5  
CMA LTCH Quality Reporting Manual Section M, page M-3  
CMS IRF-PAI Training Manual page IV-2

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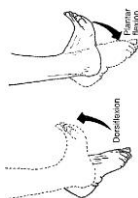


## The Heel and Pressure Ulcers- Flexion Position of Foot is Important

### ▪ Plantar Flexion

### ▪ Dorsiflexion of foot

- needed for ambulation
- avoid it to prevent foot drop in immobile persons



## Devices can maintain foot in neutral (90° position)

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## The Heel and Pressure Ulcers - Heel rotation



- MRI evidence –
  - heel padding devices reduce internal soft tissue deformation
  - design features of heel padding devices (p=0.002)
- **Greater deformation** when foot positioned in neutral **external rotation** compared to 90° upright position
- Device designs (suspension boot around the foot) compared to sock-like device superior in reducing subcutaneous tissue strains

Tenebaum, S, Shatzkin, N, Levy A, Herman, A, Gefen, A. Effects of foot posture and heel padding devices on soft tissue deformation under the heel in supine position in males: MRI Studies. JPRD. 2013;50(6):1149-1156.

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## NURSING 2014 Survey Results



- Pressure redistribution products (such as specialty beds mattresses or chair cushions) are used in my facility to prevent pressure ulcers.

	2012	2005
– Yes	94%	88%
– No	4%	11%
– I don't know	2%	2%

Ayello EA, Baranoski S. Nursing 2014 survey results. Wound Care and Prevention. Nursing 2014; 44(4):32-40  
Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014;: 27(8):371-380

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## System and culture changes?

- How long are your patients staying in E.D. before getting to assigned unit?
- Are you assessing skin?
- Are you relieving pressure?



**ED- Saving Lives,  
Saving Skin Starts Here!**



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## Support Surfaces as Part of a Comprehensive Prevention and Treatment Plan



All patients at risk for pressure ulcers should be turned and repositioned every 2 hours.

	2012*
Yes	91%
No	9%

\*Ayello, EA, Baranoski, S. 2014 Survey results: Wound Care and Prevention. Advances in Skin and Wound Care. 2014;27(8):371-380

### But how often to reposition/ turn?

Bergstrom N, Horn SD, Rapp MP et al., Turning for Ulcer reduction: A multisite randomized clinical trial in nursing homes. JAGS. 2013; 61(10):1705-1713.  
Continue to turn and reposition the individual regardless of the support surface in use. Establish turning frequency based on the characteristics of the support surface and the individual's response.  
(SOE = C; SOR- 1 thumb up)

NPUAP/EPUAP/PPPIA Pressure Ulcer Clinical Guideline, 2014

© Ayello 2014

## Building the evidence base for sDTI

### Precipitating Events

- Transfers - **78.8%**
- Tissue perfusion - **42.5%**
- Surgery - **40.2%**
- Mobility - **30.9%**
- Falls - **16.9%**
- Anticoagulation - **61.2%**
- Anemia - **67.1%**
- Hemoglobin A1C <7.5 mmol/L - **74.4%**

Range of days for precipitating events prior to sDTI  
1 to 5 days  
Average 2.41 (SD 1.04)

Honaker J, Brockopp D, Mox K. Suspected deep tissue injury profile: A pilot study. ASWC 2014: 27(3):133-40

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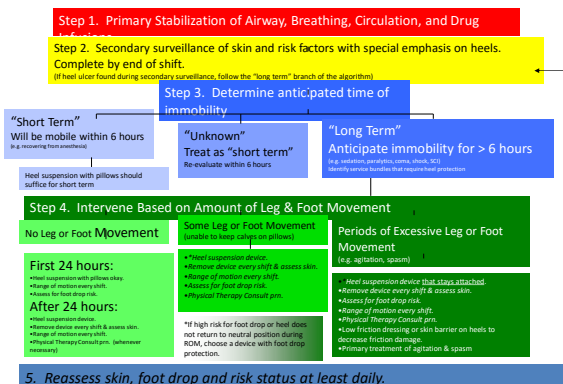
## Since 1 out of 10 of all patients in ICU's develop pressure ulcers, *think about this*

- Are we even **considering** skin preservation and pressure ulcer prevention among the tubes, drugs and other life saving measures ?
- Should we **really** turn this patient?
- Are we **afraid** to turn this patient?
- Do we have the **resources** to turn this patient?



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## Universal Heel Ulcer Prevention Algorithm<sup>®</sup> For Critical Care

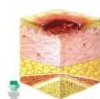


## Pressure ulcer healing

### NPUAP/EPUAP/PPPIA 2014 PU Guideline

- Assess progress toward healing using a valid and reliable pressure ulcer assessment scale.  
(SOE=B, SOR= 1thumb up)

#### So how long does it take for PrU to heal?



N=270 patients with stage II PU

- 153 lesions healed (56.7%) after 10 weeks
- Average healing time 22.9 days (95% CL, 20.47-25.37 Days)
- Medium 18 days

**SIZE mattered**

- 3.1 cm shorter healing time (19.2 days) compared with PU greater than 3.1 cm 31.0 days (95% CL, 26.4-35.6 days,  $P=.000$ )

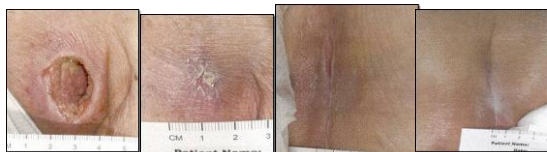
Palese, A, Luisa, S, Ilenia, P et al, What is the healing time of stage II pressure ulcers? Findings from a secondary analysis. *Advances in Skin and Wound Care* 2015, . 28(2):69-75.

© Ayello, 2015

## As the pressure ulcer heals...

### CMS agrees with NPUAP

Do not reverse or back stage!



If the pressure ulcer has ever been classified at a higher numerical stage than what is observed now, it should continue to be classified at the higher numerical stage.

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CMS LTC RAI Manual MDS 3.0 Section M, page M-6  
CMA LTCH Quality Reporting Manual Section M, page M-4  
CMS IRF-PAI Training Manual page IV-5



Lippincott Nursing Management Congress 2015  
Wound Care Competencies for 2015: Implications for Nurse Managers

#### Wound Care Competencies Checklist:

- Direct Care Providers
- Nursing Managers

✓ Pressure Ulcers

✓ Venous Leg Ulcers

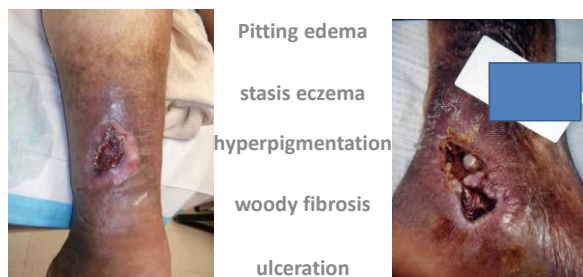
✓ Moisture Associated Skin Damage (MASD)

✓ Diabetic Foot Ulcers (DFU)

✓ Skin Tears

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## VENOUS Leg Ulcers



© Sibbald & Ayello 2014

## NURSING 2014 Survey Results



- Compression wrap/bandaging multilayer system/dressing is the gold standard or treating venous ulcers.

— Yes <sup>2012</sup> **78%**

— No **22%**

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. *Nursing* 2014; 44(4):32-40  
Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. ASWC. 2014;: 27(8):371-380

© Ayello. 2015

## Bandages for treatment....

### *Cochrane Database Syst Rev. 2012 Nov Compression for venous leg ulcers.*

O'Meara S, Cullum N, Nelson EA, Dumville JC.

- Compression **increases ulcer healing rates** compared with no compression
- **Multi-component systems** are more effective than single-component systems

© Sibbald & Ayello, 2015

## NURSING 2014 Survey Results



- I know how to apply a Compression wrap/bandaging multilayer system/dressing.

	2012	2005
— Yes	<b>68%</b>	<b>71%</b>
— No	<b>32%</b>	<b>29%</b>

Ayello, EA, Baranoski, S. Nursing 2014 survey results. Wound Care and Prevention. *Nursing* 2014. 44(4):32-40  
 Ayello EA Baranoski S. 2014 Survey results : Wound Care and Prevention. *ASWC*. 2014:: 27(8):371-380

© Ayello. 2015

## Before you compress- ABI



© Sibbald & Ayello, 2015

## Bandages- Venous Ulcers



*Bandages should be applied  
 Half way between the relaxed state & stopping distance*

© Sibbald, 2015



## Self perception of Compression Competency Competent versus Novice Clinicians



### Competent nurses

- more inclined to apply firmer bandages on both systems (n=6)
- obtained very high ankle pressures; nurses did not doubt their own application & their dorsi-flex values were very high. (n=2)

### Self reported less competent nurses

- battled with the application of system
- could not manage to cover the heel effectively with the second layer of the bandaging system (first layer leaves the heel uncovered).
- achieved suboptimal low-pressure readings on both the ankle and calf muscle (n=8)

Smart, H. The Africa Bandage System and application technique — bringing compression science to resource-restrained environments. JWCET. 2014;34(2):8-16 © Ayello 2015

Lippincott Nursing Management Congress 2015

## Wound Care Competencies for 2015: Implications for Nurse Managers

### Participants have:

1. Discussed gaps in nursing knowledge based on the 2014 wound care survey.
2. Reviewed essential nursing competencies for specific skin conditions and wounds.

Content is true as this moment,  
anything could change by this evening

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## Thank You



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