

# Road to Zero HAPI

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**DHR Health**

**May 2024**

# Objectives

- Understand the impact of Hospital Acquired Pressure Injuries (HAPI) on patient outcomes and healthcare cost
- Identify the risk factors and contributing factors associated with HAPI including patient related and environmental related factors
- Describe evidence-based practices for preventing hospital acquired pressure injuries
- Highlight the role of interdisciplinary team collaboration in implementing HAPI intervention prevention strategies

# What is a HAPI?

## CMS definition

“localized injury to the skin and/or underlying tissue, usually over a bony prominence, as a result of intense and/or prolonged pressure, or pressure in combination with shear. The pressure ulcer/injury can present as intact skin or an open ulcer and may be painful.”



# Prevalence and Epidemiology

## Prevalence of pressure injuries:

- Hospitalized patients is 5% to 15%
- Intensive care units  $\geq 15\%$

## Risk Factors:

- Im mobility
- Incontinence
- Reduced perfusion
- Malnutrition
- Sensory loss
- Cerebrovascular or cardiovascular disease
- Recent lower extremity fracture
- Diabetes
- Elderly
- Prolonged LOS

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Emily Haesler (Ed). Cambridge Media: Perth, Australia; 2014.

# Point of Care Risks

## ED

- prolonged stays with immobilization
- waiting for hospital bed
- substandard quality support surfaces

## ICU

- clinically compromised
- hemodynamic instability
- requiring use of vasoactive medications
- invasive modalities

## OR

- high risk due to immobility and lack of sensation during surgery
- every 1 hr extension beyond

## Palliative

- organ system failure
- skin failure

# HAPI Statistics

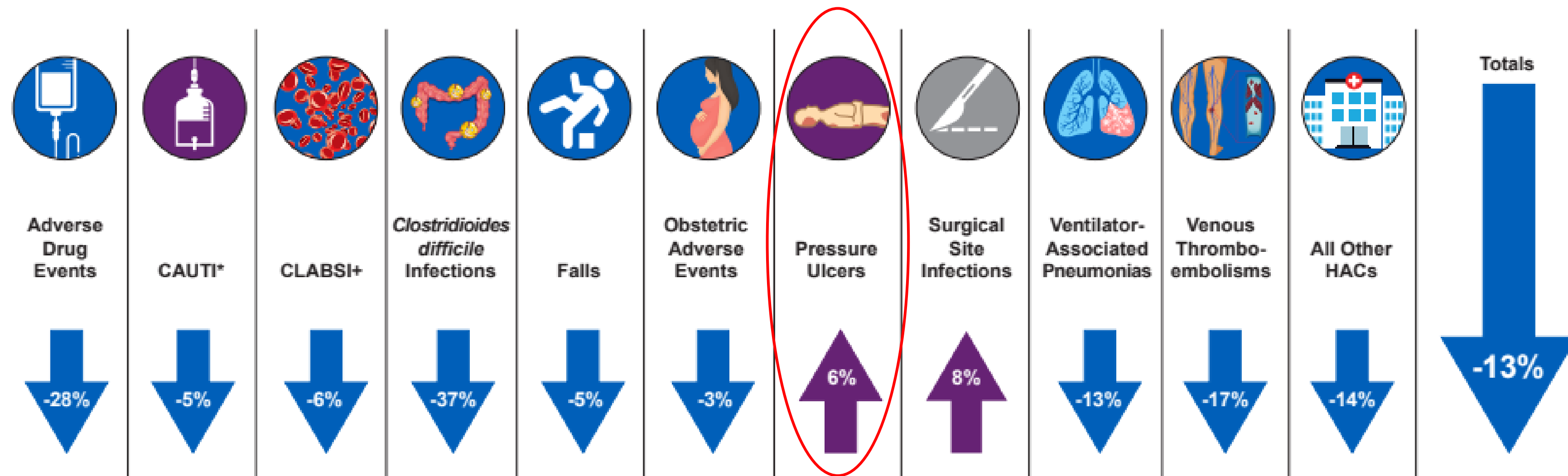
- 2.5 million pressure injuries in the US per year
- Increased LOS (7 days vs 3 days) with 1.5-2x greater risk of 90 day readmission
- HAPI costs at \$26.8 billion in the US
- Incremental cost to hospitals for HAPI treatment about \$10,708 - \$21,767 per patient
- More than 17,000 PI related lawsuits filed per year, average cost of \$250K each
- Mortality rate in patients with pressure injury significantly higher than in patients without pressure injury (9.1% vs 7.8%)
- About 60,000 patients die from pressure injury complications annually





# Declines in Hospital-Acquired Conditions

National efforts to reduce hospital-acquired conditions such as adverse drug events and injuries from falls helped prevent 20,700 deaths and saved \$7.7 billion between 2014 and 2017.



\*CAUTI - Catheter-Associated Urinary Tract Infections

+CLABSI - Central Line-Associated Bloodstream Infections

\*\*The percent change numbers are compared to the 2014 measured baseline for HACs.

Source: AHRQ National Scorecard on Hospital-Acquired Conditions Final Results for 2014-2017

## Patient safety data 2014-2017

# Reportable Pressure Injuries

*\*\*Data reporting is claim based and auto reported*

## Patient Safety Indicator (PSI)

Pressure injuries not present on admission or progressed

- Stage 3
- Stage 4
- Unstageable
- Stage 2 and Deep Tissue Injury (ECQM starting 2025)

## Hospital Acquired Condition (HAC)

Pressure injuries not present on admission or progressed

- Stage 3
- Stage 4

Hospital-Acquired Condition Reduction Program. Centers for Medicare and Medicaid Services Web site. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program>. Page Last Modified: 08/15/2022. Accessed May 8, 2024.

Patient Safety Indicator 90 (PSI 90) Patient Safety and Adverse Events Composite. Agency for Healthcare Research and Quality Web Site. <https://qualityindicators.ahrq.gov/Downloads/Modules/PSI/v2021/TechSpecs/PSI%2090%20Patient%20Safety%20and%20Adverse%20Events%20Composite.pdf>. Published July 2021. Accessed May 8, 2024



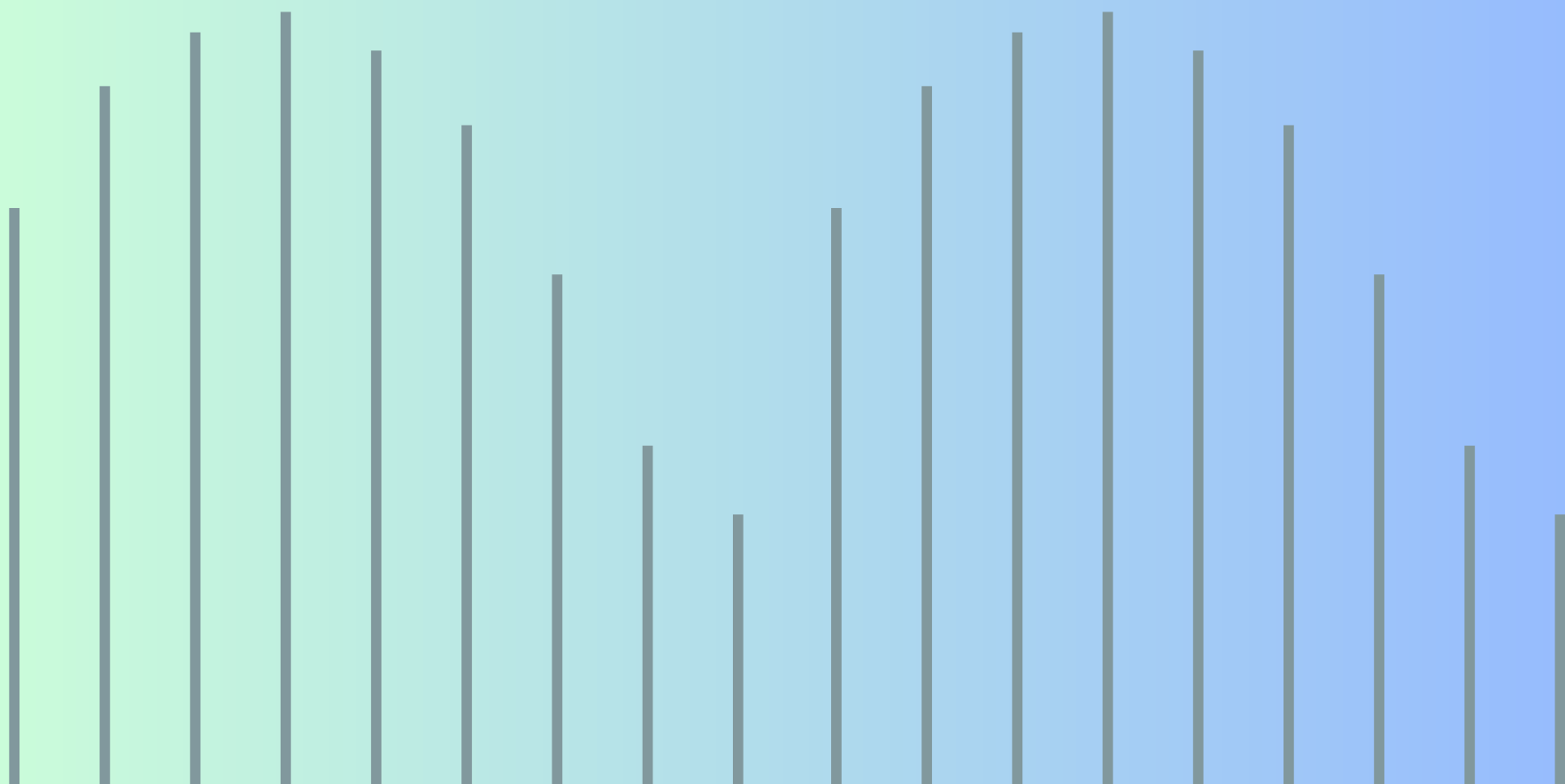
# Barriers

1. Lack of timely assessment and documentation
2. Lack of resources
3. Lack of education
4. Lack of accountability

# Interventions

1. Cerner updates, KISS measurement system, Wound photo pilot
2. Wound care team, CNA pilot, air mattress availability, wound care cameras
3. HAPI symposium, Wound Care symposium, New Hire orientation, annual and ongoing competencies
4. Nursing Quality Review, M&M, MD quality metrics

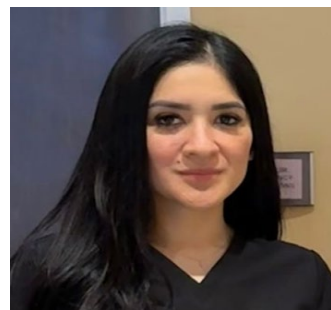
# LEADERSHIP



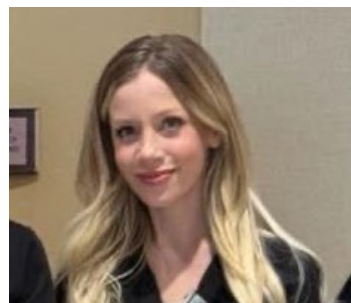
# Core Wound Care Team



Ra fa e l Ra fo ls MD



Sandra  
Lopez RN



Morgan  
Labanna RN



Nereyda  
Barrera RN



Janie  
Rangel RN



Becky  
Gonzalez RN



Sylvia  
Morales CNA

# Policy Update

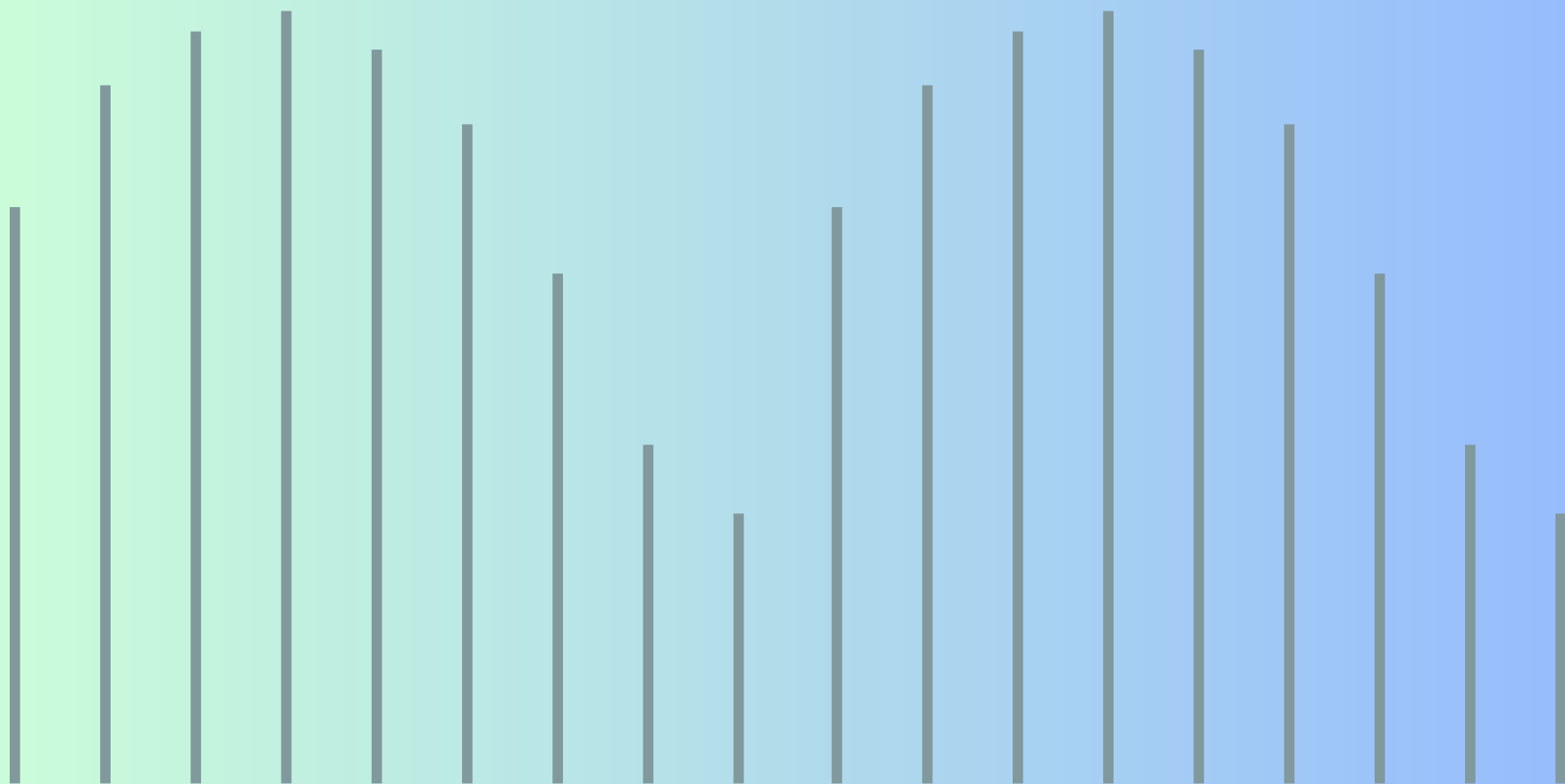
- Wound care team defined
- Braden score and interventions
- HAPINurse Driven protocol
- “No diaper” initiative



# Multidisciplinary Committees

- Wound Care Work Group
- HAPI Multidisciplinary Committee

# PILOT STUDIES



# PILOT- Lift and Turn CNAs

## Problem

- Inconsistent patient rounding
- Pilot was initiated to determine the efficacy of turn protocol adherence with a designated CNA lead

## Method

- Assign a designated a Lift and Turn CNA in the PCCU unit to round on each patient and address frequent turning, keeping patients clean and dry, and attend to patient needs

## Result

- Frequent rounding addressed patient's needs quickly
- Ensured patients were turned
- Kept patient dry
- Provided an additional resource to other CNAs

# PILOT- Wound Photographs

## Problem

- Inconsistency in the identification of pressure injuries present on admission
- Pilot was initiated to determine the efficacy of photo documentation in capturing pressure injuries on moderate to high risk patient.

## Method

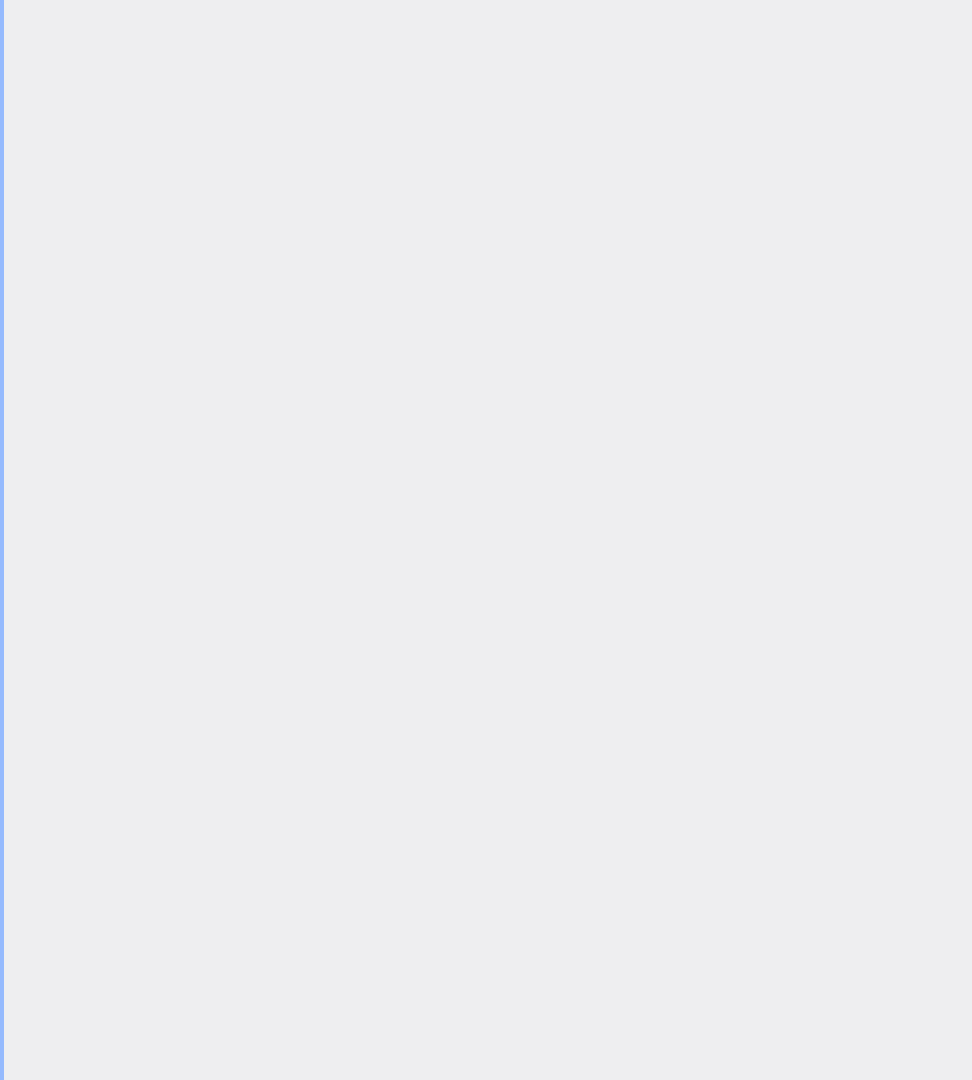
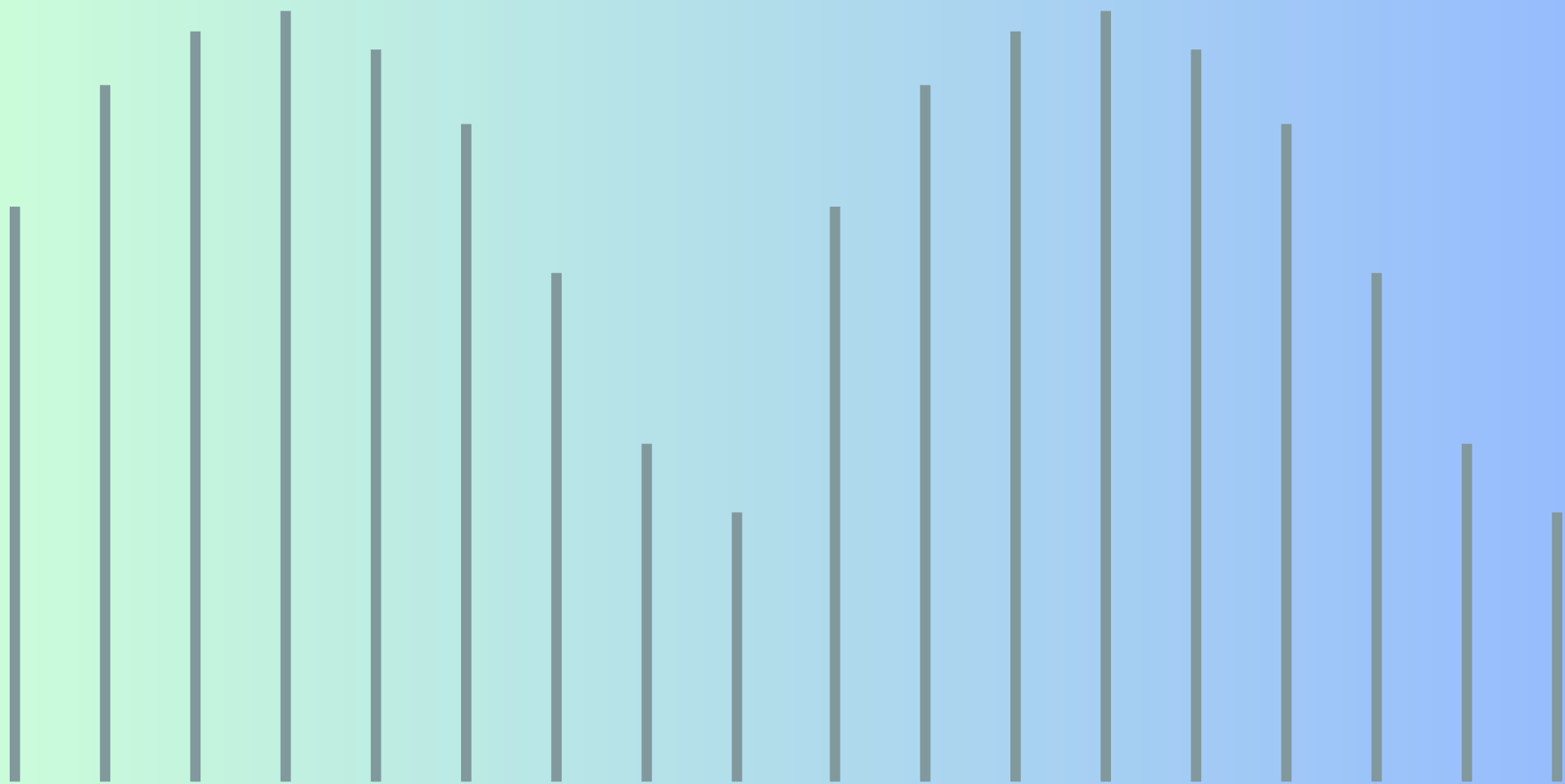
- Capture of initial skin photographs regardless of integrity on all patients meeting criteria
- Sample of admitted adult patient from critical care and post acute units for 3 weeks
- Concurrent and retrospective review of medical records

## Result

- 26% of pressure injuries were captured present on arrival
- 24% of patients developed pressure injuries during the admission stay
- 50% of patients remained with skin intact through the admission stay
- 34% of photographs were captured within 24 hours of admission



# DOCUMENTATION

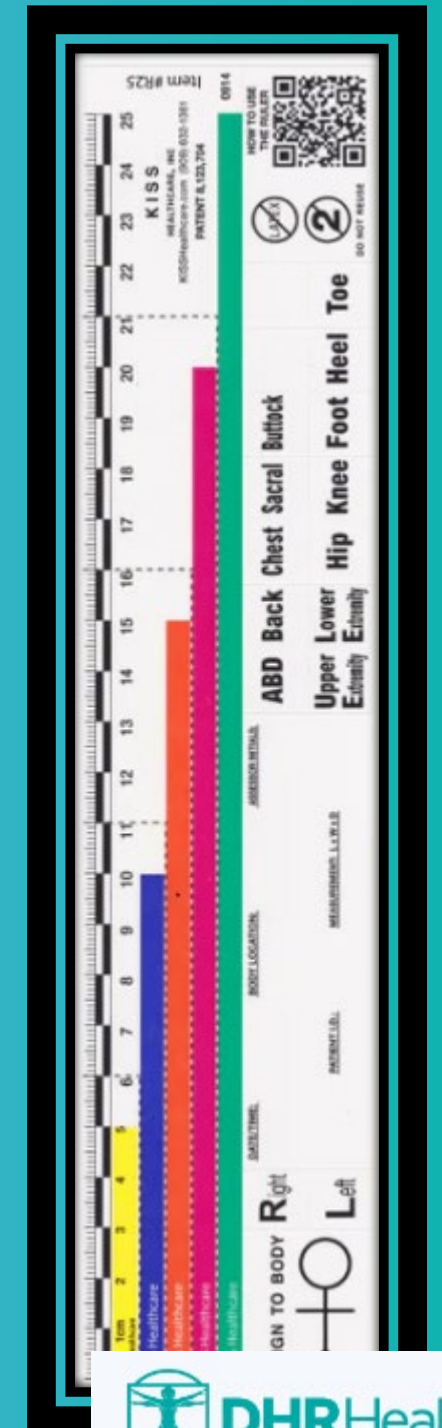
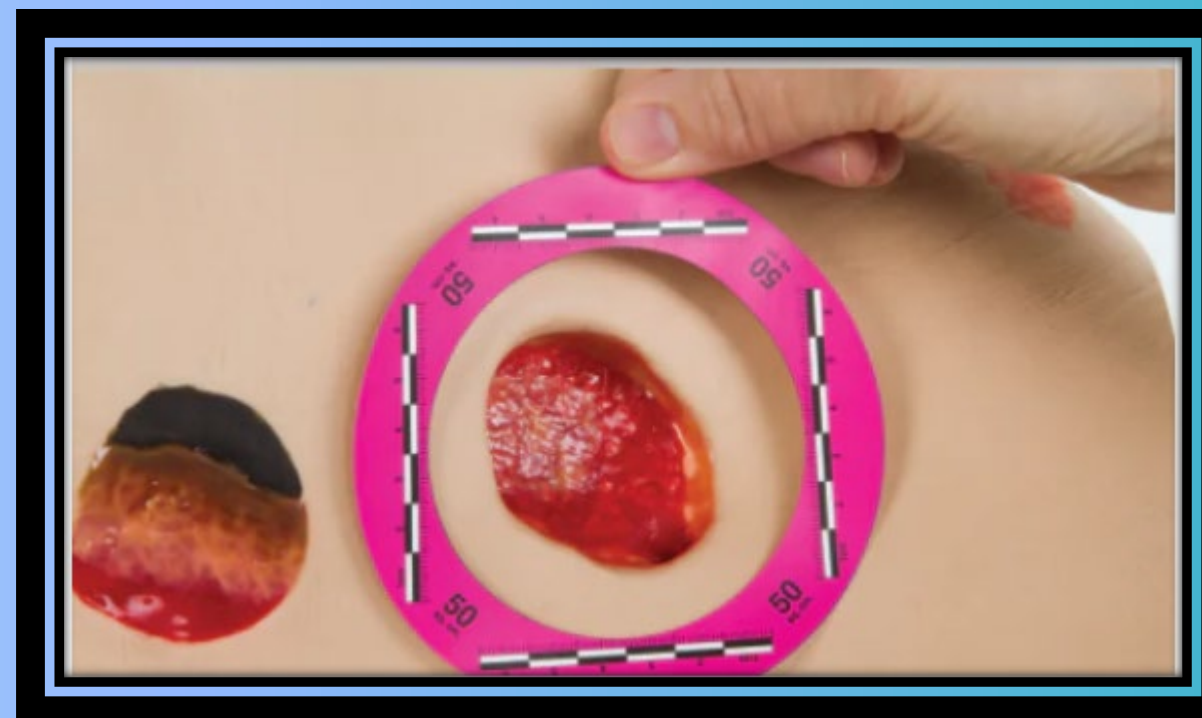
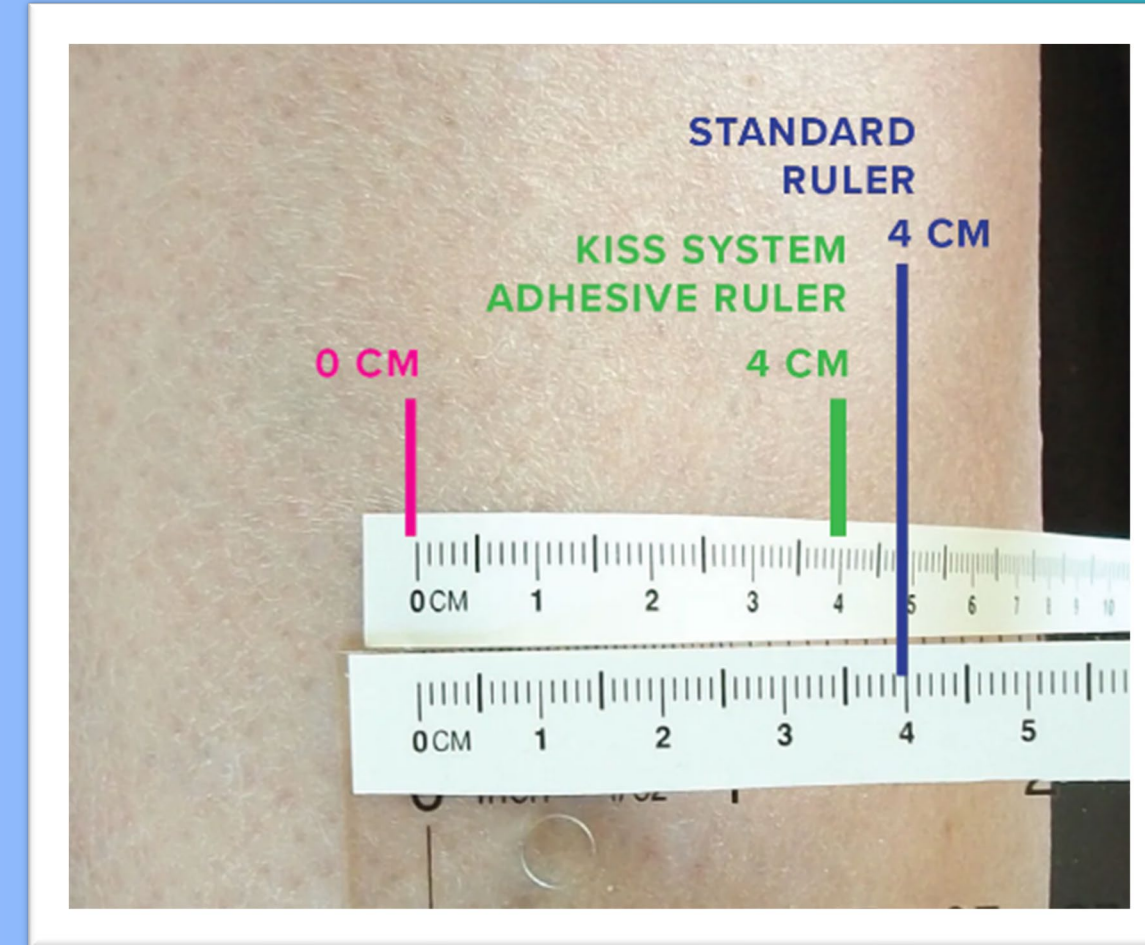


# EMR documentation updates

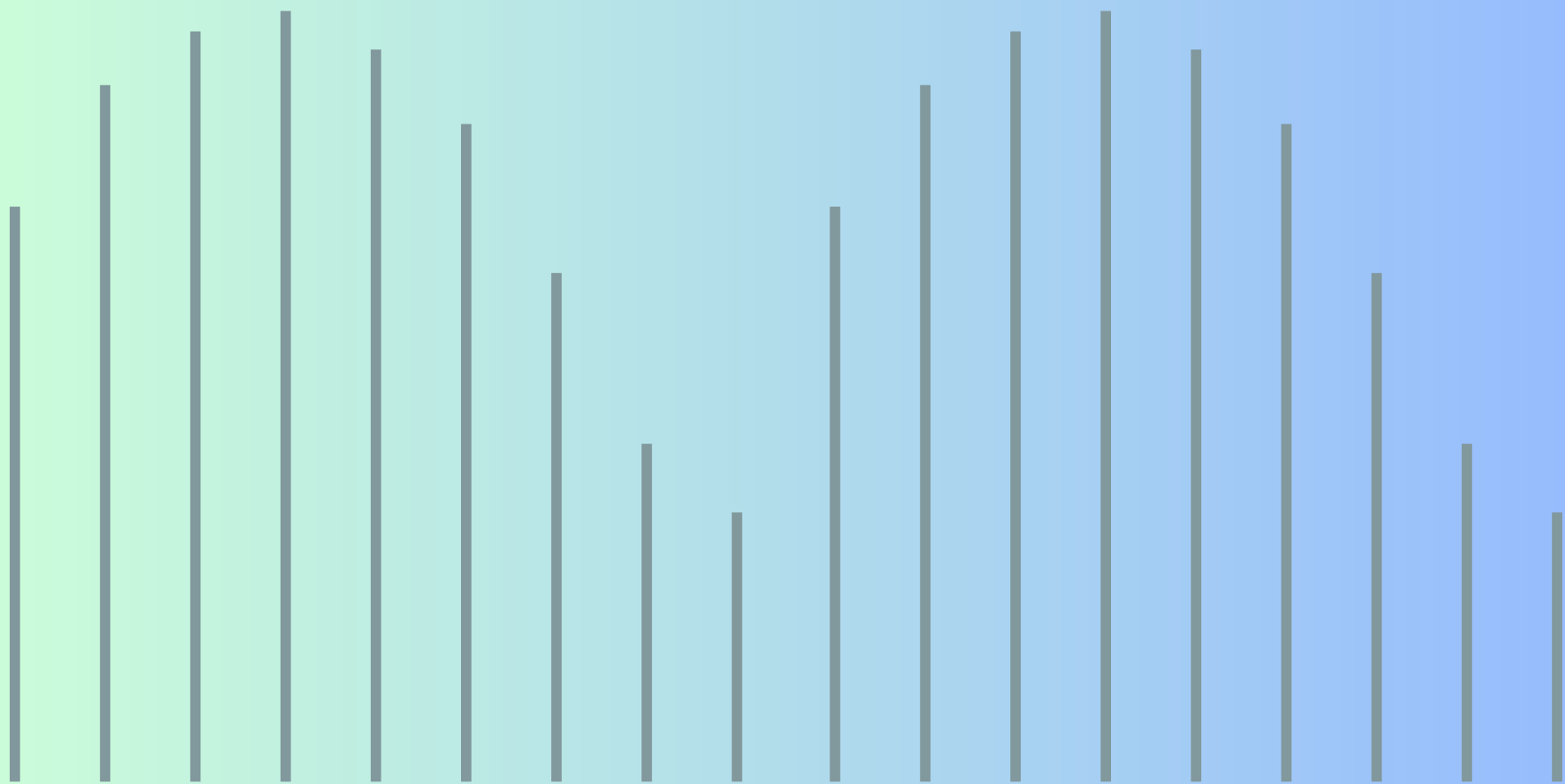
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- Wound care documentation assessment updates
- Specialty Bed column added to the Clinical Leader Organization (CLO)
- Pressure injury pop up alerts
- Wound care order set
- Four Eyes - Hand Off Reporting

# Skin Wound Measurement



# EQUIPMENT AND TOOLS



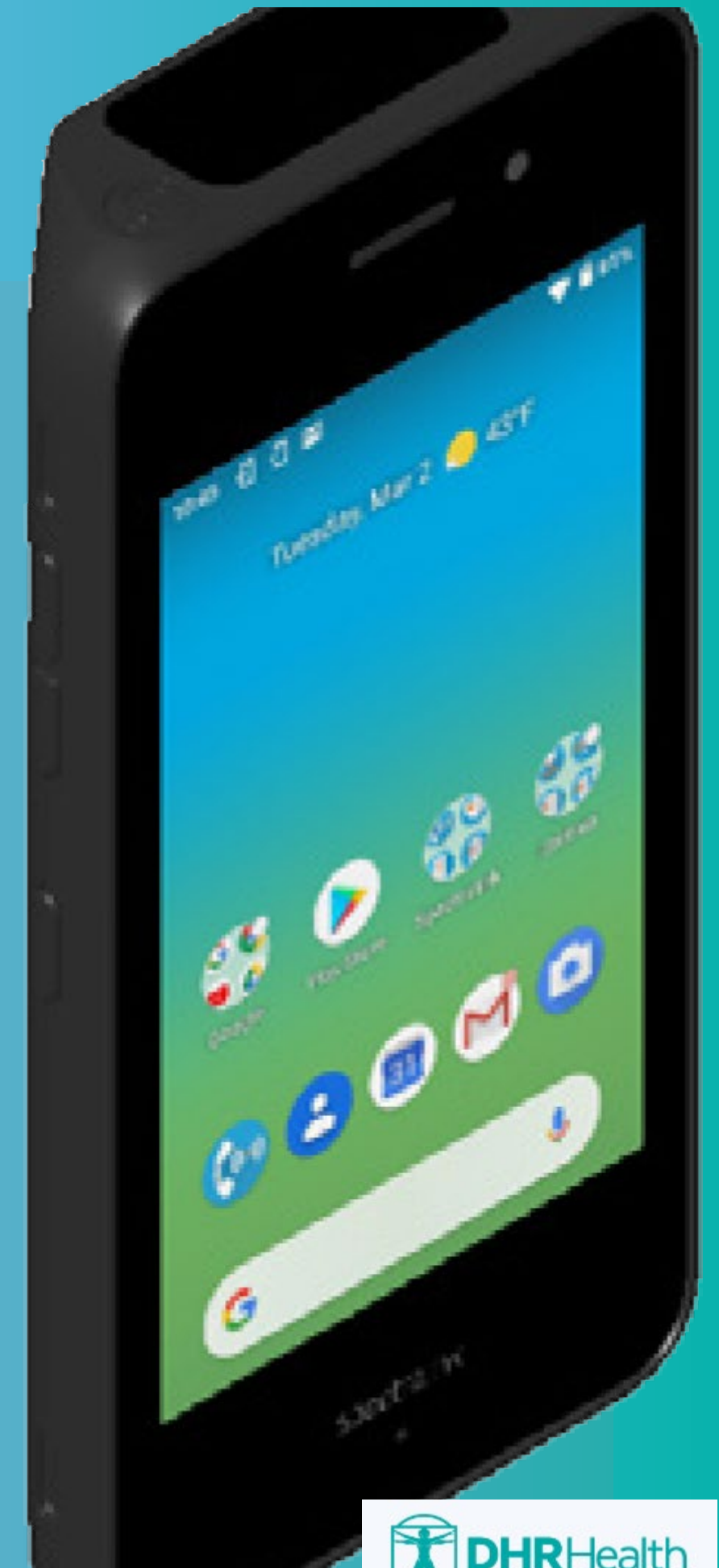
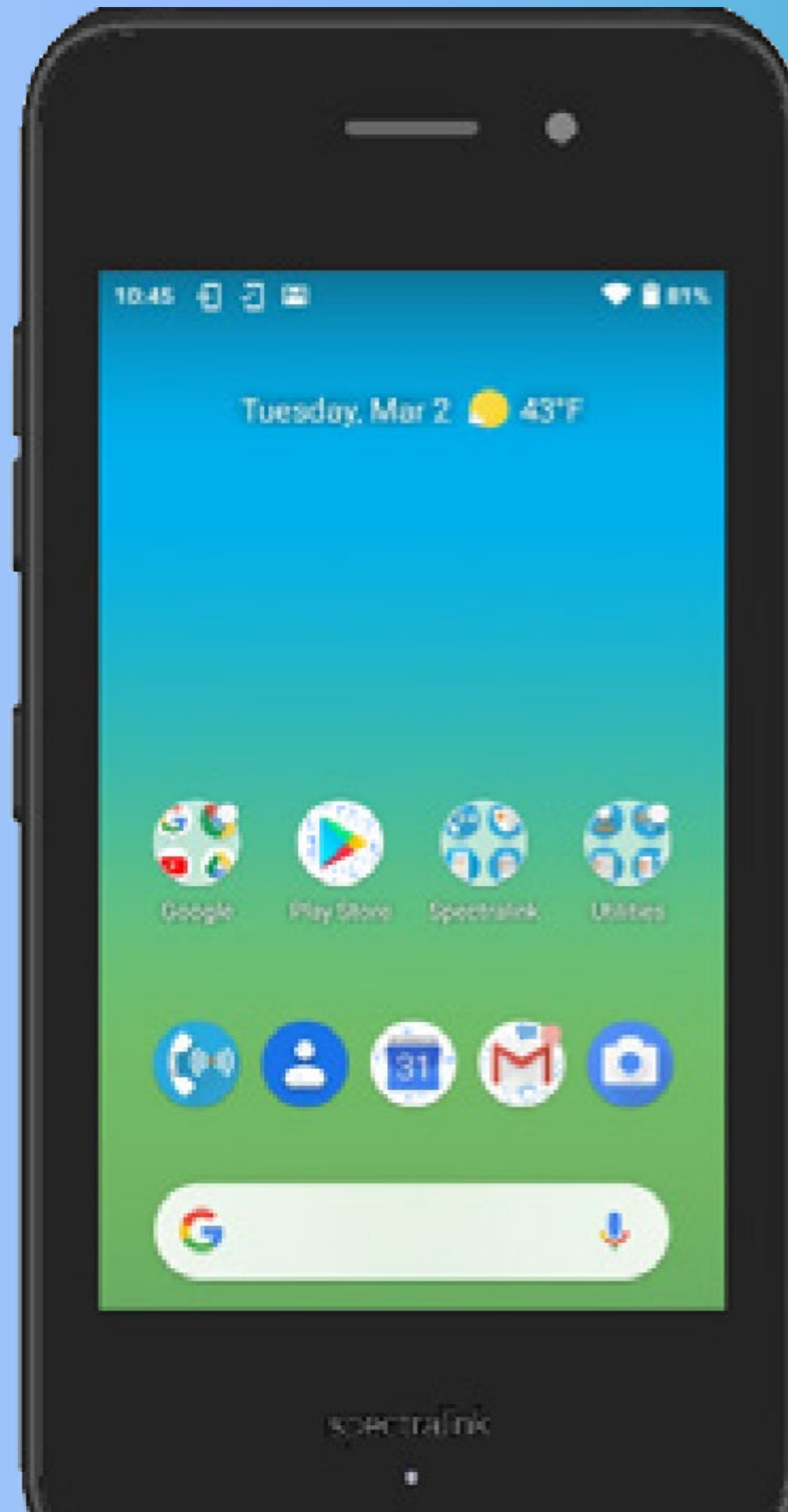


# Air Mattress Availability

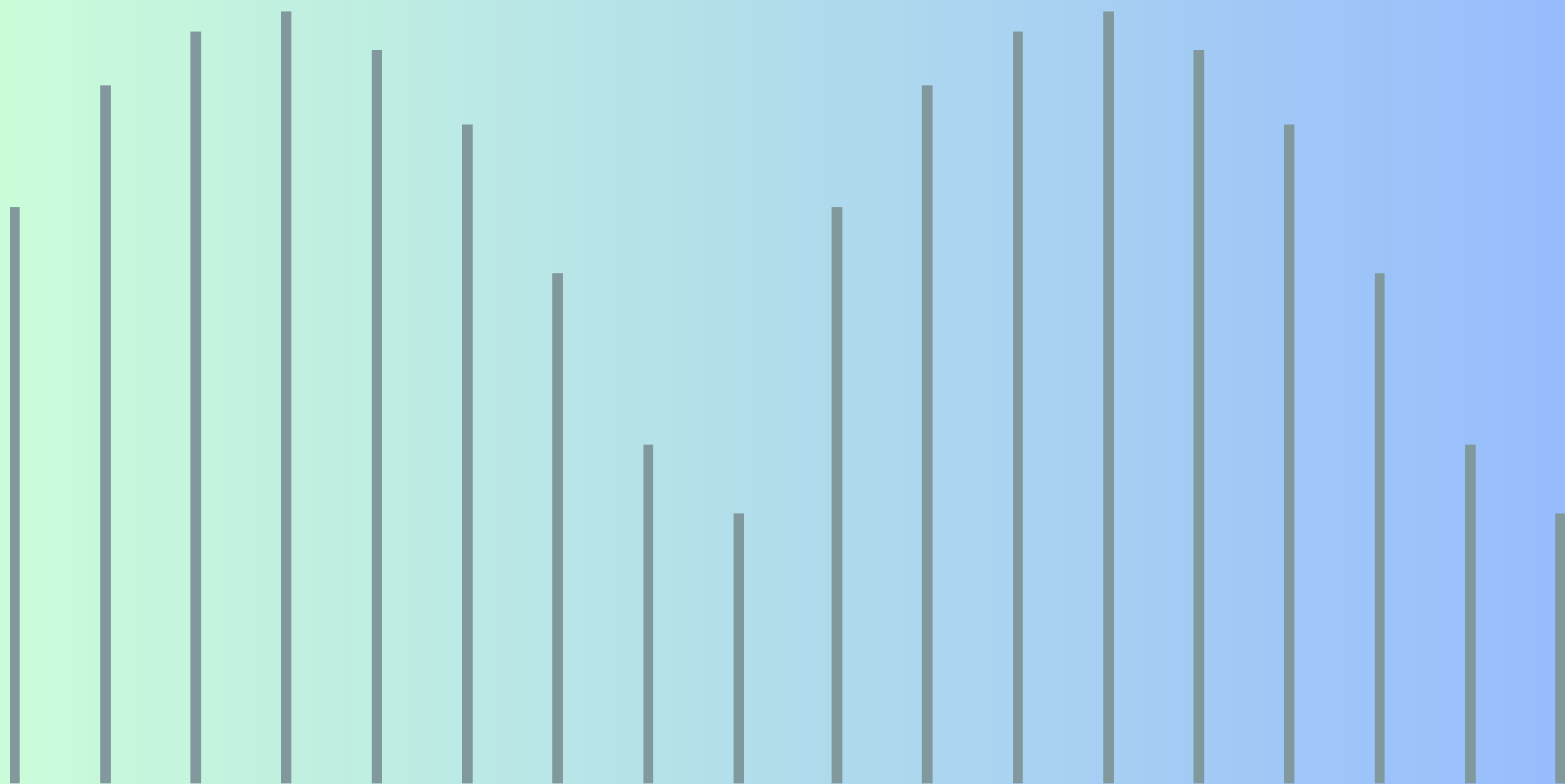
- Lack of air mattress available causing increased air mattress rental
- Result - Decreased air mattress rental from 20/day to 1 per day

# Wound Care Cameras

SpectraLink Versity



# EDUCATION



# HAPI Education



**DHRHealth**

## **HAPI Symposium Part II** **FOR ALL NURSES and CNA's\*** **2.00 Contact Hours Available**

- **When: February 28, 2024**
- **Where: Edinburg Conference Center Hall B**
- **Class Times:**  
**7:00AM, 9:30AM, 12:00PM,**  
**2:30PM, 5:00PM, & 7:00PM**

**Please have your staff register on**  
**HealthStream.**

**Course Title:**

**DHR NED: HAPI Symposium Part II**

**\* Non-Bedside nurses, NICU & Nursery not required**

DHR Health is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

If you have any questions please contact the DHR Health Nursing Education Office @ 362-3231

*For You.*

*For Life.*

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- Hosted a system-wide HAPI symposium
- Education include: prevention strategies, plan of care initiation, Braden Score assessment, patient education, pressure injury treatment, wound vac application and management, offloading devices orientation, air loss mattress operation





# Wound Care Symposium



**Saturday,  
April 27, 2024**

**8:00 AM - 12:15 PM**

**Edinburg  
Conference Center  
at Renaissance**

*118 Paseo Del Prado, Edinburg, TX*



**DISTINGUISHED SPEAKER**

**Jayesh Shah, MD**

Dual board-certified in  
Internal Medicine and  
Preventive Medicine  
(Undersea & Hyperbaric Medicine)



SCAN ME

**For information:**

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☎ (956) 362-3240

🌐 [cmetracker.net/DHR](http://cmetracker.net/DHR)

This activity has been planned and organized to narrow the gap in pressure injuries. This program will evaluate evidence-based practices and standards of care with a multidisciplinary approach to prevent or optimize the healing process of wounds. We will differentiate the causative factors and pathophysiology of wounds and discuss pharmacological and non-pharmacological modalities currently available.

**Target Audience:**

Physicians, Advanced Practice Providers, Nurses, and those who have direct patient care.

**Learning Objectives:**

- Discuss evidence-based recommendations and best practices for HAPI programs.
- Describe how to identify obscure wounds in order to make correct diagnosis for treatment and management.
- Discuss prescribed and non-prescribed (OTC) medications in wound care therapy.

**Outcomes/Goal:**

Increase the knowledge and competence of the provider in the latest recommendations and standards of practice for Hospital Acquired Pressure Injuries in order to develop new skills or strategies that will improve the optimal delivery of patient care through evidence-based recommendations in wound care.

CME Accreditation Statement: DHR Health is accredited by the Texas Medical Association to provide continuing medical education for physicians. DHR Health designates this live activity for a maximum of 4.0 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

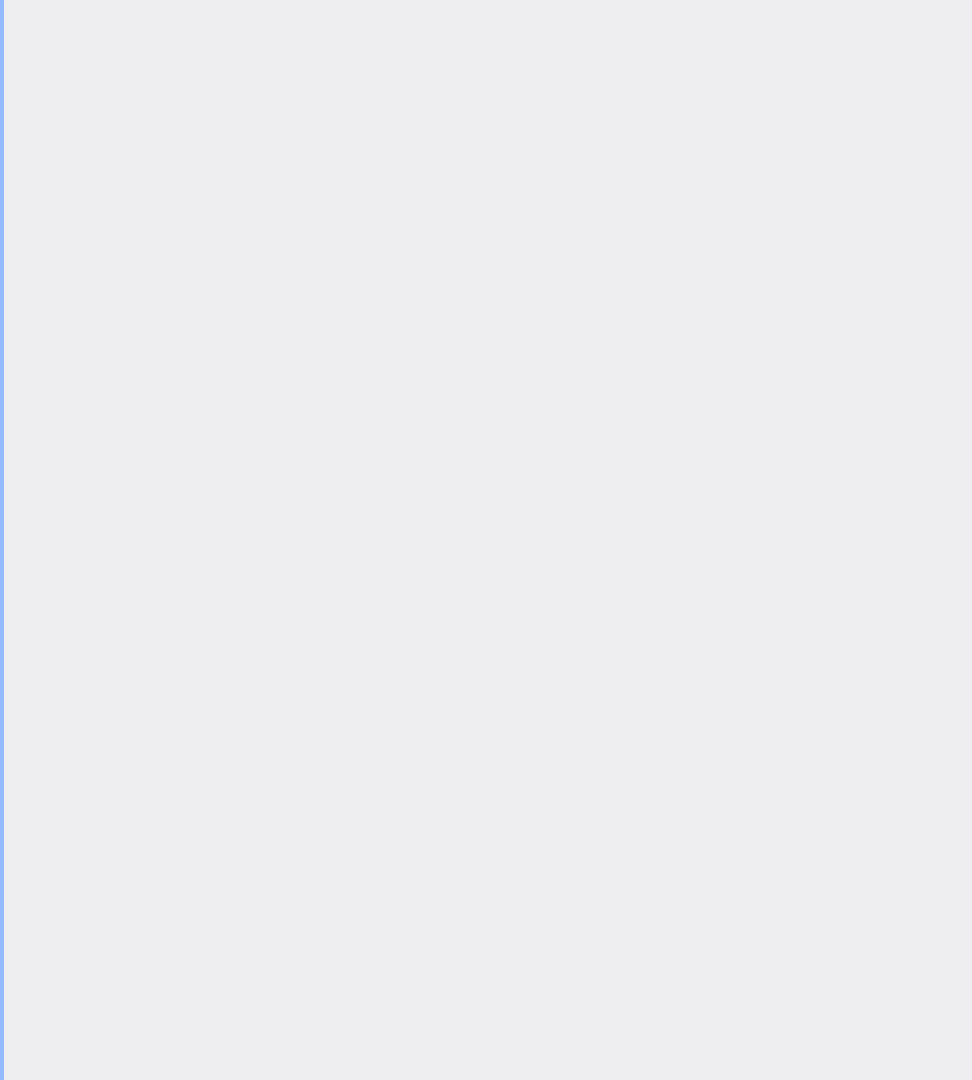
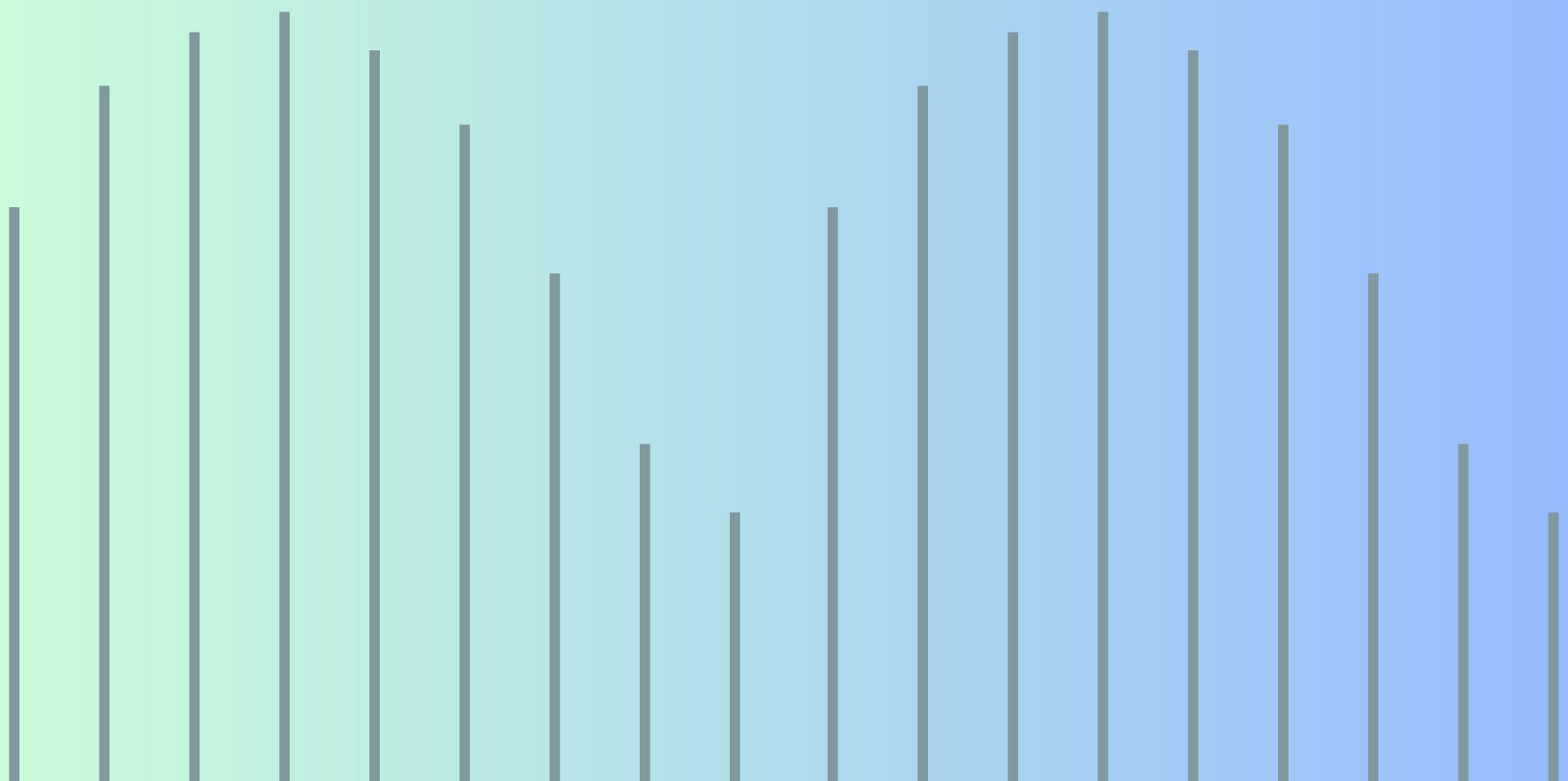
Nursing Credit Statement: DHR Health is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. DHR Health provides up to 4.0 contact hours for successful completion of this educational activity.

# Pressure Injury Prevalence Audit (PIPA)

- Measures the prevalence of pressure injuries in a given population at a specific point in time
- Data generated can be used to identify trends and patterns
- Help hospitals develop and implement effective prevention and management strategies



# ACCOUNTABILITY



# Physician and Nursing Accountability

## Physician Executives

- PSI pressure injury reviews
- Department committee referral of case reviews
- Track and trending
- Physician quality metrics

## Nursing Leadership

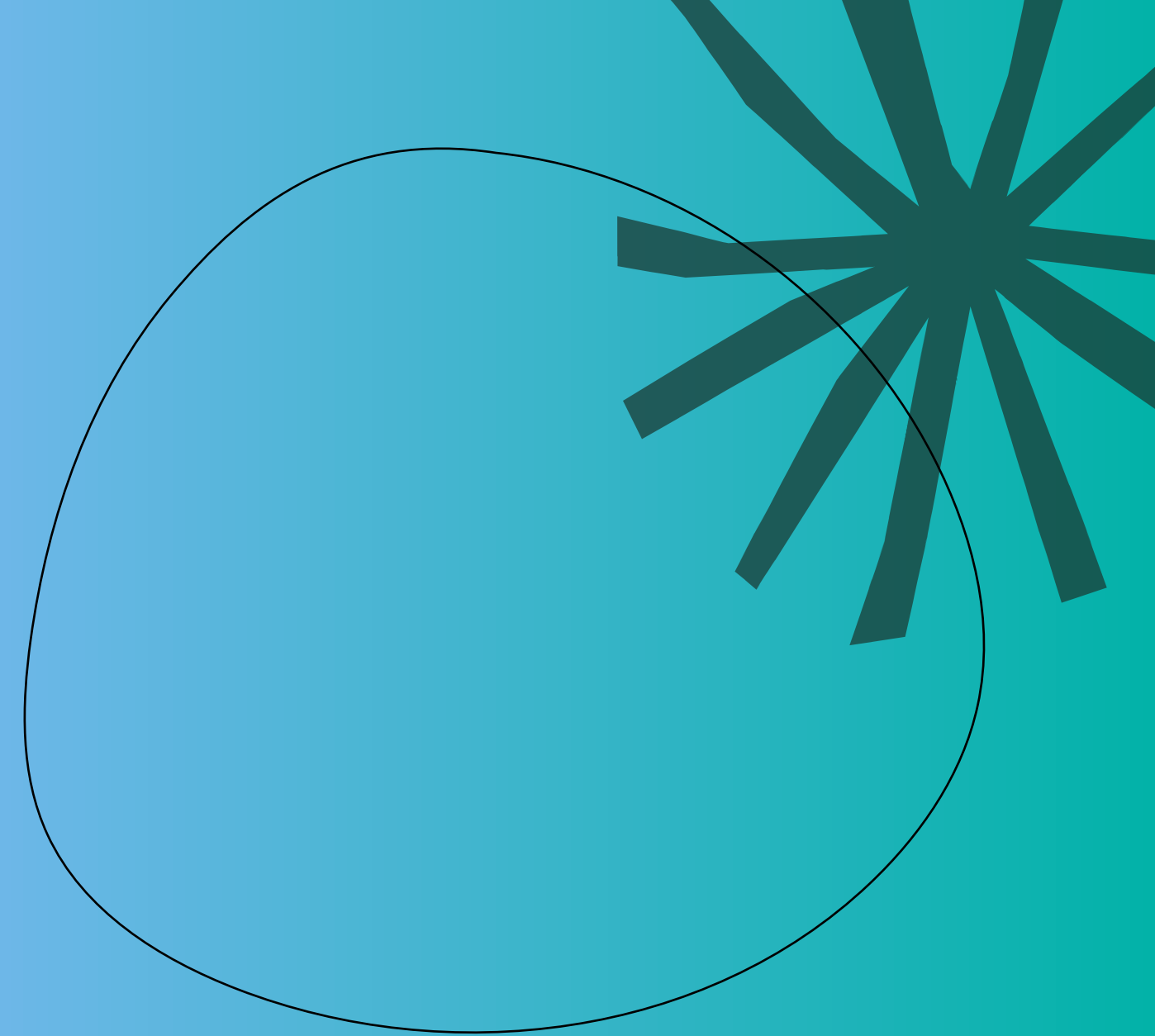
- Huddle reporting of pressure injuries
- Patient rounding
- Case reviews
- Track and trending
- Employee accountability

# Nursing Quality Review

- Conduct HAPI case review to systematically prevent and solve underlying issues surrounding hospital acquired pressure injuries; identify performance and opportunity gaps.
- Schedule multidisciplinary weekly reviews to include nursing leadership, Quality/Patient Safety, and staff directly involved in patient care
- Report any opportunities and corrective action plan to the quarterly HAPI Committee meeting
- Referral to RCA or Peer Review as necessary

# Projected Outcomes

- Increase early identification and prevent progression of pressure injury
- Current PSI rate is 2.15% per 1000 patient discharge
- Decrease PSI rate by 50% in 6 months



# FUTURE INITIATIVES

- Skin photographs regardless of skin integrity on all admissions to units with high prevalence of HAPI
  - CCU, NSICU, SICU, SDU, PCCUs
- Lead CNA incentives
- Consider upgrading ICU beds
- Revamping turning clock
- LEAF System



# Thank you!

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Cell: (956) 624-8682



# References

Bauer K, Rock K, Nazzal M, Jones O, Qu W. Pressure ulcers in the United States' inpatient population from 2008 to 2012: results of a retrospective nationwide study. *OWM*. 2016; 62(11): 30-8.

Declines in Hospital-Acquired Conditions. Agency for Healthcare Research and Quality Web site.

<https://www.ahrq.gov/sites/default/files/wysiwyg/data/infographics/hac-rates-2019-updated.pdf>. Accessed May 8, 2024.

European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline*. Emily Haesler (Ed). EPUAP/NPIAP/PPPIA: 2019.

Hospital-Acquired Condition Reduction Program. Centers for Medicare and Medicaid Services Web site. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/HAC-Reduction-Program>. Page Last Modified: 08/15/2022. Accessed May 8, 2024.

Jehle CC, Hartnett D, Snapp WK, Schmidt S. Assessment of malpractice claims associated with pressure ulcers. *Plast Reconstr Surg Glob Open*. 2019; 7(8 Suppl ): 90-90.

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Emily Haesler (Ed). Cambridge Media: Perth, Australia; 2014.

Padula WV and Delarmente BA. The national cost of hospital-acquired pressure injuries in the United States. *Int Wound J*. 2019; 16(3): 634–40.

Patient Safety Indicator 90 (PSI 90) Patient Safety and Adverse Events Composite. Agency for Healthcare Research and Quality Web Site.

<https://qualityindicators.ahrq.gov/Downloads/Modules/PSI/v2021/TechSpecs/PSI%2090%20Patient%20Safety%20and%20Adverse%20Events%20Composite.pdf>. Published July 2021. Accessed May 8, 2024

Section M: Skin Conditions. Centers for Medicare and Medicaid Services Web site.

<https://www.cms.gov/files/document/september2018irflitchsectionmwebinarwith-answers.pdf>. Page Last Modified: 09/04/2018. Accessed May 8, 2024.

Sen, CK. Human wounds and its burden: an updated compendium of estimates. *Advances in Wound Care*. 2019; 8(2): 39-48.

Wassel CL, Delhougne G, Gayle JA, Dreyfus J, Larson B. et al. Readmissions, mortality, and hospital conditions across hospital-acquired pressure injury (HAPI) stages in a US national hospital discharge database. *Int. Wound J*. 2020; 17(6): 1924-34.