Measuring Pressure Ulcer Rates and Prevention Practices

Presented by
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Welcome!

Thank you for joining this webinar about how to measure pressure ulcer rates and prevention practices.

A Little About Myself…

- Associate professor at Montana State University
- Executive editor of the *Journal of the World Council of Enterstomal Therapists* (JWCET) and WCET International Ostomy Guidelines (2014)
- Editorial board member of *Ostomy Wound Management* and *Advances in Skin and Wound Care*
- Legal consultant
- Former NPUAP board member

Today We Will Talk About

- Why you look at prevalence and incidence
- How you calculate these rates
- How you look at facility practice
- Why a pressure ulcer is a learning opportunity

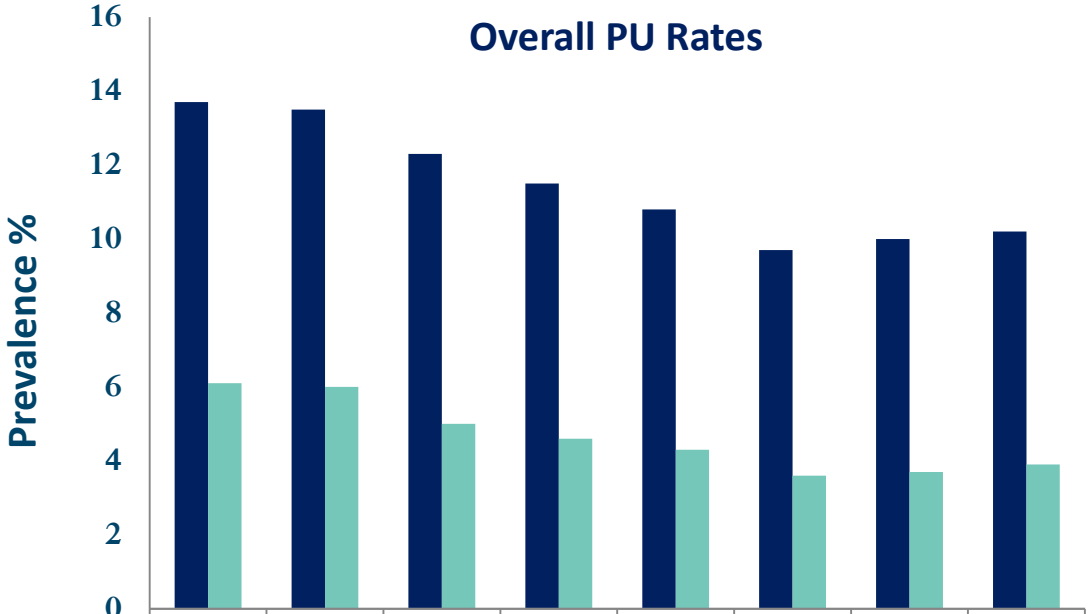
These topics were introduced in your 1-day training. Today, we will revisit them in depth.

Please make a note of your questions. Your Quality Improvement (QI) Specialists will follow up with you after this webinar to address them.

Purpose of Measurement

- Measuring pressure ulcer prevalence and incidence rates and looking at your prevention practices tells you—
  - If there are areas in which care can be improved
  - If you are meeting your aims
  - If practice changes improve incidence
  - If you are sustaining improvements

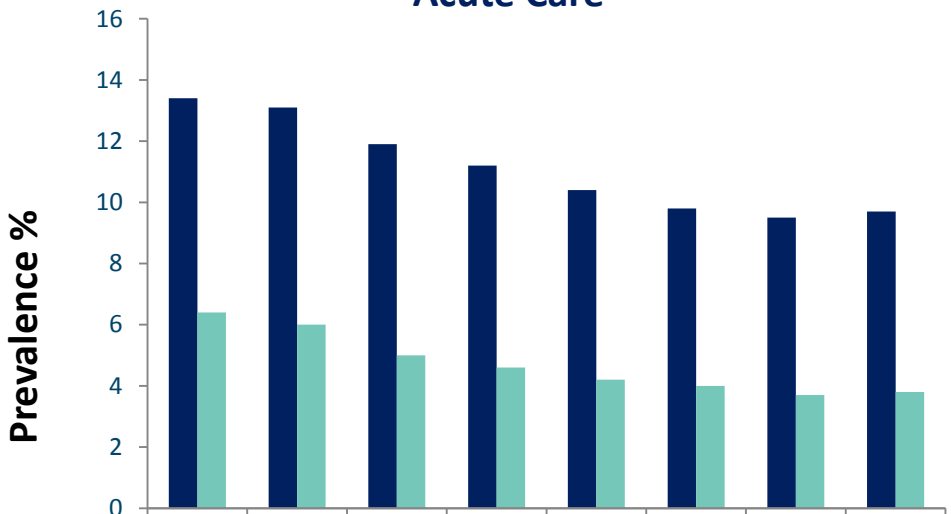
If you don't know where you are, how do you know if you are improving?



	2007	2008	2009	2010	2011	2012	2013	2014
Overall Prevalence	13.7	13.5	12.3	11.5	10.8	9.7	10	10.2
Facility-Acquired	6.1	6	5	4.6	4.3	3.6	3.7	3.9

Source: Hill-Rom IPUP Survey

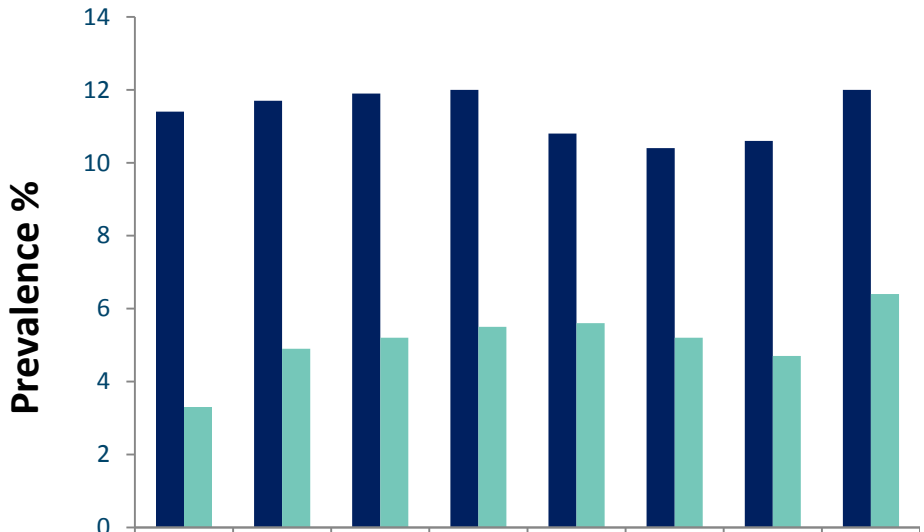
Acute Care



	2007	2008	2009	2010	2011	2012	2013	2014
Overall Prevalence	13.4	13.1	11.9	11.2	10.4	9.8	9.5	9.7
FA Prevalence	6.4	6	5	4.6	4.2	4	3.7	3.8

Source: Hill-Rom IPUP Survey

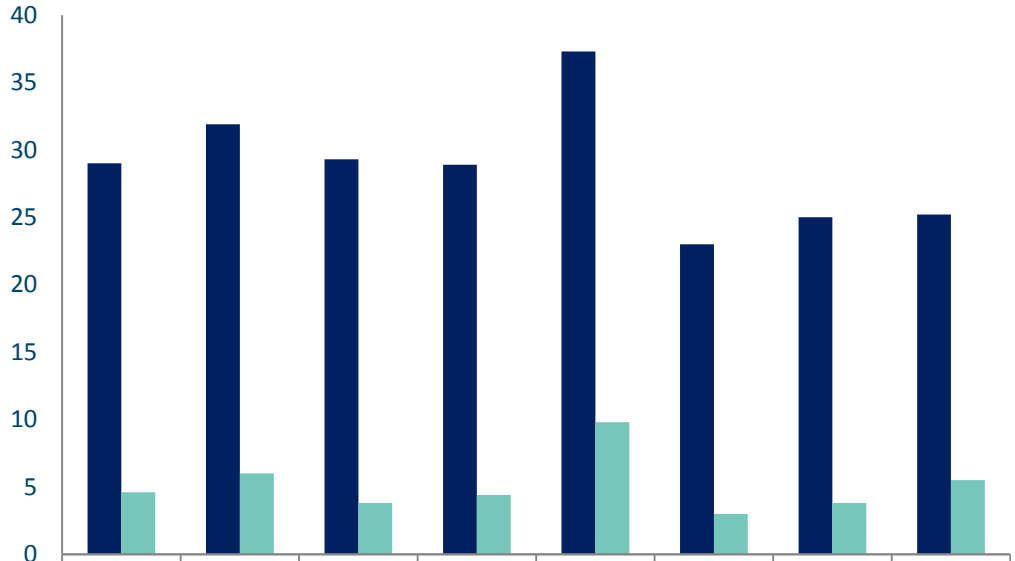
Long Term Care



	2007	2008	2009	2010	2011	2012	2013	2014
Overall Prevalence	11.4	11.7	11.9	12	10.8	10.4	10.6	12
FA Prevalence	3.3	4.9	5.2	5.5	5.6	5.2	4.7	6.4

Source: Hill-Rom IPUP Survey

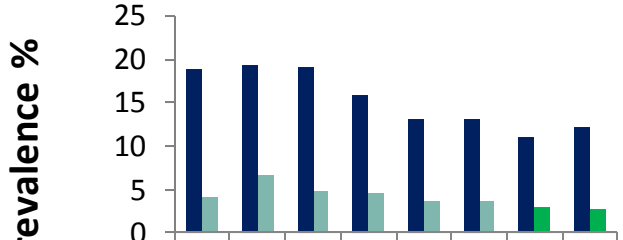
Long Term Acute Care



	2007	2008	2009	2010	2011	2012	2013	2014
Overall Prevalence	29	31.9	29.3	28.9	37.3	23	25	25.2
FA Prevalence	4.6	6	3.8	4.4	9.8	3	3.8	5.5

Source: Hill-Rom IPUP Survey

Rehabilitation



	2007	2008	2009	2010	2011	2012	2013	2014
Overall Prevalence	18.8	19.4	19	15.8	13.1	13	11	12.1
FA Prevalence	4.1	6.6	4.7	4.5	3.7	3.6	3	2.8

Source: Hill-Rom IPUP Survey

Rate of Occurrence

Two types of measures

- **Prevalence.** Percentage of patients who have a pressure ulcer in your facility **today**.
  - Calculated for each unit and overall facility
- **Incidence.** Percentage of people who developed a pressure ulcer **after admission** to your facility.
  - Calculated for each unit and overall facility
  - Also called facility-acquired (FA) or hospital-acquired (HA) pressure ulcers

Prevalence

You may have a high prevalence rate because—

- Your facility admits high acuity patients who already have a pressure ulcer before they arrive
- Your facility does such a good job caring for wounds that you have many referrals for patients who already have pressure ulcers

Measuring Pressure Ulcer Rates

- What to count
  - Could be all stages
  - Could be calculated by stage
  - Could be Stage II and above
- Data needed
- How often to calculate
- How to improve data collection

Data Needed for Pressure Ulcer Rates

For each pressure ulcer found on skin assessment, document—

- **Name** of the patient
- If this is a **New or Existing** pressure ulcer
- **Number** of different pressure ulcers
- **Location** of pressure ulcers
- **Stage** of deepest pressure ulcers

Data Needed for Pressure Ulcer Rates

You'll also need to know the number of patients on your unit or in your facility.

This is easier if your hospital has a computerized system.

How Often To Calculate Pressure Ulcer Rates

Ideal

- Calculate pressure ulcer rates quarterly.
- Calculate same time each year.

This may show seasonal variations and will give a better idea of improvement.

How To Accomplish This Goal

1. **Training.** You need to all be on the same page for identification and staging.
2. **Assessment.** Every patient on every unit has a head to toe skin assessment (looking for pressure ulcers).
3. **Record.** Highest stage of pressure ulcer (each patient only counts once—by patient, not by number of wounds).
4. **If found.** Review chart and determine if pressure ulcer was documented on admission.

Prevalence

Number of patients with a pressure ulcer

Divided by

Total number of patients (on unit or in facility)

Times 100 = %

Pressure Ulcer Prevalence Rate

Numerator = number of patients with a pressure ulcer

Remember—just count patients, not the number of ulcers.

Denominator = number of patients

Divide the numerator by the denominator and multiply by 100 to get percentage

$$\frac{\text{Total \# patients with pressure ulcer}}{\text{Total \# patients surveyed}} \times 100$$

Incidence

Number of patients who developed a pressure ulcer after admission

Divided by

Total number of patients (on unit or in facility)

Times 100 = %

Also called facility acquired (FA) or hospital acquired (HA)

Pressure Ulcer Incidence Rate

Numerator = number of patients who develop a new ulcer after admission

Remember—just count patients, not the number of ulcers.

Denominator = number of all patients admitted (same # as prevalence)

Divide the numerator by the denominator and multiply by 100 to get percentage.

$$\frac{\text{Total \# patients with facility–acquired pressure ulcer}}{\text{Total \# patients surveyed}} \times 100$$

Measures Used for Pressure Ulcer Rates

Suggested approaches

- Rate of **total** pressure ulcers
- Rate of **hospital-acquired** pressure ulcers
- Rate of **Stage II and above** pressure ulcers

There are many ways to measure pressure ulcer rates.

The most important thing is to **be consistent** within your facility and know your **facility's process.**

Examining

PRESSURE ULCER PREVENTION PRACTICES

Measuring Current Process

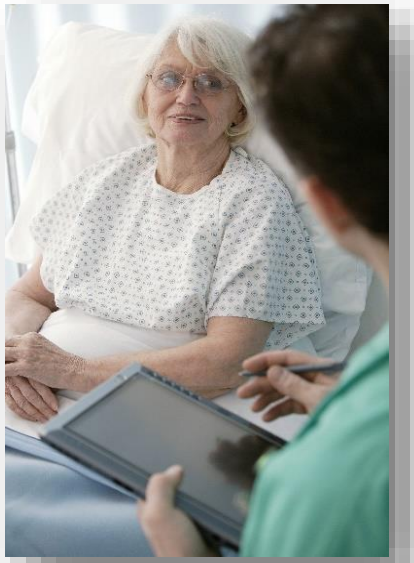
Process measures

- Comprehensive skin assessment performance
- Standardized risk assessment performance
- Care planning to address each risk on standardized risk assessment

Skin Assessment

Done within 24 hours of admission

Tool 5C



Sample protocol for assessing performance of comprehensive skin assessment

1. Take a sample of records of patients newly admitted to your unit within the past month. As few as 10 records may be sufficient for initial assessments of performance.
2. Identify medical and nursing notes from the first 24 hours of hospitalization. These should include the admission nursing assessment, physician's admission note, and subsequent nursing progress notes.
3. Determine whether there is any documentation of a skin examination. This might include mention of any lesions or specific mention that none are present.
4. Determine how comprehensive the initial skin assessment was. Is there specific mention of all five dimensions of the assessment: temperature, color, moisture, turgor, and whether skin intact.
5. Calculate the percentage having any documentation of skin assessment as well as having a comprehensive exam.

Standardized Risk Assessment

Completed on all patients within 24 hours of admission

Tool 5D

Sample protocol for assessing performance of standardized risk assessment

1. Take a sample of records of patients newly admitted to your unit within the past month. As few as 10 records may be sufficient for initial assessments of performance.
2. Identify nursing notes from the first 24 hours of hospitalization. This should include the admission nursing assessment, subsequent nursing progress notes, or any notes specifically documenting pressure ulcer risk assessment.
3. Determine whether there is any documentation of the completion of the standardized risk assessment. This may include a Braden Scale, Norton Scale, or other system. Completion should be indicated by the assignment of an actual score.
4. Calculate the percentage having the actual score completed.

Tool

Tool 2E

Assessment of Screening for Pressure Ulcer Risk

Does your facility have a process for screening that addresses all the areas listed below?

	Yes	No	Person Responsible	Comments
1. Do you screen all patients for pressure ulcer risk at the following times: • Upon admission • Upon readmission • When condition changes				
2. If the patient is not currently deemed at risk, is there a plan to rescreen at regular intervals?				
3. Do you use either the Norton or Braden pressure ulcer risk assessment tool? *If Yes,* ***STOP****. If No, please continue to #4.*				
4. If you are not currently using the Norton or Braden risk assessment, does your screening address the following areas: • Impaired mobility: ○ Bed ○ Chair • Incontinence: ○ Urine ○ Stool • Nutritional deficits: ○ Malnutrition ○ Feeding difficulties • Diagnosis of: ○ Diabetes Mellitus ○ Peripheral Vascular Disease • Contractures • Hx of pressure ulcers				

Accuracy of Risk Assessment

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It is important to check how risk assessment is being performed on each unit.

- Look at the patient record and see if the scores have been consistent. Wide fluctuations in risk are unusual in stable patients. Similarly, when there is a major change in clinical condition, has the risk score changed?
- Select a patient and see if the assessment is accurate. Staff may give the patient "the benefit of the doubt" and make scores better than they are.

Care Planning

Review of patient medical records with a standardized risk assessment

Tool 5E

Sample assessment of care planning performance

1. Take a sample of records of patients newly admitted to your unit within the past month who have an abnormal standardized risk assessment. As few as 10 records may be sufficient for initial assessments of performance.
2. For each patient, determine on which dimensions of the standardized risk assessment there was a score that was not normal.
3. Identify the care plans prepared shortly after admission.
4. Determine whether each abnormally scored dimension of the standardized risk assessment is addressed in the care plans.
5. Calculate the percentage of abnormally scored dimensions of the standardized risk assessment that are addressed in the care plan.

Assess whether all areas of risk are addressed within the care plan.

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Care Plan For Each Area of Risk

Braden Pressure Ulcer Risk Assessment

Patient's Name _____ **Evaluator's Name** _____ **Date of Assessment**

SENSORY PERCEPTION ability to respond meaningfully to pressure-related discomfort	**1. Completely Limited:** Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation. OR limited ability to feel pain over most of body surface.	**2. Very Limited:** Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness. OR has a sensory impairment which limits the ability to feel pain or discomfort over 1/2 of body.	**3. Slightly Limited:** Responds to verbal commands, but cannot always communicate discomfort or need to be turned. OR has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	**4. No Impairment:** Responds to verbal commands, has no sensory deficit which would limit ability to feel or voice pain or discomfort.				
MOISTURE degree to which skin is exposed to moisture	**1. Constantly Moist:** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2. Very Moist:** Skin is often, but not always, moist. Linen must be changed at least once a shift.	**3. Occasionally Moist:** Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4. Rarely Moist:** Skin is usually dry, linen only requires changing at routine intervals.				
ACTIVITY degree of physical activity	**1. Bedfast:** Confined to bed.	**2. Chairfast:** Ability to walk severely limited or non-existent. Cannot bear weight and/or must be assisted into chair or wheelchair.	**3. Walks Occasionally:** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**4. Walks Frequently:** Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.				
MOBILITY ability to change and control body position	**1. Completely Immobile:** Does not make even slight changes in body or extremity position without assistance.	**2. Very Limited:** Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3. Slightly Limited:** Makes frequent though slight changes in body or extremity position independently.	**4. No Limitations:** Makes major and frequent changes in position without assistance.				
NUTRITION *usual* food intake pattern	**1. Very Poor:** Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement. OR is NPO and/or maintained on clear liquids or IV's for more than 5 days.	**2. Probably Inadequate:** Rarely eats a complete meal and generally eats only about 1/2 of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement. OR receives less than optimum amount of liquid diet or tube feeding.	**3. Adequate:** Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered. OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs.	**4. Excellent:** Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.				
FRICTION AND SHEAR	**1. Problem:** Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation lead to almost constant friction.	**2. Potential Problem:** Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints, or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3. No Apparent Problem:** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.					

Tool

Tool 2F

Assessment of Pressure Ulcer Care Plan

Does the care plan for pressure ulcers address all the areas below (as they apply)?

	Yes	No	Person Responsible	Comments
Impaired Mobility • Assist with turning, rising, position • Encourage ambulation • Limit static sitting to 2 hours at any time				
Pressure Relief • Support surfaces: Bed • Support surfaces: Chair • Pressure-relieving devices • Repositioning • Bottoming out in bed and chair*				
Nutritional Improvement • Supplements • Feeding assistance • Adequate fluid intake • Dietitian consult as needed				
Urinary Incontinence • Toileting plan • Wet checks • Treat causes • Assist with hygiene • Use of skin barriers and protectants				
Fecal Incontinence • Toileting plan • Soiled checks				
Skin Condition Check • Intactness • Color • Sensation • Temperature				
Treatment • Physician-prescribed regimen • Appropriateness to wound staging • Treatment reassessment timeframe				
Pain • Screen for pain related to ulcer • Choose appropriate pain med • Provide regular pain med administration • Reassess effectiveness of med • Assess/treat side effects • Change or cease pain med as needed				

To determine if a patient has bottomed out, the caregiver should place his or her outstretched hand (palm up) under the mattress overlay below the existing pressure ulcer or that part of the body at risk for pressure formation. If the caregiver can feel that the support material is less than an inch thick at this site, the patient has bottomed out.

Pressure Ulcer Prevention and Care Planning

Remember:

- Assess pressure ulcer risk each time a new patient is admitted.
- Reassess risk daily or with a significant change in condition.
- Make sure each care plan is tailored to meet an individual patient's pressure ulcer risk factors.

A targeted approach will reduce the incidence of pressure ulcers at your hospital and improve the quality of patient care.

Care Plan Issues

- Patients with feeding tubes or respiratory issues need head of bed elevated more than 30 degrees
- Patients are in pain so don't want to move
- Dehydration

Care Plan Suggestions

- Make small shifts in body weight.
- Offer backrubs.
- Find out the patient's favorite position.
- Position may also be 30 degrees off stomach (not just back)

Measurement

USES OF OUTCOME AND PROCESS DATA

Pressure Ulcer Rates

Track over time:

- How are they changing?
- Are they improving or getting worse?
  - Is this prevalence or incidence?
- Can you relate change in pressure ulcer rates (outcome measures) to changes in practice (process measures)?

Communicate Trends

- Send reports to hospital leadership.
- Disseminate outcome (rates) and process measurement information to unit staff and key stakeholders.
- Post monthly rates in places where all unit staff can see how the unit is doing.

Study the Data

- Pressure ulcer development is a learning opportunity.
- Study in detail what led to each Stage III or IV pressure ulcer.
  - Development of full thickness pressure ulcers may reflect a system failure or high acuity level.
  - Root cause analysis is a systematic technique for understanding reasons for pressure ulcer development.
- Are best practices being used?

Root Cause Analysis

- Helps you understand why a patient developed a pressure ulcer
- Helps you prevent future pressure ulcers in this and other patients
- Captures data about a pressure ulcer from the patient, staff, and others

NPUAP Tool

STEPS	DEFINE EVENT		
1	**Is this injury to the patient's skin a pressure ulcer?**	YES Proceed below	NO Proceed to facility RCA guideline
2	**Patient Medical Record Data** a. Patient date of birth	XX/XX/XXXX	
	b. Patient sex	Male	Female
	c. Patient admission date	XX/XX/XXXX	
	d. Patient admitting diagnosis		
	e. Patient secondary diagnosis		
	f. Physician notified of new pressure ulcer injury(s)	YES XX/XX/XXXX 00:00	NO Add to Action Plan
	g. Physician documentation reflects notification of new pressure ulcer	YES Proceed below	NO Add to Action Plan
	h. Patient's family/POA notified and documented	YES XX/XX/XXXX 00:00	NO Add to Action Plan
3	**Discovery Date and Stage of Facility Acquired Pressure Ulcer**	XX/XX/XXXX	Stage:
4	**Document details of event:**		

http://www.npuap.org/wp-content/uploads/2014/03/UPDATED-3-9-2014-RCA-Template.pdf

Today We Talked About

- Why you look at prevalence and incidence
- How you calculate these rates
- How you look at facility practice
- Why a pressure ulcer is a learning opportunity

Any Questions?

Thank you for being such great listeners.

Please refer any questions you have to your QI Specialists.

Resources

- Berlowitz D, VanDeusen C, Parker V, et al. Preventing pressure ulcers in hospitals: a toolkit for improving quality of care. (Prepared by Boston University School of Public Health under Contract No. HHSA 290200600012 TO #5 and Grant No. RRP 09-112.) Rockville, MD: Agency for Healthcare Research and Quality; April 2011. AHRQ Publication No. 11-0053-EF.
  - Tool 5B: Preventing Pressure Ulcers Data Tool
  - Tool 5C: Assessing Comprehensive Skin Assessment
  - Tool 5D: Assessing Standardized Risk Assessment
  - Tool 5E: Assessing Care Planning
- NDNQI Web site: https://members.nursingquality.org/NDNQIPressureUlcerTraining/Module3/PressureULcerSurveyGuide_20.aspx