

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

***Pressure Ulcer Risk  
Assessment:  
The Braden Scale for Predicting  
Pressure Sore Risk***

Prevention Is All About Identification of Risk

Charisse Cassell, BSN, MPH  
Quality Improvement Specialist  
Health Services Advisory Group (HSAG)  
of California, Inc.

1

The Medicare Quality Improvement Organization for California

HSAG

***Presentation Objectives***

- Discuss the importance of pressure ulcer risk assessment in pressure ulcer prevention.
- Identify common barriers to accurate scoring of the Braden Scale.
- Identify improvement opportunities for Braden Scale scoring accuracy across settings.

2

The Medicare Quality Improvement Organization for California

HSAG

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## ***Braden Scale: Subscales***

- Sensory Perception
- Activity
- Mobility
- Skin Moisture
- Nutritional Intake
- Friction and Shear

3

## ***Braden Scale: Total Risk Level***

- At Risk (15–18)
- Moderate Risk (13–14)
- High Risk (10–12)
- Very High Risk (9 or below)

4

## ***What Is the Goal of the Braden Scale?***

- To accurately predict who will develop pressure ulcers **for the purpose** of planning effective preventive strategies.
  - Total score is used as a rough indicator of intensity of interventions.
  - Subscale score helps orient staff to the bundle of preventive interventions required.



5

## ***Process***

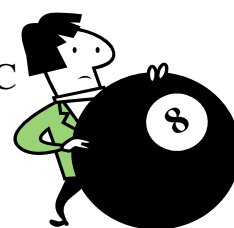
- Evaluate the patient's condition within each category.
- Assign a rating number for each category.
- Add all numbers together to develop a rating score (may range from 6–23).
  - **Add correctly**
- The **lower** the score the **higher** the risk of pressure ulcer development.

6

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## ***Braden Scale Problems: Accuracy***

- No formal/standardized training in the public domain on how to accurately score each subcategory
- Barriers to accuracy: system vs. nurse
- New vs. regular users
  - Eyeballing the patient/resident
  - Degree of patient familiarity—LTC
- Clinical judgment is used to assign a score



7

## ***To Agree or Disagree . . .***

- Patients/Residents
- Insufficient training in the use of the Scale
- Poor technique by the raters
- Insufficient time to carry out an assessment
- Unclear wording of items on the instrument
- Undervaluing the importance of accurate measurement



8

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## *Can't We All Just Agree On It . . .*

- **Rule of Thumb:** “Do no harm”
- If data are borderline, assign a lower score
- Other decision rules . . .



9

## *Common Barriers to Accurate Scoring of the Braden Scale*

10

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk



## **Sensory Perception**

“Ability to respond meaningfully to pressure-related discomfort”

11

## **Sensory Perception (cont'd)**



**Rate Chris' sensory perception risk level**

- A: Completely Limited
- B: Very Limited
- C: Slightly Limited
- D: No Impairment

12

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## ***Sensory Perception (cont'd)***



- Level of consciousness
  - Risk level 4 (no impairment)
- Pain sensation
  - Risk level 2 (very limited)
- Decision rule
  - Assign the lower score

13

## ***Sensory Perception (cont'd)***

- Measures ability to perceive discomfort in a meaningful way
- Has two levels of potential responses:
  - Patient with decreased conscious state
  - Patient with decreased cutaneous sensation (*any feeling originating in sensory nerve endings of the skin, including pressure, warmth, cold, and pain*)
    - If patient has impairment in both, assign the LOWER of possible categories.

14

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk



## Moisture

“Degree to which skin is exposed  
to moisture”



15

## Moisture (cont'd)

- Metric for determining risk level is number of linen changes.
  - Risk level 3
    - Occasionally moist
    - Extra linen change approximately once a day
  - Risk level 2
    - Skin often, but not always, moist
    - Linen change at least once a shift
- Wording issues

16



Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk



### **Mobility**

“Ability to change and control body position”



### **Activity**

“Degree of physical activity”

17

### **Activity**



- Measures frequency of ambulation
- Risk level
  - Bedfast (1)
  - Chairfast (2)
  - Walks occasionally (3)
  - Walks frequently (4)
- Refuses ambulation

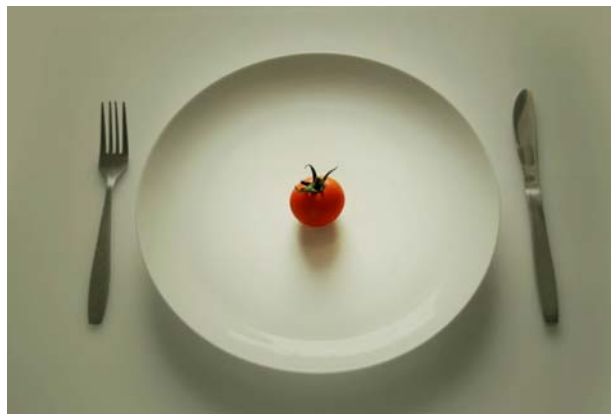
18

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## *Mobility and Activity*

- Challenges:
  - Patient’s/Resident’s **motivation to change and sustain changes in position**
  - Patient’s/Resident’s **motivation** to walk or get up
- Repositioning regimes or PT ambulation
  - Relevance when determining degree of risk (?)
- Decision rule

19



## *Nutrition*

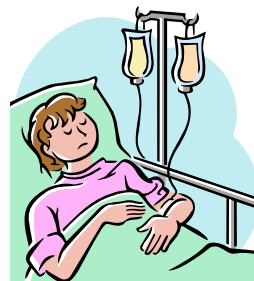
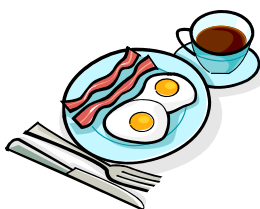
“Usual food intake pattern”

20

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## Nutrition (cont'd)

- Assessment reflects usual intake, not temporary status
- Two layers of potential responses
  - Oral/Liquid supplements
  - IV/TPN/Enteral



21

## Nutrition (cont'd)

- Challenges
  - Requires knowledge of a patient's/resident's eating patterns over several days.
    - Food eaten—history/recall
    - Current plans for nutrition
  - Determine adequacy of nutritional intake
  - Requires RN/LVN, CNA, and dietitian communication



22

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## Nutrition: Risk Levels

### Oral

- Percentage of food eaten
- Refused meals
- Fluid intake
- Dietary supplement

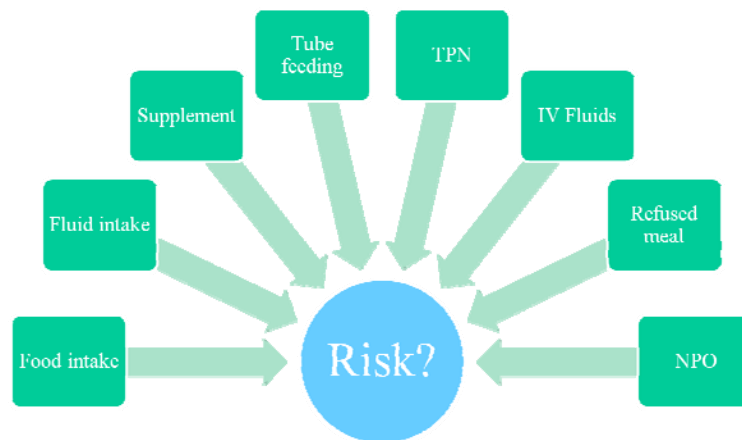
### IV/Enteric

- NPO x how many days
- Optimum amount of liquid diet or tube feeding



23

## Nutrition



24

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk



***Friction and Shear***

25

***Friction and Shear (cont'd)***

- Risk levels—
  - degree of exposure to friction and shear
  - Degree of assistance in moving
  - Frequency—sliding down (bed/chair)
  - Ability to maintain position



26

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## *Friction and Shear (cont'd)*

- Challenge
  - Risk level 1:  
Minimum assist
  - Risk level 2:  
Moderate assist
- How to differentiate?
  - Number of staff it takes to lift patient/resident without causing friction/shear
- Decision rule



27

## *Calculation of Risk*

1. Add subcategory scores.
2. Identify intervention bundle needed to support level of risk.
  - a. Prevention based on total score **or**
  - b. Prevention based on subscale score (handout)
3. Develop specific plan for each level of risk for each risk factor.

28

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## Next Steps

- Decide on rules—agreement
- Set a goal
  - For example: 95 percent agreement on Braden Scale scores between acute care and long-term care settings.



29

## Questions?



30

Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## Contact Information

Charisse Cassell, BSN, MPH

- [ccassell@hsag.com](mailto:ccassell@hsag.com)
- Cell: 818.436.9723
- Phone: 818.409.9229
- Fax: 818.409.0835



31

## References

- Bergstrom, N. (2005). *Pressure Ulcer Prediction and Prevention* [www.geroeducation.org/grn/download/Day3-Dr-Bergstrom.ppt](http://www.geroeducation.org/grn/download/Day3-Dr-Bergstrom.ppt). Last accessed on August 10, 2009.
- Bergstrom, N. Commentary. "On Accuracy." *J Wound Ostomy Continence Nurs.* 2008;35(2):211-212
- Braden, B. "Braden Scale" [www.bradenscale.com](http://www.bradenscale.com). Last accessed on August 17, 2009.
- Braden, B. Commentary. "The Effect of Web-Based Braden Scale Training on the Reliability and Precision of Braden Scale Pressure Ulcer Risk Assessment." *J Wound Ostomy Continence Nurs.* 2008;35(2):209-210
- Kring, D. "Reliability and Validity of the Braden Scale for Predicting Pressure Ulcer Risk." *J Wound Ostomy Continence Nurs.* 2007;34(4):399-406

32



Pressure Ulcer Risk Assessment:  
The Braden Scale for Predicting Pressure Sore Risk

## References (cont'd)

- Magnan, A. and Macklebust, J. “The Effect of Web-Based Braden Scale Training on the Reliability of Braden Subscale Ratings.” *J Wound Ostomy Continence Nurs.* 2009;36(1):51-59
- Magnan, A. and Macklebust, J. “The Effect of Web-Based Braden Scale Training on the Reliability and Precision of Braden Scale Pressure Ulcer Risk Assessments.” *J Wound Ostomy Continence Nurs.* 2008;35(2):199-208
- Statts N, and Gunningberg L. (2007). “Predicting pressure ulcer risk using the Braden Scale with hospitalized older adults: The evidence supports it.” *AJN, 107: 11*

33

*Over 1 million drug-related injuries occur every year in health care settings. The Institute of Medicine estimates that at least a quarter of these injuries are preventable.*

**To find out how to prevent medication errors, go to**  
<http://www.hsag.com/caproviders/drugsafety.aspx>



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

This material was prepared by Health Services Advisory Group of California Inc., the Medicare Quality Improvement Organization for California, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. Publication No. CA-9SOW-6.2.1-101909-04

34