Skin Integrity

Braden Scale for Predicting Pressure Sore Risk

TRY THIS: Predicting Pressure Ulcer Risk

By: Elizabeth A. Ayello, PhD, ACNS- BC, CWON, FAAN; Excelsior College School of Nursing

Issue Number 5, Revised 2012 Editor-in-Chief: Sherry A. Greenberg, PhD(c) MSN, GNP-BC
New York University College of Nursing

WHY: Pressure ulcers (PUs) occur frequently in hospitalized, community-dwelling and nursing home older adults, and are serious problems that can lead to sepsis or death. Prevalence rates for PUs are 11.9% in acute care, 29.3% in long term acute care, 11.8% in long term care, and 19.0% in rehabilitation. A key to prevention is early detection of a patient's risk factors which includes using a valid and reliable PU risk assessment tool and timely implementation of prevention interventions.

BEST TOOL: The Braden Scale for Predicting Pressure Sore Risk, available in several languages, is among the most widely used tools for predicting the development of PUs. Assessing risk in six areas (sensory perception, skin moisture, activity, mobility, nutrition and friction/shear), the Braden Scale assigns an item score ranging from one (highly impaired) to three/four (no impairment). Summing risk items yields a total overall risk, ranging from 6-23. If a patient has major risk factors such as fever, diastolic pressure below 60, hemodynamic instability, advanced age, then move them to the next level of risk. Scores 15 to 18 indicate at risk, 13 to 14 indicate moderate risk, 10 to 12 indicate high risk, ≤ 9 indicate very high risk. In addition to assessing total overall risk, basing prevention protocols on low subscale scores are recommended by Dr. Braden and required by Centers for Medicare and Medicaid Centers (CMS) in Tag F 314 guidance for long term care. Targeting specific prevention interventions that address low risk subscale scores can offer effective resource use. Use Braden Scale scores as part of comprehensive clinical assessment and decision making to determine pressure ulcer risk.

TARGET POPULATION: The Braden Scale is commonly used with medically and cognitively impaired older adults. It has been used extensively in acute, home, and institutional long term care settings. A version specific to home care can be downloaded from www.bradenscale.com. There are no standard recommendations, but the literature supports doing risk assessment on admission or when the patient's condition changes (including cognition or functional ability) and at the following intervals: acute care-every 24-48 hours; critical care-every 24 hours; home care-every RN visit; institutional long term care-weekly first 4 weeks after admission, monthly to quarterly.

VALIDITY AND RELIABILITY: The ability of the Braden Scale to predict the development of PUs (predictive validity) has been tested extensively. Inter-rater reliability between .83 and .99 is reported. The tool has been shown to be equally reliable with Black and White patients. Sensitivity ranges from 83-100% and specificity 64-90% depending on the cut-off score used for predicting PU risk. A cut-off score of 18 or low subscale scores should be used for identifying at risk for patients.

STRENGTHS AND LIMITATIONS: When utilized correctly and consistently, the Braden Scale helps identify the associated risk for PU so that appropriate preventive interventions can be implemented. Although the Braden Scale has been used primarily with White older adults, research addressing Braden Scale efficacy in Black and Latino populations suggests that a cut-off score of 18 or less prevents under-prediction of PU risk in these populations.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGeriRN.org.
Braden Scale. http://www.bradenscale.com. Last accessed September 13, 2011.

References

Ayello, E.A., & Braden, B. (2002). How and why to do pressure ulcer risk assessment. Advances in Skin and Wound Care, 15(3), 125-132.

Baranoski, S., & Ayello, E.A. (2012). Wound care essentials: Practice principles (3rd edition). Springhouse PA: Lippincott Williams & Wilkins.

Bergstrom, N., & Braden, B.J. (2002). Predictive validity of the Braden Scale among Black and White subjects. Nursing Research, 51(6), 398-403.

Bergstrom, N., Braden, B.J., Laguzza, A., & Holman, V. (1987). The Braden Scale for predicting pressure sore risk. Nursing Research, 36(4), 205-210.

Lyder, C.H., Yu, C., Stevenson, D., Mangat, R., Empleo-Frazier, O., Emrling, J., & McKay, J. (1998). Validating the Braden Scale for the prediction of pressure ulcer risk in Blacks and Latino/Hispanic elders: A pilot study. Ostomy/Wound Management, 44(3A), Suppl: 42S-50S.

National Pressure Ulcer Advisory Panel and European Pressure Ulcer advisory Panel. (2009). Prevention and treatment of Pressure ulcers. Clinical Practice Guideline. Washington DC: NPUAP.

Van Gilder, C., Amlung, S., Harrison, P., Meyer, S. (2009). Results of the 2008-2009 International Pressure Ulcer Prevalence™ Survey and a 3-year, acute Care Unit specific analysis. Ostomy Wound Management, 55(11), 39-45.

Available on the internet at www.hartfordign.org and/or www.ConsultGeriRN.org.
E-mail notification of usage to: **hartford.ign@nyu.edu.**
A series provided by The Hartford Institute for Geriatric Nursing, New York University, College of Nursing
HARTFORD INSTITUTE WEBSITE **www.hartfordign.org**
CLINICAL NURSING WEBSITE **www.ConsultGeriRN.org**

BRADEN SCALE

	1 Point	2 Points	3 Points	4 Points
Sensory Perception Ability to respond meaningfully to pressure-related discomfort	**Completely limited**: Unresponsive (does not moan, flinch, or grasp) to painful stimuli because of diminished level of consciousness or sedation. **OR** Limited ability to feel pain over most of body surface.	**Very limited**: Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness. **OR** Has a sensory impairment that limits the ability to feel pain or discomfort over half of body.	**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.	**No impairment**: Responds to verbal commands. Has no sensory deficit that would limit ability to feel or voice pain or discomfort.
Moisture Degree to which skin is exposed to moisture	**Constantly moist**: Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**Very moist**: Skin is often, but not always, moist. Linen must be changed at least once a shift.	**Occasionally moist**: Skin is occasionally moist, requiring an extra linen change approximately once a day.	Rarely moist: Skin is usually dry; linen requires changing only at routine intervals.
Activity Degree of physical activity	**Bedfast**: Confined to bed.	**Chairfast**: Ability to walk severely limited or nonexistent. Cannot bear own weight and / or must be assisted into chair or wheelchair.	**Walks occasionally**: Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**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	**Completely immobile**: Does not make even slight changes in body or extremity position without assistance.	**Very limited**: Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	Slightly limited: Makes frequent though slight changes in body or extremity position independently.	**No limitations**: Makes major and frequent changes in position without assistance.
Nutrition Usual food intake pattern	**Very poor**: Never eats a complete meal. Rarely eats more than one third 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 IVs for more than 5 days.	**Probably inadequate**: Rarely eats a complete meal and generally eats only about half 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 optimal amount of liquid diet or tube feeding.	**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 that probably meets most of nutritional needs.	**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 supplements.
Friction and Shear	**Problem**: Requires moderate to maximal assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximal assistance. Spasticity, contractions, or agitation leads to almost constant friction.	**Potential problem**: Moves feebly or requires minimal 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.	**No apparent problem**: Moves in bed and in chair independently and has sufficient muscle strength to sit up completely during move. Maintains good position in bed or chair at all times.	

Instructions: Score client in each of the six subscales. Maximum score is 23, indicating little or no risk. A score of < 16 indicates “at risk”, a score <9 indicates high risk