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Best Practices in Nursing Care to Older Adults

From The Hartford Institute for Geriatric Nursing, New York University, College of Nursing

Issue Number 5, Revised 2017

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Predicting Pressure Injury Risk

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WHY: Pressure injuries (PIs) occur frequently in hospitalized, community-dwelling and nursing home older adults, and are serious problems that can lead to sepsis or death. Incidence rates for PIs are 2.8% to 9% in acute care with higher rates up to 23.9% in ICU patients, 8.5% in long term acute care (LTAC), 3.6% to 59% in long term care (LTC), and 4.5% to 6.3% in home care. A key to prevention is early detection of all of an individual's risk factors which includes using a valid and reliable 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 PIs. 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. Scores 15 to 18 indicate at risk, 13 to 14 indicate moderate risk, 10 to 12 indicate high risk, ≤ 9 indicate very high risk. However, do not only rely on the total score. Basing prevention protocols on **low subscale scores** are also recommended by Dr. Braden, National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP), and Pan Pacific Pressure Injury Alliance (PPPIA), and required by Centers for Medicare and Medicaid Centers (CMS) in Tag F 314 guidance for long term care and the Resident Assessment Instrument (RAI) Manual. Targeting specific prevention interventions that address low risk subscale scores can offer effective resource use. Use the Braden Scale scores as part of comprehensive structured assessment that includes observation of the person's skin status and recognition of an individual's other additional relevant risk factors (such as existing or previous PI, vascular disease, diabetes, alterations in blood pressure (either high or low) perfusion and oxygenation, poor nutritional status, increased skin moisture including from urinary, fecal incontinence, increased body temperature, advanced age, hematological measures, and general health status), as well as clinical decision making to determine pressure injury risk (NPUAP, EPUAP, and PPPIA, 2014).

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 may be downloaded from www.bradenscale.com. National and international clinical guidelines recommend that a structured risk assessment should be done as soon as possible but within 8 hours of admission or at first contact with health professional or first visit in the community setting (NPUAP, EPUAP, and PPPIA, 2014). Risk assessment should be repeated as often as required based on the individual's acuity or significant change in their condition (NPUAP, EPUAP, and PPPIA, 2014).

VALIDITY AND RELIABILITY: The ability of the Braden Scale to predict the development of PIs (predictive validity) has been tested extensively. Inter-rater reliability between 0.72 and 0.95 is reported. The tool has been shown to be equally reliable with Black and White individuals. Sensitivity ranges from 83-100% and specificity 64-90% depending on the cut-off score used for predicting PI risk.

STRENGTHS AND LIMITATIONS: When utilized **correctly** and **consistently**, the Braden Scale, as part of a structured risk assessment process that includes skin status assessment and identification of other relevant risk factors, helps identify the associated risk for PI so that appropriate preventive interventions may be implemented in a timely way.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGeri.org.
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BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK

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	**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 the 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 own 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 room at least twice a day and inside room at least once every two 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 Limitation** 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 per day. Occasionally will refuse a meal, but will usually take a supplement when 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 & 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 leads 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.					
				Total Score				

NPO: Nothing by mouth; IV: Intravenously; TPN: Total Parenteral Nutrition

SCORE: 15-18 AT RISK; 13-14 MODERATE RISK; 10-12 HIGH RISK; ≤9 VERY HIGH RISK

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