Predicting Pressure Ulcer Risk

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**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 of PUs ranges from 10-17% in acute care, 0-29% in home care, and 2.3-28% in institutional long-term care (LTC); incidence ranges from 0.4-38% in acute care, 0-17% in home care, and 2.2-23.9% in institutional LTC. A key to prevention is early detection of at risk patients with a valid and reliable PU risk assessment instrument and timely interventions.

**BEST TOOL:** The Braden Scale for Predicting Pressure Sore Risk 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 sub-scores are required by Centers for Medicare and Medicaid Centers in the revised Tag F 314 for long term care. Targeting specific prevention interventions that address low risk sub-scores can offer effective resource use.

**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 LTC settings. New PUs are more common in the first two weeks of admission to a hospital or LTC. Recommendations for assessment are on admission or when the patient’s condition changes (including cognition or functional ability) and at the following intervals: acute care-every 48 hours; critical care-every 24 hours; home care-every RN visit; institutional LTC-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 should be used for identifying Black and White patients at risk for pressure ulcers.

**STRENGTHS AND LIMITATIONS:** When utilized correctly and consistently, the Braden Scale will help 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.GeroNurseOnline.org

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# BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK

**Patient’s Name ___________________________ Evaluator’s Name ___________________________ Date of Assessment ___________________________**

<table>
<thead>
<tr>
<th>SENSORY PERCEPTION</th>
<th>MOISTURE</th>
<th>ACTIVITY</th>
<th>MOBILITY</th>
<th>NUTRITION</th>
<th>FRICION &amp; SHEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every least once a shift.</td>
<td>Confined to bed.</td>
<td>Does not make even slight changes in body or extremity position without assistance.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>Skin is often, but not always moist. Linen must be changed at least once a shift.</td>
<td>Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.</td>
<td>Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.</td>
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<tr>
<td>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.</td>
<td>Skin is occasionally moist, requiring an extra linen change approximately once a day.</td>
<td>Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair</td>
<td>Make occasional slight changes in body or extremity position independently.</td>
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<tr>
<td>Skin is usually dry, linen only requires changing at routine intervals.</td>
<td>Skin is sometimes dry, but changes in position. Maintains relatively good position in bed or chair.</td>
<td>Walks outside room at least twice a day and inside room at least once every two hours during waking hours</td>
<td>No sensory deficit which would limit ability to feel or voice pain or discomfort.</td>
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<td></td>
</tr>
</tbody>
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## Total Score

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

**SCORE:** 15-16 AT RISK; 13-14 MODERATE RISK; 10-12 HIGH RISK; 9 VERY HIGH RISK

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