

INSTRUMENT DEVELOPMENT AND TESTING

Pressure ulcers: validation of two risk assessment scales

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Aims and objectives. To compare the predictive value of two pressure ulcer risk assessment scales (Braden and Norton) and of clinical judgement. To evaluate the impact of effective preventive measures on the predictive validity of the two risk assessment scales.

Methods. Of the 1772 participating older patients, 314 were randomly selected and assigned to the 'turning' group; 1458 patients were assigned to the 'non-turning' group. Using the Braden and the Norton scale the pressure ulcer risk was scored twice weekly during a four-week period. Clinical assessment was monitored daily. The patients at risk in the 'turning' group (Braden score <17 or Norton score <12) were randomly assigned to a two-hour turning schedule or to a four-hour turning schedule in combination with a pressure-reducing mattress. The 'non-turning' group received preventive care based on the clinical judgement of the nurses.

Results. The diagnostic accuracy was similar for both scales. If nurses act according to risk assessment scales, 80% of the patients would unnecessarily receive preventive measures. The use of effective preventive measures decreased the predictive value of the risk assessment scales. Nurses predicted pressure ulcer development less well than the Braden and the Norton scale. Only activity, sensory perception, skin condition and existence of old pressure ulcers were significant predictors of pressure ulcer lesions.

Relevance to clinical practice. The effectiveness of the Norton and Braden scales is very low. Much needless work is done and expensive material is wrongly allocated. The use of effective preventive measures decreases the predictive value of the risk assessment scales. Although the performance of the risk assessment scales is poor, using a risk assessment tool seems to be a better alternative than relying on the clinical judgement of the nurses.

Nurs Res. 2004 Sep-Oct;53(5):340-6

Journal of Clinical Nursing
Volume 14 Issue 3 Page 373 - March 2005