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# Occurrence and predictors of pressure ulcers during primary inpatient spinal cord injury rehabilitation

J.H.M. Verschueren, M.W.M. Post, S. de Groot, L.H.V. van der Woude, F.W.A. van Asbeck, M. Rol

## Objectives

To determine the occurrence and predictors for pressure ulcers in patients with spinal cord injury (SCI) during primary inpatient rehabilitation in specialized Dutch SCI rehabilitation centres.

## Methods

The occurrence, location and stage of pressure ulcers were registered for the period between admission and start of functional rehabilitation (called acute rehabilitation) and the period between start of functional rehabilitation and discharge. Possible risk factors for the occurrence of pressure ulcers during functional rehabilitation (personal and lesion characteristics, complications and functional

independence) were measured at the start of functional rehabilitation and were entered as predictors in univariate and multivariate logistic regression analysis with pressure ulcers during functional rehabilitation as dependent variable.

## Results

Data for 193 patients (86%) was available. The occurrence of pressure ulcers, including stage 1, was 36.5% during acute rehabilitation phase and 39.4 % during functional rehabilitation. Most pressure ulcers were located at the sacrum (43%), followed by heel (19%) and tuber (15%). The significant risk factors for developing pressure ulcers during functional rehabilita-

tion were motor completeness, tetraparesis, pressure ulcer during acute rehabilitation, pneumonia and/or pulmonary disease, low score on FIM self-care, continence, transfers, locomotion and total FIM motor score. Having had a pressure ulcer during acute rehabilitation was the strongest risk factor.

## Conclusion

The occurrence of pressure ulcers in our study is comparable to other studies. Many predictors for pressure ulcer development are described. However we only found a few significant risk factors, and of these having had a pressure ulcer during acute rehabilitation being the strongest predictor.

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