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Validation of the modified Spinal Nutrition Screening Tool (SNST-2) in patients with Spinal Cord Injuries

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Spinal Cord Injury Centres (SCICs) report different practices in nutritional screening⁽¹⁾. A modified disease specific nutrition screening tool: the Spinal Nutrition Screening Tool (SNST-2) based on eight parameters (body mass index; age; level of SCI; presence of co-morbidities; skin conditions; diet; appetite and ability to eat) has been developed for use in SCICs. Its reliability and agreement with the previously validated, published tool (SNST-1)⁽²⁾ needs to be assessed before its use is implemented in SCICs. The aim of the study was to test validity of the modified SNST-2.⁽³⁾ Patients' baseline clinical data, anthropometric measurements and SNST-2 score were assessed in a SCIC in the Republic of Ireland during a 6 months period. The validity of SNST-2 was tested by (i) comparison with the previously validated SNST-1⁽²⁾ (concurrent validity) and (ii) an additional SNST-2 was completed by the research dietitian and ward nurses to assess inter- and intra-rater reliability. Agreement was tested using Cohen's κ -statistics⁽⁴⁾. 30 patients (aged 20–90 years, median: 54 years, 63.2% female; 23.3% tetraplegic SCI) were studied. Using SNST-2 on admission, 7 patients (23.3%) were at risk of undernutrition. The SNST-2 had "substantial agreement" with SNST-1 (κ : 0.902, 95% CI: 0.714–1.000). The SNST-2 had substantial reliability (inter-rater reliability (dietitian vs nurse) κ : 0.902, 95% CI: 0.714–1.0). The SNST-2 may be an acceptable (valid and reliable) tool in identifying SCI patients at risk of malnutrition. Further investigation with a larger sample size is warranted to test its predictive validity.

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