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

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BACKGROUND

44% of spinal cord injured (SCI) patients are at risk of undernutrition on admission to hospital.¹

The Spinal Nutrition Screening Tool (SNST-1)² is a disease specific nutrition screening tool. It is a validated method of identifying people with a SCI who are at risk of malnutrition.¹

Following modification of SNST-1 to SNST-2 the reliability and validity of the new tool needs to be investigated.

OBJECTIVE

The aim of the study was to test validity of the modified SNST-2

METHOD

Baseline clinical data was collected in a SCI rehabilitation centre in the Republic of Ireland. This included:
• Anthropometric data
• SNST-1 score
• SNST-2 score

The validity of SNST-2 was tested by:
I. Comparison with the previously validated SNST-1 (²) to assess concurrent validity
II. An additional SNST-2 was completed by the research dietitian to assess inter and intra-rater reliability.
III. Agreement was tested using Cohen’s - statistics.³

RESULTS

The SNST-2 had “substantial agreement” with SNST-1 (k: 0.888, 95% CI: 0.781-0.995).

The SNST-2 had substantial reliability (inter-rater reliability: dietitian vs nurse, k: 0.695, 95% CI:0.522-0.868).

The dietitian using SNST-2 was superior to nurses in sensitivity (95.2% v 87.9%) and negative predictive value (88.5%v 68%).

CONCLUSION

Malnutrition is common in patients with SCI.

The SNST-2 is an acceptable (valid and reliable) nutrition screening tool.

It can be used to identify patients with SCI who are at risk of malnutrition.

Further investigation is warranted to test its predictive validity.

This was a convenience sample.

It may not be a true reflection of the risk of malnutrition in people with SCI in the rehabilitation setting.

Guidance notes would aid uniformity and consistency in completion of SNST-2

There is a need to develop a weight management pathway to prevent and treat overweight and obesity.

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