Screening tool may under-report malnutrition risk in hospitalised frail older people

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A number of frail, older hospital patients in the UK who are either malnourished or at risk of malnutrition may currently go unreported, according to the findings of a new clinical study.

The research, which aimed to investigate and compare the ability to predict malnutrition in a group of frail, older hospital patients using current nutritional risk screening tools, concluded that the gold standard for assessing malnutrition risk in this group may not be the best tool.

The malnutrition universal screening tool (MUST) is currently used in all hospitals and care homes in the UK. It formulates a risk of malnutrition based upon current body mass index (BMI), known weight loss and the presence of acute disease/no nutritional intake for five days. This score partially forms the basis upon which clinical and dietetic decisions are formulated.

Researchers from the University of Lincoln, UK, and Lincoln County Hospital took their sample group of 78 from admissions to two hospital wards in Lincoln specialising in the care of frail older patients.

They compared the MUST with the mini nutritional assessment-short form (MNA-SF), a short-form screening version using six questions, and bioelectrical impedance analysis (BIA); a commonly used method for estimating body composition, and in particular body fat mass.

Malnutrition is a serious condition associated with increased morbidity and mortality and is particularly relevant in older people, who may also be at increased risk due to changes in body composition during ageing and reduction in appetite. More complications arise with the onset of acute and chronic disease.

The team discovered there was a poor match and reliability between the two tests with the MUST consistently scoring patients in a low risk category, whereas the MNA-SF scored most within 'at risk' and 'malnourished/high risk'.

Chief Investigator Dr Adrian Slee, from the University of Lincoln's School of Life Sciences, said: "The study showed clear, significant differences in the group categorisation of malnutrition risk between the MUST and the MNA-SF.

"The BIA data supports the use of the MNA-SF as a more incisive tool in this study. This preliminary data may have significant clinical implications and highlights the potential ability of the MNA-SF and BIA to accurately assess malnutrition risk over the MUST in frail older hospital patients. This may bring into question the use of the MUST as the gold standard for assessing malnutrition risk in frail older inpatients in the UK, and may suggest that a high proportion of patients either malnourished or at risk of malnutrition may currently go unreported. Further study is required as nutritional risk categorisation has a significant impact on future clinical decisions regarding diet and nutrition in older patients on hospital wards."

The current systems that are in place have no detrimental effects to patients. The team suggests that while their study group was relatively small, the findings if repeated with a larger sample group would have far-reaching clinical implications.

More information: Adrian Slee, Deborah Birch, David Stokoe 'A comparison of the malnutrition screening tools, MUST, MNA and bioelectrical impedance assessment in frail older hospital patients' *Clinical Nutrition* dx.doi.org/10.1016/j.clnu.2014.04.013

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