An investigation into the incidence of malnutrition risk among people with dementia in a defined geographical region in Ireland using two nutrition screening tools

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Currently there are almost 44,000 people in Ireland with dementia. It is estimated that in twenty years this number will double and in thirty years it will treble¹, making it one of the most important public health issues of our time. People with Dementia may suffer from anorexia, under nutrition, and involuntary weight loss². Studies indicate that unintentional weight loss may increase mortality and reduce resistance to infections³.

Eighty seven residents consented to participate in the study equivalent to 87% participation rate. In addition to collecting anthropometric data, two validated nutritional screening tools were used to assess the risk of malnutrition of all eighty seven participants in the study. The Mini Nutritional Assessment (‘MNA’)⁴ and the Malnutrition Universal screening tool (‘MUST’)⁵.

<table>
<thead>
<tr>
<th>Risk of malnutrition</th>
<th>Number of participants identified using the “MNA”</th>
<th>Number of participants identified using the “MUST”</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘at risk’</td>
<td>72</td>
<td>42</td>
</tr>
<tr>
<td>Not ‘at risk’</td>
<td>15</td>
<td>45</td>
</tr>
</tbody>
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*Participants identified at medium risk (n = 7) and at High risk (n = 35) were combined to form a new category of “at risk” participants (n = 42) which allowed for correlation of the screening tools.

The ‘MNA’ and the ‘MUST’ were both found to be highly correlated (P<0.000) (95% CI) in identifying participants who were ‘at risk’ of malnutrition. Both screening tools identified the same 55 participants as ‘at risk’ of malnutrition, and the same 15 participants as ‘not at risk’ of malnutrition. The screening tools differed when the ‘MNA’ identified a further 29 participants (33%) ‘at risk’ which the ‘MUST’ did not identify. The mean BMI of ‘at risk’ participants identified by the ‘MNA’ only is higher at 24 kg/m² (±5.7 SD) when compared to mean BMI of 21 kg.m² (±4.5 SD) in participants identified ‘at risk’ by both screening tools. Indicating that both screening tools identified a high number of people as at risk of malnutrition in this group. The ‘MNA’ identifying a higher number of people as the cut offs for ‘at risk’ score are more sensitive in the ‘MNA’ than the ‘MUST’ tool.