

by J.L. Murphy^{1,2}, A.J. Aburrow¹, A.Guestini², K.Wallis¹ and E.Parsons³

¹Wessex Academic Health Science Network, Innovation Centre, Southampton Science Park, 2 Venture Road, Chilworth, SO16 7NP, ²Faculty of Health & Social Sciences, Bournemouth University, Bournemouth, BH1 3LT, ³NIHR Biomedical Research Centre, University of Southampton, Tremona Road, Southampton, SO16 6YD

Email: healthyaging@wessexahsn.net

Website: wessexahsn.org.uk

Aim

A cross-sectional study to investigate the concurrent validity of the Patients Association Nutrition Checklist to identify the risk of malnutrition in older people living in the community against 'MUST'

Methods

- Local organisations offering lunch and social / activity clubs across Hampshire and Dorset were attended by a dietitian and researcher between January and May 2018
- 312 older people (over 65) were recruited from 21 lunch and activity clubs across Dorset (n=140) and Hampshire (n=172)
- All participants were recruited on the day and gave informed written consent
- Participants were screened as per standard methodology for 'MUST' (4) and the Patients Association Nutrition Checklist was carried out with the same participants (the Patients Association Nutrition Checklist involved asking about signs of unintentional weight loss in the past 3-6 months, concerns about being underweight or needing nutritional advice, experiencing loss of appetite or interest in eating)
- Agreement and chance-corrected agreement (κ) between 'MUST' and the Patients Association Nutrition Checklist were assessed (5).

Rationale

- The majority of people with or at risk of malnutrition are living in the community
- Malnutrition still remains under-detected and under-treated by health & social care professionals (1), despite NICE guidance and quality standards recommending nutritional screening using validated tools such as 'MUST'(2,3)
- We modified the Patients Association Nutrition Checklist to create a version which has 4 key questions to focus discussions around weight loss and nutrition, to identify potential risk of malnutrition and provide basic advice and signposting

Results

Participant demographics

- Mean age of participants was 79.6 years (SD 8.3)
- Mean BMI of participants was 27.8 kg/m² (SD 5.6)
- 197 older people (63%) were living alone

Risk of malnutrition according to 'MUST'

% at risk	% at medium risk	% at high risk	Breakdown of risk	
			Score 1	Score 2
9.9% (n=31)	6.7% (n=21)	3.2% (n=10)	Step 1 (BMI) n=9	n=4
			Step 2 (weight loss) n=15	n=7

Risk of malnutrition according to the Patients Association Nutrition Checklist

the patients association nutrition checklist	No. participants answering 'yes' or 'don't know' to each question (denoting risk)
Q1 "are you or your family concerned you may be underweight or need nutritional advice?"	n=23 (34%)
Q2 "Have you lost a lot of weight unintentionally in the past 3-6 months?"	n=30 (44%)
Q4 "Have you noticed that your clothes or rings have become loose recently?"	n=37 (54%)
Q4 "Have you recently found that you have lost your appetite and/or interest in eating?"	n=38 (56%)
Total 'at risk'	21.8% (n=68)

Agreement between 'MUST' and the Patients Association Nutrition Checklist

- Moderate level of agreement between the two tools (sensitivity 85.4%, specificity 87.1%; $\kappa = 0.47$ (SE = 0.064), 95% CI [0.349, 0.599], $P < 0.001$)
- There were 4 people at risk according to 'MUST' but not identified by the Patients Association Nutrition Checklist – these participants reported no change in weight and that they had always been slim
- The Patients Association Nutrition Checklist identified more people at risk than 'MUST' – as it included people in the earlier stages of weight loss and with appetite changes

Conclusion

- The Patients Association Nutrition Checklist has acceptable sensitivity and specificity when compared with 'MUST'
- The Patients Association Nutrition Checklist also has potential for early identification of malnutrition risk in the community that could be attributed to unintentional weight loss and appetite changes, together with signposting to basic dietary advice and appropriate health and social care support
- Further work is required to understand how this tool could be effectively used by other stakeholders including volunteers, community workers and home care staff to help reduce the growing health and social care costs, and improve quality of life for older people

Section A:

Tick the relevant box to indicate the person's answers; then refer to the actions below.

- Are you or your family concerned that you may be underweight or need nutritional advice?
 Yes
 No
 Don't know
- Have you lost a lot of weight unintentionally (in the past 3-6 months)?
 Yes – do you know why?
 No
 Don't know
- Have you noticed that your clothes or rings have become loose recently?
 Yes
 No
 Don't know
- Have you recently found that you have lost your appetite and/or interest in eating?
 Yes
 No
 Don't know

The Patients Association Nutrition Checklist consists of:

- Section A** - the 4 key questions to identify risk; validated as part of this study
- Section B** – advice and signposting for people at risk

Is the person at increased risk of undernutrition?

(tick 'YES' if the client answered 'yes' or 'don't know' to one or more questions)

YES

NO

Further assessment & signposting / advice needed (Section B)
Advise the person to see their GP or Practice Nurse

No further action needed

References

- Wilson L. A review and summary of the impact of malnutrition in older people and the reported costs and benefits of interventions, 2011. London: Malnutrition Task Force.
- NICE (2006) Nutrition Support in Adults CG32. <http://www.nice.org.uk/guidance/CG32>.
- Nutrition Support in Adults – Quality Standard 24 (2012), National Institute for Health and Care Excellence.
- Elia M (2003) The 'MUST' report. Redditch, UK. BAPEN <http://www.bapen.org.uk>
- Landis JR & Koch GG (1977) Biometrics 33, 159–174.