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## Community-based nutritional screening and intervention: effect on nutritional and clinical outcomes in the elderly

C. G. Mountford<sup>1</sup>, A. C. O. Okonkwo<sup>2</sup>, L. Sweeney<sup>3</sup> and N. P. Thompson<sup>1</sup>

<sup>1</sup>Department of Gastroenterology, Newcastle Hospitals, UK, NE4 5PL, <sup>2</sup>Newcastle University Medical School, Newcastle, UK, NE2 4HH and <sup>3</sup>Department of Dietetics, Newcastle Hospitals, UK, NE4 5PL

Malnutrition affects more than 3 million people in the United Kingdom<sup>(1)</sup>. Elderly care home residents are at particular risk. This study aimed to establish the prevalence of malnutrition in Newcastle elderly care home residents and investigate whether a community nutritional screening and intervention programme could be successfully delivered and could improve nutritional and clinical outcomes in residents who were malnourished or at risk of malnutrition.

This was a multi-centre community-based cohort study in five care homes in Newcastle. 205 participants entered the study; 66 males and 139 females (mean age  $84.2 \pm 8.5$  years). Residents were excluded if they were receiving end of life or respite care, were in hospital or were uncooperative with measurements. Follow-up data was available on 175 residents. Residents already taking an oral nutritional supplement (ONS) were excluded from the interventions. Those with a 'Malnutrition Universal Screening Score' ('MUST') of 0 were followed up at 12 weeks, but received no active intervention. Those with a score of 1 received dietetic advice to increase oral intake and those with a score of 2 or more received dietetic advice and were prescribed an ONS (220 ml, 1.5 kCal/ml) (these intervention guidelines have since been recommended by NICE) twice daily for 12 weeks. Body mass index (BMI), 'MUST' score, mini nutritional assessment score<sup>®</sup> and mid upper arm muscle circumference (MAMC) were recorded at baseline and 12 weeks. Feeling of wellbeing was assessed using the Geriatric Depression Scale (GDS). Hospital admission data for the study period was compared to data for the previous year for each home.

Prevalence of malnutrition or risk of malnutrition was 36.6% (95% CI 30.0 to 43.2). Mortality during the study period for residents with a 'MUST' score of 0 or 1 was 7.9% and rose to 50.0% in those with a score of 4 ( $P=0.004$ ). Nutritional status did not deteriorate in the majority (86%) of residents during the study. However, there were no clinically significant improvements in anthropometric measures, including BMI ( $P=0.445$ ) and MAMC ( $P=0.256$ ) following any study intervention. There were no significant changes in GDS ( $P=0.385$ ) or hospital admission rates ( $P=0.537$ ) following any intervention.

Screening for malnutrition is important to identify residents at risk of malnutrition. Dietician input may slow the progression or improve nutritional status in some cases. Results from this study do not support the widespread use of oral nutritional supplements in care home residents, contrary to new intervention guidelines.

1. Russell CA & Elia M (2010) Malnutrition in the UK where does it begin? *Proceedings of the Nutrition Society* 69, 465–469.