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## The Prevalence of Malnutrition in General Practice

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The vast majority of malnutrition in the UK occurs in the community<sup>(1)</sup>, but little is known about its true prevalence in General Practice and the health care use associated with it. This study aimed to establish the prevalence of malnutrition in people visiting their General Practitioner (GP) and whether it is related to health outcomes and increased healthcare use.

A nutritional survey was conducted between November 2010 and May 2011 in six practices across Southampton. Of the 970 randomly selected subjects who were invited to participate, 62% (*n* 601) agreed (main reason for non-participation was fear of missing their appointment). Of these, 455 were visiting the GP or nurse and, therefore, formed the study population. The remaining subjects (*n* 146) were friends, relatives or carers accompanying the patients. Subjects were invited to have their height and weight measured and to provide information about unintentional weight loss, the number of GP visits, wounds, infections requiring antibiotics, dietetic input, or use of any form of oral nutritional support, all during the preceding six months. The rank of index of multiple deprivation score (MDS) was established for each practice using its postcode<sup>(2)</sup>; MDS ranged from 1 (most deprived) to 32482 (least deprived), and malnutrition risk was assessed by applying the 'MUST' criteria to the collected data<sup>(3)</sup>.

All practices were located in areas of higher deprivation ranked between 4474–14811 with a mean rank of 8138 (SD±4158), which was below the mean (and median) value of 16241 for England ( $P<0.001$ ), and the proportion of the adult population registered with the practices that was ≥ 65 years (14.1%) was significantly lower ( $P<0.001$ ) than the proportion aged ≥ 65 years in England (19.7%)<sup>(4)</sup>.

The patients visiting the GP had a mean age of 41.8 (SD±18.3) years, weight 73.9 (SD±17.1) kg, and body Mass Index (BMI) 26.3 (SD±5.3) kg/m<sup>2</sup>. The overall prevalence of malnutrition was 10.8% (95% CI 8.2%, 14.0%), with no significant difference between practices. It comprised of 6.2% at medium risk and 4.6% at high risk; 7.7% (*n* 35) of subjects scored at step 1 BMI, 2.2% (*n* 10) scored at step 2 unintentional weight loss and 0.9% (*n* 4) scored at both step 1 and 2, and no subjects (*n* 0) scored at step 3 acute disease score effect.

Compared to people at low risk of malnutrition, those 'at risk' (medium + high risk) had more infections requiring antibiotics (16.7% vs 24.5%), slightly more GP visits in the previous 6 months (60.6% vs 65.3%) and more unhealed wounds (2.2% vs 8.2%), with the latter difference being statistically significant ( $P<0.05$ ). None of the subjects identified as 'at risk' of malnutrition were receiving dietetic input or any form of oral nutritional support.

This survey highlights that: (i) the prevalence of malnutrition in people visiting their GP (10.8%; 95% CI 8.2%, 14.0%) is similar to that previously estimated in General Practice (10%)<sup>(1)</sup>; (ii) malnutrition is associated with adverse health outcomes and is under-treated. As the practices studied were in more deprived areas and served a younger adult population than in England as a whole, further research is required to confirm these findings.

1. Elia M & Russell CA (2009) Combating Malnutrition: Recommendations for Action. Redditch, Worcs: BAPEN.
2. Nobel *et al.* (2011) Indices of Deprivation 2010 for Super Output Areas ([www.communities.gov.uk](http://www.communities.gov.uk)).
3. Elia M (Editor) (2003) The 'MUST' report. BAPEN, Redditch ([www.bapen.org.uk](http://www.bapen.org.uk)).
4. Office for National Statistics (ONS), Population Estimates, June 2010 ([www.statistics.gov.uk](http://www.statistics.gov.uk)).