

supplements contained vitamins, A, B1, B2, B6, B12, C, D<sub>3</sub>, E, niacin, folic acid, iron, zinc, copper and selenium. We analysed 215 samples collected in 2005, from subjects who had taken either supplementation or placebo for a median of 19 (range 14 to 27) months. Gastric atrophy was determined using pepsinogen 1 to 2 ratio of less than 3.0 using BIOHIT ELISA kits, Helsinki, Finland, according to the manufacturer's instructions. Fasting gastric pH was available on 121 participants. The presence of atrophy was compared between the intervention and the placebo groups. Other factors analysed included the effect of HIV infection, age, body mass index (BMI), smoking, alcohol intake and gastric pH.

**Results** Gastric atrophy was found in 8 (7.8%) of 103 subjects on supplementation, and 7 (6.3%) of 112 on placebo (RR 1.24; 95%CI 0.47–3.3;  $P = 0.22$ ). HIV infection was diagnosed in 5 participants with atrophy and 61 without (RR 1.07; 95%CI 0.37–3.2;  $P = 1.0$ ). The lack of effect of supplementation on atrophy was not changed after stratification for HIV status (M-H OR 2.0;  $P = 0.92$ ). Gastric atrophy was found to be more prevalent in those above the age of 40 years. In univariate and multivariate analysis, BMI, smoking, alcohol intake showed no impact on gastric atrophy. Gastric pH and pepsinogen 1:2 ratio were inversely correlated (Spearman's  $r = -0.34$ ;  $P = 0.0001$ ).

**Conclusion** An average of nine months of micronutrient-antioxidant supplementation has no impact on gastric atrophy in Zambian healthy adults. The high gastric pH seen in HIV patients can not be attributed to gastric atrophy.

**Disclosure of Interest** None Declared.

## Nutrition

### **PWE-173** ELIGIBILITY FOR BARIATRIC SURGERY IN ENGLAND ACCORDING TO NICE GUIDELINES

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**Introduction** The number of people in England who are potentially eligible for bariatric surgery according to criteria set out in UK national guidance is not known. We used data from Health Survey for England (HSE) 2006, representative of the non-institutionalised English population, to determine the number of people eligible for bariatric surgery and their socio-demographic characteristics.

The National Institute for Health and Clinical Excellence (NICE) criteria for eligibility are those with body mass index (BMI) 35.0 kg/m<sup>2</sup> with at least one comorbidity that could be improved by losing weight, or a BMI > 40 kg/m<sup>2</sup>. The comorbidities examined were hypertension, type 2 diabetes, stroke, coronary heart disease, and osteoarthritis.

**Methods** Of 13,742 adult respondents in HSE 2006, we excluded participants with invalid data for BMI (N = 2103), comorbidities (N = 2187) or socio-demographic variables (N = 27), for a final study sample of 9,425 participants.

**Results** 374 (4.0%) had BMI 35.0 kg/m<sup>2</sup> with at least one comorbid condition and 179 (1.9%) had BMI > 40 kg/m<sup>2</sup>. 5.9% of the general adult population therefore fulfilled criteria for bariatric surgery in England. Those eligible were more likely than the general population to be women (60.1% vs 39.9%  $P < 0.01$ ), retired (22.4% vs 12.8%  $P < 0.01$ ), and have no educational qualifications (35.7% vs 21.3%  $P < 0.01$ ).

**Conclusion** The number of adults potentially eligible for bariatric surgery in England (2,346,542 people based on census data) far exceeds provision. Greater investment may be required to ensure the National Health Service (NHS) and other health services internationally have the capacity to meet the needs of all those eligible for bariatric surgery under national guidance. In doing so, monitoring of implementation is essential to ensure access based on need.

**Disclosure of Interest** None Declared.

### **PWE-174** EVALUATION OF A COMMUNITY-BASED NUTRITIONAL SCREENING AND INTERVENTION SERVICE FOR NEWCASTLE ELDERLY CARE HOME RESIDENTS: THE EFFECT ON NUTRITIONAL AND CLINICAL OUTCOMES

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**Introduction** Malnutrition affects more than 3 million people in the United Kingdom. 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.

**Methods** 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 ± 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 (220ml, 1.5kCal/ml) twice daily for 12 weeks.

Body mass index (BMI), 'MUST' score, mini nutritional assessment score® 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 were compared to data for the previous year for each home.

**Results** 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.

**Conclusion** Malnutrition is common in care home residents and associated with increased mortality. Nutritional interventions, including ONS, given over a 3-month period in those with a MUST score of 2 or more, did not appear to improve nutritional status, reduce mortality or decrease hospital admission rates.

**Disclosure of Interest** None Declared.

### **PWE-175** SIMPLE INTERVENTION IMPROVES OUTCOME IN DELIVERY OF PARENTERAL NUTRITION

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**Introduction** Recent report by NCEPOD into hospital care of patients receiving parenteral nutrition (PN) suggested that only 19% adult patients had PN care that was considered to represent good practise. An initial audit (retrospective audit over six months) in our hospital suggested lack of quality control at the point of