

had significantly more practice visits than individuals with a BMI 20.0 to ≤ 24.9 kg/m² (8.5 vs 8.3 visits respectively $p=0.022$ Mann–Whitney U). Similar results were seen for hospital admissions, with a significantly greater proportion of individuals with a BMI ≤ 19.9 kg/m² being admitted to hospital (Abstract OC-038 table 1). Compared to individuals with a BMI 20.0 to ≤ 24.9 kg/m², mean GP contact costs per person per year were increased by £29.54 and admissions by £34.62 per year.⁵

Abstract OC-038 Table 1

		1. BMI ≤ 19.9 kg/m ² (n2632)	2. BMI 20 to ≤ 24.9 kg/m ² (n2632)	p Value
Home visits	% ≥ 1	11.4	7.4	0.000*
Out of hours visits	% ≥ 1	4.8	3.4	0.006*
Telephone consultations	% ≥ 1	50.6	46.2	0.001*
Hospital admissions	% ≥ 1	4.6	3.6	0.026*

(Significance: * χ^2).

Conclusion This study using data from THIN shows that individuals registered with their GP, with a low BMI (≤ 19.9 kg/m²) use significantly more healthcare resources than those with a normal BMI (20.0 to ≤ 24.9 kg/m²). The contribution of disease types and severity, social and nutrition-related factors needs to be further evaluated.

Competing interests K Ashman Employee of: Nutricia, A Cawood Employee of: Nutricia, R Stratton Employee of: Nutricia.

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OC-039

ORAL NUTRITIONAL SUPPLEMENTS ARE COST EFFECTIVE IN IMPROVING QUALITY ADJUSTED LIFE YEARS IN MALNOURISHED CARE HOME RESIDENTS

doi:10.1136/gutjnl-2012-302514a.39

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Introduction Malnutrition has a detrimental effect on quality of life (QOL) but the extent to which nutrition support can improve QOL in a cost effective manner is unclear. This study aimed to examine whether oral nutritional supplements are cost effective in improving quality adjusted life years (QALY's) (an index of quality and quantity of life) in malnourished care home residents.

Methods A randomised controlled trial (RCT) of 104 malnourished residents (medium + high risk according to Malnutrition Universal Screening Tool ("MUST")) (mean age 88.3 \pm 7.7 y, 86% female) in residential and nursing homes in Hampshire received either oral nutritional supplements (ONS) with guidance on how to use them (Nutricia range; mean intake 333 \pm 237 kcal/d; n=53) or written and verbal dietary advice (DA) for 12 weeks. QALY's were calculated using quality of life, measured with EuroQol Time Trade Off (EQ-5D TTO) and information on mortality. Expenditure on healthcare use (healthcare professional visits and hospital admissions (for the 3 months prior to and during the RCT)) and the interventions were calculated using unit costs.^{1 2} The expenditure and QALY's were used to establish the Incremental Cost Effectiveness Ratio (ICER).

Results QALY TTO was significantly higher in the ONS group than the DA group (0.14 \pm 0.04 vs 0.12 \pm 0.03, $p=0.023$, total n=70). Total expenditure was greater in the ONS group than the DA group

(ONS: £375.70 \pm 213.78, DA: £173.85 \pm 240.15, $p<0.0001$) due to the cost of the intervention (ONS: £173.71 \pm 126.06, DA: £39.75 \pm 32.25, $p<0.0001$). Healthcare use costs were not significantly different between groups (ONS: £153.62 \pm 208.44, DA: £127.27 \pm 250.03, $p=0.639$). The mean ICER (cost/QALY TTO) was £10 698 (95% CI £3793 to £76 932), which is well below the typically considered threshold of £25 000/QALY indicative of cost effectiveness.

Conclusion This RCT indicates that compared to simple dietary advice, oral nutritional supplements are cost effective in improving the quality adjusted life years of malnourished care home residents.

Competing interests None declared.

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OC-040

REGULAR NUTRITIONAL BLOOD TEST MONITORING IN CHILDREN ON HOME ENTERAL TUBE FEEDING—IS THIS NECESSARY?

doi:10.1136/gutjnl-2012-302514a.40

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Introduction The use of home enteral tube feeding (HETF) in children with chronic illness is increasing. 6-monthly nutritional blood test monitoring (NBTM) while on HETF is recommended by BAPEN for adults; there is minimal evidence to inform guidelines regarding the biochemical monitoring of children on long-term HETF.

Aim To provide evidence for or against the practice of 6-monthly NBTM in children receiving HETF.

Methods We performed a retrospective review of all children age <18 years, who were started on HETF from 01 January 2005 to 30 June 2010 by the nutrition support team (NST) in the Royal Hospital for Sick Children, Edinburgh. Patients who received <2 months of HETF, or failed to receive more than one set of NBTM within the 1st year of starting HETF were excluded. Comparison of baseline NBTM results with results at 6–12 months after the start of HETF were made. Our NBTM profile includes full blood count, renal profile, bone profile, liver function tests, folate, ferritin, vitamin B₁₂, fat-soluble vitamins and trace elements (Se, Cu, Zn).

Results 42 children were included in the study; none developed refeeding syndrome. 37 (88%) had NBTM performed within 6 months of commencing HETF, 19 (45%) at 6 months after commencing HETF, and 21 (50%) at 1 year after commencing HETF. Significant abnormal parameters identified prior to commencing HETF included low Hb levels (32%), low ferritin levels (31%) and low folate levels (25%). Small groups of between 8% and 10% had low levels of trace elements (Se and Cu) and vitamin D levels. At 6 months and 1 year after start of HETF, there was a small increase of children with low Hb levels (40%) but an improvement in those with low ferritin (14%) and low folate levels (6%). 4% of the study had low vitamin D, and/or trace element (Zn, Cu, Se) levels. There were no toxic levels of vitamins or trace elements within 12 months of start of HETF. Trend comparison was performed in 25 children who had NBTM both before and within a year of commencing HETF. None of the children developed toxic levels of trace elements, one child developed high trace element levels (Se) and another continued to have high Se levels after starting HETF. None of the children developed toxic or high levels of fat soluble vitamins. There were no worryingly low micronutrient levels in any of the 25 children after the start of HETF.

Conclusion Children on HETF in our study maintain and had improvement of their micronutrient status after start of HETF. Six monthly blood test monitoring may only be necessary in special circumstances (refeeding syndrome, frankly deficient or toxic micronutrient levels at start of HETF) and may not significantly enhance the overall nutritional monitoring and management of all children on HETF.

Competing interests None declared.

DDF plenary session

OC-041 IL28B HAPLOTYPES AND IP-10 PREDICT TREATMENT RESPONSE FOR RECURRENT HCV POST TRANSPLANT

doi:10.1136/gutjnl-2012-302514a.41

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Introduction Hepatitis C virus (HCV) recurrence post liver transplant (LT) is universal. Sustained virological response (SVR) rates post LT with pegylated interferon (PEG-IFN) and ribavirin (RIB) range between 26% and 50% and are associated with significant side effects. Single nucleotide polymorphisms (SNPs) rs12979860 near the IL28B gene predict response to treatment. Strong immune T helper type 1 responses towards HCV determine also play an integral role in the outcome of infection. Interferon γ inducible protein 10 (IP-10) has been shown to correlate with treatment response in HCV mono-infection and HIV co-infected patients but limited data are available for patients in the post LT period. Our aim was to investigate whether SNPs near IL28B gene rs12979860 and pre-treatment plasma levels of IP-10 can predict treatment response in patients with recurrent HCV post LT.

Methods Pre-treatment plasma samples were studied in HCV patients post LT. Plasma levels of IP-10 (pg/ml) was measured by ELISA. rs12979860 were tested by direct sequencing. All patients were treated with PEG-IFN α 2a and weight based RIB for a minimum of 48 weeks irrespective of genotype. Virological response was divided into SVR, null-response (NR) and responder relapse (RR). All results are presented as medians (range).

Results 41 patients (34 male) with recurrent HCV (49% genotype one disease) were treated at a median time of 43 months (3–133) post LT. 71% of patients were maintained on tacrolimus monotherapy. Nine patients had been treated previously with PEG-IFN and RIB. Median baseline HCV viral load was 2.35E6 IU/ml. 78% of patients were commenced on a low accelerated dosage regimen (median dose PEG 135 μ g, median dose RIB 800 mg). Rs12979860 haplotype CC was present in 24% (8 \times SVR, 2 \times RR), CT 59% (10 \times SVR, 9 \times NR, 5 \times RR) and TT in 17% (1 \times SVR, 6 \times NR). SVR was achieved by 19 patients (46%), 15 patients were NR (37%) and 7 were RR (17%). Baseline IP-10 levels correlated with serum AST ($r=0.48$, $p=0.003$), ALT ($r=0.36$, $p=0.05$), fibrosis score ($r=0.33$, $p=0.04$) and necro-inflammatory score ($r=0.54$, $p=0.001$). IP-10 levels were lower in those who achieved a SVR (116 vs 490, $p<0.0001$). IP-10 levels were higher in the NR group compared to the SVR and RR groups (545 vs 116 vs 320, $p<0.0001$). AUROC analysis identified IP-10 to be a significant predictor of SVR (0.84, 0.71–0.97, $p<0.0001$). CC haplotype and IP-10 <154 pg/ml had a 100% PPV for SVR.

Conclusion Our data demonstrates that patients with a lower baseline IP-10 level are more likely to achieve a SVR. The IL28B CC haplotype in conjunction with a low IP-10 level predicts treatment success in recurrent HCV post LT.

Competing interests None declared.

OC-042 THE BURDEN OF MALNUTRITION IN GENERAL PRACTICE

doi:10.1136/gutjnl-2012-302514a.42

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Introduction Although most malnutrition exists in the community, there is a lack of information about its burden in General Practice (GP). The aim of this survey was to establish the prevalence of malnutrition in GP and its relationship to use of nutrition support, health outcomes and healthcare use (infections requiring antibiotics, frequency of wounds and GP visits). The dataset represents an extension of information obtained from a preliminary study.¹

Methods Of a total of 1130 consecutive individuals attending nine GPs in the Southampton area (November 2010–December 2011), 65% (n 738) agreed to participate (main reason for non-participation was fear of missing their appointment). After excluding 160 people who were accompanying friends/relatives or carers, 578 patients visiting the GP or nurse formed the survey population. Subjects had their height and weight measured and provided information about unintentional weight loss, infections requiring antibiotics, wounds, GP visits, dietetic input, and use of any form of oral nutritional support, during the preceding 6 months. The risk of malnutrition according to the “Malnutrition Universal Screening Tool” (“MUST”) was established.

Results Patients had a mean age, weight and Body Mass Index (BMI) of 43.1 (SD \pm 18.7) years, 73.6 (SD \pm 17.0) kg, and 26.2 (SD \pm 5.3) kg/m² respectively. The overall prevalence of malnutrition was 11.1% (95% CI 8.8% to 13.9%), comprising of 6.7% at medium risk and 4.4% at high risk. Compared to people at low risk of malnutrition, those “at risk” (medium + high risk) had significantly more infections requiring antibiotics (17.1% vs 28.1%, RR 1.643 (95% CI 1.063 to 2.539); $p=0.025$), a significantly higher frequency of wounds (2.1% vs 9.4%, RR 4.381 (95%CI 1.667 to 11.443); $p=0.003$) and more GP visits in the previous 6 months (59.3% vs 68.8%, RR 1.159 (95% CI 0.968 to 1.387); $p=0.109$). None of the subjects identified as “at risk” of malnutrition were receiving dietetic input or any form of oral nutritional support.

Conclusion This survey has established that the prevalence of malnutrition among people visiting their GP in the Southampton area is 11.1% (95% CI 8.8% to 13.9%). The results indicate that those “at risk” of malnutrition have more infections, wounds, and tend to visit their GP more frequently. Furthermore, malnutrition is under-detected and under-treated in this setting.

Competing interests None declared.

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OC-043 CONTROLLED TRIAL OF IMMUNOABLATION AND AUTOLOGOUS HAEMOPOETIC STEM CELL TRANSPLANTATION IN CROHN'S DISEASE: INTERIM REPORT ON BEHALF OF THE ASTIC TRIALISTS

doi:10.1136/gutjnl-2012-302514a.43

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Introduction The Autologous Stem Cell Transplantation International Crohn's Disease (ASTIC) Trial is a randomised controlled evaluation of the proposition that immunoablation and hemopoietic stem cell transplantation improves the course of Crohn's disease.