FEED ME UP! AN INITIATIVE TO REDUCE THE INCIDENCE OF ASPIRATION THROUGH CORRECT BED POSITIONING

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Introduction BSG guideline on enteral feeding for adult hospital patients recommends that beds should be inclined at 30 degree or more whilst NG feeding is going through. This was believed to play an important role to reduce the rate of aspiration among NG-fed patients.

Methods Our QIP was a prospective study, comprising of 75 events of NG feeding data involving 15–16 stroke patients each cycle (of 3 cycles) collected over a span of 12 months. The primary outcome reviewed was the frequency of inappropriate bed inclination settings during feeding administration. We also reviewed the incidence of aspiration pneumonia among those who were fed at inappropriate bed angle. This was translated into Relative Risk (RR) and Odds Ratio (OR). In between each cycle of data collection, we implemented changes to the local system, and we monitor for improvement in the rate of aspiration among the NG-fed patient cohort.

Our objectives are to increase healthcare workers’ awareness of this BSG recommendation and to ensure that by February 2020, 100% of NG tube-fed patients are fed at bed angle >30 degrees at all times and the rate of aspiration is reduced to less than 10% among all NG-fed patients.

Results The QIP demonstrated that in 8 out of 75 NG feeding events, patients’ beds were not inclined satisfactorily. 6 people developed aspiration pneumonia, of which 3 were not inclined at appropriate angle. This equate to RR and OR to develop aspiration of 6.6 and 12.2 respectively among those who were fed at inappropriate bed inclination.

The incidence of inappropriate bed inclination was 16.7% in cycle 1. This was reduced to 9.1% in cycle 2 and 8% in cycle 3. The rate of aspiration was 13.3% in cycle 1. This was reduced to 6.1% in cycle 2 and <5% in cycle 3.
Interventions done involved ward-based education in the first instance to nursing staffs and the use of paper reminder for each NG-fed patient. Other interventions include production of an awareness poster and patient’s leaflets which were then distributed among cognitively intact post-stroke patients. We also raised awareness among the healthcare staffs in a larger scale through presentation of our QIP during the UHDB Junior Doctors’ Grand Round event.

Conclusions Despite focus being given on providing prompt swallow assessment and subsequently NG tube insertion to aid feeding for our stroke patients, the incidence of aspiration remains prevalent. Inappropriate bed inclination during NG feeding administration is believed to be one of the reasons and this aspect seems to have been underrated in our clinical practice. Having said this, we do understand that the incidence of aspiration among our patient cohort could be multifactorial.

Re-audit data collection is currently ongoing, with the latest set of data demonstrating a good outcome following our interventions.

**P277** NUTRITIONAL STATUS AND DISEASE ACTIVITY IN CROHN’S DISEASE: PRELIMINARY DATA


10.1136/gutjnl-2020-bsgcampus.351

**Introduction** Malnutrition is a highly prevalent and crucial complication of Crohn’s Disease (CD), even in patients in remission; nevertheless assessment and treatment of malnutrition is rarely integrated into management plans. Body Mass Index (BMI) and Malnutrition Universal Screening Tool (MUST) are widely used, but not exempt of limitations.

**Objectives** To investigate (1) the prevalence of malnutrition in an outpatient sample of CD patients, using the most frequent and recommended nutritional tools in clinical practice (2) the existence of any relationships between nutritional and clinical status in patients with CD, and (3) the reliability and validity of different methods of nutritional assessment in patients with CD in an ambulatory setting.

**Methods** Cross-sectional, observational study that took place in the IBD outpatient clinic at University College Hospital between March and June 2019. Demographic (gender, ethnicity, age and smoking status), and disease activity data (Harvey Bradshaw Index, Montreal Classification, past surgical history, current and past medication) were collected. Nutritional assessment was performed, using weight, height, BMI, MUST, Mid-upper arm circumference (MUAC) and Hand Grip Strength (HGS). Additionally, blood biochemistry was recorded.

**Results** 86 consecutive CD patients were included (38 female; mean age 38.5±15.3 years; 19 Asian, 67 of white ethnicity; 62 non-smokers, 13 smokers and 11 ex-smokers). Statistically significant positive associations were found between clinical activity (HBI) and MUST (r=0.426, r²=0.18, p<0.05), CRP (r=0.282, r²=0.079, p<0.05) and Platelet values (r=0.24, r²=0.079, p<0.05). A significant positive association was found between MUST and CRP (r=0.29, r²=0.08, p=0.0049) and negative between MUST and BMI (r=0.43, r²=0.19, p=0.000002). No significant association was found between the other parameters collected.

In the sub analysis comparing active (HBI ≥5; n=40) vs remission group (HBI<5; n=46), there was a trend for a lower mean HGS in the active group (29.58±11.89 vs 33.94±12.66; p=0.1). MUST score 0 was more prevalent in patients in remission compared with active (n=31 vs n=22; p<0.005) and MUST score 1 was more common in the active group (n=13 vs n=7; p<0.005). The prevalence of malnutrition was 12.5% in the active group, and 17.3% in the remission group, when calculated with MUST; and 22.5% in the active group and 8.69% in the remission group by BMI criteria.

**Conclusions** Malnutrition rates are high in patients with CD, even in remission. HGS was lower in the active group while MUST was negatively associated with BMI. Malnutrition screening and assessment should be included routinely in IBD clinical practice. Further data are being collected based on body composition.

**P278** DEFINING LOW FODMAP THRESHOLDS IN IRRITABLE BOWEL SYNDROME

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10.1136/gutjnl-2020-bsgcampus.352

**Introduction** Studies support the use of the low FODMAP diet (LFD) in irritable bowel syndrome (IBS). Whether an optimal threshold of restriction exists is yet to be determined, but <12 g total FODMAPs has been suggested.1 There are no current recommendations for individual FODMAPs such as fructans. Pre and post dietary intervention levels were explored.

**Methods** A systematic review was performed of publications reporting total FODMAP and fructan intakes pre and post dietary intervention. LFD dietary trials (n=15) were identified on PubMed using MESH terms ‘low FODMAP’, ‘irritable bowel syndrome’ and ‘fructans’. From the articles identified, studies having no data on total FODMAP intake or fructan intake were excluded (n=6). Percentage change in total FODMAP intake pre- and post dietary intervention were assessed in eligible articles (n=9). All eligible articles (n=9) had data on total FODMAPs (n=7 after restriction stage and n=2 in long term) and 7 articles had data on fructan intakes (n=5 after the restriction stage and n=2 at long term). Studies assessing fructan intake in healthy participants were included for comparison (n=2).

**Results** Total FODMAPs at baseline or in the control group was 13.0–29.6 g/d (n=7 studies) and following the LFD restriction phase 3.1–22.0 g/d (n=7 studies), with a 24.1–85.8% reduction across studies (see graph 1). Of the 7 studies, 6 achieved the suggested threshold <12 g/d. Total FODMAPs at long-term was 9.0–20.6 g/d (n=2 studies). Baseline fructan intake was 2.3–4.0 g/d (n=5 studies) and following the LFD restriction phase 1.0–2.1 g/d (n=5 studies), with a 33.3–69.2% reduction across studies. Fructan intake at long term was 2 g/d (n=2 studies). Fructan intakes in healthy individuals was 3.9–4 g/d (n=2 studies).

**Conclusions** The total FODMAP threshold of <12 g/d was achieved in the majority of studies, but intakes in the long term varied, between 9–22 g/d. Fructan intakes <2.2 g/d were