duodenal bulb. In this study 14/153 (9%) of newly diagnosed coeliac disease patients and 13/91 (14%) of CD remission patients demonstrated VA in the bulb alone. We suggest that endoscopists should consider taking a duodenal bulb biopsy in patients suspected of having coeliac disease and in reassessment cases.

Competing interests None declared.

BSG transition symposium

OC-050

INPATIENT PAEDIATRIC UC CARE IN THE UK IN 2011 IS CHARACTERISED BY INCREASING RATES OF RESCUE THERAPY AND STOOL CULTURES BUT LOW USE OF PUCAI SCORES

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Introduction Paediatric UC care is variable in the UK and appropriate clinical guidelines are very recent. Acute severe UC is rare with only a few cases presenting annually to each tertiary hospital.

Methods UC patients aged <17 years admitted to 23 UK paediatric hospitals had clinical details collected as part of the UK paediatric IBD audit (September 2010–2011). Each site was asked to enter up to 20 cases admitted electively or as an emergency, including patients who were having surgery. Day cases and patients who were admitted solely for diagnostic endoscopy were excluded. Comparative data for some items was available from the previous UK audit conducted in 2008.

Results 176 patients (98 males) of median age 13 years (IQR 10–13) were included in the audit; 22 were elective surgical admissions, 47 new diagnoses and 107 needed acute medical care for known UC. Median length of stay was 6 days (IQR 3–10); there were no deaths. 73% of patients with established disease had a pancolitis and 10% had co-existent liver disease. 88 (70%) of 126 patients with active disease had standard stool cultures performed (2% were positive) and 57 (45%) had *C difficile* toxin tested (none positive). Stool sample collection rates had improved significantly compared to the 2008 audit (70% vs 52%, $p=0.001$). 38% of emergency admissions had a plain abdominal XR taken on admission, but only 19% had a specific disease activity index (PUCAI score) recorded. There were three cases of toxic megacolon and 3 of thromboses. Rates of heparinisation were low but higher than in the 2008 audit (11% vs 2%, $p=0.002$). 71% of patients treated with steroids responded to treatment. 20 patients received 2nd line (rescue) therapy, of whom eight received infliximab, 11 Cyclosporin and one both, with an overall response rate of 90%; nine went to surgery without

2nd line medical therapy. Rescue therapy usage was significantly higher than in the 2008 audit (52% vs 26%, $p=0.03$). Overall, 71% of non-elective UC admissions were seen by an IBD nurse.

Conclusion There were signs of improving UC care from 2008 to 2011 with significantly increased rates of stool culture sampling and use of rescue therapy, but the majority of sites did not use PUCAI scores to assess patients on emergency admission.

Competing interests None declared.

OC-051

MICROBIAL, PHENOTYPIC AND GENETIC MARKERS OF RISK: ASPECTS OF CROHN'S DISEASE THAT ARE SHARED BY UNAFFECTED SIBLINGS

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Introduction Siblings of Crohn's disease (CD) patients have elevated risk of developing disease which may manifest as raised faecal calprotectin (FC) and increased intestinal permeability. Other features of CD that reflect the at-risk state and their interactions are not well described.

Aim Identify key facets of the at-risk state and establish their relationships.

Methods Faecal samples from 22 patients with quiescent CD, 21 siblings and 25 controls were analysed for FC (ELISA) and microbiota (quantitative PCR targeting bacterial 16S ribosomal RNA genes). Genotype RR at 72 known CD risk loci was determined by Illumina Immuno BeadChip, analysed with the REGENT R package. p Values from non-parametric analyses were Bonferroni corrected to adjust for multiple testing.

Results FC was elevated ($>50 \mu\text{g/g}$) in 21 (96%) patients, 8 (38%) siblings and 2 (8%) controls. Compared with controls, patients had reduced Bacteroidetes, clostridial cluster IV, *Faecalibacterium prausnitzii*, *Ruminococci*, *Bifidobacterium adolescentis* and *Roseburia* spp. (Abstract OC-051 table 1). Similarly, in siblings vs controls there was reduced cluster IV clostridia, (specifically *F prausnitzii*) and *Roseburia* spp. (Abstract OC-051 table 1). This dysbiosis was evident in siblings with normal FC. Siblings with elevated/high genotype RR ($n=4$) had normal FC but reduced Bacteroidetes vs controls, (9.2 vs $10.4 \log_{10}/\text{g}$, $p=0.007$).

Conclusion In addition to enhanced genotypic risk and elevated FC, siblings share aspects of CD dysbiosis, in particular lower butyrate producing bacteria. Reduced Bacteroidetes comparable to that seen

Abstract OC-051 Table 1 Concentrations of bacteria between groups

Bacteria ($\log_{10}/\text{g}$ dry weight faeces (IQR))	Median concentration			p Values		
	Patient	Sibling	Control	Patient vs sibling*	Patient vs control*	Sibling vs control*
Universal	10.7 (0.73)	10.8 (0.48)	11.0 (0.54)	0.759	0.015	0.117
Bacteroidetes	8.8 (1.70)	10.2 (1.20)	10.5 (0.69)	0.009	<0.005	0.639
Clostridial cluster IV	7.8 (3.02)	9.3 (1.17)	9.7 (0.78)	0.018	<0.005	0.030
<i>F prausnitzii</i>	6.9 (4.32)	9.3 (1.66)	9.6 (0.80)	0.006	<0.005	0.048
<i>Roseburia</i> spp.	9.2 (2.50)	9.3 (2.49)	9.9 (0.77)	1.000	0.027	0.009
Ruminococci	7.1 (2.34)	8.8 (1.29)	9.6 (1.65)	<0.005	<0.005	0.084
<i>Bifidobacterium adolescentis</i>	5.8 (3.90)	9.0 (1.35)	9.2 (1.68)	0.042	0.027	1.000

*Bonferroni corrected p values.