Background: Depression and anxiety are comorbidities of inflammatory bowel disease (IBD). Recent guidelines from the ACG recommend screening for depression and anxiety in IBD patients, but the most effective and efficient way to do this is not established. We used a novel computerised adaptive testing technology to screen IBD patients for depression and anxiety and compared the screening results to disease activity.

Methods: Consecutive patients at our tertiary IBD clinic were asked to complete the validated CAT-MH<sup>TM</sup> survey from Adaptive Testing Technologies (Chicago, IL). This tool is provided as a text or email link and takes 3–5 min to complete. We reviewed disease and patient characteristics. Categorical variables were assessed using Fisher's exact test. Clinical remission status was determined by the senior author, blinded to the CAT-MH<sup>TM</sup> results.

Results: 134 patients (75 women, 112 Caucasian, 84 Crohn's disease) participated in the study, 85 of whom had no prior history of psychiatric disorders. We identified 51 patients with depression (46 mild, 3 moderate, 2 severe); 32/51 (62.7%) were previously undiagnosed. Thirty-six subjects tested positive for anxiety (24 mild, 10 moderate, 2 severe); 20/36 (55.6%) were previously undiagnosed. 2/134 patients were positive for suicidal ideation in the past month.

Sex, race, type of IBD, surgical history, and number of discontinued medications were not significant (Table 1). Patients with active disease had a significantly greater relative risk for having depression (RR 2.26, 95% CI 1.50–3.39) and anxiety (RR 1.88, 95% CI 1.09–3.24) (Figure 1).

Conclusion: We demonstrate the utility of a novel screening tool for depression and anxiety in IBD patients. Furthermore, we illustrate the positive association between clinically active disease status and the presence of depression and anxiety. Physicians should consider patients with clinically active IBD at risk for depression and anxiety and treat or refer them accordingly.

#### P250

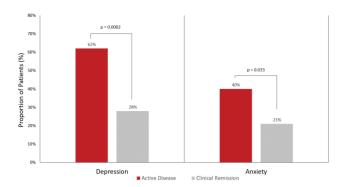
## Root cause analysis to identify missed opportunities for the diagnosis of colorectal cancer in inflammatory bowel disease

C. Gordon\*1, D. Chee¹, B. Hamilton¹, N. Chanchlani¹, N.M. Heerasing¹, P. Hendy¹, S. Lin¹, E. Wesley¹, I. Daniels², J.R. Goodhand¹, N.A. Kennedy¹, T. Ahmad¹

Abstract P249 Table 1. The proportion of patients testing positive for depression and anxiety.

N=134	Positive for Depression n/N (%)	Positive for Anxiety n/N (%)
Sex		
Female sex	31/75 (41.3)	24/75 (32)
Male sex	20/59 (18.6)	12/59 (20.3)
P-value	0.47	0.17
Race		
White	42/112 (37.5)	28/112 (25)
Non-white	9/22 (40.9)	8/22 (36.4)
P-value	0.81	0.29
Type of IBD		
Ulcerative Colitis	18/50 (36.0)	11/50 (22.0)
Crohn's Disease	33/84 (39.3)	25/84 (29.8)
P-value	0.72	0.42
Smoking Status		
Current or Former	12/30 (40.0)	9/30 (30.0)
Never	39/104 (37.5)	27/104 (25.9)
P-value	0.83	0.65
Past Surgeries Related to IBD		
Yes	26/57 (45.6)	16/57 (28.1)
No	25/77 (32.5)	20/77 (25.9)
P-value	0.15	0.85
Number of Discontinued		
Medications		
0-2	26/72 (36.1)	18/72 (25.0)
3+	25/60 (41.7)	18/60 (30.0)
P-value	0.47	0.56
Disease Status		
Active	25/40 (62.5)	16/40 (40.0)
Clinical Remission	26/94 (27.7)	20/94 (21.3)
P-value	0.0002*	0.033*
*significant if p ≤ 0.05		

S274 Poster presentations



Abstract P249 Figure 1. The proportion of patients with depression and anxiety based on disease activity.

<sup>1</sup>Royal Devon and Exeter NHS Foundation Trust, Gastroenterology, Exeter, UK, <sup>2</sup>Royal Devon and Exeter NHS Foundation Trust, Colorectal Surgery, Exeter, UK

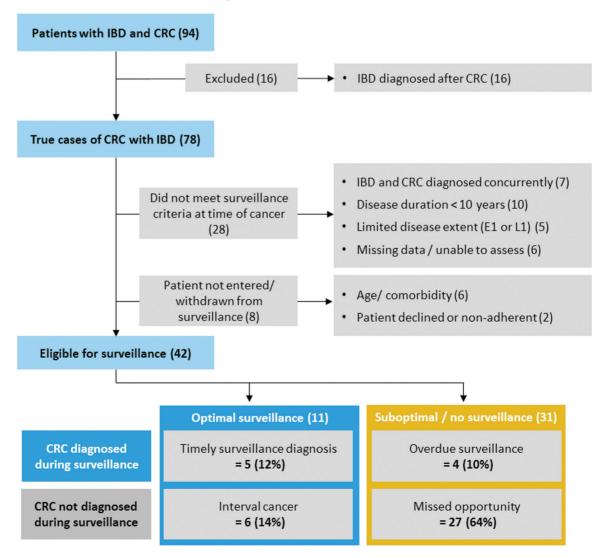
Background: Colonoscopic surveillance in inflammatory bowel disease (IBD) patients leads to earlier detection of colorectal

cancer (CRC) and reduces CRC-associated deaths. However, adherence to international surveillance guidelines in practice is poor. Consequently, we hypothesised that patients with IBD-associated CRC had suboptimal endoscopic surveillance and conducted a root cause analysis of IBD-associated CRC diagnoses to identify the scale of missed surveillance opportunities.

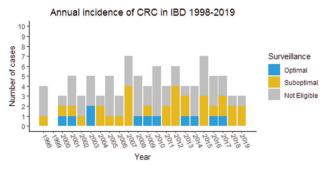
Methods: We calculated the incidence of CRC in our IBD population between 1998 and 2019 by cross-referencing the hospital's CRC and IBD databases. All cases were adjudicated by IBD specialists to determine eligibility for surveillance using guidelines contemporaneous to the time of CRC diagnosis. For all eligible patients, a root cause analysis was conducted to determine whether there were missed opportunities to detect CRC.

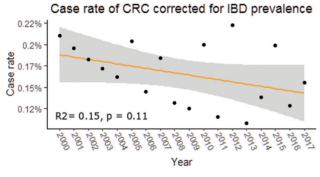
Results: Our search identified 94 patients with IBD and CRC. We excluded 16 patients diagnosed with IBD after the diagnosis of CRC. The overall incidence of IBD-associated CRC in East Devon from 1998 to 2019 was 0.17% per year (95% CI 0.14 %–0.18%) with no statistically significant change seen over time ( $R^2$ = 0.15, p = 0.11). Fifty-one patients (65%) were male, the median age at diagnosis of CRC was 69 years (range 21–88) and the median duration of IBD prior to CRC diagnosis was 21 years (range 0–57).

### Cases of Colorectal Cancer in IBD patients at RDE March 1998 to March 2019



After adjudication, 42 (54%) patients were eligible for surveillance at the time of CRC diagnosis. Correctly timed surveillance colonoscopy identified 5/42 (12%) CRC cases, but failed to identify CRC in 6 (14%) patients with so-called interval cancers. Overdue surveillance colonoscopy identified a further 4/42 (10%) cases. Overall, 27/42 (64%) IBD-associated CRC cases were classified as having had missed opportunities for surveillance. Root cause analyses found that 10 (37%) patients had not been offered surveillance despite ongoing secondary care follow-up. Four (15%) patients had a delayed diagnosis of CRC because of a failure to account for the adequacy of previous colonoscopic and histological findings. Thirteen patients were managed exclusively in primary care including 7 (26%) patients who had been discharged back to primary care without a plan for surveillance and 6 (22%) patients who were never known to secondary care.





Conclusion: Two-thirds of patients who were eligible for surveillance had a missed opportunity to diagnose CRC. In most cases, the patient was known to the secondary care IBD service but no recommendation for surveillance was made. There is a need to implement processes to facilitate identification and recall of patients eligible for surveillance across primary and secondary care.

#### P251

### Small bowel capsule endoscopy is a valuable diagnostic tool in isolated terminal ileitis

M. FREITAS\*1,2,3, T. Cúrdia Gonçalves¹,2,3, P. Boal Carvalho¹,2,3, F. Dias de Castro¹,2,3, B. Rosa¹,2,3, M.J. Moreira¹,2,3, J. Cotter¹,2,3 ¹Gastroenterology Department, Hospital da Senhora da Oliveira, Guimarães, Portugal, ²PT Government Associate Laboratory, ICVS/3B's, Braga/Guimarães, Portugal, ³Life and Health Sciences Research Institute ICVS, School of Medicine, University of Minho, Braga, Portugal

Background: Terminal ileitis (TI), is a common condition in clinical practice and may be associated with a wide variety of diseases. Small bowel capsule endoscopy (SBCE) is a valuable diagnostic

tool for small bowel diseases; however, data regarding its diagnostic impact on isolated TI are sparse. The aim of the study was to evaluate the diagnostic value of SBCE for isolated TI detected during ileocolonoscopy.

Methods: Retrospective study including consecutive patients undergoing SBCE after diagnosis of TI without colonic mucosal abnormalities on ileocolonoscopy between January 2016 and September 2019. Demographic, clinical, biochemical, endoscopic and imaging data were collected.

Results: One hundred and two patients with isolated ileitis on ileocolonoscopy were included. Positive findings on SBCE were found in 84 (82.4%) patients, being ulcers the most common finding (76.5%). Endoscopic abnormalities proximal to terminal ileum were found in 36.3% of patients. After SBCE, 63.7% of patients had a final diagnosis, Crohn's disease (CD) was the most common (34.3%), followed by NSAIDs enteropathy (12.7%). Elevated faecal calprotectin (p = 0.001) was independently associated with positive SBCE findings. There was a tendency for high levels of erythrocyte sedimentation rate be associated with positive findings (p = 0.07). However, the presence of symptoms, imaging abnormalities and other laboratory findings such as leukocytosis, anaemia, and elevated C-reactive protein were not predictors of positive SBCE findings. At multivariate analysis, only elevated faecal calprotectin (OR 6.0, IC 95% 1.9–18.7; p = 0.002) was a significant predictive factor for positive SBCE findings.

Conclusion: SBCE revealed a high diagnostic yield in patients with isolated ileitis on ileocolonoscopy enabling a definite diagnosis in almost two-thirds of patients. Approximately one-third of patients had findings proximal to terminal ileum and a similar percentage was diagnosed with CD. In patients with isolated ileitis on ileocolonoscopy, SBCE should be considered to evaluate small bowel lesions, particularly when there is an elevated faecal calprotectin, even when other clinical, imagiological or laboratorial abnormalities are absent.

#### P252

# The cardiovascular risk profile in patients with inflammatory bowel disease: A cross-sectional single-centre study (the CARE-IBD study)

J.A.M. Sleutjes\*1, J.E. Roeters van Lennep², P.J. Verploegh¹, C.J. van der Woude¹, A.C. de Vries¹

<sup>1</sup>Department of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands, <sup>2</sup>Department of Vascular Internal Medicine, Erasmus Medical Centre, Rotterdam, The Netherlands

Background: Patients with inflammatory bowel disease (IBD) have an increased risk of cardiovascular diseases (CVD). The European Society of Cardiology guidelines recommend to use a 1.5 factor CVD risk multiplier in rheumatoid arthritis, but state a gap in evidence for other inflammatory diseases. The aim of this study was to assess the prevalence of CVD and traditional cardiovascular risk factors in IBD.

Methods: This is a single-centre cross-sectional study at the IBD outpatient clinic in September and October 2019. Patients ≥18 years underwent body measurements (systolic, diastolic blood pressure (SBP, DBP), length, weight, waist, hip circumference), biochemical analysis (plasma glucose, total cholesterol (TC), triglycerides, HDL, LDL) and completed an extensive cardiovascular questionnaire (history of CVD, thromboembolic events, medication use). To identify