discomfort and two with worry about abdominal symptoms. Items that loaded onto factor two were concerned with fear that symptoms were caused by a serious underlying illness. Items loading onto factor three were concerned with the fear of symptoms in the context of new experiences, for example trying new foods or having access to toilets in places that someone hasn't visited before. Both factor one of the VSI and the PHQ-12 were strongly and independently associated with IBS symptom severity, for the group as a whole ($p < 0.001$), and for all four IBS subtypes. However, factors two and three of the VSI were not significantly associated with IBS symptom severity. Of note, most VSI items concerned with overt gastrointestinal symptom-specific anxiety loaded onto these two factors that were not associated with IBS symptom severity.

Conclusions The factor structure of the VSI requires further investigation. Our findings cast doubt on the central role of gastrointestinal symptom-specific anxiety as a driver for symptom severity in IBS. Awareness of both gastrointestinal and extra-intestinal symptoms, however, is strongly associated with symptom severity.

Gastroenterology service

O064 | **COMPARISON OF EFFECT OF NEW COLONOSCOPY SURVEILLANCE GUIDELINES WITHIN BOWEL CANCER SCREENING AND SYMPTOMATIC PATIENTS**

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Introduction In November 2019 new national guidelines were issued for colonoscopy surveillance post polypectomy and colorectal cancer (CRC).[1] Their implementation has been strongly encouraged by JAG due to anticipated significant reduction in colonoscopy workload, although previous low quality colonoscopy should preclude any surveillance changes.[1] Similarly Public Health England encouraged their uptake within BCS.

We applied these guidelines to the surveillance waiting list of our symptomatic and BCS cohort, aiming to compare reduction in surveillance colonoscopies within the two groups and assess the impact on our services.

Methods We analysed data from Wolverhampton BCS Hub for BCS patients awaiting surveillance between January to March 2020. A similar number of patients were analysed from the current surveillance waiting list at The Royal Wolverhampton NHS Trust. Surveillance vetting was undertaken by a single clinician for BCS and 5 healthcare professionals for the symptomatic service. Patients were contacted with any change in surveillance strategy.

Results 182 BCS patients were vetted with the new guidelines. This led to a 48.9% (n=89) reduction in colonoscopy procedures required in that year (surveillance discontinuation in 35.7% (n=65) and deferred surveillance interval in 13.2% (n=24)).

In the symptomatic cohort 203 patients were vetted with the new guidelines. Indications for surveillance in this cohort were post polypectomy surveillance (79.4%, n=161), post CRC surveillance (16.7%, n=34) and confirmed family history of CRC (3.9%, n=8).

There was a 73.9% (n=150) reduction in colonoscopy procedures required in that year in the symptomatic service cohort (surveillance discontinuation in 65% (n=132) and deferred surveillance interval in 8.9% (n=18)). The indications for discontinuation were age (>75 years old) in 44.7% (n=59) and no high risk features in 55.3% (n=73).

This table 1 describes the differences observed between high and low/intermediate risk groups, as per old guidance, in both populations.

Conclusions The new guidelines significantly reduced colonoscopy workload mainly through surveillance discontinuation. This reduction was greater for the symptomatic service largely due to new suggested age cut off. Implementation of current guidelines will lead to decreased workload for endoscopy units and risk reduction for patients avoiding exposure to unnecessary procedures.

REFERENCE

1. Rutter MD, East JE, Rees C, *et al*. BSG/ACPGBI/PHE Post-polypectomy and post-colorectal cancer resection surveillance guidelines. *Gut* 2020;**69**:201–223.

O065 | **IMPACT OF A 'HIGH INTENSITY TEST AND TREAT' INITIATIVE FOR HCV IN LOW NEWTON PRISON**

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Background Hepatitis C virus infection (HCV) is common in prisons in the UK with estimates suggesting a prevalence of approximately 7%. One of the goals of NHS England is to eliminate HCV from the country by 2025. In order to facilitate elimination of HCV from prisons, funding was available to conduct high intensity test and treat (HITT) initiatives in prisons with the aim of testing >95% of residents for HCV and treating >90% of those with active HCV, which is considered 'elimination'. We describe the outcomes of a HITT conducted in Low Newton prison, in County Durham, which houses 307 female residents.

Methods A Blood borne virus (BBV) testing weekend was conducted in January 2020 following detailed planning from a multidisciplinary team. The testing weekend was well publicised among residents. All residents were offered BBV testing using fingerpick dry blood spot testing for HCV antibody/RNA, HIV, HBsAg and Syphilis. A small incentive was given

Abstract O064 Table 1

Intervention \ Groups	High risk BCS cohort	High risk symptomatic cohort	Low/Intermediate risk BCS cohort	Low/Intermediate risk symptomatic cohort
Interval changed	21.7%	38.9%	2.7%	3.2%
Surveillance stopped	23.6%	38.9%	52.6%	84.1%
No interval change	54.7%	22.2%	44.7%	12.7%

to all those tested. All HCV RNA positive were offered a clinic review 10 days after testing to commence treatment with a pangenotypic antiviral.

Results Of the 307 residents in the prison at the time of the event, 305 (99%) accepted BBV testing. A total of 98 (32%) were HCV antibody positive, of these 23 were HCV RNA detected (23% of HCV Ab pos and 8% of all tested) in keeping with active HCV. One resident was HIV positive (known) and 4 had positive syphilis serology. None were HBsAg positive. Of the 23 HCV RNA positive residents, 3 were already on antiviral treatment, 17 commenced antivirals and 3 were released before treatment could be initiated (contact planned in the community). One patient was suspected of having cirrhosis. Of the 75 HCV antibody positive but RNA negative residents 40 (53%) were known to have received antiviral treatment already and achieved sustained virological response and 10 (13%) were currently on treatment. Feedback from residents and staff on the way the HITT was conducted was good. A point of care HCV RNA testing machine is now being used to identify HCV infection among new residents to try and maintain 'elimination'.

Conclusions A high intensity test and treat weekend coupled with quick access to antiviral treatment for HCV is a highly effective way to 'eliminate' HCV within a prison. However, these sessions require meticulous planning in order to be successful.

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OUTCOME OF INVESTIGATION FOR SUSPECTED MALIGNANCY IN PATIENTS WITH IRON DEFICIENCY ANAEMIA WITHOUT GASTROINTESTINAL SYMPTOMS

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Introduction Iron deficiency anaemia (IDA) without additional gastrointestinal (GI) symptoms is common. Due to the association with GI malignancy, investigation of the upper and lower GI tract is recommended in older adults with IDA. However, rates of specific diagnoses are incompletely defined, and criteria to permit rationalisation of investigation are unclear. The yields of repeated investigation and of testing for coeliac disease (CD) are also uncertain.

Methods Cohort study derived from a prospectively collected referrals database of patients with IDA and suspected cancer from two UK hospitals in a single NHS Trust over a 52-month period.

Results 5702 consecutive referrals were assessed and, after exclusions, 2035 patient referrals for IDA without additional GI symptoms were assessed. 1118 (54.9%) were women; median age was 74 years (IQR 66–81).

Cancer was diagnosed in 147 (7.2%) and luminal GI cancer in 120 (5.9%). For luminal cancers, the site was colorectal in 103 (5.0% of all patients), gastric in 11 (0.5%) and oesophageal in 6 (0.3%). Other diagnoses made in ≥1% were benign upper GI ulceration in 77 (3.8%), ulcerative colitis in 35 (1.7%), and CD in 21 (1.0%). No major diagnosis was found in 1706 (83.8%).

Those with luminal cancer were older (78 vs 74 years; p<0.001), more anaemic (Hb 89 vs 101 g/L; p<0.001), had higher CRP (38 vs 5.8 mg/L; p<0.001), lower ferritin (14 vs 15 µg/L; p=0.012), lower transferrin saturation (7 vs 9%; p<0.001), lower MCV (79.8 vs 83.2 fL; p<0.001) and lower MCHC (296 vs 302 g/L; p<0.001), and were more likely to be male (53.7% vs 44.5%; p=0.048). The single most discriminatory variable for predicting luminal cancer was haemoglobin deficit (AUROC 0.64).

After multivariable analysis, age (RR 1.56/10 years, 95%CI 1.23–1.99, p<0.001); elevated CRP (RR 1.10/10 mg/L, 1.07–1.14, p<0.001); lower MCV (RR 0.47/10 fL, 0.31–0.71, p<0.001; and male sex (RR 1.92, 1.16–3.18, p=0.011) were significant for risk of malignancy.

Of 142 patients (7.0%) referred more than once within the study period, just two had luminal gastrointestinal cancer (1.4%; p=0.027 vs first referrals).

Only 21 (1.4%) of 1485 patients who underwent duodenal biopsy had histology compatible with CD; for serology, 7 of 557 patients (1.3%) were positive.

Conclusions This study, to our knowledge the largest such cohort yet reported, provides data that will aid both patient counselling and the development of referral and investigation pathways for IDA. Repeated investigation of IDA and duodenal biopsy for CD in IDA without GI symptoms have limited yields.

THE DEVELOPMENT OF A WEB-BASED APPLICATION TO PREDICT THE RISK OF GI CANCER IN IDA

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Introduction Gastrointestinal (GI) malignancy is a common finding in iron deficiency anaemia (IDA), with a prevalence of about 8%. We have previously reported and validated an algorithm for predicting the risk of GI malignancy in IDA – the IDIOM score. This was derived by logistic regression analysis based on four independent and objective clinical parameters - age, sex, mean corpuscular volume (MCV), and haemoglobin concentration (Hb). To facilitate the clinical use of this algorithm, a software application has been developed, with a view to providing free and simple access to healthcare professionals in the UK.

Methods A detailed requirements analysis for intended users of the application revealed the need for an automated tool in which anonymised, individual, patient data is entered and GI cancer risk is calculated and displayed. The solution needed to be user-friendly and platform independent, and needed to facilitate future communication with the development team. Human-centred design (HCD) was employed to develop the solution, focusing on the users and their needs, whilst ensuring that they are provided with sufficient details to appropriately interpret the risk score. To evaluate usability, standard usability questionnaire applied. Participants include healthcare professionals such as IDA nurse specialists, gastroenterologists, etc.

Results *Predict GI Cancer in IDA* has been developed using R Shiny as a web-based application enabling access from