most undergo endoscopic investigations or have reason not to. We plan to identify areas to improve and implement change in individual sites.

P297 YIELD OF INVESTIGATIONS FOR FAST-TRACK IRON DEFICIENCY ANAEMIA REFERRALS IN YORKSHIRE: A MULTI-SITE TRAINEE-LED AUDIT

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10.1136/gutjnl-2020-bsgcampus.371

Introduction Patients with iron deficiency anaemia are commonly referred to gastroenterology for exclusion of significant pathology. Some of these patients will have been previously investigated. We aimed to ascertain how often a cause of anaemia is found and subsequent action if no cause found.
Methods Retrospective audit across 10 sites in Yorkshire, by a trainee-led research network. We included patients referred on a suspected cancer pathway with IDA in November 2018. Data on referral criteria, investigations, diagnosis and follow-up were collected. Anonymised data was pooled for comparative analysis in Excel and SPSS.
Results 508 patients were included: median age 72 years (range 24–97); 55% female. 48% of these patients were asymptomatic. 42 cancers (8%) were diagnosed: 25 colorectal (5%), 6 oesophageal/gastric (1%), 2 renal, 1 bladder, 2 pancreatic, 2 hepatobiliary, 1 prostate, 2 lung and 1 unknown primary.

There was no correlation between patient and age and likelihood of malignancy, but an association was seen with mean Haemoglobin (Hb) and gastrointestinal cancer diagnosis.

Other pathology was found in 33% of those investigated: erosive gastritis 8%, oesophagitis 5%, erosive duodenitis 1%, peptic ulcer 3%, gastric polyp 1%, gastric antral vascular ectasia 1%, angiodysplasia 1%, coeliac disease 2%, colonic polyp >10 mm 2%, colonic polyp <10 mm 8% and inflammatory bowel disease (1%). 22% patients had undergone previous endoscopic investigations in the past 5 years (indication unknown).

Where no significant pathology was found, 43% patients were discharged without clinic review, 30% patients were discharged following discussion of results, 9% were seen again in clinic with no further investigations requested and 16% required ongoing follow-up or further investigations. Advice regarding Hb monitoring (with timeframe) was given in 11%, vague advice was given in 19% and no advice was given to general practitioners (GPs) in 48%.
Conclusions An expected rate of significant pathology was found. 1 in 5 patients had undergone gastrointestinal investigations previously. 1 in 3 patients were seen in clinic following normal investigations. Better advice to GPs regarding Hb monitoring and subsequent management is needed and may reduce unnecessary re-referrals. Further exploratory work to identify additional predictors of significant pathology is planned.

P298 CHECKPOINT INHIBITOR COLITIS: INSIGHTS FROM BENCH AND BEDSIDE

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10.1136/gutjnl-2020-bsgcampus.372

Aims Immune checkpoint blockade (ICB) is the mainstay of treatment for metastatic melanoma and lung adenocarcinoma, and their use is growing in cancer. Immune checkpoint blockade induced colitis (ICB colitis) presents a management challenge and its mechanisms remain poorly elucidated.
Methods We performed next generation single-cell RNA sequencing of immune cells from patients given ICB. We validated findings using confocal microscopy, drawing comparisons bioinformatically with ulcerative colitis. In parallel, we conducted a review of 1,074 patients given checkpoint inhibitors across two tertiary centres between 2011–2018 to discover patterns in incidence and predictors of clinical outcome.
Results Using single-cell RNA sequencing, we discovered excessive local CD8 T cell proliferation was a key feature of ICB colitis, and we were able to visualise higher numbers of replicating CD8 T cells in gut tissue sections of patients with colitis than those without ICB colitis. The degree of replication was greater than seen in ulcerative colitis by bioinformatic analysis.

From our clinical review, age, gender and smoking status did not alter the risk of developing colitis, whereas type of immunotherapy did (incidence 9% in PD-1 Monotherapy vs 32% Combination Therapy). Having prior IBD did not guarantee the development of ICB Colitis. Systemic markers of inflammation (C-Reactive Protein, Albumin) did not predict outcome, whereas local markers of inflammation (endoscopic UCEIS scoring, histological Nancy Index) did.
Conclusions We putatively link novel insights from bench science to clinical trends. ICB colitis may be driven more by a gut localised inflammation response in comparison to ulcerative colitis. As we also demonstrate, this may explain why endoscopic and histological scoring may have better prognostic value than systemic measures of inflammation.

P299 EVALUATION OF MOLECULAR CHARACTERISTICS OF EARLY ONSET COLORECTAL CANCER IN A POPULATION-BASED COHORT STUDY

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10.1136/gutjnl-2020-bsgcampus.373