was collected retrospectively from patient case notes, endoscopy reporting system and emergency theatre records.

Results 77 cases of AUGIB were identified with gender distribution of 56% males and 44% females. The median age of presentation was 67 years (range 20–93 years). Most cases of AUGIB (71%) were acute admissions with the rest occurring among in-patients.

A major improvement in the service is that all patients had at least one endoscopy during their presentation with most endoscopies (67%) performed within 24 hours or less and a further (26%) carried out 2–7 days. Endoscopies were performed by gastroenterologist (66%), surgeons (20%) and specialist registrar (14%). About a third (27%) had out of hours (OOH) emergency endoscopies and the remaining procedures were carried out in the dedicated inpatient lists. Majority (62%) of the OOH procedures were done at the weekends.

A notable shortcoming was poor risk assessment (18%) at presentation although retrospective risk scoring revealed a median Rockall Score of 3 (range 1–5). At presentation only 8% of patients were admitted to the dedicated gastroenterology ward before the first endoscopy while the majority (52%) were managed initially on the acute medical wards and discharged or subsequently admitted to the gastroenterology ward.

Conclusion The introduction of a dedicated service has improved the management of AUGIB in our hospital serving a population of 325,000 particularly during the OOH. The findings of this retrospective audit showed an AUGIB service collaborating medical gastroenterologists and surgeons is workable and sustainable in the setting of a district general hospital.

To further improve the service a dedicated AUGIB clerking proforma incorporating Rockall risk score assessment is being considered.

Disclosure of Interest None Declared.

PTH-169 CLINICAL UTILITY OF A RAPID PCR ASSAY AND TRADITIONAL CCNA TO DETECT CLOSTRIDIUM DIFFICILE INFECTION (CDI) – COMPARISON TO CLINICAL DIAGNOSIS

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Introduction *Clostridium difficile* causes nosocomial antibiotic associated diarrhoea, with a range of mild to severe disease, pseudomembranous colitis, toxic megacolon and potentially fatal outcome. The diagnosis of this disease in clinical laboratories has traditionally been performed by cell culture cytotoxin neutralisation assay (CCNA) or by toxin A/B detection using EIA. The routine test in our laboratory is CCNA, which takes 24–48 (–72) hours; it is labour intensive, requires specialist facilities, expertise and is not done out of hours. There are other rapid tests now available including GDH as well as molecular (real-time PCR) assays.

Methods This study was designed to assess the clinical relevance of a fully automated, random access PCR assay, Xpert C. difficile, for rapid identification of *C. difficile* infection (CDI) in comparison to clinical diagnosis as the reference method. During March to September 2011, 1040 samples from inpatients in 2 hospitals, with suspected CDI, were prospectively tested by routine cell culture cytotoxin neutralisation assay (CCNA), PCR (GeneXpert, Cepheid), and a GDH/Toxin EIA (Premier, Launch Diagnostics). Cytotoxicity was assessed after 24 and 48 hours. All PCR positive patients (and controls) were reviewed by a multidisciplinary team (Gastroenterologist, Microbiologist, infection control nurse, requesting staff).

Results *C. difficile* detection rates were 10.8% (PCR), 6% (CCNA) and 13.8% (GDH). 974/1035 (94.1%) samples showed concordant CCNA and PCR results, 89% (886/985) were concordant for CCNA, PCR and GDH and 94.4% (930/985) showed concordance between GDH and PCR. With clinical diagnosis as a reference, PCR was 99.1% sensitive, 98.9% specific, with PPV 91.9% and NPV 99.9%. Surprisingly, CCNA on a single sample was only 51% sensitive, 99.4% specific, PPV was 91.9%, NPV 94.3%. GDH sensitivity was 83.8%, specificity 94.5%, PPV 64.7% and NPV 97.9%. 59 more samples were positive by PCR than CCNA (62); 54/59 were clinically CDI.

Conclusion We found PCR to be a more sensitive method than CCNA and GDH (sensitivity 83.8%) for the detection of *C.difficile* infection (CDI). In contrast to using CCNA or an algorithm that includes GDH, the use of Xpert *C.difficile* PCR allows us to provide accurate and rapid (mostly same day) results to the clinicians.

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PTH-170 FIVE YEAR FOLLOW UP OF PATIENTS WITH ASYMPTOMATIC IRON DEFICIENCY ANAEMIA FOLLOWING NORMAL INVESTIGATIONS IN A NURSE LED PROTOCOL DRIVEN PATHWAY

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Introduction Systematic investigation of patients with iron deficiency anaemia has been proven to yield a 12% diagnosis for colorectal cancer and 5% for coeliac disease[1]. Following publication of BSG guidelines, a nurse led protocol driven pathway was established at a district general hospital.

We report the 5-year outcome of 122 patients with normal investigations entered onto this pathway and assess its efficacy in identifying GI pathology. This is the largest study to date in this field, and no other nurse led 5 year follow up studies have been published.

Methods Between 2001 and 2004, 271 cases of asymptomatic iron deficiency anaemia were referred to the pathway and 212 met the inclusion criteria. From initial investigations, 43% were diagnosed with an underlying cause of anaemia and we have now followed up the remaining 122 patients for a minimum of 5 years.

Data collected at presentation included: haemoglobin, mean cell volume, ferritin, creatinine, iron-binding capacity, CRP, drug use (aspirin, clopidogrel, warfarin, NSAIDs), co-morbidities, smoking status, BMI, and the results of investigations carried out (gastroscopy, colonoscopy, barium enema). Iron supplementation was recorded and haemoglobin level at 3 months.

Patients were divided into 2 groups: those that died or developed malignancy and those that were well at 5 years. The data was analysed for significant differences between the 2 groups and to identify risk factors for poor prognosis.

Results Analysis of primary and secondary care records generated outcome data of 97% (118) patients. 69% were female and 31% were male, mean age of 69 years.

At 5 years, 20% had died or developed malignancy and 80% were alive and well.

With the exception of diabetes, OR 0.24 (95%CI 0.1–0.8, p = 0.02), no other factors were found to be a significant risk factor for poor prognosis when the two groups were compared, including age, gender, haemoglobin level at presentation, persistent anaemia at 3 months, or other co-morbidities.

Only 3 patients developed colonic malignancy; in all 3 patients the anaemia had resolved at 3 months. Two patients had diverticular disease only at initial barium enema but presented 4 years later with colorectal cancer. One patient declined lower GI investigation and presented with metastatic colon cancer on CT scanning at 1 year.

No other GI cancers were diagnosed at 5 year follow up.

Conclusion This study demonstrates that this nurse led, protocol driven pathway is a highly effective and safe system for the exclusion of GI cancer with 5 years follow up and we would recommend implementation throughout the NHS.

Disclosure of Interest None Declared.

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PTH-171 COLONOSCOPY PERFORMANCE IN EXTENDED THREE SESSION WORKING DAYS

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Introduction Three session working days were introduced in our endoscopy unit to accommodate the increasing demand for endoscopic procedures. There is evidence to suggest that caecal intubation rate (CIR) and polyp detection rate (PDR) declines as the day progresses in a standard two session working day. There is currently no literature on CIR and PDR for an extended 3-session working day. The aim of this study was to characterise the impact of endoscopist fatigue on quality of colonoscopy performance by comparing outcomes based on time of day and chronological procedure order for an extended working day.

Methods We conducted a retrospective audit of all colonoscopies undertaken in our unit between January and December 2011. In order to assess the effect of repetitive fatigue, endoscopy lists with < 3 colonoscopies were excluded. Time of colonoscopy was stratified into three categories by the starting time of the scheduled list – morning (AM), afternoon (PM), and evening (PM). Queue position was defined as the order that the colonoscopy was performed on the same list i.e. 1st, 2nd and so on. Data on potential confounders including age, sex, quality of bowel preparation (recorded on a three point rating scale of good, satisfactory and poor) were recorded. To evaluate the effect of endoscopist fatigue on colonoscopy performance, we analysed CIR and PDR according to time of day and queue position.

Results A total of 2520 colonoscopies were included, of which 1299 (51.5%) were male and 1221 (48.5%) female. The median age was 63 (interquartile range, IQR, 51–70). 1062 (42.2%) were performed in AM lists, 984 PM (39.1%) and 470 EVE (18.7%). CIR did not vary according to time of day (89.8, 90 and 89.5% for AM, PM and EVE lists respectively, p = NS). In multivariate analysis, CIR was adversely affected by age > 70, female gender, poor bowel preparation (all p < 0.01) but not queue position. PDR was not influenced by time of day or queue position. PDR was higher in men in multivariate analyses (p < 0.01).

Conclusion Colonoscopy quality is not dependent on time of day or queue position in an extended 3 session day. Our findings support the provision of 3 session days to meet the increasing demand for colonoscopy.

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PTH-172 OUTCOME ASSESSMENT OF THE FIRST TWO YEARS OF A NEW OESOPHAGEAL HIGH RESOLUTION MANOMETRY UNIT WITHIN A DISTRICT GENERAL HOSPITAL

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Introduction Oesophageal high resolution manometry (OHRM) is a fast developing area of medicine. Whilst seemingly being at the "cutting edge" of technological advancement, it is a relatively simple procedure to perform and interpret. Its ability to demonstrate functional as well as anatomical abnormalities, has led to a range of new diagnoses and shed light on areas of previous clinical and management dilemma. Despite this, few hospitals outside of the large central teaching hospitals, have embraced this new technology.

Objective To assess the demand for OHRM within a district general hospital (DGH). To assess the reasons for referral and the general outcomes from the procedure.

Methods The Luton & Dunstable Hospital set up a new OHRM service in July 2009. Prospective procedure related information was stored on a HRM database. This database was analysed to assess total number of procedures performed, the reasons for referral and the diagnostic outcome of those procedures.

Results Over the course of the first 2 years, a total of 162 procedures were performed. Patients were referred in with a range of symptoms, often in combinations. Of these 162 patient 9 suffered dental problems, 31 had globus, 32 had persistent sore throat, 27 had chronic cough, 13 had nocturnal cough, 118 had endoscopic negative reflux-like symptoms, 40 had endoscopy negative dysphagia, 30 had atypical chest pains, 1 had persistent nausea, 24 had dysphonia and 2 were for reflux assessment. A wide range of diagnoses were made often in combination, including; - 52 with reduced LOS pressures, 18 with a small LOS, 58 with a hiatus hernia, 52 with acid reflux, 40 with non-acid reflux, 75 with oesophageal dysmotility, 23 with oesophageal spasm, 6 with hypertonic contractions, 19 with hypotonic dysmotility, 5 with achalasia type 2, 4 with achalasia type 3, 15 with a wide transition zone, 17 with transient LOS relaxation, 3 with poor pharyngeal co-ordination, 1 with food bolus, and 20 who were normal.

Conclusion OHRM is relatively simple procedure to perform and interpret. With its ability to diagnose both functional and anatomic abnormalities it has become an invaluable part of our DGH gastroenterology unit. Given the clear benefits over standard manometry, we believe that all patients throughout UK should have access to an OHRM service.

Disclosure of Interest None Declared.

PTH-173 INTRODUCTION OF THE TEAM BRIEF AND WHO SAFETY CHECKLIST IN ENDOSCOPY

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Introduction The World Health Organization (WHO) launched the Global Patient Safety Challenge, 'Safe Surgery Saves Lives'[1], in 2008 with the aim of reducing the number of deaths and adverse events resulting from surgical procedures. Central to this initiative is the WHO checklist that covers the various phases of a procedure.