Conclusions In our unit the introduction of SEMs for the management of distal biliary strictures has resulted in excellent rates of biliary decompression with stent occlusion due to tumour progression managed by SEMs insertion within SEMs. Whereas distal stent migration was not identified in our series, 10% of patients suffered the gallbladder complications highlighting the need try to avoid SEMs deployment over the cystic duct orifice.

PTU-021 SCREENING FOR COELIAC DISEASE IN ANAEMIA WITH SEROLOGY AND DUODENAL BIOPSIES: SINGLE CENTRED RETROSPECTIVE ANALYSIS

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Introduction Coeliac disease is an important cause of iron deficiency anaemia with a prevalence of around 1% and BSG guidance suggests that in suspected individuals a minimum of 4 duodenal biopsies should be taken at endoscopy coupled with coeliac serology testing (tissue transglutaminase – TTG). The aim of this retrospective study was to determine current practices in coeliac testing for patient undergoing upper GI endoscopy for anaemia at a London NHS Trust.

Methods This was a retrospective study of all upper gastrointestinal endoscopies performed for anaemia over a 3 month period between September and December 2016. The results of TTG serology endoscopy reports and histological findings were analysed and statistical analysis was performed using Microsoft excel.

Results A total of 311 patients underwent upper gastrointestinal endoscopy for anaemia. 2 patients (0.64%) had biopsy proven coeliac disease (subtotal villous atrophy on histology). Both these patients had a positive TTG recorded.

38 patients (12.2%) had a TTG recorded prior to endoscopy. 6 patients (1.89%) had a positive TTG. 32 patients had a negative TTG. TTG had a sensitivity of 100%, a specificity of 89%, a positive predictive value of 33% and a negative predictive value of 100%.

Abstract PTU-021 Table 1

	Coeliac	Not Coeliac
TTG +ve	2	4
TTG -ve	0	32

210 patients (67.5%) had duodenal biopsies performed. Of these 178 (84.76%) had 4 or more duodenal biopsies.

Of 21 patients who had a negative TTG before endoscopy 12 (57.14%) had biopsies. None of these patients were found to have coeliac disease.

Conclusions This study demonstrates that the majority of patients receive 4 or more duodenal biopsies at endoscopy as recommended in the guidelines. In addition we have evidence that TTG serology appears a useful negative predictive test which is rarely available prior to endoscopy. Prior testing will help guide the endoscopist and may help avoid costly and unnecessary duodenal biopsies when investigating anaemia. Therefore the uptake of coeliac antibody testing should be encouraged in patients being investigated for anaemia.

PTH-116 BARRETT'S NEOPLASIA DETECTION: SYSTEMATIC OR TARGETED BIOPSY?

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Introduction The role of systematic biopsy (i.e. random, four-quadrant biopsy) in Barrett's oesophagus surveillance has come under question given its drawbacks and the emergence of high-resolution endoscopy plus advanced imaging modalities. Our study aims to assess whether neoplastic pathology is typically diagnosed by systematic or targeted biopsy whilst using high-resolution endoscopy.

Methods A retrospective analysis of patients diagnosed with Barrett's oesophagus with dysplasia or neoplasia at a tertiary referral centre from 2008 onwards. Endoscopic and histopathologic data pertaining to the initial endoscopy in which pathology was diagnosed was extracted from the medical records. The most advanced histopathologic abnormality at initial diagnosis and within twelve months were noted. The corresponding endoscopic impression at initial diagnosis was used to group cases per type of biopsy – systematic or targeted. Pearson's chi-squared test of independence was used to analyse the relationship between the type of biopsy and diagnosis in twelve months, indication for endoscopy, endoscopist level and advanced techniques used.

Results Of the 222 patients involved in the study – a higher proportion were diagnosed through systematic biopsy (72.97%) than targeted biopsy (27.03%); χ^2 (degrees of freedom [df]=2, n=222)=31.56, p<0.001. 90.91% of low-grade dysplasia (χ^2 [df=2, n=88]=4.91, p=0.086), 71.43% of high-grade dysplasia (χ^2 [df=2, n=70]=11.58, p=0.003) and 50% of intramucosal adenocarcinoma (χ^2 [df=2, n=64]=5.18, p=0.075) cases were diagnosed by systematic biopsy. Across all grades of clinicians, patients were typically diagnosed through systematic biopsy; χ^2 (df=3, n=215)=4.68, p=0.322. However, amongst specialist consultant endoscopists (n=10) the proportion was equal.

Conclusions Our findings strongly emphasise the importance of systematic biopsy in the detection of not only low-grade dysplasia, but also high-grade dysplasia and early invasive carcinoma as part of Barrett's oesophagus surveillance.

PTH-117 **SEX HORMONE RECEPTOR EXPRESSION IN OESOPHAGEAL ADENOCARCINOMA AND RECURRENCE AND SURVIVAL: A RETROSPECTIVE COHORT STUDY**

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Introduction The most striking epidemiological feature of Oesophageal adenocarcinoma (OAC) is its strong unexplained male predominance, suggesting a protective effect for oestrogens, but few studies have investigated expression of sex hormone receptors in OAC. In a retrospective cohort of OAC patients, we evaluated Oestrogen Receptor (ER) α and β and Androgen Receptor (AR) tumour expression and investigated associations with OAC recurrence and survival.

Methods We identified 148 OAC patients who underwent neo-adjuvant chemotherapy prior to surgical resection between 2004–2012 at the Northern Ireland Cancer Centre. Immunohistochemical expression of ER α , ER β and AR was scored by two independent observers, blinded to the clinical data. Cox proportional hazards regression was used to calculate hazard ratios (HR) and 95% confidence intervals (CI) for associations between sex hormone receptor expression and overall survival, cancer-specific survival and recurrence-free survival. All analyses were adjusted for clinic-pathological and lifestyle factors including age at diagnosis, sex, pathological nodal stage, primary site, lymphovascular invasion, circumferential margin involvement, PET response and smoking. Sub-group analysis was conducted by Siewert classification.

Results Weak positive expression was identified for ER α (6/139) and AR (4/138) while moderate positive expression was observed for ER β (43/138). After a mean follow-up of 3 years (max 9 years), no significant associations were observed for ER α , ER β or AR expression and OAC recurrence or survival. ER β expression however was associated with significant improvements in overall survival (HR 0.38, 95% CI 0.16, 0.88), cancer-specific survival (HR 0.36, 95% CI 0.15, 0.84) and recurrence-free survival (HR 0.28, 95% CI 0.12, 0.69) in patients with adenocarcinoma of the distal oesophagus (Siewert type I).

Conclusion In the largest study to date, we found little evidence of ER α or AR expression in OAC. We observed moderate expression of ER β and suggestive evidence that its expression was associated with reduced recurrence and death in patients with adenocarcinoma of the distal oesophagus. Further studies however are required to replicate our findings to determine if the ER system could be a potential prognostic biomarker in OAC.

PTH-118 **HISTOPATHOLOGIST FEATURES PREDICTIVE OF DIAGNOSTIC CONCORDANCE AMONGST AN INTERNATIONAL SAMPLE OF PATHOLOGISTS DIAGNOSING BARRETT'S DYSPLASIA**

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Introduction Histopathological diagnosis of dysplasia in Barrett's oesophagus (BO) is the gold standard for patient risk stratification, but is subject to significant interobserver variation. We investigated histopathologist features that predict diagnostic performance amongst a large international cohort of gastrointestinal (GI) pathologists.

Methods An online scoring environment was developed for GI-pathologists (n=55) from over 20 countries to grade a case set of 55 digitalised BO biopsies encompassing the complete spectrum from non-dysplastic Barrett's oesophagus (NDBO), indefinite, low and high-grade dysplasia (IND/LGD/HGD). Case interpretations were recorded before and after revealing P53 immunohistochemistry. Detailed histopathologist demographic data (experience, centre volume, fellowship training etc.) was obtained through an online questionnaire. A consensus gold standard diagnosis was obtained for the entire case set through a reference panel of four expert pathologists. Multivariate regression analyses was conducted to identify pathologist predictors of concordance.

Results We recorded over 6000 case diagnoses. Of 2,805 hour and E diagnoses, we found excellent concordance for NDBO (643 of 816 diagnoses; 79%) and HGD (544 of 765 diagnoses; 71%) and intermediate concordance for LGD (382 of 918; 42%) and IND (70 of 306; 23%), replicating known glass slide test characteristics. Major over or under-interpretations (i.e. NDBO overstaged as LGD/HGD, or LGD/HGD understaged as NDBO) were reported in 248 diagnoses (8.8%). Addition of p53 staining further improved diagnostic consensus, but had limited impact on major over or under-interpretations. Multivariate regression analyses revealed independent histopathologist predictors of expert level diagnostic performance, including; at least 5 years of experience, working within a teaching hospital, viewing 5–20 Barrett's cases per week, adherence to major guidelines, and an interest in digital pathology.

Conclusions Using this rich dataset representing a heterogeneous group of gastrointestinal pathologists working globally, we have quantified diagnostic performance for BO dysplasia diagnosis using digital case review. Our results reveal predictors of diagnostic performance at expert level, and will aid formulation of quality assurance criteria for guideline development.

PTH-119 **INTERNATIONAL MULTICENTRE STUDY OF MALLORY WEISS TEAR RELATED GI BLEEDING: DEMOGRAPHICS, ENDOSCOPIC THERAPY AND OUTCOME**

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Introduction Mallory Weiss tears (MWT) are relatively uncommon causes of upper GI bleeding (UGIB) and patients with these lesions are generally considered at low risk of poor outcome. However there are relatively limited data on this condition. In addition, there is uncertainty about which patients with MWT require endoscopic therapy and which modality should be applied. We aimed to describe an international cohort of patients presenting with UGIB secondary to MWT, including the endoscopic therapy undertaken. We also