

biopsies, and the procedure could not be completed in nine cases. Five patients with no duodenal biopsy taken at endoscopy had negative coeliac serology prior to OGD. 19/206 (9.2%) patients did not have duodenal biopsies taken at endoscopy, despite an indication for biopsy. 48/206 (23.3%) patients referred for an OGD with anaemia had coeliac serology performed (34 prior to OGD and 14 after OGD). All results were negative. 3/134 duodenal biopsies showed features suggestive of CD (tTG negative) and 11/134 (8.2%) duodenal biopsies showed lymphocytic duodenitis (LD) (normal villous architecture and increased intraepithelial lymphocytes >25/100 enterocytes) (5/11 tTG sent and negative, 6/11 not done).

**Conclusion** Coeliac disease is a major cause of iron deficiency anaemia in the UK. Tissue transglutaminase antibody is a simple, non-invasive test, which was underused in our cohort. It was performed prior to upper GI endoscopy in only 16.5% of patients. Duodenal biopsies were taken in the majority of cases when indicated in anaemia, though there is room for improvement. While 10.4% had biopsies suggestive of CD, serology to confirm this was only performed in 57.1%.

**Competing interests** None declared.

## REFERENCE

1. **Goddard AF**, James MW, McIntyre AS, *et al*. Guidelines for the management of iron deficiency anaemia (BSG). *Gut* 2011;**60**:1309–16.

## PWE-184 PREVALENCE, MANAGEMENT AND OUTCOMES OF PATIENTS WITH COAGULOPATHY FOLLOWING ACUTE NON-VARICEAL UPPER GASTROINTESTINAL BLEEDING

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**Introduction** There is increasing interest in optimising transfusion strategies in patients with major haemorrhage. In other models of haemorrhage such as trauma, an endogenous coagulopathy early in the disease course is associated with increased mortality, with subsequent implications for transfusion management. Non-variceal upper gastrointestinal bleeding (NVUGIB) is a leading cause of admission with haemorrhage and for transfusion of blood components. The impact of coagulopathy in this group is poorly characterised. We characterised in patients presenting with NVUGIB 1) the epidemiology of a key marker of coagulopathy, a prolonged International Normalised Ratio (INR) and the association of coagulopathy with patient survival and other key clinical outcomes.

**Methods** We used data from the 2007 UK national audit of acute upper gastrointestinal bleeding (AUGIB) and the use of blood. We included those patients with endoscopically confirmed NVUGIB and excluded those with documented cirrhosis. Coagulopathy was defined as an INR>1.5. A logistic regression model was used to compare risk adjusted clinical outcomes in those patients with coagulopathy vs those without coagulopathy.

**Results** An INR at presentation was performed in 61% (2709/4478) of patients with NVUGIB. The prevalence of coagulopathy (INR ≥1.5) was 16.4% (444/2709). Patients with coagulopathy were older, more likely to present with shock (45% vs 36%), have a higher clinical Rockall (4 vs 2), more likely to have high risk stigmata at endoscopy and more likely to be transfused both red blood cells (70% vs 48%) and FFP (35% vs 3%). 8% (220/2709) of all patients who had an INR recorded received FFP transfusion during their admission. In those patients with an INR of

**Conclusion** An early coagulopathy is prevalent in patients presenting with acute NVUGIB and is independently associated with in-hospital mortality. The wide variation in the use of FFP to correct this suggests clinical uncertainty regarding best practice.

**Competing interests** None declared.

## Endoscopy III

### PWE-185 THE DIAGNOSTIC YIELD OF DUODENAL BIOPSY IN COELIAC DISEASE RELATIVE TO CLINICAL INDICATIONS AND SEROLOGY FINDINGS: AN ANALYSIS OF 2109 PATIENTS

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**Introduction** Serology testing with IgA tissue transglutaminase (TTG) is relatively cheap and non-invasive which NICE guidelines for coeliac disease (CD) advocate as a first choice test for patients with unexpected weight loss or anaemia.<sup>1</sup> Referral for duodenal biopsy is indicated if serology is positive or if negative but there is still a clinical suspicion of CD. The sensitivity, specificity and negative predictive value for IgA TTG have been found to be 90.9%, 90.9% and 99.6% respectively thus demonstrating IgA TTG to be a sensitive marker for CD.<sup>2</sup> Our aim was to evaluate the diagnostic yield of duodenal biopsies relative to clinical indications and serology findings.

**Methods** This is a retrospective review of 2109 adult patients from the Heart of England Trust, between January 2009 and December 2010. Coeliac serology (IgA TTG), immunoglobulin levels and D2 biopsy results were recorded for patients referred for upper gastrointestinal endoscopy for anaemia (n=1550) or weight loss (n=559).

**Results** In the anaemia group, 7/27 (25.9%) with positive serology had a negative biopsy, 19/27 (70.4%) with positive serology had a positive biopsy and 1/27 (3.7%) with positive serology had no biopsy taken. 6/27 (22.2%) with positive biopsy had negative serology. In the weight loss group, 4/12 (33.3%) with positive serology had a negative biopsy, 5/12 (41.7%) with positive serology had a positive biopsy and 3/12 (25.0%) with positive serology had no biopsy taken. 7/14 (50.0%) with positive biopsy had negative serology.

**Conclusion** Our review demonstrates that anaemia or weight loss are good indicators to attempt to diagnose CD by duodenal biopsy. If we corrected for the diagnosis of upper GI cancer, in our cohort, an additional 14 cases of CD would have been diagnosed if all patients had a duodenal biopsy. Furthermore, a significant proportion of patients in our study with a biopsy positive for CD had negative serology, strengthening the argument that all such patients should have a duodenal biopsy. Rates of serology testing were poor. However, we suggest regardless of serology patients referred with anaemia or weight loss should have a duodenal biopsy to look for evidence of coeliac disease.

Abstract PWE-185 Table 1 Diagnostic yield of duodenal biopsy according to indication

Indication	Serology tested	TTG positive	IgA tested	Duodenal biopsy	Diagnostic of CD
Anaemia	492/1550	27/492	210/492	1068/1550	27/1068
	32.8%	5.4%	42.6%	68.9%	2.5%
Weight loss	210/559	12/210	113/210	410/559	14/410
	37.6%	5.7%	53.8%	73.3%	3.4%

**Competing interests** None declared.