

the second year, 14% in the third year and only 9% after 4 years.

Conclusion The majority of recurrences after successful RFA occur within the first 2 years (16/21–76%). These data support the practice of vigilant long term follow of patients who are fit for endoscopy after treatment with RFA. More intensive and frequent follow up should take place in the first 2 years when the majority of recurrences occur. Thereafter annual follow up appears adequate. *All collaborators of the UK RFA registry are acknowledged for their contributions to this work.*

Disclosure of Interest None Declared.

PTU-174 COST SAVING IMPLICATIONS OF NEW SURVEILLANCE GUIDELINES FOR BARRETT'S OESOPHAGUS

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Introduction The BSG have recently risk stratified Barrett's Oesophagus (BO) according to length of the BO segment and the presence of intestinal metaplasia (IM). Previously the recommendation was for a surveillance gastroscopy every two years. The surveillance interval recommended by the new guidelines¹ now reflects the risk of developing adenocarcinoma. We aimed to quantify the potential cost saving of the implementation of the new BO surveillance guidelines.

Methods Patients with an endoscopic diagnosis BO were identified from endoscopy database records at our unit between 2009 and 2012. BO segment length was available and the presence of IM in the biopsy samples was retrievable from histology records. We allocated our patients into three groups: The 1st was those with a BO segment <3 cm and no IM (not needing further surveillance), the 2nd was those with a BO segment <3 cm with IM (now needing surveillance every 5 years) and the 3rd were those with a BO segment of 3cm or greater (needing surveillance every 3 years). The cost of a surveillance gastroscopy is estimated to be £520² and our histopathology department advised that the cost of four quadrant biopsies was £65 (surveillance cost therefore being greater for those with longer BO segments). We first calculated the projected cost of surveillance over the next 10 years under the old guidelines. From this we subtracted the projected cost of surveillance for this period under the new guidelines.

Results 463 patients were identified who had an endoscopic diagnosis of BO. Sixty patients were excluded due to lack of data on BO length/IM.

The ten year projected cost saving for our trust by implementing the new BO surveillance guidelines was £754,260 (£75,426 per annum). There are over 150 hospital trusts in the UK that have endoscopy units, therefore even a conservative estimate is that the new BO guidelines will save the NHS in excess of £100 million in the next 10 years.

Conclusion New guidelines on BO surveillance will mean fewer surveillance gastroscopies need to be performed in the future. As well as giving the patients a better experience, these guidelines will result in a significant cost saving to our hospital and the NHS in general.

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Disclosure of Interest None Declared.

PTU-175 DIFFERENCES IN INTESTINAL METAPLASIA IN BARRETT'S OESOPHAGUS PATIENTS FROM AN ETHNICALLY DIVERSE SOUTH LONDON POPULATION

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Introduction Barrett's oesophagus (BO) is where any portion of the normal distal squamous epithelial lining has been replaced by metaplastic columnar epithelium and is a risk factor for oesophageal adenocarcinoma. The recent BSG guidelines for the endoscopic surveillance of BO have stratified the risk according to the length of the BO segment and the presence or absence of intestinal metaplasia (IM). We aimed to identify risk factors and ethnic differences for the presence of IM.

Methods We performed a retrospective database analysis in our unit which serves a large ethnically diverse southwest London population. Gastroscopy records between 2009 and 2012 were retrieved and patients with an endoscopic diagnosis of BO were identified. Multiple procedure reports for individual patients were removed from the analysis. Demographic information included age, sex and length of the BO segment. Patients from the Indian sub-continent were also identified, as previously described¹ The presence of IM was retrieved from the hospital pathology database and was the primary outcome measured. We performed a multivariate logistic regression analysis to determine the odds of having IM by ethnic origin and other demographics. **Results** 463 patients with an endoscopic diagnosis of Barrett's oesophagus were identified. Median age of diagnosis was 67.2 years (IQR: 56.7–76.6 years). Men were more likely to have an endoscopic diagnosis of BO than females (71.3% vs. 29.7%, $p = 0.01$). 9.7% of the cohort were from the Indian sub-continent.

There was an increased odds of IM amongst men although this was not statistically significant (OR 1.44, 95% CI: 0.94–2.21, $p = 0.09$). Lesion length greater than 3cm compared with less than 3cm was associated with a greater odds of IM (2.37, 95% CI: 1.61–3.51, $p = <0.001$). Patients from the Indian sub-continent were 70% less likely to have IM compared to other ethnicities (OR 0.32, 95% CI: 0.16–0.61, $p = 0.001$).

Abstract PTU-174 Table 1

	Patients	Old cost of surveillance (10 y)	New cost of surveillance (10 y)	Cost saving over 10 y	Mean cost saving per annum
<3 cm, no IM	97	£283,735	£0	£283,735	£28,373
<3 cm, with IM	103	£301,275	£120,510	£180,765	£18,076
>3 cm	203	£725,425	£434,655	£290,770	£29,077
All patients	403	£1,309,425	£555,165	£754,260	£75,426

Conclusion This data supports the previous findings that the BO lesion length of greater than 3 cm is associated with the presence of IM. Furthermore, the odds of having IM are significantly reduced in patients from the Indian sub-continent. Ethnicity should thus be taken into account in the future risk stratification of BO patients and requires further study.

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Disclosure of Interest None Declared.

PTU-176 IMPLEMENTATION OF OBJECTIVE ACTIVITY MONITORING TO SUPPLEMENT THE INTERPRETATION OF AMBULATORY OESOPHAGEAL PH INVESTIGATIONS

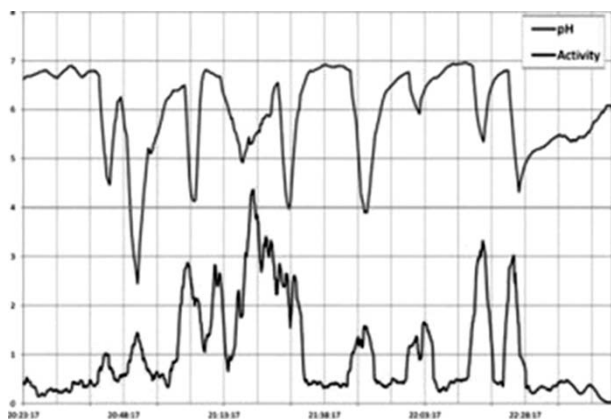
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Introduction Conventional catheter-based systems used for ambulatory oesophageal pH monitoring have been reported to affect patient behaviour. As physical activity has been associated with gastro-oesophageal reflux disease (GORD), there is a risk that abnormal behaviour will degrade the value of this diagnostic investigation and consequent management strategies. Our aim was to provide the reporting physician with objective peri-investigational changes in activity, and the means to assess the association between activity and pH during the test, using a wearable activity monitor.

Methods Trial registered at clinicaltrials.gov (NCT01507298) and ethics approved (11/LO/1981). Twenty patients listed for 24h pH monitoring underwent activity monitoring using a light-weight ear-worn accelerometer (e-AR sensor, Imperial College London) 2 days prior to, and during their investigation. PH was measured and recorded using a conventional naso-gastric catheter and waist worn receiver. Objectively measured activity levels, including subject-specific activity intensity quartiles, were calculated and compared over the 3 days. Physical activity was added to standard test outputs to supplement interpretation and diagnosis.

Results Average patient activity levels decreased by 26.5% during pH monitoring (Range -4.5–51.0%, $p = 0.036$). The amount of high intensity activities decreased by 24.4% (Range -4.0–75.6%, $p = 0.036$), and restful activity increased on average by



Abstract PTU-176 Figure 1

34% although this failed to reach statistical significance (-24.0–289.2%, $p = 0.161$). Some patients exhibited consistent associations between bouts of activity and acidic episodes (Figure 1).

Conclusion The results of this study support the previously reported reduction in activity during ambulatory oesophageal pH monitoring,^{1,2} with the added reliability of objective activity data. In the absence of more pervasive pH monitoring systems (e.g. wireless), quantifying activity changes in the setting of activity-induced reflux might facilitate recalibration of patient DeMeester scores and therefore more appropriate management of GORD.

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Disclosure of Interest None Declared.

PTU-177 DUODENAL ADENOMAS: A REVIEW OF THEIR MANAGEMENT AND THE HIGH RISK OF CO-EXISTING COLON CANCER

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Introduction We reviewed the management of Duodenal adenomas at James Paget University Hospital, Great Yarmouth between 2001 and 2013.

Methods 20 patients were included in this study. A standardised proforma was completed for each case and the information was then collated.

Results A CT scan was performed in 13/20 patients. 3/20 had CT and Endoscopic Ultrasound. 4/20 had no imaging. 14/20 patients had Endoscopic Mucosal Resection (EMR). 5/20 had surgery. 1/20 case was monitored with annual surveillance OGDs. 11/14 patients had EMR within 6 months of diagnosis. Complete resection was achieved in 11/14. Argon Plasma Coagulation (APC) was used in 3/14.

The American Society of Gastroenterology guidelines¹ recommend routine insertion of prophylactic pancreatic stents for patients undergoing EMR of Ampullary adenomas. 6 of our patients had EMR for Ampullary adenoma and only 1 had a Pancreatic stent inserted. However none of these procedures were complicated by Pancreatitis. 4/14 patients had serious complications following EMR. 3 of these had bleeding from the EMR site while one had a large mucosal defect needing Endoclip application. The 30 day mortality was 0. The frequency of long term follow up was in compliance with the Spigelman scoring system.⁵ 4/14 patients had recurrent Duodenal adenomas after EMR.

Various studies have previously demonstrated a high incidence of co-existing Colorectal neoplasms in patients with sporadic Duodenal adenomas.^{2–4} The same was observed in our patients. Of the 17/20 patients who had Duodenal adenomas and intact colons, 11 had a colonoscopy. 3 were found to have Colon cancer, 4 had Colonic adenomas and 1 had hyperplastic polyps.

Conclusion We recommend imaging for all polyps >1 cm. All patients should have EMR within 6 months of diagnosis. Only 1/6 patients who had EMR of ampullary lesions had a Pancreatic stent inserted. None developed Pancreatitis. 4/14 had serious complications following EMR. Long term follow up was in