In total, out of the all patients who had endoscopy, 20 (44.4%) were found to have low grade tubullovillous adenomas, 5 (11.1%) had cancer, whilst 2 (4.4%) had hyperplastic polyps on histology.

Conclusion These findings are in keeping with other series and suggest that it makes sense only to carry on with current practice of following up these hot spots with endoscopy.

REFERENCES

1 Israel O, Yefremov N, Bar-Shalom R, Kagana O, Frenkel A, Keidar Z, *et al*. PET/CT detection of unexpected gastrointestinal foci of 18F-FDG uptake: incidence, localization patterns, and clinical significance. *J Nucl Med* 2005;46:758–762

2 Tatlidil R, Jadvar H, Bading JR, Conti PS. Incidental colonic fluorodeoxyglucose uptake: correlation with colonoscopic and histopathologic findings. *Radiology* 2002;224:783–787

3 Putora PM, Muller J, Borovicka J, Plasswilm L, Schmidt F. Relevance of incidental colorectal FDG-PET/CT-enhanced lesions. *Onkologie* 2013;36(4):200–4

Disclosure of Interest None Declared.

PWE-024 CLINICAL AND ECONOMIC BURDEN ASSOCIATED WITH ANASTOMOTIC LEAK AFTER COLORECTAL SURGERIES IN THE UNITED KINGDOM

[1]Y Wan*, [2]S Lim, [2]J Riebman, [3]N Jamous, [1]X Gao. *[1]Pharmerit International, Bethesda, MD; [2]Ethicon, Inc., Somerville, NJ, USA; [3]Ethicon, Inc., Wokingham, UK*

10.1136/gutjnl-2014-307263.284

Introduction In the UK, anastomotic leak rate after colorectal surgeries has been reported up to 19%. Yet, clinical and economic consequences of anastomotic leak have not been clearly articulated. Our study aims to estimate the clinical/economic burden of anastomotic leak following colorectal surgeries in the UK.

Methods The Hospital Episode Statistics database was used to identify English National Health Service Trust adult patients undergoing colorectal surgeries between January 2007 and December 2011. Anastomotic leak was identified by re-intervention/diagnosis codes within a 30-day window following colorectal surgery, including re-operation, re-anastomosis, stent, colostomy, image guided drainage, washout procedure, abscess/drainage and diagnosis of generalised (acute) peritonitis. Hospital costs were calculated using Healthcare Resource Group and Department of Health reference index costs. Differences in outcomes between groups were compared using a propensity score matching approach, adjusting for age, gender, admission method, surgery type, comorbidity and medical stabilisation. Generalised linear models (GLM) were performed to estimate the impact of leak on costs/LOS, adjusting for covariates.

Results A total of 131,689 patients received colorectal surgeries (mean age: 65.2 ± 15.4, male: 50.4%). The rate of anastomotic leak following colorectal surgery was 6.4% (8,404 out of 131,689). After propensity score matching by key covariates, Patients with leak (vs. without leak) had higher in-hospital mortality (15.9% (95% CI: 15.2%, 16.7%) vs. 6.2% (95% CI: 5.7%, 6.7%), $p < 0.001$), 30-day readmission rate (19.7% vs. 11.6%, $p < 0.001$), and post-operative infection rate (19.3% vs. 4.5%, $p < 0.001$). The hospitalisations for patients with leak (vs. without leak) were more costly (£9,071 ± £4,588 vs. £6,420 ± £2,895, $p < 0.001$) and longer (20 ± 23 vs. 11 ± 13 days, $p < 0.001$). Anastomotic leak resulted in an additional cost of £2651 and an extra LOS of 9 days per patient. GLM analyses revealed comparable results.

Conclusion Our study findings underscore the clinical/economic burden of anastomotic leak after colorectal surgeries in the UK. The presence of anastomotic leak was associated with greater mortality, LOS, and costs, highlighting the importance of providing prompt medical attention to minimise the impact of anastomotic leak.

Disclosure of Interest Y. Wan Consultant for: Yin Wan is an employee of Pharmerit International. Pharmerit International were paid by Ethicon Inc. in connexion with this study., S. Lim Employee of: S Lim is an employee of Ethicon, Inc., J. Riebman Employee of: J Riebman is an employee of Ethicon, Inc., N. Jamous Employee of: N Jamous is an employee of Ethicon, Inc., X. Gao Consultant for: X Gao is an employee of Pharmerit International. Pharmerit International were paid by Ethicon Inc. in connexion with this study.

Endoscopy II

PWE-025 INCREASED ADENOMA DETECTION IN THE RIGHT COLON AT SURVEILLANCE COLONOSCOPY COMPARED TO INDEX COLONOSCOPY WITHIN THE BCSP

A Kamora*, K Kandiah, G Smith, J Martin. *Gastroenterology Department, Imperial College Healthcare NHS Trust, London, UK*

10.1136/gutjnl-2014-307263.285

Introduction Colonoscopy has been shown to be effective in reducing the incidence of colorectal cancer (CRC), presumably resulting from the removal of premalignant adenomas. There are data, however, to suggest that colonoscopy is less effective at preventing malignancy in the right colon, when compared to the left colon. A proposed explanation for this observation is that right-sided adenomas may be missed at colonoscopy, either due to inadequate bowel preparation or, alternatively, due to the presence of serrated adenomas that are more difficult to visualise. Within the Bowel Cancer Screening Programme (BCSP) patients found to have adenomas are entered into a surveillance programme, based on predefined guidelines. This study compares the findings at surveillance colonoscopy with the index colonoscopy in these individuals.

Methods All patients having surveillance colonoscopies at the West London Bowel Cancer Screening Centre between 1st January 2009 and 28th February 2013 were included in the study. The results of the initial index procedure and subsequent surveillance procedures were retrieved from the endoscopy reporting system (Scorpio) and the histology of all polyps resected and retrieved was obtained from the hospital pathology system. The site of all adenomas removed for all procedures was recorded and the distribution of the adenomas found in the left and right colon were compared for the index and surveillance procedures (Chi squared).

Results 242 patients were included in the study. In total 848 adenomas were found during the index colonoscopies and 379 adenomas were found during the surveillance procedures. 143 (59.1%) surveillance colonoscopies were performed at 1 year and 99 (40.9%) were performed at 3 years. The table below

Abstract PWE-025 Table 1

	Adenomas detected no. (%)	
Site	Index colonoscopy	Surveillance colonoscopy
Left colon	465 (54.8)	123 (32.5)
Right colon	383 (45.2)	256 (67.5)
Total	848 (100)	379 (100)

shows the number and percentage of adenomas found in the left colon (up to and including the splenic flexure) and the right colon (proximal to the splenic flexure) in both the index and surveillance procedures.

Significantly more adenomas were identified within the right colon at the surveillance procedures than were in the index examinations (p = 0.0001).

Conclusion This study suggests that more proximal adenomas are found during surveillance colonoscopies than on initial screening colonoscopies. As approximately 60% of the surveillance examinations were at one year it is likely that these lesions were missed at the initial examination. Greater care needs to be taken at initial colonoscopy to visualise the proximal bowel and clear it of neoplasia, particularly in those individuals with multiple polyps.

Disclosure of Interest None Declared.

PWE-026 MULTIPLE POLYPS HAVE A HIGHER PREDICTIVE VALUE FOR POSITIVE FINDINGS ON SURVEILLANCE COLONOSCOPY THAN FEWER LARGE LESIONS

A Kamora*, K Kandiah, G Smith, J Martin. *Gastroenterology Department, Imperial College Healthcare NHS Trust, London, UK*

10.1136/gutjnl-2014-307263.286

Introduction Individuals with adenomatous polyps are at increased risk of developing further neoplasia and it is recommended that these individuals undergo colonoscopic surveillance at an interval dictated by the size of the adenoma and/or the number of adenomas removed. This study documents the findings at surveillance colonoscopies in individuals within the Bowel Cancer Screening Programme (BCSP).

Methods All patients undergoing surveillance colonoscopies within the BCSP at West London Bowel Cancer Screening Centre (WLBCS) between 1st January 2009 and 1st February 2013 were were stratified into four groups according to the findings at the index colonoscopy as follows:

Group A – 3 or more adenomas with at least one = 10 mm

Group B – 5 or more small adenomas all <10 mm

Group C – 1 or 2 adenomas = 10 mm

Group D – 3 or 4 small adenomas all <10 mm

The percentage of adenomas found at surveillance colonoscopy in patients with few adenomas at index colonoscopy was compared to adenoma yield in patients with multiple adenomas at index colonoscopy using Fishers exact test.

Results 242 patients underwent colonoscopies within the study period and a total of 379 adenomas were found in 145 patients. 19 adenomas were greater than 10mm (5.0%) and 3 adenomas showed high grade dysplasia (0.8%). The percentage of patients with adenomas found within the groups A-D is shown in the table below.

Overall the percentage of patients with adenomas was 69.0% in those patients having their surveillance procedure at 1 year and 47.0% in those individuals having their colonoscopy at 3 years. For both surveillance intervals, the group with the largest number of adenomas found at the index procedure had a higher adenoma yield during surveillance. Overall, adenomas were found in 67.8% of patients with multiple adenomas found at the index colonoscopy (groups A, B, D) and in 43.6% of patients with 1 or 2 larger lesions (group C) (p = 0.0004).

Conclusion Adenoma detection at surveillance colonoscopy within the BCSP is high, at both the 1 year and the 3 year interval, suggesting that this is a valuable intervention in reducing future risk of colorectal cancer. The yield of high-risk lesions of a large size or with high-grade dysplasia, however, is low. The yield of adenoma detection is higher in individuals undergoing surveillance for high numbers of diminutive lesions compared to those individuals with 1 or 2 large adenomas. This finding may reflect the presence of a generalised colonic field effect in those individuals with multiple lesions, compared to a more local abnormality in those with small numbers of lesions.

Disclosure of Interest None Declared.

Abstract PWE-026 Table 1

Surveillance protocol		Surveillance colonoscopies performed n	Number with adenomas n (%)
1 year surveillance	Group A	121	80 (66)
	Group B	21	18 (86)
3 year surveillance	Group C	78	34 (44)
	Group D	22	13 (59)
Total		242	145 (60)

PWE-027 THE REASONS FOR GENDER DIFFERENCES IN CAECAL INTUBATION RATES – ANALYSIS OF 8324 COLONOSCOPIES OVER 6 YEARS

[1]AM Verma*, [1]RE Smith, [2]N McGrath, [1]A Dixon, [1]AP Chilton. *[1]Gastroenterology, Kettering General Hospital NHS Foundation Trust, Kettering, UK; [2]Endoscopy, Kettering General Hospital NHS Foundation Trust, Kettering, UK*

10.1136/gutjnl-2014-307263.287

Introduction In 2012 we presented a poster to the Digestive Disorders Foundation Meeting, we analysed 5162 colonoscopies and noted a significant difference in caecal intubation rates (CIR) of male and female patients (92.73% v 87.63%, p < 0.0001, NNH 19.57).[1]

Gender differences in colonoscopy have been published previously in the 1990s.[2,3] Several theories were mooted for this difference; such as female patients undergoing previous hysterectomy,[2] and having longer colons.[3] We have revisited this topic to identify causes of the difference relevant to modern colonoscopic practice.

Methods Data was analysed from 8324 colonoscopies at Kettering General Hospital 2008–13. Incomplete colonoscopies' reports were scrutinised to record the causes of failure.

Results Reason for failed colonoscopy (females v males, p value)

Poor bowel preparation (16.38 vs. 24.66%, 0.09), tight bend (6.21 vs. 0.91%, <0.03)

Intolerance/pain (27.97 vs. 19.63%, 0.11), looping (18.36 vs. 18.72%)

Obstructing lesion (8.19 vs. 15.53%, 0.06), previous surgery (5.37 vs. 0.46%, <0.03)

Diverticular disease (9.32 vs. 5.02%, 0.18), withdrew consent (5.93 vs. 2.28%, 0.14)