**PTU-59**

A QUALITY IMPROVEMENT PROJECT (QIP) TO REDUCE INAPPROPRIATE BIOPSIES AT ENDOSCOPY

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**Introduction** Histopathology costs represent a significant cost for endoscopy departments. Biopsies are useful when they can influence the management of our patients. Our aim was to demonstrate that application of a biopsy protocol could reduce costs and inappropriate use of resources.

**Methods** Analysis of 486 OGDs and 412 Colonoscopies was performed between April and May 2019. A biopsy protocol was produced using national guidelines (see Table 1). An assessment was made of the appropriateness of biopsy in each case. A price list of sample pots was obtained, and estimated costs were calculated to deduce the potential cost savings if guidelines had been adhered to over this 2-month period.

**Results** Of the 486 OGDs performed, biopsies were taken in 185 cases, of which 131 were appropriate (71%). An estimated £1816 may have been saved from reducing inappropriate biopsies. Of the 412 Colonoscopies performed, biopsies were taken in 266 cases, of which 190 were appropriate (71%). An estimated £2555 may have been saved from reducing inappropriate biopsies over this 2-month period.

**Conclusions** Encouraging adherence to biopsy protocols reduces the number of inappropriate biopsies, pathology workload and costs. A learning event was held to disseminate the protocol and the results of this QIP to our endoscopists.

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**Abstract PTU-89 Table 1** Sample of biopsy protocol for Oesophagus and Colon. Guidance was also created for Gastric/ Duodenal biopsies

<table>
<thead>
<tr>
<th><strong>OESOPHAGUS</strong></th>
<th><strong>YES</strong></th>
<th><strong>NO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Diagnosis and surveillance of Barret’s oesophagus</td>
<td>• Reflux oesophagitis unless ulcerated or suspicious for cancer/immunosuppression</td>
<td></td>
</tr>
<tr>
<td>Polyps, ulcers or mucosal abnormalities suspicious for neoplasia/ infectious disease</td>
<td>• Ultrashort segment Barrett’s • Inlet patch with normal mucosa</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COLON</strong></th>
<th><strong>YES</strong></th>
<th><strong>NO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Suspected microscopic colitis (e.g. persistent watery diarrhoea, age &gt;50, female, NSAID use)</td>
<td>• Normal colonoscopy without chronic diarrhoea • Random rectal biopsy for rectal bleeding • Terminal ileum biopsy to prove that the ileocaecal valve has been reached during colonoscopy unless mucosal abnormality is present</td>
<td></td>
</tr>
<tr>
<td>□ Segmented biopsies in different pots for index colonoscopy</td>
<td>Polyps with suspicious features and hyperplastic polyps □ Assessment of active/ quiescent colitis (IBD, diverticular or segmental)</td>
<td></td>
</tr>
</tbody>
</table>

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**PTU-60**

THE PREVALENCE OF SERRATED POLYPS IN A MULTI-ETHNIC SOCIETY IN THE UNITED KINGDOM

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**Introduction** Leicestershire is the 16th most populous county in the United Kingdom. The estimated population is around 706,155. It has a multi-ethnic diverse group where non-white comprises 15% of its population. The majority of the non-white is South Asian.

**Aim** We aim to assess the prevalence of serrated polyps, defined as hyperplastic poly (HP), sessile serrated lesion (SSL), traditional serrated adenoma (TSA) or mixed poly, in this multi-ethnic group in patients attending for Bowel Cancer Screening (BCS) colonoscopy.

**Methods** We carried out a retrospective observational study of all serrated lesions (SLs) over a two-year period between 1st May 2018 to 30th April 2020.

Patients’ demographic, polyp morphology & site were obtained from our Bowel Cancer Screening Programme (BCSP) database.

The self-reported ethnic origin of all individuals was recorded.

Non-serrated lesions (i.e tubular adenoma, tubulovillous adenoma and villous adenoma) were excluded from the study.

For statistical analysis we used Pearson Chi-square, independent sample T-test and one-way analysis of variance of variance were used as appropriate. P value of 0.05 was considered statistically significant.

All analysis was conducted using SPSS version 26.

**Results** Over a 2 year-period, 2264 screening/surveillance colonoscopies were carried out, of which 493 patients had one or more SLs.

The mean age was 67.6 years, and 66.5% of patients were male.

The white Caucasian comprised 87.2% (n=430) of the study population while the Asian group was 12.8% (n=63).

The frequency of polyps as per morphology was as following: hyperplastic 82.4% (n=406), sessile serrated lesion 10.5% (n=52), traditional serrated lesion 1.2% (n=6) and mixed type 5.9% (n=29).

In the white group: 80.2% (n=345) of polyps were hyperplastic, 11.7% (n=50) were SSL, 1.4% (n=6) was TSA and 6.7% (n=29) were mixed type.

In the Asian group: 96.8% (n=61) of polyps were hyperplastic, 3.2% (n=2) were SSL and none was TSA or mixed type.

The mean number of SLs per individual was significantly higher in white Caucasian than in Asians, 1.53 (SD 1.10) vs. 1.23 (SD 0.49), (p= 0.001).

Between the two groups, the prevalence of SSL and the mixed type were higher in the white group (p= 0.001 and p=0.003, respectively).

On the one-way analysis, the mixed type was more prevalent amongst the different types of SLs (p=0.001).

The site of SLs in the colorectum, in order from highest to lowest, was as following: Sigmoid 53.6% (n=266), Rectum 25% (n=124), Ascending 23.5% (n=117), Transverse 20.9%
There is no evidence about the safe timing of Polyp Endoscopic Mucosal Resection (EMR) after detection at diagnostic colonoscopy. The aim was to help identify a safe interval from the diagnostic colonoscopy to planned therapeutic colonoscopy. The time interval to polypectomy was 14-25 days.

**Methods** All symptomatic and bowel cancer screening program (BCSP) patients referred for a planned therapeutic polypectomy at our centre in 2019 were retrospectively analysed. Data was collected on the time interval between polyp detection and removal, SMSA (site, morphology, size and access) level and differences in histology if the polyp was biopsied at detection and EMR specimen.

**Results** 120 patients were included; 57 in the BCSP (37 males, 20 females), median age 66 years and 63 in the symptomatic group (39 males, 24 females), median age of 70 years.

120 polypectomies were performed (mean size= 28.7 mm), 24 polyps had a biopsy taken prior to polypectomy. 53 (44%) polyps were classified as SMSA 2, 50 (42%) SMSA 3 and 17 (14%) SMSA 4 (Figure 1). Median time interval for polypectomy was 9 days for BCSP and 13.5 days for symptomatic patients.

3 patients who had a polyp biopsy in the BCSP group (1 low grade dysplasia (LGD) and 2 high grade dysplasia (HGD), all SMSA 4 were found to have adenocarcinoma after polypectomy. The time interval from biopsy to polypectomy was 14 days for the LGD case and 19 and 26 days for the HGD cases.

2 patients who had a polyp biopsy in the symptomatic group (2 LGD, SMSA 3 and 4) were found to have adenocarcinoma after polypectomy. The time interval to polypectomy was 25 and 119 days respectively.

The patient with 119 days waiting time attended at 50 days from the index colonoscopy, but due to comorbidities and high INR was deferred. In the remaining 19 cases, there was no change in histology with a time interval of 6 -80 days to polypectomy.

SMSA level 2 or 3 polyps were removed in a mean time of 13.7 days (range 0-68 days). 4/17 (23.5%) polyps with SMSA level 4 were found to have adenocarcinoma after polypectomy, time interval to polypectomy was 14-25 days.

**Conclusions** These data show that a significant proportion of complex polyps may contain a cancer focus not recognised on prior endoscopy or biopsy. Polypectomy therefore should not be delayed.