relevant contemporary data on this subject and provide an algorithm for the management of early PRSC.

Method A systematic review was undertaken in accordance with PRISMA guidelines. Studies published between 2000 and 2017 describing the clinical management of PRSC in patients with UC within 30 days of primary ileoanal pouch surgery were included. A qualitative analysis was undertaken due to the heterogeneity and quality of studies included.

Results 1157 abstracts and 266 full text articles were screened. Twelve studies were included for analysis involving a total of 207 patients. The studies described a range of techniques including image-guided, endoscopic, surgical and endovacuational vacuum methods. Based on the evidence from these studies, an algorithm was created to guide the management of early PRSC.

Conclusion Although the rate of successful salvage following early PRSC has improved over time there is a paucity of research correlating the method used with functional outcome. Short course Endo-SPONGE® therapy with early surgical closure seems to offer increased chance of salvage. We present an algorithm for the management of early PRSC.

PTU-063 MISS RATES FOR COLORECTAL CANCER INVESTIGATED WITH COMPUTER TOMOGRAPHY SCANS

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Introduction Computer tomography (CT) scans are often the initial investigation for patients suspected of colorectal cancer (CRC) because they are better tolerated than colonoscopy. This study aims to evaluate the CRC false negative results (or miss rates) for CT investigations of the colon.

Methods This is a retrospective review of 773 consecutive CRC cases encountered at Royal Berkshire Hospital between 2014 and 2016. Evidence of CT investigations in the previous 3 years was obtained from computerised health records. Only CT scans with the indication suggestive that it was done for suspected bowel malignancy were labelled as ‘missed cancer’. CT scans done to investigate other abdominal organs were not considered. Statistical analysis was done with a confidence interval of 95%.

Results 5.4% of patients diagnosed with CRC had an unremarkable CT scan in the previous 3 years. The indications included mostly iron deficiency anaemia, change in bowel habit, weight loss, abdominal pain and rectal bleeding. Patients being missed were significantly older than the rest of CRC patients (78.2 years vs. 69.5 years, p=0.000003). A higher proportion of right sided cancers were missed as compared to left sided cancers (7.3% vs. 4.8%) but this was not statistically significant (p=0.36). Average time from scan to diagnosis was 512.9 days (1.4 years). Most CT studies (33 of 42, 79%) were after administration of oral contrast. Two were CT colonographies that missed one caecal cancer and one rectal cancer at 1.2 and 1.8 years before diagnosis.

Concerning the entire cohort of CRC cases, mean age was 70, male:female ratio was 1:1.16, left sided lesions accounted for 60% and right sided lesions 34%. All of these values are comparable to national statistics.

Conclusions Approximately 1 in 20 patients diagnosed with colorectal cancer had at least one CT scan with no evidence of bowel malignancy in the previous 3 years. Bowel cancer should not be easily excluded by an unremarkable CT scan if there is a high clinical suspicion, especially in a patient older than 70, regardless of the type of scan.

PTU-064 IMMUNE CHECKPOINT INHIBITOR COLITIS- A REVIEW OF CURRENT MANAGEMENT TRENDS

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Introduction Immune checkpoint inhibitors (CPIs) are novel agents that work by boosting the body’s immune system to fight tumour cells and are transforming cancer therapy. They are generally well tolerated but can cause side effects that mimic various autoimmune diseases. With its rising use across many tumour types, the prevalence of immune related adverse events such as colitis is fast becoming an issue encountered by many gastroenterologists. This review aims to characterise the current trends in management of CPI-induced colitis.

Methods An electronic database search was conducted on Pubmed and Embase. A total of 48 papers were identified for final analysis. This included 29 case reports and 19 case series describing the management of patients with CPI-induced colitis.

Results 48 papers containing 294 patients were included in the review. Of these, 264 were treated with CTLA-4 inhibitors, 18 with PD-1 inhibitors, 1 with PDL-1 inhibitors and 10 with combination therapy. Majority of patients (196) received treatment for melanoma. Other malignancy types included non-small cell lung cancer, urothelial malignancy and prostate cancer. A total of 226 patients with CPI-induced colitis were treated with steroids (oral or intravenous). Of these 61% responded to steroids alone whilst 47% required further treatment with infliximab. 94% of patients treated with infliximab had resolution of colitis. 8 patients were treated with vedolizumab after steroid failure and all of these patients had resolution. 20 patients required surgery due to complications such as perforation or ischaemia, 3 had infliximab prior to surgery. Patients required a median of 2 doses of infliximab to attain resolution of colitis and where follow up data was available, there was no symptom relapse post treatment with infliximab.

Conclusions This review highlights that a step wise approach similar to the management of inflammatory bowel disease should be used to manage patients with CPI-induced colitis. However there should be an early consideration for use of biologic therapy. Protocols including a multi-disciplinary approach should be developed to ensure that gastroenterologists are aware of treatment modalities should these patients present to them.

PTU-065 SERUM LIPID PROFILE AND KRAS MUTATION ACCORDING TO TUMOUR LOCATION IN METASTATIC COLORECTAL CANCER

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Introduction In metastatic colorectal cancer mutated Kirsten rat sarcoma viral oncogene (KRAS) and tumour location are
The gut microbiota influences intestinal epithelial proliferative potential

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Introduction The intestinal epithelium is comprised of a single layer of cells which serves a number of critical functions including the formation of a physical barrier to environmental pathogens and chemical substances, and the absorption of essential nutrients, electrolytes and water. It is also the site of the gut microbiota, a complex and diverse community of bacteria, viruses and fungi, which exists in a mutually beneficial relationship with the human host. The epithelial barrier is maintained through tightly regulated processes of stem cell renewal, epithelial maturation, cell migration and cell death. Failure to finely coordinate these processes can lead to disease states such as cancer. In this study, we aimed to investigate and characterise the role of the intestinal microbiota on epithelial cell proliferation.

Methods We determined the rates of epithelial proliferation in the intestines of Specific-Pathogen-Free (SPF) mice and Germ-Free (GF) mice. We utilised a previously described method which integrates cell tracking using the thymidine analogue Bromodeoxyuridine (BrdU) in crypt-villus units, with a tailored mathematical model, to assess the spatiotemporal dynamics of epithelial cell behaviour in SPF and GF conditions.

Results The rate of epithelial cell production in GF conditions was significantly slower in the colon, ileum and jejunum in comparison to SPF conditions. In the duodenum, there were no significant differences in proliferation rates in GF and SPF conditions. Cell production rates progressively decreased towards the distal part of the intestine, which inversely correlate with the concentration of organisms constituting the intestinal microbiota.

Conclusions These findings indicate that the gut microbiota plays an important role in determining intestinal epithelial cell proliferation rates. This relationship may have important implications in conditions such as colorectal cancer and inflammatory bowel disease, where differences in microbial signatures are known to exist. In turn, it may be possible to harness this knowledge to alter disease progression by modifying the host microbiota.

PTU-067 The positive impact of the bowel cancer screening programme on colorectal cancer diagnoses and outcomes

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Introduction The impact of bowel cancer screening programmes (BCSP) on down-staging colorectal cancer (CRC) at presentation is well established and national screening is largely thought to be a success. Uptake of screening remains less than 60%, screening age has been expanded to ages 60–75 and Bowel Scope screening is being rolled out.

Despite BCSP, the number of UK CRC cases has increased by approximately 5% in the last decade. We aim to evaluate the impact of BCSP on the stage of colorectal cancer cases at presentation.

Methods Between 2013 & 2016, approximately 700 new cases of CRC were discussed at the colorectal cancer multi-disciplinary team (MDT) meeting at Kettering General Hospital. The BCSP screening practitioners have collated demographic data, CRC stage, engagement with BCSP (at any time including prior FOBt negative return), emergency presentation, and whether surgery was performed open or laparoscopically.

681 cases have had a full dataset collated and analysed, we report on this data. It is noted that elderly patients over 70 may not have received BCSP invite (though are able to opt in), patients under 55 are not eligible for BCSP (a small number of cases).

Results In 681 analysed cases, 306 patients (44.9%) had engaged with a BCSP invite (previously and/or at time of diagnosis), 375 had not (55.1%), \( p \leq 0.01 \).

Abstract PTU-067 Table 1

<table>
<thead>
<tr>
<th>Dukes' stage</th>
<th>BCSP</th>
<th>non-BCSP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>86 (28.1%)</td>
<td>47 (12.5%)</td>
<td>133</td>
</tr>
<tr>
<td>B</td>
<td>91 (29.7%)</td>
<td>120 (32.0%)</td>
<td>211</td>
</tr>
<tr>
<td>C</td>
<td>116 (37.9%)</td>
<td>173 (46.1%)</td>
<td>289</td>
</tr>
<tr>
<td>D</td>
<td>13 (4.3%)</td>
<td>35 (9.3%)</td>
<td>48</td>
</tr>
<tr>
<td>All cases</td>
<td>306</td>
<td>375</td>
<td>681</td>
</tr>
</tbody>
</table>

PTU-069 The effect of selective serotonin reuptake inhibitor (SSRI) on neuropeptide Y (NPY) and glucagon-like peptide-1 (GLP-1) in colorectal cancer patients

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Introduction Antidepressants and other selective serotonin reuptake inhibitors (SSRIs) are prescribed to many colorectal cancer (CRC) patients for various indications. The relationship between CRC and depression is well established.

Methods A cohort of 32 CRC patients was identified, all receiving an SSRI at the time of diagnosis. All patients underwent surgical resection, with CRT (chemoradiotherapy) administered as an adjuvant therapy. Serum NPY and GLP-1 levels were measured in pre- and post-operative samples.

Results The mean pre-operative GLP-1 level was significantly lower in the CRC group compared to healthy controls (54 ± 23 vs. 105 ± 20, p = 0.001). In the CRC group, GLP-1 levels were significantly increased post-operatively (92 ± 30 vs. 105 ± 20, p = 0.001). NPY levels showed no significant change pre- and post-operatively (p = 0.12).

Conclusions The findings suggest a potential role for NPY and GLP-1 in the pathophysiology of CRC, with potential therapeutic implications.