Conclusion The data reveals significant differences in CIR between female and male patients (90.89 vs. 95.07%, p < 0.0001, NNH 24). Analysis of the reasons recorded for failure shows a strong trend in males for poor bowel preparation and obstructing lesion. In females, a strong trend was shown for pain/intolerance, diverticular disease and withdrawal of consent. Statistical significance was shown for previous (abdominal) surgery and tight bend. Looping is a common reason for failing colonoscopy with no gender difference.

This is an important observation that females are significantly less likely to have complete colonoscopy. Perhaps endoscopy units should outline the potential for missed lesions as a consequence when consenting female patients – in particular those with known diverticular disease or previous abdominal surgery. Other reasons of failure could also be addressed e.g. higher doses of analgesia for females as required.

REFERENCES
1 Verma AM, McGrath N, Dixon A, Chilton AP. Gender differences: analysis of 5162 colonoscopies over 4 years reveals higher caecal intubation rates in male patients. Gut 2012;61:Suppl 2 A150-A151

Disclosure of Interest None Declared.

PWE-028 PATIENT COMFORT AND SEDATION AND ANALGESIC PRACTICES DURING COLONOSCOPY IN THE ENGLISH BOWEL CANCER SCREENING PROGRAMME

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Introduction Colonoscopy frequently causes discomfort and a range of medications are used to improve the patient experience. The relationship between medication use and patient comfort, however, is complex and subject to a number of potential biases. We sought to describe the relationship between patient comfort and medication use within the English Bowel Cancer Screening Programme (BCSP).

Methods Procedural information for colonoscopy examinations performed within the English BCSP is prospectively entered into a national database. Comfort is independently rated by a specialist screening practitioner (SSP) using the Modified Gloucester Comfort Scale (no, minimal, mild, moderate and severe). We studied significant patient discomfort (moderate or severe) and medication usage for colonoscopists performing over 100 examinations between January 2010 and December 2012. Comparisons were made using the $\chi^2$ test and correlations were analysed using Spearman rank correlation coefficient.

Results During the period of the study 113,316 examinations were performed by 290 endoscopists. Significant discomfort occurred during 8.9% of colonoscopy examinations but there was variation between individual colonoscopists (median 8.1%, IQR 5.0–12.6%, range 0.8–23.9%). Significant discomfort was more common in females (12.7 vs. 6.1%, odds ratio (OR) 2.24), patients with diverticulosis (11.8% vs. 8.7%, OR 1.34), incomplete examinations (37.3 vs. 7.9%, OR 6.8), inadequate bowel preparation (13.5 vs. 9.6%, OR 1.4) and screening rather than surveillance colonoscopies (9.1 vs. 7.4%, OR 1.24).

Midazolam was administered during 87.8% and opiate analgesia during 87.3% of procedures. There was wide variation between colonoscopists in the proportion of examinations in which midazolam (median use 95.1%, IQR 81.8–97.8%, range 4.1%–100%) and opiate analgesia (median use 97.3, IQR 85.0–99.2%, range 5.6–100%) were used. Reversal agents were rarely used (8 in 10,000). Entonox was administered during 7.5% of examinations but most who administered it did so in a minority of their procedures (median use 0.7%, IQR 0–0.2%, range 0–98.9%). 4.7% of patients underwent medication-free colonoscopy. General anaesthesia was rarely used (0.5%).

There were no significant correlations between the amount or proportion of medication used by colonoscopists and the comfort of their patients.

Conclusion Most colonoscopy examinations were performed without causing significant discomfort. Although most colonoscopists used intravenous medication those who used less medication were no more likely to cause significant discomfort. Appropriate use of medication to achieve comfortable procedures while minimising risk and inconvenience remains an important focus for future research.

Disclosure of Interest None Declared.

PWE-029 POSITION CHANGES AMONG ENGLISH BCSP COLONOSCOPISTS: A SURVEY OF PRACTICES

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Introduction Studies suggest that modifying a patient’s position during colonoscope withdrawal may improve luminal distension and polyp detection. It is unclear whether this practice is widely adopted by endoscopists.

Methods Colonoscopists within the English Bowel Cancer Screening Programme (BCSP) were invited to participate in a web-based survey assessing the use of position change during colonoscope withdrawal. Free text responses were assessed using thematic analysis.

Results The survey was completed by 204/298 (68%) of English BCSP colonoscopists. 64.7% of respondents indicated that they almost always change a patient’s position, 16.7% usually, 13.7% sometimes, 3.4% occasionally and 1.5% rarely do so. 77% of those who almost always or usually changed a patient’s position did so as part of their routine, but 75.3% were less likely to change position in those with poor mobility and 75.3% would not change position if luminal distension was adequate. 93% of these respondents most often positioned
patients supine while examining the transverse colon and nearly half examined the right and descending colon in a sub-optimal position (Table 1).

Of those respondents who sometimes, occasionally or rarely changed a patient's position, 42% were unconvinced that routine position change was beneficial. A further 21.1% felt it took too long, 7.8% felt it was inconvenient for the patient and 7.8% felt it was inconvenient for the endoscopist. These respondents were most likely to examine segments without changing patient position.

Free text responses revealed that some endoscopists position patients differently during insertion and withdrawal and also use position change to optimise access during therapy.

**Conclusion** Most BCSP colonoscopists change patients' position during most colonoscope withdrawals, but the patient position is often sub-optimal. Increased awareness of the existing literature and further research assessing positioning strategy is warranted.

**REFERENCE**

**Disclosure of Interest** None Declared.

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**Abstract PWE-029 Table 1**

<table>
<thead>
<tr>
<th>Position change usage</th>
<th>Segment</th>
<th>Right lateral</th>
<th>Supine</th>
<th>Left lateral</th>
<th>In which ever position they arrive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost always or usually</td>
<td>Caecum to hepatic flexure</td>
<td>7.8%</td>
<td>25.3%</td>
<td>60.2%</td>
<td>7.8%</td>
</tr>
<tr>
<td></td>
<td>Transverse colon</td>
<td>1.2%</td>
<td>93.4%</td>
<td>5.4%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Sometimes, occasionally or rarely</td>
<td>Splenic flexure and descending colon</td>
<td>51.2%</td>
<td>34.4%</td>
<td>11.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td></td>
<td>Caecum to hepatic flexure</td>
<td>0%</td>
<td>31.6%</td>
<td>34.2%</td>
<td>34.2%</td>
</tr>
<tr>
<td></td>
<td>Transverse colon</td>
<td>0%</td>
<td>34.2%</td>
<td>28.9%</td>
<td>36.8%</td>
</tr>
<tr>
<td></td>
<td>Splenic flexure and descending colon</td>
<td>7.9%</td>
<td>31.6%</td>
<td>26.3%</td>
<td>34.2%</td>
</tr>
</tbody>
</table>

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**Introduction**
Entonox may be used to improve patient experience during colonoscopy. Nitrous oxide is rapidly eliminated which minimises after effects and inconvenience to patients. Despite its advantages, Entonox is used in only a minority of procedures in the UK. We sought to understand the reasons for its low utilisation.

**Methods**
Colonoscopists within the English Bowel Cancer Screening Programme (BCSP) were invited to participate in a web-based survey, assessing the availability, current practices and perceptions of Entonox during colonoscopy. Respondents were able to select pre-defined answers or offer written responses. Free text responses were assessed using thematic analysis. Categorical data was compared using the χ² test.

**Results**
The survey was completed by 208/298 (70%) of the English BCSP colonoscopists. Entonox was available to 152/208 (73%) respondents but this varied between NHS deaneries. Nearly half (47%) of the respondents stated that Entonox was used in < 20% of examinations. Colonoscopists who administered Entonox frequently (>20% of examinations) rated its efficacy (49% vs. 76%, OR: 3.3, p = 0.001) and usefulness (69% vs. 95%, OR: 8.4, p < 0.0001) more favourably. But there were no differences in how they rated its safety (90% vs. 97%, OR: 4.2, p = 0.085), frequency of side effects (92% vs. 96%, OR: 2.3, p = 0.31) or influence on discharge time (70.4 vs. 79.5%, OR: 1.63, p = 0.26). Most respondents for whom nitrous oxide was available stated that they would use it if they were to have a colonoscopy themselves (74%). Most respondents reported their patients were advised to use Entonox ‘as required’ (92%) rather than continuously (8%) and from the start of colonoscopy rather than as rescue medication when other medications are inadequate. Some respondents never combined Entonox with other sedatives. Many respondents indicated that Entonox was used for the patients and the procedures which are expected to have least discomfort.

Most of the colonoscopists for whom Entonox wasn’t available had considered introducing it (94%). Practical difficulties (37%) and satisfaction with current analgesics and sedation (28%) were the most common reasons it was not available. The introduction of the English flexible sigmoidoscopy screening programme was cited as the reason for its introduction by several respondents.

**Conclusion**
Entonox is used in a minority of colonoscopy examination. It is generally perceived to be safe, effective and most colonoscopists would use it if they required a colonoscopy. Entonox is often chosen when patients wish to avoid the inconvenience caused by intravenous sedation and analgesics. Its use is likely to increase with the introduction of the English screening programme.

**Disclosure of Interest** None Declared.