

Abstract OC-013 Table 1 The number of hospital visits occurring within 14 days of outpatient colonoscopies and the associated healthcare costs

	Total number of visits to the accident and emergency (A&E) department within 14 days of colonoscopy	Number of visits to the A&E department within 14 days attributable to colonoscopy (% of total)	Number of visits to the A&E department within 14 days attributable to colonoscopy, requiring admission	Total additional cost of hospital attendances attributable to colonoscopy (£)
	22	14 (1.25)	5	
Average cost per attendance (£)	145	145	3338	
Total additional cost (£)	3190	2030	16 690	18 720

increasingly used as both a diagnostic and therapeutic tool. It is deemed a relatively safe procedure with the overall complication rate being reported at approximately 0.1%. However, it was recently reported in a study from the USA that procedure related hospital attendances within 14 days of colonoscopy were as high as 0.84%.<sup>1</sup>

**Methods** The aim of this study was to identify the true morbidity and related healthcare costs after outpatient colonoscopy in a UK population. We performed an observational study of hospital visits occurring within 14 days of colonoscopy at West Middlesex University Hospital, London. We collected data from 2011, using the hospitals' electronic records system, enterpriseCAMIS®. Cases meeting the predetermined criteria were analysed to assess whether presentations could be attributed to the colonoscopy, and overall healthcare costs were determined.

**Results** Over the 12-month period, 1115 outpatient colonoscopies were performed; the Abstract OC-013 table 1 below summarises the number of hospital visits occurring within 14 days and associated healthcare costs. Of the 1115 colonoscopies performed, there were 22 visits to the A&E department within 14 days; 14 of these visits were procedure-related, with five requiring admission. Abdominal pain was the commonest reason for emergency attendance, with bleeding, perforation, post-polypectomy syndrome, sedation and other gastro-intestinal causes accounting for the remaining. The average cost for patients attending A&E was £145; £3338 for those requiring admission; working out as a total cost of £18 720 over the 12-month period.

**Conclusion** Outpatient colonoscopy is an essential diagnostic and therapeutic tool. However, data on the overall morbidity burden is limited. With a 1.25% incidence of emergency attendances within 14 days of colonoscopy and significant associated healthcare costs, this study supports recently published data from the USA and highlights the importance of recognising these complications within a UK population.

**Competing interests** None declared.

## REFERENCE

1. Leffler, *et al.* The incidence and cost of unexpected hospital use after scheduled outpatient endoscopy. *Arch Intern Med* 2010;**170**:1752–7.

## OC-014 HIGH DEFINITION COLONOSCOPES CAUSE MORE PAIN AND REQUIRE MORE SEDATION THAN THE STANDARD VIDEO ENDOSCOPE

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**Introduction** It has been anecdotally observed in this centre, a tertiary teaching hospital, that high definition colonoscopes (HDC) seem to be more difficult to manoeuvre and cause more pain to the patient. Although studies have been reported that HDC may have a higher polyp detection rate compared to standard video colonoscopy<sup>1</sup> (SVC) there is very little data on the tolerability and comfort of HDC. To our knowledge this is the first study to assess the tolerability of HDC against SVC. The colonoscopy score used in this

centre is a five point score which is documented by the assisting nurse and used to assess patient experience.

1. No pain
2. 1 or 2 Episodes of mild discomfort
3. 2 or More episodes of discomfort
4. Significant discomfort
5. Extreme discomfort.

**Methods** All colonoscopies between 1 April 2010 and 31 March 2011 were identified from the endoscopy database and the reports were retrieved and reviewed for quality indicators (sedation dosing, caecal intubation and polyp detection). Separate pain score records documented by the endoscopy nurses were also retrieved. When analysing the pain score, it was divided into two groups (1 and 2 vs 3, 4 and 5) as a score of 3 and above describes markedly worse pain for the patient. These results were analysed for significance using appropriate statistical tests (Fishers and Mann–Whitney U).

**Results** A total of 4401 colonoscopies were performed by 33 endoscopists during the study period. 611 of these were excluded due to incomplete data. Of the remaining 3790 procedures, 902 procedures were performed with HDC and 2888 with SVC. There were no demographic differences between the two groups. 5% more patients had a pain score of 3 or more when using the HDC ( $p=0.01$ ). Their use was also associated with a marginal but significant increase in the dose of midazolam and fentanyl ( $p<0.001$  and  $p=0.04$  respectively). Polyp detection was significantly lower in the HDC group ( $p=0.01$ ). The results are shown in Abstract OC-014 table 1.

Abstract OC-014 Table 1 Differences between HDC and SVC

Variable	HDC	SVC	p Value
Comfort score 1 or 2	665 (73.7%)	2255 (78.1%)	0.01
Comfort score 3, 4 or 5	237 (26.3%)	663 (21.9%)	
Midazolam mg (mean)	3.57	3.37	<0.001
Fentanyl µg (mean)	62.83	61.13	0.04
Caecal intubation rate	864 (95.79%)	2784 (96.4%)	0.42
Polyp detection rate	299 (33%)	1096 (38%)	0.01

**Conclusion** This is the first study evaluating tolerability of HDC. In this large cohort of patients performed by a large number of endoscopists, tolerability and polyp detection were worse with HDC.

**Competing interests** None declared.

## REFERENCE

1. Subramanian V, Mannath J, Hawkey CJ, *et al.* High definition colonoscopy vs standard video endoscopy for the detection of colonic polyps: a meta-analysis. *Endoscopy* 2011;**43**:499–505.

## OC-015 PROGNOSTIC INDICATORS FOR SHORT AND LONG-TERM OUTCOMES OF COLORECTAL ENDOSCOPIC MUCOSAL RESECTION (EMR): A MULTI-CENTRE (CERT-N) STUDY

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