

PTU-013

**COLORECTAL CANCER RATES FOLLOWING
A BARIUM ENEMA OR COLONOSCOPY**

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Table 1 PTU-013 The location of a CRC in those patients who had had a previous colonoscopy or barium enema

| Location | All CRC (2611) | Prior colonoscopy (13) | Prior barium enema (96) |
|----------|----------------|------------------------|-------------------------|
| Left | 62% (1619) | 46.2% (6) | 42.5% (45) |
| Right | 38% (992) | 53.8% (7) | 48.1% (51) |

Introduction Colonoscopy and removal of adenomatous polyps has been shown to reduce subsequent cancer risk. In Canada, Rabeneck et al found that over a 14 year period, a negative colonoscopy was associated with a reduced incidence of subsequent colorectal cancer (CRC) in the distal colon; but little reduction in the incidence of proximal CRC at least for the first 7 years after the colonoscopy.¹ With this in mind we reviewed the incidence and distribution of CRC in our population following colonic evaluation.

Our unit is the third largest colorectal cancer unit in the UK. Between 2005 and 2010 there were 2611 cases of CRC, during this period 17 263 colonoscopies and 13 767 barium enemas were performed.

Methods By interrogating the patient administration system of our hospital we were able to identify those patients who had had a colonoscopy or barium enema done over 12 months prior to their CRC diagnosis being made, we collected data from the last 10 years. We chose this 12 month period to avoid those patients who had had an examination that led to a diagnosis of CRC.

Results 106 patients had a barium enema between 12 and 118 months before a diagnosis of colorectal cancer was made. 48.1% (51) were located in the right side of the colon, 42.5% (45) were located in the left side of the colon. In the remaining 9.4% (10) the location was unknown. These missed cancers were most frequently located in the caecum 23.5% (25), sigmoid 16.9% (18) and ascending colon 13.2% (14).

13 patients had a colonoscopy between 25 and 116 months prior to a diagnosis of colorectal cancer being made. 53.8% (7) of these were located in the right side of the colon and 46.2% (6) of these were located in the left side of the colon. These tumours were most frequently located in the caecum 30.7% (4), transverse colon 23.0% (3) and rectum 23.0% (3).

Conclusion There was significantly more right sided cancers in the prior colonoscopy and barium enema groups (chi squared = 11.29, p < 0.001) consistent with earlier data from Canada. There was a ten fold increased miss rate with barium enema over colonoscopy and this would support the service moving away from barium enemas to colonoscopy.

Competing interests None.

Keywords barium enema, colonoscopy, missed cancer.

REFERENCE

1. Lakoff J, Paszat LF, Saskin R, et al. Risk of developing proximal versus distal colorectal cancer after a negative colonoscopy: a population-based study. *Clin Gastroenterol Hepatol* 2008;6:1068–9.