

Caecal intubation rate in cases of colorectal cancer

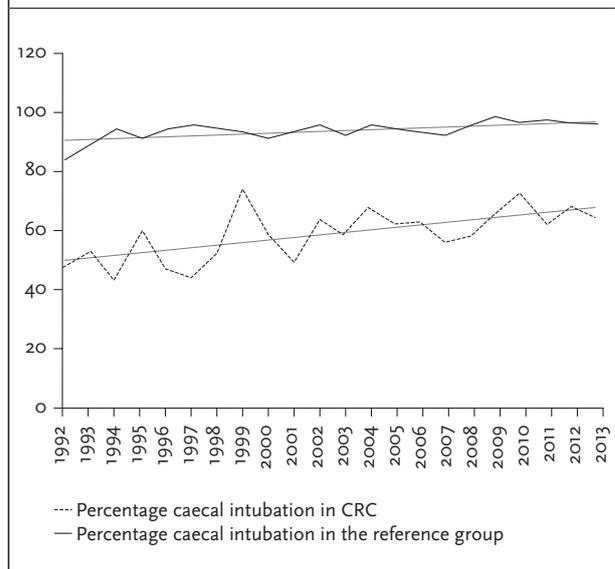
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To the Editor,

Caecal intubation rate is a well-known quality indicator of colonoscopy. In the Netherlands all patients with colorectal cancer who undergo surgery are entered into a digital on-line system called the Dutch Surgical Audit on Colorectal Cancer.¹ According to the benchmark, in the report of 2012 preoperative inspection of the entire colon is recorded in 82% of cases (78% in case of colon cancer, 86% for rectal cancer). In normal daily practice this figure appears to be unrealistically high. It is not clear how the benchmark was established. For this reason we studied the caecal intubation rate in patients presenting with colorectal cancer. All consecutive patients undergoing colonoscopy, in whom colorectal cancer was seen, in the years 1992-2013, were included. Endoscopy was done after standard colon cleansing described in earlier papers.² Caecal intubation was recorded explicitly in all colonoscopies. All procedures were scheduled as colonoscopy. In other words, if caecal intubation was not successful the procedure was not renamed 'sigmoidoscopy'. All patients with no abnormalities served as a reference group. A total of 1336 patients with colorectal cancer were diagnosed (947 cases of colon cancer, 389 cases of rectal cancer). In 915 cases (68.4%) the caecum was successfully intubated: 688 (72.6%) cases of colon cancer, and 227 (58.3%) cases of rectal cancer. The reference group consisted of 6973 patients. In these cases the caecal intubation rate was 6586 (94.5%). Caecal intubation rate was significantly higher in the reference group ($p < 0.0001$). If rectal cancer and colon cancer were compared, the caecal intubation rate was significantly higher in cases of colon cancer ($p < 0.0001$). *Figure 1* shows the percentages of successful caecal intubation in patients with colorectal cancer and the reference group in the consecutive years. As can be seen in the trend line, the number of successful caecal intubations in patients with colorectal cancer rose over the years. The present study shows a lower caecal intubation rate than

Figure 1. The percentage of successful caecal intubation, with the trend lines, in patients with colorectal cancer and the reference group



the benchmark used in the Dutch Surgical Colorectal Audit. Does this mean that quality of colonoscopy in the Endoscopy Department of the Zaans Medical Centre is low? The answer is no. For many years caecal intubation rates and the yield of colonoscopy have been recorded. Several studies have been published.^{3,4} In the literature many reports are available of the caecal intubation rate; however, correction for case-mix has never been done. In a previous study reasons for not reaching the caecum were described.⁵ In the consecutive years there was a clear trend towards a higher caecal intubation rate in cases of colorectal cancer. The main reason for this is probably a learning curve in the beginning of registration, but more

importantly, the introduction of newer, longer and stiffer endoscopes.

We can only speculate on the higher number of caecal intubations in the benchmark used in the Dutch Surgical Colorectal Audit. It is possible that the number in the benchmark is the result of an amalgamation of colonoscopy, virtual colonography or old fashioned barium enemas. Another explanation could be the use of the pilot studies on screening for colorectal cancer in the Netherlands. Obviously people who undergo screening should not have symptoms that can be the result of the condition for which the screening is done. It is possible that patients with colorectal cancer detected via the stool blood test and additional colonoscopy have smaller tumours not yet leading to symptoms and obstruction. Obviously, cancer can be obstructing. Although passage of stool is still possible, it may be impossible to introduce the endoscope above the level of the tumour. If the endoscopist persists in trying, because he wants to adhere to the benchmark, the chance of air entrapment is very high. Caecal blow-out is a well-known complication of endoscopy in case of a tumour that cannot be passed by the endoscope.^{6,7} Of course, it is beyond discussion that

the entire colon should be inspected. It can be concluded that the caecal intubation rate in daily practice is lower than the benchmark. Endoscopists and surgeons should not rely too heavily on benchmarks generated via auditing systems, especially if it is not clear how this benchmark was generated.

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