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Introduction Adenoma detection rate (ADR) is the recommended surrogate marker for a thorough colonoscopic examination. Collecting histology makes its calculation arduous so polyp detection rate (PDR) is often used instead. It has been proposed that the ADR:PDR ratio can be used as a “conversion factor” to accurately estimate ADR. Work from the Bowel Cancer Screening Programme (BCSP) has shown that adenomas are more prevalent in this population suggesting the ratio may be different. We aimed to assess the feasibility of using a “conversion factor” to estimate ADR from PDR in different UK populations.

Methods Colonoscopy performance data from the symptomatic services were collected over a 3-month period from 12 units in the northern region of England. Data from all procedures performed by BCSP accredited colonoscopists were excluded from this group. National colonoscopy performance data were extracted from the BCSP database from a 12-month period. Colonoscopists detecting polyps in ≥ 10 patients were included. Data collected included colonoscopist, PDR and ADR. The conversion factor was calculated separately for each group. The ADR:PDR ratio was calculated at the level of the colonoscopist and the group mean used as the conversion factor. The estimated ADR was calculated using: PDR \times conversion factor. The relationship between the actual and estimated ADR was evaluated using Pearson's correlation coefficient.

Results In the symptomatic services 3219 colonoscopies were performed by 55 colonoscopists. In the BCSP 31017 procedures were performed by 147 colonoscopists. The PDR and ADR respectively for the symptomatic group were 30.7%, IQR 24.8–40.0 and 18.0%, IQR 14.0–24.0, and for the BCSP group were 59.3%, IQR 53.8–65.0 and 46.0%, IQR 43.0–51.3. The ADR:PDR ratio in the symptomatic and BCSP groups were 0.59 (IQR 0.47–0.69) and 0.78 (IQR 0.74–0.81). The correlation between the estimated and actual ADR was 0.68 ($p < 0.001$) and 0.83 ($p < 0.001$) for the symptomatic and BCSP groups respectively.

Conclusion We demonstrate using estimated ADR, when calculation of ADR is not feasible, may be an acceptable marker of quality in colonoscopy. The difference in the conversion factors between the groups studied here is likely to be due to the selected population colonoscoped within the BCSP but suggests it will need to be adjusted for different patient populations. Studies to further validate this concept and ensure that conversion factors remain consistent over time are ongoing.

Competing interests None declared.

PWE-189 ACHIEVING HIGH QUALITY COLONOSCOPY: USING GRAPHICAL REPRESENTATION TO MEASURE PERFORMANCE AND RESET STANDARDS

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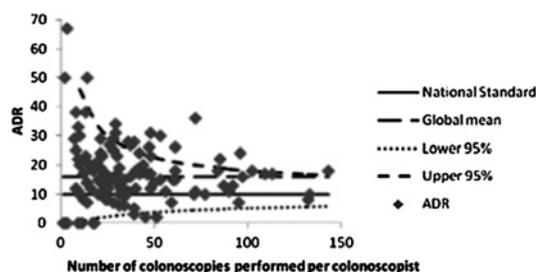
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Introduction The aim of colonoscopy is to examine the colon completely and meticulously looking for malignant and pre-malignant

lesions (adenomas). The measure for completeness is the caecal intubation rate (CIR) and for thoroughness the adenoma detection rate (ADR). National Standards (NS) are $\geq 90\%$ and $\geq 10\%$ respectively.¹ Variability in CIR, ADR and thusly quality, have been shown but comparison between individuals and units is difficult.^{2,3} We aimed to use graphical representation to assess colonoscopy performance in the North East of England.

Methods Data on colonoscopy performance and sedation use were collected over 3 months from 12 units. Colonoscopies performed by screening colonoscopists were included in the global CIR only. Funnel plots with upper and lower 95% confidence limits (CL) for CIR and ADR were created using the binomial probability distributions for inferences about a single proportion.

Results CIR was 92.5% (n=5720) and ADR 15.9% (n=4748). All units and 128 (99.2%) colonoscopists were above the lower limit for CIR. All units achieved the ADR standard with 10 above the upper limit. Ninety-nine (76.7%) colonoscopists were above 10%, 16 (12.4%) above the upper limit and 7 (5.4%) below the lower limit (Abstract PWE-189 figure 1). Median medication doses were: 2.2 mg midazolam, 29.4 mg pethidine, and 83.3 mg fentanyl. 15.1% of colonoscopies were unsedated. Complications were bleeding (0.10%) and perforation (0.02%). There was 1 death possibly related to bowel preparation.



Abstract PWE-189 Figure 1 Funnel plot showing each colonoscopist's ADR with respect to the NS. CLs calculated relative to the NS.

Conclusion Results indicate colonoscopies are performed safely and to a high standard. Funnel plots can highlight variability and areas for improvement. Analyses of ADR presented graphically around the global mean suggest that the NS should be reset at 15%.

Competing interests None declared.

REFERENCES

1. **The Joint Advisory Group for Gastrointestinal Endoscopy.** Guidance for colonoscopy certification and continued practice. Dr Colin Rees and Dr John Painter. 2006. <http://www.thejag.org.uk>
2. **Bowles CJ,** Leicester R, Romaya C. A prospective study of colonoscopy practice in the UK today: are we adequately prepared for the national colorectal cancer screening tomorrow? *Gut* 2004;**53**:277–83.
3. **van Rijn JC,** Reitsma JB, Stoker J, et al. Polyp miss rate determined by tandem colonoscopy: a systematic review. *Am J Gastroenterol* 2006;**101**:343–50.

PWE-190 ENDOSCOPIC MUCOSAL RESECTION OF LARGE COLORECTAL POLYPS: OUTCOMES FROM A REGIONAL BOWEL CANCER SCREENING CENTRE

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Introduction Endoscopic mucosal resection (EMR) of colorectal polyps has been reported to be a safe and effective technique within