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Introduction Colonoscopy is a central investigation in all colorectal cancer (CRC) screening strategies. Success of CRC screening is dependent on the quality of colonoscopy. The NHS Bowel Cancer Screening Programme (BCSP) offers biennial faecal occult blood testing to adults aged 60–74 years. Colonoscopy is offered to individuals with a positive faecal occult blood (FOB) test. All colonoscopists practicing within the screening programme are required to meet predefined standards through summative assessment and are subject to ongoing quality assurance.

In this study we examine the quality of colonoscopy in the NHS BCSP and describe the measures taken by the BCSP to achieve high quality colonoscopy. Comparison of current quality indicators with existing quality standards and evidence from the UK pilot study of FOB screening will be undertaken.

Methods The NHS BCSP national database prospectively collects detailed data on all screening colonoscopies. Data from the first 3 years of the programme (August 2006 to August 2009) were analysed. Colonoscopy quality indicators (adenoma detection rate, polyp detection rate, colonoscopy withdrawal time, caecal intubation rate, rectal retroversion rate, polyp retrieval rate, mean sedation doses, patient comfort scores, bowel preparation quality and adverse event incidence) were calculated for this period. All screening centres were contacted directly to verify adverse event data.

Results In the study period, 2,269,983 individuals returned FOB tests and 36,460 colonoscopies were performed. Mean caecal intubation rate was 95.2% and mean withdrawal time for normal procedures was 9.2 min. The mean adenoma detection rate (ADR) per colonoscopist was 46.5%. ADR did not differ between prevalent and incident rounds ($p = 0.90$). Patient comfort scores were high and adverse event rates low.

Conclusion The NHS Bowel Cancer Screening Programme provides high quality colonoscopy as demonstrated by high caecal intubation rate, adenoma detection rate and comfort scores and low adverse event rate. This quality is achieved by ensuring that BCSP colonoscopists are trained to a high standard and that these standards are maintained through ongoing quality assurance measures.

Competing interests None.

Keywords colonoscopy, colorectal cancer, screening.