



AB156. 148. A systematic review of the rate of interval cancers and associated endoscopy processes

Athena Wright Ballester, Deirdre M. Nally, Dara O. Kavanagh

Department of Surgical Affairs, Royal College of Surgeons in Ireland (RCSI), Dublin, Ireland

Background: Colon cancer is the second most common cause of cancer death and an important cause of morbidity. The natural history of carcinogenesis, via the adenoma-carcinoma sequence, permits screening, which reduces the relative risk of mortality by up to 16%. Interval cancers—those that develop between scheduled screening investigations—limit the quality and efficacy of organised screening programmes. Quantifying the rates of interval cancers and delineating associated endoscopy processes are crucial to inform quality improvement interventions.

Methods: A systematic review was performed in accordance with PRISMA principles. Electronic databases were interrogated with a considered search strategy and reference lists of retrieved papers were surveyed. For inclusion, studies

included the rate of interval cancer (stated or calculated) and reported at least one of a predefined list of endoscopy characteristics. The primary outcome was to establish the rate of interval cancers. The secondary outcome was to determine the association between endoscopy processes and interval cancers.

Results: The search yielded 2,067 papers. A total of 148 full text papers were reviewed. Fifteen papers met the inclusion criteria. In total, there was 117,793 colon cancers, of which 7,281 were interval lesions, giving an overall rate of 6.2%. The adenoma detection rate (ADR) of the endoscopist performing the index operation was the most consistent endoscopy factor identified across a number of studies. The impact of setting, volume and bowel preparation varied between papers.

Conclusions: Ensuring the quality of the endoscopy process, specifically by increasing the ADR of practitioners, is crucial to the reduction of the rate of interval cancers.

Keywords: Interval cancer; colorectal cancer; endoscopy; screening

doi: 10.21037/map.2018.AB156

Cite this article as: Ballester AW, Nally DM, Kavanagh DO. A systematic review of the rate of interval cancers and associated endoscopy processes. *Mesentery Peritoneum* 2018;2:AB156. doi: 10.21037/map.2018.AB156