

Adenoma Detection Rate: Quality Indicators for Colonoscopy

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Keywords

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Taxa de Detecção de Adenomas: Indicador de Qualidade em Colonoscopia

Palavras Chave

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Colorectal cancer (CRC) is the second most common tumor in women and the third most common in men and accounts for 10% of all types of tumors worldwide. In Portugal, CCR is the first cause of cancer and cancer-related mortality [1].

Screening programs for CRC are currently implemented in many western populations [2, 3] because randomized trials have documented an association between screening and a sustained reduction in colorectal cancer mortality [4]. The benefit is most likely due to early detection of cancer, endoscopic removal of adenomas, and surveillance of patients who are considered to be at a high risk for the development of new neoplastic lesions [5, 6].

There is considerable evidence that adenomatous polyps amenable to endoscopic resection predate cancer, and that polypectomy reduces the likelihood of cancer [7]. Therefore, colonoscopy is now the gold standard for CRC screening [8, 9] as it allows for the detection and removal of premalignant lesions. However, the effectiveness of colonoscopy is strongly associated with its quality.

Among different quality indicators, the one most used is the adenoma detection rate (ADR), which is the percentage of average-risk patients for CRC who are found to have at least 1 adenoma or adenocarcinoma during a screening colonoscopy. There is compelling evidence supporting an inverse correlation between ADR and interval CRC (cancer found after a screening colonoscopy) [10], which will lower future mortality from CRC. For this reason, ADR is increasingly being used to assess the quality of colonoscopy.

In fact, quality measures can be used to maximize the effectiveness of colonoscopy by guiding consistent, high-quality practice. As defined by the Center for Medicare and Medicaid Services, quality measures are tools that help us measure or quantify health-care processes that are associated with the ability to provide high-quality health care and/or that relate to one or more quality goals for health care [11]. Quality measures are increasingly being used for reimbursement for colonoscopy and may also

affect patient utilization. A recent survey from Solad et al. [12] of 417 patients found that 20% researched their endoscopist's rating.

The European Society of Gastrointestinal Endoscopy (ESGE) [13] and the American Society of Gastrointestinal Endoscopy (ASGE)^{RED} [9] published a set of indicators and the recommended quality thresholds to ensure effective screening. Many factors such as quality of precolonoscopy preparation, additional observers, maneuvers with the endoscope (second view, retroflexion, water inflation rather than air), time spent during withdrawal, changes in patient position, fold-flattener devices, new imaging or endoscopic modalities, and use of intravenous or through-the-scope sprayed drugs, have been studied and developed with the aim of increasing the ADR. ADR, the primary quality indicator or outcome for an endoscopist, can be viewed as a function of the other quality measures [14].

The ASGE/American College of Gastroenterology (ACG) Task Force on Quality in Endoscopy suggests that all endoscopists performing colonoscopy should measure the quality of their colonoscopy [15]. Moreover, it is recommended that institutions where endoscopists from multiple specialties are practicing should reasonably expect all endoscopists to participate in the program and achieve recommended quality benchmarks.

In this issue, a retrospective study by Oliveira Ferreira et al. [16] entitled "Adenoma Detection Rate: I Will Show You Mine If You Show Me Yours" is published. The authors retrospectively analyzed the colonoscopy quality of their endoscopy unit, which included 654 screening procedures from a total of 5,860 colonoscopies performed in 3 years. Interestingly, the authors found an ADR of 36% (95% CI 32–39), which is above the current quality threshold of 25% set by the endoscopic societies [9]. Although 83% of the patients had a positive fecal occult blood test as the indication for colonoscopy, the ADR in both the screening and fecal occult blood test groups was remarkably similar, and the estimated confidence intervals were above 25% in both groups. With this internal audit, the authors aim to implement a proven strategy to improve bowel preparation quality and also emphasize that quality assessment should be mandatory in all endoscopy units. The ultimate goal of this article is to increase the public acceptance of colonoscopy by showing data to support its effectiveness and decrease the incidence and CRC-associated mortality in Portugal.

This retrospective work emphasizes colonoscopy quality assurance/improvement and discusses current evidence to improve patient care and optimize ADR.

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