

Topic: Adenoma Detection Rate and Recommended Follow Up Intervals

Sample A

Prevalence of missed adenomas and variations in physician recommended repeat colonoscopy intervals in patients with inadequate bowel preparation on screening colonoscopy

Define: The gap in quality of care that we studied is the lack of a standard recommended time for repeating a colonoscopy in patients who present for colon cancer screening but have inadequate bowel prep. We aimed to determine the incidence of adenomas detected in that population on the next colonoscopy and we attempted to define the optimum interval that should be recommended for a repeat colonoscopy in patient with inadequate bowel prep on their first examination.

Measure: We used our electronic endoscopy report database to identify all patients who presented for screening colonoscopy who had inadequate preps. WE then reviewed the reports and recorded the recommended interval for repeat colonoscopy as determined by the attending physician. Adenoma miss rates were assessed on a per-adenoma and per-patient basis. Per-adenoma miss rates were calculated by dividing the number of adenomas found on repeat examination by the sum of the number of adenomas found on initial and repeat examination. We looked at the percentage of patients in whom clinical recommendations would have been different had all lesions been found on initial colonoscopy. Mean time between colonoscopies was calculated for each patient who underwent repeat examination. Baseline performance ranges from 1 day to 10 years.

Analyze: Our adenoma detection rate for all screening exams in the study time period was 32.8%. Inadequate prep patients had an initial ADR of 25.7% and on follow up colonoscopy had an ADR of 33.8%. We assumed all polyps detected were present at the first colonoscopy but missed resulting in 45 patients with missed lesions. WE also learned that only 35.7% of the patients actually kept the recommended follow up appointment within 1 year. The recommendations for follow up interval varied from one day to 10 years despite the inadequate prep.

Improve: We informed all physicians and staff of the results of our audit and encouraged them to recommend repeat colonoscopy the next day or soon as possible after the first appointment. We have audited our performance over the past 3 months (3-2013 to 5-2013) and found the following. 31 inadequate preps were found. 28/31 (90%) were rescheduled within 1 year and 82% of that population was rescheduled the next day or with a two day prep at the next available visit (within 6 weeks). The 3 physicians that did not recommend follow up within 1 year for an inadequate prep have been contacted and made aware of the situation. They have all stated that they would be compliant with the recommendation of a follow up within 1 year in the future.

Control: We learned that physician recommendations for repeat colon examinations after colonoscopy with an inadequate prep varied greatly (1 day to 10 years). Patients often did not keep the follow up recommendation especially if it was 6 months or longer after the initial colonoscopy. We also found that the adenoma miss rate was higher than expected in this population. We now recommend that patients with inadequate preps are suggested to have repeat colonoscopy at the next available visit.

The new society recommendations suggest that the exam should be repeated within 1 year of the inadequate exam. Our physicians' compliance with this recommendation has improved dramatically with 90% compliance. We still need to continue to educate our physicians and nursing staff (planned for QA meeting and GI grand rounds this year). The results of the data collection stage of our project were published in *Gastrointestinal Endoscopy* 2012; 75:1197-203.

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Sample B

Remediation Program to Improve Quality in Colonoscopy

- I. All endoscopists using the Gastrointestinal Endoscopy Unit screening colonoscopy will have 25 randomly chosen screening colonoscopies evaluated annually for adenoma detection rates (ADRs).
- II. Endoscopist(s) who have ADRs falling below 30% for males and/or 20% for females will be identified. 25 additional cases from the endoscopist(s) in question will be evaluated to increase the power of the endoscopist's ADR data. If the ADR continues to fall below the standard of 30% for males and/or 20% for females, the following remediation program will be initiated:
 - a. The indications for colorectal cancer screening will be evaluated to ensure the procedures are appropriate.
 - b. The endoscopist's colonic preparation technique will be evaluated and ensure he/she is using a small volume, split-dose preparation.
 - c. Colonic preparation instructions will be reviewed to ensure they are appropriate, clear, concise, and easy to follow.
 - d. Cecal intubation rates will be calculated evidenced by two landmark pictures to confirm cecal intubation. Acceptable landmarks include but are not limited to: the appendiceal orifice, the ileocecal Valve, and the terminal Ileum.
 - e. Withdrawal times will be measured and will be required to be in excess of 6 minutes.
- III. After 3 months in the remediation program, 50 subsequent colonoscopic screening cases will be evaluated. If the ADR falls below the standard of 30% for males and/or 20% for females, Proctoring from an approved endoscopist(s) will be recommended for 10 cases to assess endoscopic technique and offer recommendations to improve the quality of the colonoscopic examination.
- IV. Once proctoring has been performed, 50 subsequent screening colonoscopies will be evaluated for the ADR. If this continues to fall below the standard of 30% for males and or 20% for females, the endoscopist will be formally reviewed at the monthly GI department conference to discuss the appropriateness of performing screening colonoscopies in the Gastrointestinal Endoscopy Unit.