

Adenoma Detection Rate at Lahey Gastroenterology: Aiming for Above and Beyond

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INTRODUCTION

Colonoscopy has been established as the gold standard for the screening of colorectal cancer (CRC). The adenoma detection rate (ADR) has been widely accepted by GI expert groups as an important quality metric. ADR is calculated by dividing the number of screening colonoscopies in which one or more adenomas are detected by the total number of procedures. An endoscopist's ADR reflects the quality of colonoscopies performed and the benchmark for ADRs is at least 25%.

The frequency of "missed" CRC increases dramatically with ADR < 20% and on average, for each 1% increase in ADR, there is a 3% decrease in the risk of CRC⁽¹⁾. Hence an endoscopist's ADR is inversely related to the patient's post-colonoscopy CRC risk⁽²⁾. The importance of ADR has therefore, been well established in the medical literature .

We aimed at comparing baseline and subsequent ADRs within the Lahey GI department (including both Burlington and Peabody sites) after supplemental in-person active feedback.

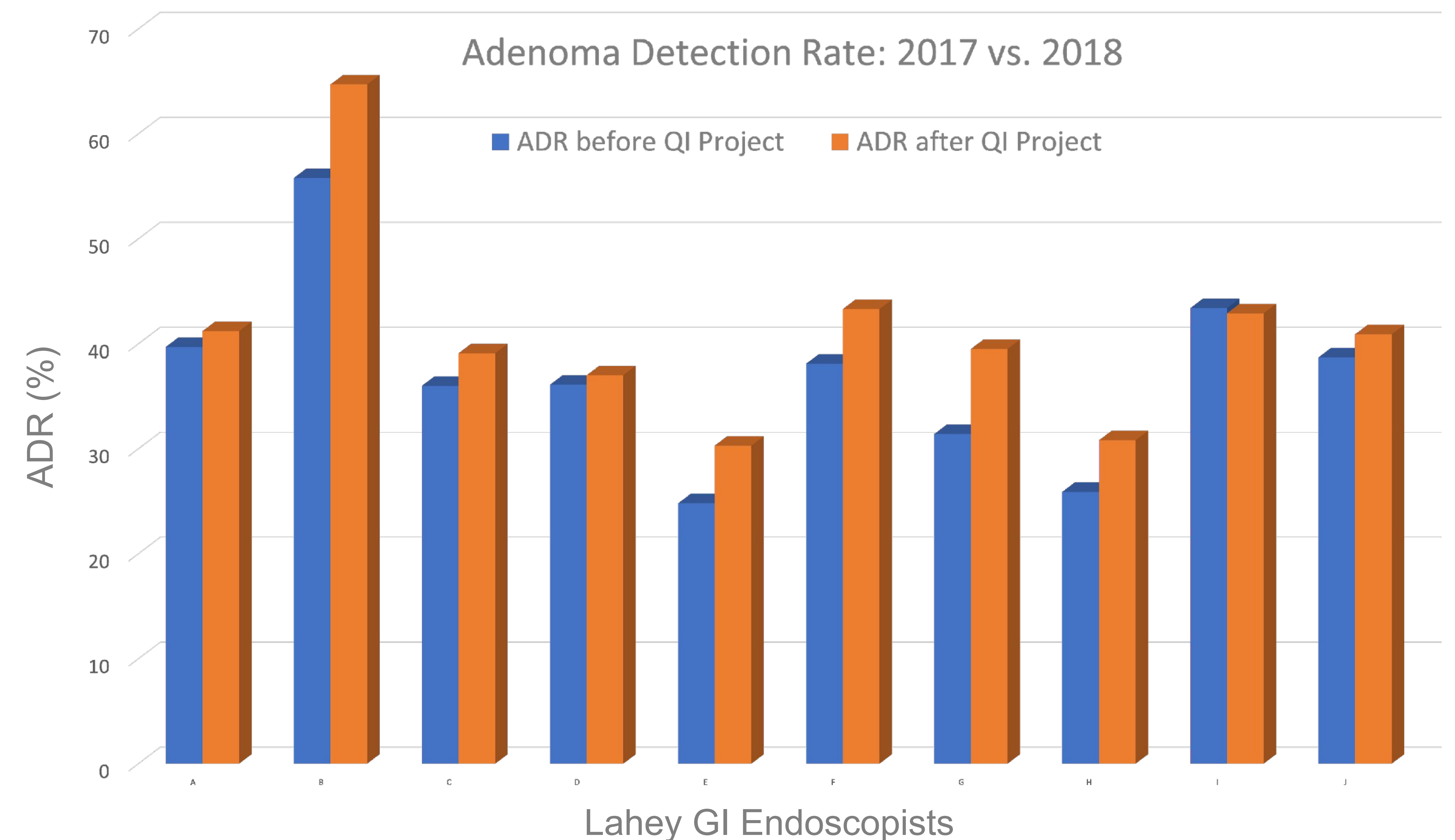
METHODS

10 gastroenterologists were identified based on their higher volume of performing screening colonoscopies, to increase the power of the data. Transplant hepatologists and colorectal surgeons were excluded. We used our electronic endoscopy report database (Provation®) and electronic medical record (Epic®) to identify all patients who underwent screening colonoscopy over a 6 month period (07/2017 – 12/2017). Importantly, this first phase of our study was performed blindly, without the endoscopists' knowledge that the program's ADRs were being audited. Pathology results were reviewed and ADRs were calculated.

Following this, all physicians received their ADRs. The department's Director of Endoscopy also offered educational interventions and feedback to the participating endoscopists including techniques and technologies to improve respective ADRs. In the follow up phase, ADRs were calculated for the endoscopists over a 6 month period (07/2018 – 12/2018) and results were compared.

RESULTS

The mean ADR was 35.6% (range, 24.8% - 55.8%) in the first phase of the project. It should be emphasized that this quality is significantly higher than the national guidelines (20% previously, now 25%). The mean ADR was calculated to be 38.6% in the second phase (range, 30.3% - 64.7%) . The average ADR increased after the QI project by 3.98% which was found to be statistically significant (P value = 0.0027). The mean increase was higher in female endoscopists compared to males (P value = 0.003). The mean increase was also found to be higher for endoscopists in Burlington compared to Peabody (P value = 0.002)



CONCLUSION

We demonstrated that even relatively high adenoma detection rates (35.6%) could be improved (to 38.6%). This probably showed that just knowing that your ADR is being audited is a strong enough incentive for endoscopists to be more vigilant and improve their ADRs. In addition, techniques and technologies for improving adenoma detection should hence be continually encouraged within departmental conferences. Supplemental in-person active feedback should be shared with endoscopists with lower ADRs. These may include second-look right colon exam, water exchange technique, instrumental tip attachments to improve mucosal exposure and dye-based chromoendoscopy. The magnitude of benefit is determined by the baseline ADR of the endoscopists and low-level detectors are highly likely to derive more benefit.