

THE IMPACT OF CENTRAL COORDINATION ON ENDOSCOPY EFFICIENCY

M.J. Stewart, D. Farina, J. Jones

Medicine, Dalhousie University, Halifax, NS, Canada

Background: The impacts of the COVID-19 pandemic have been far reaching and have necessitated many changes to healthcare delivery. At the QEII Health Sciences Center physical space limitations for patient check-in and recovery have restricted outpatient endoscopy to 3 of 4 available endoscopy suites. On June 1, 2020 a new system of central endoscopy triage and coordination for the Division of Digestive Care and Endoscopy (DC&E) was implemented in an effort to increase efficiency and maintain patient access to endoscopy. The components of the RESET (Re-introduce Endoscopy Safely and Efficiently) Plan included a) a new endoscopy coordinator role to manage a common endoscopy waitlist, endoscopist schedules, and booking clerks, b) a modified triage system to improve waitlist consistency, c) a common endoscopy waitlist with patients booked in the next available appointment regardless of endoscopist, d) discontinuation of fixed endoscopy slots for endoscopists, and e) appointment scheduling no sooner than 4-weeks in advance to minimize no-shows and last-minute cancellations.

Aims: The aim of this study is to evaluate the impact of the RESET Plan on the efficiency of DC&E endoscopy.

Methods: A retrospective pre- and post-implementation study evaluating the volume and efficiency of outpatient endoscopy before and after implementation of the RESET Plan. The Pre-RESET period included all procedures performed from June 1, 2019 to October 31, 2019. The Post-RESET period included all procedures performed from June 1, 2020 to October 31, 2020. A separate endoscopy suite and triage system is used for endoscopic retrograde cholangiopancreatography (ERCP) and these cases were excluded. Early effectiveness outcomes were reported including a comparison of the number of endoscopic procedures per week and per list, pre- and post-implementation. Data analysis was primarily descriptive with data expressed as frequencies, means (SD), and proportions (%). Exploratory group comparisons were performed using independent-samples T-Test.

Results: During the 5-month Pre-RESET period, 2203 endoscopic procedures were performed. During the Post-RESET period a total of 1920 procedures were performed. Due to pandemic restrictions, there was a 29% decrease in available endoscopy lists from 2019 to 2020. There was a 24% increase in the number procedures performed per endoscopy list, from 6.4 to 8.0 ($p=0.004$, 95% CI 0.52-

2.53), pre- and post-RESET.

Conclusions: While the COVID-19 pandemic has disrupted healthcare delivery, it has also provided an opportunity to implement health system structure and process changes. The RESET Plan resulted in significant gains in efficiency which largely offset losses in endoscopy throughput imposed by COVID-19 pandemic restrictions. Future research will determine what patient and health system factors most significantly impact system efficiency as well as the cost-effectiveness of the RESET Plan.

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