INTRODUCTION: There is conflicting data on the impact of trainers on adenoma detection during screening and surveillance colonoscopies. The aim of our study was to determine whether the participation of a gastroenterology fellow during colonoscopy affects adenoma detection based on the first 6 months of the fellow year of training.

METHODS: In this retrospective cohort study, we extracted data of 575 screening colonoscopies by academic gastroenterologists in the last 6 months of 2017. There were 5 attending physicians and 7 fellows. Variables included patient demographics (age, gender, race), colonoscopy indication (surveillance vs. screening), bowel preparation quality (adequate vs. inadequate), circumutitation, adenoma detection, presence and/or year of fellow in the last 6 months of 2017. Adenoma detection rate was defined as the presence of at least one adenoma /number of colonoscopies.

RESULTS: At our institution, academic physicians have a better ADR for screening (46%) as compared to non-Academic GI physicians (46%) and surgeons. Fellows were involved in 297 screening colonoscopies out of the 574 procedures performed by academic GI (57%). The mean patient age was 58.4 years, and most patients were African American (88 %) and female (54%). There were no significant differences with respect to age, gender, race, indication for colonoscopy, or quality of bowel prep. There was a slight difference with cremutitation between fellows and attendings (96% vs. 99%, P = 0.03). The overall adenoma detection was similar with fellow participation compared to no-fellow (45% vs. 40%, P = 0.19). Results by year of fellowship and screening colonoscopies are shown in Figure 1. The only setting where fellow participation influenced the detection of adenoma was in the first 6 months of fellowship for screening colonoscopies which were lower with fellows compared to the other groups (P = 0.048).

CONCLUSION: Fellow involvement had minimal impact on adenoma detection, although first year fellows appear to have a slightly lower detection rate than in later years. Our data accentuates the first-year fellow effect by using only the first 6 months of each fellow’s respective year. Patient demographics, colonoscopy indication and bowel prep did not contribute a significant role in these findings. The reasons for conflicting literature remain unknown.

S0555

A Novel Patient Oxygen Mask Apparatus for Environmental COVID-19 Protection During Upper Endoscopy

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INTRODUCTION: Concerns over COVID-19 aerosol release during upper endoscopy has led to recommendations for negative pressure rooms, prolonged air-settling times and HEPA filtration machines. The resulting procedural inefficiency has led to prolonged patient wait times. Although N-95 masks can protect staff from viral exposure, potential environmental contamination remains an issue for room turnover times. Oxygen procedural masks were originally developed to avoid hypoxemia in patients undergoing bronchoscopy in intensive care units. It has been suggested that these devices be considered for patients undergoing upper GI endoscopy to reduce aerosol release, but to date, no studies have been performed to confirm their effectiveness in protecting the procedure room environment.

METHODS: A procedural mask with three self-sealing ports that can accommodate almost any endoscope (Explorer, Intersurgical Berkshire, UK), was attached to a T-piece containing an oxygen filter (Flo-Guard, Intersurgical ) to protect the environment from airborne pathogens. The procedural mask was applied to an adult CPR mannequin with elastic straps to ensure a secure fit. A fluorescent powder and mist ( Glo Germ Company, Mosh, UT, USA) with particle sizes between 1 and 3um (SABS-COV-2 is 0.7-12um) was injected into the trachea of an adult CPR mannequin to simulate a cough. An endoscope was placed into one port of the mask and a suction catheter was placed into another opening to simulate an actual upper endoscopy. The degree of fluorescein staining on paper outside the mask was measured with ultraviolet light detection in a darkened room.

RESULTS: Preliminary results using our cough simulation model without a procedural mask revealed a widespread dissemination of fluorescent droplets, contaminating the surrounding area. The use of a patient procedural mask significantly reduced the aerosol dispersion and contamination surrounding the patient.

CONCLUSION: Our preliminary findings provide proof-of-concept support for use of a patient procedural mask apparatus to reduce environmental exposure to cough-generated aerosols and droplet sprays during upper GI endoscopy. While the patient procedure mask provides environmental protection and may reduce the need for prolonged air-settling and HEPA filtration, it should not replace the appropriate use of personal protective equipment by endoscopy staff in case of patient procedural mask dislodgement.

Low-Value Care and Endoscopy in Dyspepsia: A Retrospective Observational Study From a Metropolitan Australian Hospital

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INTRODUCTION: Recent literature suggests that young patients aged < 55 years without alarm features are low risk for significant endoscopic findings (SEF) including malignancy, ulceration and erosive esophagitis. Guidelines recommend that this patient subgroup should undergo a trial of proton pump inhibitors (PPIs) before consideration for endoscopy.

METHODS: We retrospectively reviewed all endoscopies at our tertiary centre between January 2018 and July 2019 for investigation of dyspepsia in patients aged 18–54.

RESULTS: 302 endoscopy exams met inclusion criteria, with a mean patient age of 41 years and 43% were male. 246 (81.5%) endoscopies were performed in accordance with guideline indications, while 56 (18.5%) were performed outside of guidelines as they did not have any alarm features nor a trial of PPI beforehand. This subgroup of patients had a clinically significant SEF rate of 5.4%. A negative endoscopy itself has direct clinical utility as it relieves patient anxiety from the fear of having an underlying serious disorder and facilitates a diagnosis of functional dyspepsia so that tailored treatment can be provided. A substantial number of patients did not have a PPI trial prior to referral, suggesting that many primary care physicians are unaware of the guidelines, which can be addressed with focused education and clear referral guidelines.