

## THE EFFECT OF COVID-19 PANDEMIC ON CURRENT AND FUTURE ENDOSCOPIC PERSONAL PROTECTIVE EQUIPMENT PRACTICES: A NATIONAL SURVEY OF 77 ENDOSCOPISTS

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**Background:** Personal protective equipment (PPE) guidelines serve to protect healthcare providers and patients from harmful biohazards. With the rise of the 2019 SARS-CoV-2 disease (COVID-19), many institutions have mandated strictly enforced endoscopic PPE guidelines. We currently do not know how current practitioners perceive these mandates or how they will influence their practice long-term.

**Aims:** We aimed to survey the PPE practices among endoscopists across Canada and compare their perceived differences in practice between the pre- and post-COVID-19 pandemic eras. We hypothesize that the PPE guidelines during the pandemic will influence changes in PPE practices in endoscopy.

**Methods:** A 74-item questionnaire was emailed from June 2020 to September 2020 to all members of the Canadian Association of Gastroenterologists and the Canadian Association of General Surgeons through newsletters. The survey was created by expert consensus and distributed using the REDCap software. Survey questions collected basic demographics and differences between PPE practices pre- and post-COVID-19 pandemic eras. PPE practices were categorized into four endoscopic procedure types: diagnostic or therapeutic, and upper or lower gastrointestinal endoscopy. Individual outcomes were reported as rates, or ranges when evaluating for all procedure types.

**Results:** A total of 77 respondents completed the survey with the majority of respondents aged 40-49 (34 [44.2%]) and identifying as Gastroenterologists (54 [70.1%]). Gender was evenly split (38 females [49.4%] versus 39 males [50.6%]). In the pre-pandemic era, the majority of endoscopists wore gowns (91.0-93.9%) and all endoscopists wore gloves (100%). However, the majority of endoscopists did not wear surgical masks (20.9%-31.3%), N95 respirators (1.5%-3.2%), face shields (13.4%-33.9%), eye protection (13.4%-21.3%), or hair protection (11.1%-12.5%).

In the post-pandemic era, endoscopists reported a plan to dramatically change their pre-pandemic practices and adopt current PPE mandates. All endoscopists reported a

plan to fully gown and glove (100%) with the majority reporting they will continue wearing surgical masks (87.7%-90.5%), face shields (57.8%-75.0%), and hair protection (50.8%-53.8%). However, the majority reported a plan to decrease universal use of N95 respirators (6.5%-23.7%) or eye protection (36.5%-40.0%). Over half of the respondents reported changing their practice from no masking pre-pandemic to implementing routine masking.

**Conclusions:** The COVID-19 pandemic has changed the attitudes of many endoscopists regarding future PPE use in routine endoscopy. Ongoing studies comparing the rates of transmission of hospital-acquired infections in the setting of endoscopy are needed to develop a new post-pandemic PPE consensus.

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