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had a minimal impact on our results. This is because, according to the Bern registry,³ although GI hemorrhage monthly rates were highest in the first month, as the authors correctly stated, only 15% of events occurred before hospital discharge, with a mean time to event of 119 days. Our NVUGIH rate (1.6%) was also slightly higher than the rate for overall GI hemorrhage in the registry (1.04%), in further support of a negligible NVUGIH miss rate.

Thrombotic events resulting from the interruption of antiplatelet medications in this setting are certainly an interesting outcome. Unfortunately, because not all thrombotic events are treated in the hospital, the Nationwide Readmission Database is not the ideal database to use in examining this issue. We join the authors in enthusiastically awaiting further research based on databases that capture both inpatient and outpatient care to clarify this important outcome.

We agree that a multidisciplinary approach, including the cardiologists to formulate the plan regarding antithrombotic medications, is best. The in-hospital upper endoscopy rate (72%) is slightly lower than the national rate for all NVUGIH (85%-87%).^{4,5} Concerns over procedural adverse events resulting from recent myocardial infarctions is likely a reason. Although both of these rates are possibly noteworthy in the United Kingdom, differences in healthcare delivery, including reimbursement models and different medicolegal environments between the 2 countries, probably explain this discordance.

We thank the authors for providing further data from the European Society of Cardiology to further back our recommendation to use proton pump inhibitors for high-risk patients in this setting, which we based on the American Gastroenterological Association recommendations.

DISCLOSURE

All authors disclosed no financial relationships.

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<https://doi.org/10.1016/j.gie.2020.08.025>

Addressing unmet needs of gastroenterologists' training in the post-COVID-19 era



To the Editor:

We read with interest the article by Pawlak et al¹ about the effect of the COVID-19 pandemic on endoscopy trainees, focusing on the decreased number of endoscopic procedures, barriers to training, and the physical and emotional well-being of trainees. With the COVID-19 outbreak the endoscopic training routines was drastically interrupted, leading to a significant gap in medical education. The implementation of virtual training, with webinars held by specialist scientific societies and simulation-based training, should be promoted to meet trainees' needs. However, can this virtual approach be effective even after the COVID-19 era?

We agree with Pawlak et al¹ that there is an urgent need to provide clear and specific recommendations in a period of substantial confusion for gastroenterologist trainees. Accordingly, we recently carried out a European survey² to assess the impact of the COVID-19 pandemic on young gastroenterologists' activity. We

showed that the pandemic had a high impact on training activities, according to the majority (84.5%) of participants, whose residual activities mainly concerned urgent endoscopies and oncologic patients. To address this issue, our findings indicated that most participants proposed the extension of the training period (58.4%), some would increase the number of hands-on courses (22.7%), whereas only a small proportion suggested increasing the number of theoretical courses (10.4%) or made similar proposals (5.2%). Hence, we strongly believe that gastroenterologist trainees need to carry out practical activities. The goal will be learning how to balance the safety of trainees with providing endoscopic skills in clinical practice. The implementation of hands-on courses and the relocating of trainees to COVID-free hospitals may be a solution. The extension of the training period will be discussed according to the local prevalence of COVID-19 and hospitals' reallocation of facilities. Academies and scientific societies should rethink their strategies and adopt national guidelines to give adequate support to gastroenterologist trainees.

DISCLOSURE

All authors disclosed no financial relationships.

ACKNOWLEDGMENT

The authors thank Marcello Maida, MD, Ivo Boskoski, MD, PhD, and Luca Pastorelli, MD, PhD, for contributing by providing the Survey data.

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<https://doi.org/10.1016/j.gie.2020.07.018>

Response:



We thank Marasco et al¹ for highlighting their European survey,² which reported substantial disruptions of COVID-19 on endoscopy training, in keeping with our global study.³ The authors pondered whether virtual (digital) approaches to training could be effective, given that 58% of respondents elected for prolongation of training.²

Cognitive skills (eg, pathology recognition, intra/post-procedural management) are integral to competent endoscopy and can take longer to acquire than technical skills.^{4,5} COVID-19 has catalyzed the uptake of previously under-used cognitive-based digital resources (Figs. 1 and 2), which are well placed to address cognitive skills.³ Online webinars, e-learning, and technical training videos are now ubiquitous and have societal backing.⁶ Social media platforms (eg, Twitter, Facebook) have become the default media for rapid knowledge dissemination, for hosting and signposting educational sessions, and for fostering a virtual global GI community,⁷ which can also enhance trainees' emotional well-being and resilience.⁸

As GI fellowships welcome new trainees, simulation-based training using inanimate or ex-vivo simulators remains the ideal modality for technical skills acquisition by novices.^{9,10} As services gradually reintroduce ad hoc patient-based training, they should embed formative assessments to identify skills deficits, individualize learning objectives, and focus competency development. Implementing Train-the-Trainer courses, modified to consider practice nuances during COVID-19, can improve the training quality.¹⁰ We agree that programs should explore alternative training settings (eg, community/COVID-free sites) to maintain social distancing, manage the postpandemic backlog, and maximize the training caseload.

We believe that hands-on opportunities lost from COVID-19 can be partially compensated for through virtual training, the balance of which can be dynamically adapted by training programs as the pandemic evolves. Programs must adapt trainees' educational opportunities to maximize learning, deliver care safely and effectively, and ultimately deliver competent endoscopists. GI societies can provide support through provision of virtual educational resources and adaptation of training and quality assurance guidelines in response to the changing face of the pandemic.¹¹

DISCLOSURE

All authors disclosed no financial relationships.