

## Endoscopy during COVID – what have we learned?

Referring to Manes G et al. p. 162–165 and Lantinga MA et al. p. 166–170



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Endoscopy 2021; 53: 171–172

DOI 10.1055/a-1327-2386

ISSN 0013-726X

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Georg Thieme Verlag KG, Rüdigerstraße 14,  
70469 Stuttgart, Germany

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COVID has changed our practice. While we are facing this challenge, we are also hoping for its swift retreat so that we can return to the “old normal.” But the “new normal” after COVID will not be the same. This crisis – as with any crisis – is also an opportunity to learn and to improve.

***“...a high proportion of endoscopic procedures may be done unnecessarily, with questionable clinical benefit, exposing patients to increased risk, incurring greater cost, and requiring more resources.”***

In this issue of *Endoscopy*, two studies from Europe highlight potential areas of improvement in our endoscopy practice [1, 2]. A 15-center study from the Netherlands [1] and a 5-center study from Northern Italy [2] examined volume, indication, and findings of endoscopic procedures during the COVID-19 lockdown period between March and May 2020 compared with the same period in 2019. Both studies found a major decline of approximately 50% in the volume of endoscopy procedures. This observation is not new, and a variable decline has been reported in several studies – as much as 75% and 100% at the height of the pandemic last spring [3]. Perhaps the more interesting findings refer to the number of cancer diagnoses and the appropriateness of endoscopic procedures.

In the study from the Netherlands, the absolute number of newly diagnosed suspected gastrointestinal cancers during lockdown was approximately 35% lower compared with the previous year [1]. The decline was restricted to esophageal and colon cancers, while the number of suspected rectal and gastric cancers remained similar. At the same time, the proportion of endoscopies with a suspected cancer diagnosis increased from 2.7% to 3.5%. However, the study lacks histology confirmation, and a suspected cancer diagnosis was based on endoscopic findings. Therefore, the results have to be viewed with caution. The strengths of the study include a very large representative sample (almost 30000 procedures were included) and the use of a detailed unique endoscopy database across all centers.

The study from Northern Italy found a 44% decline in the absolute number of new cancer diagnoses and a relatively small increase in the proportion of endoscopies with a cancer diagnosis (from 6.0% to 7.3%) [2]. Although this is a far smaller study (<3000 procedures), data were obtained from individual chart review and cancers were histologically confirmed.

These two studies confirm an earlier report from the UK that showed a 55% decrease in cancer diagnoses during the COVID-impacted period compared with the pre-COVID period, with the largest decline in the diagnosis of colorectal cancers (78%) [4]. The overall lower number of newly diagnosed cancers, however, does not reflect a true decline in incidence. We can

assume that some patients with cancer had not yet been diagnosed and that a cancer diagnosis would be delayed. As for colon and esophageal cancers, some of the decline is very likely related to a lower intensity of Barrett's surveillance and colorectal cancer screening because screening and surveillance procedures were a low priority and therefore were not performed during the lockdown period. A possible delay in cancer diagnosis is concerning. Cancers may have progressed to a more advanced stage by the time they are diagnosed and for some patients the time window for a curative treatment may have been missed. A recent study suggests that a 3- to 6-month delay in cancer surgery, particularly for stage 2 and 3 cancers, may substantially impact survival [5]. To better understand the impact of a lower number of diagnosed cancers it would be valuable to know the cancer stage at diagnosis. If a delay in diagnosis matters, we would expect to see a stage shift toward later stages following the lockdown period. Of course, change in mortality data would also be highly informative, but results would not be available for several years.

Of note, after the lockdown was lifted, the endoscopy volume did not surge above the pre-lockdown volume to accommodate the waiting lists [1]. While this may reflect the adjustments needed to practice safely during the ongoing pandemic (e.g. need for personal protective equipment and screening of patients), it is also plausible that indications were viewed more critically and scrutinized for true relevance and appropriateness.

To that end, the study from Northern Italy made appropriateness of endoscopic procedures the main objective of the study [2]. Aside from a relative increase in cancer diagnoses, the study also found a dramatic increase in clinically relevant findings per endoscopic procedure. The authors suggest that these observations are a result of restricting endoscopic procedures to the most relevant because the lockdown required that only those procedures that were most appropriate could be performed.

Assessing the appropriateness of performing endoscopies during a time of restricted access is novel. The proportion of appropriate urgent procedures increased from 57% in 2019 to 67% during the lockdown in 2020 [2]. While this clearly indicates an improvement in appropriateness, the proportion is still fairly low. In addition, the American Society for Gastrointestinal Endoscopy criteria that were applied to evaluate appropriateness only describe appropriate indications and not whether the procedure had to be done urgently. The authors acknowledge the lack of a clear definition of urgency as a limitation. But the results clearly suggest that the lockdown forced procedure requests to be assessed more thoroughly in order to better select those that were essential. The still high proportion of procedures that were performed without an appropriate indication may be surprising but may also vary substantially between different practice settings. However, what is important

to note, and probably applicable for all open access scheduling practices, is that COVID has uncovered scheduling problems. Many procedures are performed because a referring physician – typically not a gastroenterologist and with little knowledge about an appropriate (or urgent) indication – requested a procedure, which was then scheduled without input from a gastroenterologist. Therefore, a high proportion of procedures may be performed unnecessarily, with questionable clinical benefit, exposing patients to increased risk, incurring greater cost, and requiring more resources. This so-called overutilization is not new and has been formally examined in several previous studies [6–8]; yet, such knowledge alone has not led us to change our practice. Now, the pandemic has forced us to do so to some extent. In that sense it gives us an opportunity to critically assess our current practice of open access scheduling and to build a foundation of how best to receive, review, and schedule endoscopy referrals, so that we perform endoscopies with high quality for those patients who may truly benefit from the procedure.

### Competing interests

The author declares that he has no conflict of interest.

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