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An Impetus for Change: How COVID-19 Will Transform the Delivery of GI Health Care

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The ultimate fallout to global economies and worldwide health as a result of the novel coronavirus disease 2019 (COVID-19) likely will not be fully appreciated for years to come. Although the United States and other countries around the world increase vaccination rates, new viral variants have emerged that in some cases reduce the efficacy of existing vaccines. Therefore, our experience with COVID-19, which once was anticipated to be a short, time-limited, event, may be characterized more accurately as a prolonged period of co-existence. Although this raises existential questions about how to define a post-COVID period, a year into the pandemic we are now in a position to prognosticate how the short-term strategies used to cope with the pandemic's catastrophic impact can inspire deeper structural change in the delivery of gastroenterological care.

Just as COVID-19 forced governments, businesses, and individuals to make rapid adjustments to business as usual, the health care sector was compelled to swiftly alter its care delivery paradigm after the sudden rampdown of elective surgery and other outpatient care in the early months of the pandemic. Gastroenterology (GI) practices, which rely heavily on procedural volume to generate revenue, found themselves deeply affected by the sudden cessation of most outpatient cases. But these profound pandemic-related disruptions, although devastating, also have prompted dramatic innovation in our care delivery models, with rapid adoption accelerated out of necessity. Adjustments to health care rules and regulations driven primarily by the Centers for Medicare and Medicaid Services, particularly around telehealth, promoted the rapid uptake of virtual care as a means to resume outpatient management while keeping our patients and our teams safe. Likewise, early development of evidence-based protocols regarding proper respiratory precautions and preprocedure COVID-19 testing protocols allowed us to confidently resume elective procedures and address large backlogs in care.

To date, the national dialogue has focused largely on addressing immediate needs; for example, how to safely restart services and prioritize patients after widespread deferral of services in the initial months of the pandemic. However, COVID-19–related disruptions and innovations present an unprecedented opportunity to transform the status quo and fundamentally reshape how we deliver care for patients with gastrointestinal and liver diseases. Therefore, it is critical to evaluate the durability of promising pandemic-related innovations, including those addressing access to care and disparities in health, patient management paradigms, and care delivery structures and processes. The degree to which these changes become cornerstones of future care models across academic institutions, integrated health care systems, and community practices is the focus of the current article.

Access to Care

Recognition that the COVID-19 virus is transmitted primarily through respiratory droplets presented a direct challenge to the prototypical face-to-face clinical encounter. Although the capabilities of telehealth have been discussed for some time, the heightened infection risk of in-person visits prompted a massive pivot to telehealth in gastroenterology and other specialties.[1] This pivot no doubt was hastened by the decision by the Centers for Medicare and Medicaid Services and other payors to ease geographic restrictions on telehealth delivery and provide reimbursement exceptions for virtual care visits.[2]

The virtues of telehealth are manifold, including eliminating hidden barriers to care such as travel time, missed work, and ancillary costs of parking and transportation. Short-term adaptations in 2020 to prioritize safe access also presented new opportunities to establish

Abbreviations used in this paper: CRC, colorectal cancer; GI, gastroenterology.

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permanent changes designed to facilitate wider access to more patient-centered care. Although some GI care still will require face-to-face visits, the momentum and convenience of telehealth appears broadly appealing to both practitioners and patients. A recent study of nearly 1500 GI patients showed that more than 80% were willing to participate in telehealth visits in the future.[3] In this same study, 91.5% of more than 500 GI providers reported agreeing or strongly agreeing that they would continue using telemedicine within their practices.

However, challenges remain. Widely accepted and used standards for assessing patient satisfaction for telehealth visits are missing. A full understanding of the legal liability of these visits, including encounters conducted on non–Health Insurance Portability and Accountability Act–compliant platforms, is lacking among some providers and there still are outdated rules obstructing initial consultations via telehealth across state lines.[4] Relevant to academic centers, clear guidelines for trainee supervision of telehealth encounters have yet to be established by the Accreditation Council for Graduate Medical Education. Even as telehealth enhances access to care for some patients, addressing technological barriers to its adoption in patient populations already impacted by disparities in care owing to socioeconomic status will be needed. Nonetheless, telehealth's wide diffusion in practices of all specialties, increased exposure and familiarity with it on the part of patients and providers, and an ever-growing evidence base strongly suggest that the ongoing experience with telehealth will keep enthusiasm for its use high in the future. Coordinated advocacy by physicians across all specialties, however, will be critical to facilitating the continuation of relaxed telehealth rules for some provisions of services, even as the reinstatement of other rules regarding Health Insurance Portability and Accountability Act–compliant platforms requiring technology updates are expected.

There also is growing acknowledgment that the future will bring important changes to preventive care episodes, including screening for colorectal cancer (CRC), which may have a salutary secondary effect of enhancing overall procedural access. Although optimizing population-level CRC screening is a central goal for all gastroenterologists, colonoscopy-based screening has been emphasized based in part on its revenue-generating potential and in part owing to time constraints on the part of primary care practitioners (PCPs) who limit their ability to discuss all screening modalities in detail. However, with a reduction in CRC screening during the pandemic owing to endoscopy unit shutdowns and resultant procedural backlogs, early estimates suggest that the diagnosis of as many as 19,000 colon cancers may have been delayed, with associated enhanced morbidity and mortality.[5] The need to pivot toward evidence-based, non–colonoscopy-based approaches that improve access will be increasingly relevant moving forward. Indeed, changes in reimbursement structures for screening colonoscopy as well as pandemic-related disruptions have led to broader acceptance of alternative CRC screening modalities among both gastroenterologists and PCPs. This is particularly true within integrated health care delivery systems such as the Veterans Health Administration, which proactively has implemented a coordinated strategy favoring fecal immunochemical test (FIT)-based screening as a means to address pandemic-related procedural backlogs and enhance access.[6] Additional studies have shown that demand for endoscopic procedures could be moderated further by immediately implementing updated consensus recommendations for screening and surveillance that support longer intervals between procedures. Although some initial reluctance to adopting a new model can be expected, in the face of strong evidence that noninvasive testing is practical and useful it is critical that gastroenterologists take initiative in partnering with PCPs to encourage population-based screening and surveillance strategies that promote enhanced access and adherence whatever the modality. Even so, the ability to gather pertinent medical history and deliver internet-enabled procedural education and instructions (eg, bowel preparation information, diet instructions, and review of procedural risks) may decrease the need for preprocedure office visits and simultaneously increase use of direct-access colonoscopy when appropriate.

Patient Management Paradigms

As with other imposed changes, concerns regarding practitioner safety and stewardship of limited resources created an environment of re-examining accepted standards of care. For example, current guidelines recommend performing upper endoscopy in patients with nonvariceal upper GI bleeding within 24 hours of presentation. Several recent studies, performed under conditions of massive hospital reorganization to accommodate a surge in COVID cases, have yielded provocative findings. In a study of 31 COVID patients evaluated for upper GI bleeding in New York City, only 32% underwent endoscopy, however, all experienced cessation of bleeding and none died. Furthermore, in those who did not undergo endoscopy, there was no

difference in transfusion requirements compared with those who had endoscopy.[7] Although some might question the generalizability of these findings to non-pandemic conditions, taken together these data challenge the current paradigm for de rigueur endoscopy in bleeding patients.

Despite the promise of vaccinations, it seems increasingly likely that the medical workplace will look different going forward as well. Some obvious areas for redesign relate to heightened workplace infection prevention measures, given the benefits of social distancing and masks. The physical office space will be different, too. Much like telehealth for providers, flexible remote working options (or even mandates) for non–patient-facing staff can continue through virtual meetings and centralized oversight to improve efficiency. This may lead to important cost-savings and potentially facilitate or accelerate consolidation among practices[8]; although mostly anecdotal now, we expect more data on the changing model in independent practices later this year.

As the GI community continues to provide care during this prolonged period of COVID-19 co-existence, the ability of practices to be nimble and quickly incorporate new guidance into routine practice will be critical. In the United States, we were fortunate to learn from the experiences of our colleagues in Europe and Asia, resulting in the early publication of several guidance documents for safely performing endoscopy during the pandemic. The evidence base now has grown to include practice updates from the American Gastroenterological Association and other societies regarding personal protective equipment, preprocedural testing, and resumption of nonendoscopic diagnostic examinations. The American Gastroenterological Association Quality Committee recently evaluated these recommendations and, although no concepts currently are being developed into quality measures, there was a recognition that important work remains for tracking outcomes through robust quality-improvement programs.[9] New metrics, such as those that might pertain to endoscopy unit safety or others, could emerge.

More broadly, gastroenterologists' experiences during the initial months of the pandemic of re-evaluating and in some cases deferring endoscopic evaluation even for patients with alarm symptoms such as dysphagia and weight loss, came with an explicit acknowledgement that red flag symptoms come in a variety of shades. This realization, similar to the re-evaluation regarding the urgency for endoscopy in GI bleeding, may promote the development of more refined models for who is likely to benefit most from procedural investigation. Although future work will be needed, and careful consideration should be made to avoid patient harm, current conditions may be ideal to study the implications of delaying access to certain diagnostics, such as some esophageal function testing for gastroesophageal reflux disease or breath testing for small intestinal bacterial overgrowth.

Care Delivery Structures and Processes

It is evident that reconsidering procedural care models and some best practice recommendations in response to lessons learned during the pandemic will impact revenue generation under the traditional fee-for-service model. Even with diverse assistance sources such as the Paycheck Protection Program, Coronavirus Aid, Relief, and Economic Security Act Provider Relief Fund, and others, practices of all kinds have struggled and small community practices have been disproportionately burdened. Increasing costs of business related to the use of personal protective equipment, adjusted schedules to accommodate social distancing, and pandemic-related hiring freezes and furloughs are likely to further accelerate the existing trend toward practice consolidation,[10] both horizontal and vertical.

Indeed, the pandemic has exposed serious vulnerabilities in our health care system, including its outsized reliance on outpatient elective procedures to support its financial viability. Thus, the pandemic-related rampdown in elective care was devastating to practices operating under a traditional fee-for-service model. At the same time, capitated payment systems such as the Veterans Health Administration were left relatively unscathed. In this way, the health system's response to the pandemic provides experiential justification for and momentum toward a transition from volume- to value-based health care delivery in GI and beyond. Successfully adopting value-based payment models would allow our practices to be more resilient during times of disruption and focus primarily on relevant patient outcomes rather than processes of care. Under such a model there will be renewed focus on decreasing barriers to appropriate care, including through minimizing low-value care by ensuring appropriate surveillance intervals for endoscopic procedures.

It also is likely that there will be increasing government oversight of routine care in the future. New models of care delivery already have been imagined and proposed, even as final decisions on details have been pushed back because of the pandemic. One area of particular relevance to GI practices relates to Merit-based Incentive Payment System Value Pathways, comprising a subset of quality measures and activities

that can be used to meet Merit-based Incentive Payment System reporting requirements with related reimbursement consequences, and how this will impact CRC screening. Ensuring that future pathways incorporate evidence-based quality measures that are relevant and meaningful to GI providers is critical, particularly when contextualized among other expected changes to current colonoscopy-focused CRC screening programs.

Conclusions

As new realities of health emerge and we learn to coexist with COVID-19, the field of gastroenterology has an unprecedented opportunity to lead in affecting transformational change in both our specialty and the broader health care landscape. All physicians, including gastroenterologists, should not waste a crisis. Instead, with so many changes expected and further disruptions possible, our practices will need to advocate for a thoughtful and meaningful future with the health of patients, providers, and our practices in mind. Although patient management and care delivery will need to evolve along with our environment, this also will bring important opportunities for widening access to care, transforming and strengthening our practices, and improving care delivery.

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