

# COVID-19 pandemic: perspectives on an unfolding crisis

A. Spinelli<sup>1,2</sup>  and G. Pellino<sup>3,4</sup>

<sup>1</sup>Department of Biomedical Sciences, Humanitas University, Via Manzoni 113 20089 Rozzano Milan, <sup>2</sup>Division of Colon and Rectal Surgery, Humanitas Clinical and Research Hospital, Via Manzoni 56 20089 Rozzano Milan, <sup>3</sup>Department of Advanced Medical and Surgical Sciences, Università degli Studi della Campania 'Luigi Vanvitelli', Naples, Italy, and <sup>4</sup>Colorectal Unit, Vall d'Hebron University Hospital, Barcelona, Spain (e-mail: antonino.spinelli@hunimed.eu)

Published online 23 March 2020 in Wiley Online Library (www.bjs.co.uk). DOI: 10.1002/bjs.11627

COVID-19 has been declared a pandemic by the World Health Organisation (WHO) as confirmed cases approach 200 000 patients with what will exceed 8000 deaths across over 160 countries<sup>1</sup>. After the initial description in Wuhan and China, Italy was hit first in Europe and the impact has been immense<sup>2</sup>. The virus spread very rapidly such that 2 weeks from the first cases diagnosed 1000 patients tested positive. One week later the number of positive cases exceeded 4600, reaching over 30 000 patients and 2500 deaths on the 18 March 2020<sup>1,3</sup>. The region of Lombardy was the most profoundly affected, with local institutions forced to reset the entire healthcare system to face the challenges, while the Italian government ordered a nationwide lockdown<sup>4</sup>. Other nations followed, for example, Spain declared the state of emergency on 14 March and announced similar measures to be taken<sup>5</sup>.

## Outpatient clinics

Most outpatient clinics have been suspended, and scheduled patients are called beforehand by hospital administration, asking for specific symptoms in the previous two weeks (for example, fever or cough), or direct exposure to COVID-19-positive individuals. In such cases, the patient is asked not to come to the hospital and the visit is postponed. Check-points were set up to assess patients for symptoms and to provide each individual with surgical masks before

entering hospitals. No visitors or accompanying persons are allowed in the hospital and all shops, restaurants, and facilities remain closed (including vending machines).

## Elective surgery

Non-urgent, non-cancer procedures were stopped to reallocate the nurses and anaesthetists to face the COVID-19 emergency. This measure freed ventilators for patients with COVID-19 and converted surgical theatres into additional intensive care unit beds as needed. Patients with cancer were prioritized by clinical priority and availability of resources: patients in probable need of postoperative intensive care were corralled into specific, government-defined centres to free resources elsewhere. It is foreseeable that there will be a significant number of patients with benign conditions needing surgery after the surge in patients with acute viral illness falls. This will require extra resources to catch up on the backlog.

## Emergency surgery

The need to care for patients with emergency presentation still continues during a pandemic. Therefore, surgical staff and the available units have been modified to balance service provision, reducing infection risk, and specialist care. Most centres have reduced the number of consultant/attending surgeons on the ward, down to one or two with similar trainee

numbers per day, with larger teams being used for covering emergency and accident services. This policy reduces the number of working units attending the hospitals and limits unnecessary exposure of patients and healthcare providers. Indications for surgery in patients tested positive for COVID-19 should not differ from those who have tested negative in emergency conditions. Some colleagues report a worse postoperative course after complications in elective COVID-19-positive patients, but data are lacking. There are some reports regarding patients with COVID-19 presenting with gastrointestinal symptoms that mimic surgical diseases, specifically a pancreatitis-like clinical presentation.

## Considerations on safe practices

There is no agreement of whether a dedicated COVID-19 staff should be allocated to infected patients needing surgery. Patients are not being tested for COVID-19 routinely as yet, especially if they are asymptomatic. Theoretically, this would imply that there should be the highest level of personal protection attire for surgical staff in every case. Due to the shortage of protection equipment hospital management tend to recommend use only in known COVID-19-positive cases even though this stresses individuals<sup>6</sup>. Some professional bodies state that the evidence for guidelines is limited, recommending no more than standard surgical

protection for the scrub team<sup>6</sup>. This policy differs from that followed in many afflicted zone centres where the highest protective measures are being taken. There are no agreed policies about testing staff routinely but it is intuitive that it would be desirable to test all patients and staff in a pandemic. It is not clear whether the virus can be found in circulating CO<sub>2</sub> used for laparoscopic surgery or aerosol generating procedures. Some allow the use of laparoscopy but question transanal minimally invasive procedures, due to the increased risk of exposure to aerosolized biological fluids with the latter<sup>7</sup>. Laparoscopy may reduce intraoperative exposure to smoke compared with open surgery and devices for smoke evacuation and cleansing are recommended where feasible. Some suggested using the closed circuit of the pressurized intraperitoneal aerosol chemotherapy (PIPAC) if available, but cheaper and more readily available alternatives to reduce the contamination from aerosol from CO<sub>2</sub> during laparoscopy have been proposed, such as connecting one of the laparoscopic ports to a water seal created with a sealed container by means of extension lines (<https://www.escp.eu.com/covid19escp>). Special attention should be paid to evacuating residual CO<sub>2</sub> from the container and the abdominal cavity before removing the trocars. The Spanish Association of Coloproctology suggested that intracorporeal should be favoured over extracorporeal anastomosis to avoid contamination with a faecal aerosol<sup>8</sup>.

### Considerations on the impact of COVID-19 on patients

The shortage in resources and the increased need for facilities are jeopardizing the usual high standards of elective care to patients<sup>2</sup>. The International Organisation for the Study

of Inflammatory Bowel Diseases (IOIBD) provided updated evidence on COVID-19 in patients with inflammatory bowel diseases (<https://www.ioibd.org/ioibd-update-on-covid19-for-patients-with-crohns-disease-and-ulcerative-colitis/>). According to the Global Cancer Observatory of the WHO<sup>9</sup>, in Europe, every year approximately 500 000 patients are diagnosed with colorectal cancer and four million with any type of cancer. This would mean that – assuming that the crisis lasts 2 months – a diagnosis would be delayed in approximately 83 000 patients with colorectal cancer and more than 660 000 patients with any cancer. This estimate does not include the time needed to restore activity and catch up on the backlog so it is likely much higher. The COVID-19 outbreak made it necessary to suspend or reduce the number of multidisciplinary meetings. In the dramatic scenario of intensive care bed scarcity, patients with cancer may need non-invasive options as a compromise (for example, radiotherapy, chemotherapy, or both) yet there may be treatment delays due to the pandemic. The potential disease progression, which is associated with quality of life and costs of care implications<sup>10</sup>, has a knock-on effect that may happen with benign disorders too<sup>11</sup>.

### What can we learn?

Telemedicine may reduce the need for physical attendance in outpatient clinics<sup>12</sup>, thereby minimizing contact exposure where possible. Perhaps this was a good idea whose time has come in the clinical arena but are we ready to embrace the technology for academic meetings? Many events have been cancelled already this year. Virtual meetings have advantages including a better environmental profile, lower costs, and on-demand streaming. None of us was prepared to face a

pandemic. Patients, relatives, and the community need to be provided with understandable information to limit the inevitable psychological burden. Surgeons and our health-care colleagues facing psychological challenges with risk of burnout need support services. A joint international effort is advisable to face the COVID-19 fallout and establish pathways for crisis management.

### Acknowledgements

G.P. and A.S. conceived the manuscript, collected and analysed the data, wrote the draft, and approved the final version to be submitted.

*Disclosure:* The authors declare no conflict of interest.

### References

- 1 World Health Organisation (WHO) Coronavirus disease (COVID-19) outbreak webpage (<https://experience.arcgis.com/experience/685d0ace521648f8a5beeee1b9125cd>) [accessed 15 March 2020].
- 2 Pellino G, Spinelli A. How COVID-19 Outbreak Is Impacting Colorectal Cancer Patients in Italy: A Long Shadow Beyond Infection. *Dis Colon Rectum* 2020. <https://doi.org/10.1097/DCR.0000000000001685> [Epub ahead of print].
- 3 Italian National Civil Protection Department. COVID-19 Monitoring and data dashboard. <http://opendatadpc.maps.arcgis.com/apps/opsdashboard/index.html#/b0c68bce2cce478eaac82fe38d4138b1> [accessed 15 March 2020].
- 4 Gazzetta Ufficiale della Repubblica Italiana GU Serie Generale n 64 del 11/03/2020 [https://www.gazzettaufficiale.it/atto/serie\\_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2020-03-11&atto.codiceRedazionale=20A01605&elenco30giorni=false](https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2020-03-11&atto.codiceRedazionale=20A01605&elenco30giorni=false) [accessed 14 March 2020].

- 5 Cuè CE. Cabinet considering banning all journeys in Spain apart from travel to work or to buy food. *El Pais* 14/03/2020 <https://english.elpais.com/society/2020-03-14/spanish-cabinet-prohibits-all-journeys-in-spain-apart-from-to-get-to-work-or-purchase-food.html> [accessed 14 March 2020].
- 6 ACPGBI Guidance for Colorectal Surgeons and Trainees on Rising to the Challenges of COVID-19 as Citizens, Doctors and Surgeons. V2. <https://mailchi.mp/acpgbi.org.uk/acpgbi-guidance-for-colorectal-surgeons-and-trainees-on-rising-to-the-challenges-of-covid-19-as-citizens-doctors-and-surgeons?e=dfc948e882> [accessed 17 March 2020].
- 7 Yu GY, Lou Z, Zhang W. Several suggestions of operation for colorectal cancer under the outbreak of Corona Virus Disease 19 in China. *Zhonghua Wei Chang Wai Ke Za Zhi* 2020; **23**: 9–11. <https://doi.org/10.3760/cma.j.issn.1671-0274.2020.03.002>. [Epub ahead of print].
- 8 Segura-Sampedro JJ, Reyes ML, García-Granero A, de la Portilla F. Recomendaciones de actuación patología colorrectal de la AECOP ante COVID-19. Versión 1.0\_Mar\_20 [https://aecop-es.org/images/site/slider/Recomendaciones\\_de\\_actuacion\\_ante\\_COVID.pdf](https://aecop-es.org/images/site/slider/Recomendaciones_de_actuacion_ante_COVID.pdf) [accessed 17 March 2020].
- 9 International Agency for Research on Cancer. Global Cancer Observatory of the World Health Organisation. *Cancer Today* <https://tinyurl.com/w9w9msq> [accessed 14 March 2020].
- 10 den Bakker CM, Anema JR, Huirne JAF, Twisk J, Bonjer HJ, Schaafsma FG. Predicting return to work among patients with colorectal cancer. *Br J Surg* 2020; **107**: 140–148.
- 11 Celentano V, O’Leary DP, Caiazzo A, Flashman KG, Sagias F, Conti J *et al.* Longer small bowel segments are resected in emergency surgery for ileocaecal Crohn’s disease with a higher ileostomy and complication rate. *Tech Coloproctol* 2019; **23**: 1085–1091. <https://doi.org/10.1007/s10151-019-02104-9>. [Epub 29 October 2019].
- 12 Augestad KM, Sneve AM, Lindsetmo RO. Telemedicine in postoperative follow-up of STOMa Patients: a randomized clinical trial (the STOMPA trial). *Br J Surg* 2020; **107**: 509–518.

The *BJS* team wish to reach out to express our support and gratitude to surgeons and healthcare workers around the globe. These are difficult times and your leadership is key to providing the best care possible. *BJS* welcomes submissions relating to the challenges faced in this pandemic (expect publication within a week). A blog has been launched ([www.cuttingedgeblog.com](http://www.cuttingedgeblog.com)) and publication of accepted pieces will be within hours.

Best wishes to you all.

D. C. Winter MD (Editor-in-Chief) on behalf of the *BJS* Editors, Editorial Council and Board