

# Surgical Training During and After COVID-19 A Joint Trainee and Trainers Manifesto

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# Surgical Training During and After COVID-19

## A Joint Trainee and Trainers Manifesto

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**S**urgical trainees are facing the COVID-19 pandemic as well as other health workers.<sup>1</sup> So far, it has had a global impact with a difference on the time breakthrough. This is an unprecedented situation, which makes it difficult to establish agreed pathways of action, and the available evidence is based on the experience of countries that were hit first, for example, China and Italy.<sup>2</sup>

As trainees taking care of patients at our centers, we have to take into account some special considerations regarding COVID-19 management. In some cases, trainees are being asked to serve in different roles and tasks that are non-related to surgery, to cover gaps and shortage in personnel, as other colleagues are being isolated or infected with COVID-19. Surgical training has been deeply affected in different ways (Table 1).

We herein aim to describe the impact of COVID-19 crisis on surgical training and trainees, and the potential long-term effects of the pandemics on the specialist training programmes globally.

### ROTATIONS AND REORGANIZATION OF SUPPORTING EFFORTS

Due to COVID-19 pandemic being prioritized, trainees are called to help support the increased workload of the hospital units and emergency department. Caring for patients is our primary role. It is important to be ready to forgo previously conceived ideas of defined roles and be able to adapt to a fast-evolving scenario.

Surgical rotations have been immediately stopped, and all trainees have been reallocated to their specific specialties. As an example, in Lombardy, surgical trainees have already been asked to collaborate in “regional crisis units” and the emergency for the management of COVID-19 patients. Training programs have been suspended in most countries, and the recruitment of new surgical

trainees has been postponed. In some countries, video interviews are being conducted to appoint new trainees.

Of note, in some countries like Spain, Italy, Portugal, and the United Kingdom, recently graduated medical students are being appointed to join health forces at an earlier stage in their career, to face the overwhelming COVID-19 emergency.

More importantly, some governments decided to maintain the status of “junior doctors” or trainees for those who were due to complete their training programme during the COVID-19 outbreak. Many trainees felt that a more appropriate policy would have been to allow them graduating, and then appoint them as consultants. It is difficult to draw conclusions on this in the context of an emergency, but this should be considered in the future and pathways of conduct should be defined at the time of developing surgical training programmes.

### ELECTIVE SURGERY CANCELLATION AND ITS FUTURE CONSEQUENCES

Most centers have cancelled non-cancer elective procedures following international recommendations,<sup>3</sup> and transplant programs are being carried out only in selected hospitals. Some countries have identified hospitals to deal with COVID-19 patients only, whereas patients needing elective cancer procedures and emergency surgery are being referred to other centers.<sup>4</sup> Although surgery in COVID-19-positive patients is not contraindicated, any attempt should be made to delay intervention when possible, due to the unpredictable post-operative course. Some suggested worse outcome when complications occurred after elective surgery in COVID-19 positive patients.<sup>5</sup>

Trainees serving at COVID-19 hospitals might have reduced opportunities of surgical training as compared to those assigned to other-than-COVID-19 treatment Hubs. Should the crisis last a month, this would be acceptable, but the actual duration of the situation of emergency is unpredictable. Actions should be taken to offer equal opportunities of training even under these difficult circumstances.

The management and follow-up of patients during pandemic can lead to a change of surgical paradigm; current residents may live implementation of telemedicine into their future everyday practice after pandemic.<sup>1</sup>

### HEALTH CARE PROFESSIONAL'S SAFETY

As surgeons in training, even if elective procedures are cancelled, emergent surgeries are still being performed. Asymptomatic patients can require surgery as well as those who tested positive for COVID-19; therefore, safety measures must be in place in advance.<sup>6</sup> Also, they may be required to contribute to the care of COVID-19 patients.

Risk of contagion must be prevented using the personal protective equipment (PPE) consistently, in agreement with hospital policies. However, the availability of such devices (eg, gowns, mask, and goggles) may be scarce as has been reported in some overload countries.<sup>7</sup>

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**TABLE 1.** Summary of Issues Related to Surgical Training Affected and Proposed Solutions During COVID-19 Pandemic

Activities and Issues Affected During COVID-19 Pandemic	Proposed Role or Practices During COVID-19 Pandemic
Training program stopped New role working in COVID-19 hubs	Prepare with e-learning material, center formation and previous evidence to help with COVID-19 Follow local and institutional requirements helping with medical emergencies and COVID-19 units when needed.
Elective surgeries cancelled; emergency procedures continued Professionals' safety at risk	Follow surgical associations available guidelines for training at the time of emergency Learn using PPE and recommended protection Follow center policies
Academic formation: conferences, courses cancelled	Take care of your family by isolating when infection is suspected Explore remote academic training: Teleconferences, webinars and other online educational material
Surgical research interrupted	Research on COVID-19 impact on surgery: -Join current working groups -Audit your local experience
Emotional burden (family isolation, colleagues or themselves testing positive...)	Dedicated services developed at centers Seek advice from surgical and local associations Join efforts as a "Team" to maintain group motivation

Another facet to consider is the potential exposure of families and relatives of trainees in case of being isolated at home or if back from work shift. What makes it even more difficult is the capability of contagion during the incubation period, when the individual remains asymptomatic. Therefore, some trainees have decided to live in different places than their relatives.

As previously stated, most of the junior doctors and surgical trainees serving at the frontlines for the COVID-19 emergency did not receive a dedicated training to face such circumstances. It should be remarked that many Institutions have made available guidelines directed to surgical trainees. Examples are the statements from the "Association of Surgeons in Training" (ASiT), the "Asociación Española de Cirugía" (AEC), the "Joint Committee on Surgical Training" (JCST), and AIMS (Accademia Italiana Medici Specializzandi). These resources are freely available, and trainees and trainers are recommended to access them.<sup>8-10</sup>

### ACADEMIC FORMATION AND CAREER DEVELOPMENT

Meetings across different affected countries have already been cancelled or postponed, and it is likely that more will follow in the next weeks. As doctors in training, academic conferences, hospital sessions, and courses play an important part of formation. Being these delayed or, in the worst scenario, cancelled, surgical trainees are losing an opportunity to acquire academic skills and to progress their careers.

This means that new avenues of academic training will need to be explored. Platforms of remote academic training should be developed and potentiated, including teleconferencing, webinars, and other online educational material, and these could last beyond the COVID-19 crisis.

### IMPACT ON SURGICAL RESEARCH

Similarly, many ongoing research studies have been cancelled or delayed due to the impossibility of recruiting patients or running studies during the COVID-19 crisis.

Time will show if this situation has a relevant repercussion on next month's research outputs or available funding resources, but—should the emergency last longer than expected—an immense impact on reliability of findings and on the quality of the output can be anticipated.

On the contrary, as a response to the crisis, many new research opportunities and initiatives focusing on COVID-19, especially in

relation to surgery, are being proposed. The COVIDSurg collaborative (<https://globalsurg.org/covidsurg/>) is a good example. Trainees are likely to be fundamental in the development and delivery of collaborative studies on the topic.

### SOCIAL MEDIA: AN UNDERUSED RESOURCE

New technologies are playing an important role in keeping trainees updated during the COVID-19 outbreak.

Fighting against a virus which has spread rapidly at a global level, social media seem to be the ideal mean to share experiences. Many hashtags have been created on twitter like #COVIDSurg, #COVID19surgery or #COVID19ESCP (by the European Society of Coloproctology). Furthermore, entities and journals like *Annals of Surgery* are serving as "virtual sound board" on social media to ensure that initiatives and data are spread more effectively among surgical community. Social media can be used and replace learning events that have been suspended allowing access to the most recent evidence.

### DEALING WITH THE EMOTIONAL BURDEN OF COVID-19 PANDEMIC

Surgical trainees are being exposed to a very challenging working environment and they are required to work extra-hours to cover the gaps that the emergency is creating. Most of them were not prepared or trained to face similar working conditions.

The risk of burnout and psychological distress is relevantly increased during COVID-19 crisis. Trainers should be proactive in detecting any signs of struggling in trainees, and to offer them the appropriate measures to cope with their difficulties. Especially for women trainees, the need to care their children at home, due to the national school shut down, in absence of any special paternal leave, may create a further logistic and psychologic burden in this stressful scenario.

The risk to have a pandemic version of the "second victim" figure, due to the sense of frustration and isolation felt by trainees in the current scenario, could remain as an unwanted long-lasting heritage of COVID-19 outbreak.

Many institutions have established dedicated services with telephone consultation to help consultants and trainees experiencing emotional disturbances due to isolation or to the stressful situation in which they are serving. Also, joining team efforts can serve to develop a supporting net to keep team motivation during difficult times.

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## CONCLUSIONS

Surgical trainees are at the frontline of many hospitals. In most cases, they are being required to provide medical support during the crisis. As future surgeons, their careers are likely to be affected by the COVID-19 outbreak in several ways. Once COVID-19 emergency is settled, revision of the training programmes to include the critical issues raised during the crisis is desirable, globally. Finally, only through the efforts of all team members including consultants as trainers, trainees, and other health workers we are going to be able to overcome COVID-19 pandemic.

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