

IS IT FEASIBLE TO CONTINUE THE ACADEMIC SURGICAL EDUCATION DURING THE COVID19 PANDEMIC?

During COVID-19 era, our routine practice as surgeons has been affected and there is a persistent need to be modified and this leads different surgical societies to make their recommendations and guidelines to overcome this challenging situation.



Although all medical training and education are affected by pandemic, surgical training generally and subspecialties specifically are more affected due to the need for in person practical training. The residents must accomplish their requirements regarding practical procedures and interventions in order to complete their educational program, qualify for final examination, and they should attain post-degree qualification and competency.

In addition to the limitation in theoretical education (in person seminars and conferences), reduction in the patients' number and delaying all non-urgent procedures negatively affect interventions. These factors definitely have an impact on surgical training quality.

In this context, several questions came to play; first, is there any difference in the surgical education and training between the pre-COVID 19 and the intra-COVID19 periods?. Second, how can we employ advanced technology to overcome the obstacle facing surgical education at this critical time?. Third, is there any way for better exploit of technology to improve the residency training?

The traditional educational system had crumbled due to emerging situations such as keeping social distance and reduced elective surgical procedures. These difficulties were overcome to some extent by the utilization of new technologies, alternating clinical activities with learning. There are many technological platforms like video-based education, virtual rounds, virtual reality and three-dimensional (3D) printed models.

These technologies are not without concerns and cannot replace the actual hands-on training. The quality, cost, and completeness of videos are the main challenges.

Virtual rounds and virtual clinical training have already been implemented by Johns Hopkins and Jefferson Universities which include 3D software for virtual clinical examinations, anatomic dissection, basic surgical procedures, resuscitation and virtual ambulatory encounters.

Surgical simulators may also be a good option to improve juniors confidence and reduce the curve for several procedures.

Virtual reality (VR) allows operator to interact with the objects within virtual surroundings.

Three-dimensional (3D) models facilitate the understanding of anatomical details.

As a conclusion, the duration and magnitude of this pandemic is unpredictable and we need to be prepared to deal with the next step of challenge. We are aware that medical care is the result of interaction between patients and physicians.

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