

## Telemedicine is a Challenging Need for Anesthesiology

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Along with the advancement of technology and the possibility of face-to-face communication, our world seems smaller every day than the previous day. The possibility of providing video conferences using the Internet with high bandwidth has been able to provide suitable conditions for the development of healthcare and health services tools around the world. Telemedicine has introduced a network for the access of patients and different people to secondary doctors in situations where it is not possible to refer to specialized medical care. Meanwhile, the use of digital interfaces and physiological monitoring has played a good role in the service of anesthesia. With the help of these developments, doctors can visit patients in need of care from far away, even across different continents.

Here we highlight the importance of telemedicine in the field of anesthesia. With significant improvements in the access of people around the world to the Internet and satellite communications, the possibility of connecting different medical centers around the world to each other has been provided. These communications can cause the transmission of necessary orders for various services such as radiology, anesthesia, emergency, or special care [1]. In the United States, health-related information is provided in different regions with the help of telemedicine. This technology, especially in villages and deprived areas, has been able to establish health care and development programs at the level of different states. So far, the success of telemedicine has been proven in fields such as radiology and primary care, and it is rapidly advancing in other fields. Among the services used in

telemedicine, we can mention consultation, triage, and monitoring of the patient's clinical conditions. In medical emergencies, triage and patient management communication with emergency personnel is established through telemedicine [2]. On the other hand, telemedicine can be used to improve the field of anesthesia through evaluation of the patient's condition before surgery, intraoperative consultation, and training and simulation.

Among the systems used to communicate with the doctor remotely are telecommunication systems that can provide the possibility of training and simulation. These simulation systems can provide training conditions for different people based in different medical teams around the world in emergency situations and if available. In a study, researchers designed a detailed simulation system by which a two-way video conference was held over long distances. In this system, educational sessions were held with the help of simulation videos by an online referral network [3]. Through such a system, students can participate in a simulated mechanism and remotely influence its implementation [4-6]. One of the advantages of this method is that without the need to transfer medical equipment and personnel, it is possible to monitor and play a role in a therapeutic or educational process. Also, in the case of reversing the implementation process, students can supervise or guide the activities of the treatment team based on the place of treatment as a consultant.

One of the most important issues that must be considered in the development of telemedicine programs is obtaining the necessary licenses and the professional

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responsibility of the participants. For this reason, it is necessary for doctors and all hospitals that want to use the telemedicine program to obtain access licenses to these programs from the service providers. In America, the American Medical Association is responsible for supporting these letters and there is strict supervision of the balance of the conditions of doctors providing remote care and doctors providing services on-site [7]. It is also necessary to review existing plans and policies in the event of a medical error or an unexpected result. In addition to this, the medical malpractice laws of each of the clinical caregivers must be evaluated very carefully because in some cases the plaintiff may complain to the telemedicine service provider or the local doctor. On the other hand, institutions providing telemedicine programs and people using these services must be justified in terms of responsibility and obtaining the necessary permits. Paying medical expenses remotely is a regular process [8-9]. With the help of this method, it is possible to save money by reducing the number of visits to the clinic. With the help of this method, surplus resources can be used to promote economic health and improve general clinical conditions [10].

In the United States, telemedicine programs for evaluating and educating patients before surgery have avoided long and expensive trips. It seems that in the coming years, telemedicine can play a positive role in the management of remote anesthesia consultations in different medical centers and even in remote places.

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