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Editorial

Tele-critical health care: Lessons learned from the pandemic.

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International society for telemedicine and e-Health.

The approach of remotely managing critically ill patients via an off-site command center was implemented since decades. However, SARS COV-2 pandemic lockdown triggered an urgent need for more innovations to ensure the continuity of intensive care units services when self-isolation was needed to prevent and reduce infection rates. Hence, implementing tele-intensive care units (tele-ICU) became a must and seems to be the future system cornerstone. The Society of Critical Care Medicine's Tele-ICU committee has recently described various models of tele-critical care (TCC) and its current adapted applications [1].

The ability to regionalize advanced critical care support such as nonconventional mechanical ventilation modes, extracorporeal membrane oxygenation, and other complex needs may be simplified with telemedicine [2]. Experienced intensivists can provide a real-time support to the local teams and participate to the decision making while performing virtual rounds using high-definition audio/visual (A/V) equipment. Moreover, TCC may enhance the intervention quality for emergency situations such as advanced cardiac life support. The immediate delivery of an intensivist to the room via A/V technology may save time and promptly initiate life-saving procedures. Instead of "all hands-on deck" approach, code leadership by a tele-ICU intensivist may allow to reduce the number of the on-site responding staff. The benefit was objective in several scenarios during the pandemic era and enabled a full compliance with the social distancing requirements [3].

The COVID Caregiver Cockpit is an approved connected health care solution which is compliant with the FDA classification for Mobile Medical Devices. It offers various enhanced features that allow remote patient monitoring, and secure inpatient ward staff communications. COVID Caregiver Cockpit might be an example of the great flexibility and adaptability of TCC solutions with unexpected emergencies [4].

The cost of Tele-ICU varies depending on the setting, hardware, software, training, and compatibility issues with other health systems. Cost was usually considered as limiting factor for the implementation of eHealth solutions. However, the return on investment (ROI) for an implemented Tele-ICU seems to be satisfactory especially in case of shortage in bedside board-certified intensivists [5]. Physician acceptance of TCC technologies was not optimal at the beginning of the experience. However, the urgent need during the pandemic has permitted to prove the TCC efficacy and increased its acceptability.

Based on this objective benefit of TCC, several savant and scientific societies recommended the integration of telemedicine consultations into routine clinical care [6].

Recent reviews of the literature provided several examples of successfully implemented telehealth services. A framework of patient-centered telehealth models implementation should be introduced in all clinical practice settings [7,8].

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