589 Video-Enhanced Telepresence for Burn Care may Improve Patient and Staff Satisfaction

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Introduction: Telemedicine and telepresence technology successfully contributes to the care of patients in different medical disciplines. Burn care is a highly specialized field that requires a multidisciplinary team and frequent visual evaluation of a patient's injuries. Wound care can be extensive and demanding. Physician availability at the "Wound Care Room" is often limited by other responsibilities in the operating room, emergency department, surgical clinic, or academic conferences. We hypothesized that the incorporation of a telemedicine platform would provide greater access to surgical providers (SP- burn surgeons, general and plastic surgery residents) and allow for more efficient evaluation and prompt decision making. We also predicted that it would improve communication among SP, nursing staff (NS-nurses and nurse aides), and burn patients (BP) in real time without compromising BP privacy and comfort.

Methods: A dual-way video and voice telemedicine platform was incorporated into burn care at a Level-1 Trauma Center and ABA-verified Burn Center. The video module was positioned so that SP were able to remotely assess the progression of burn injuries during wound care. Patients included were hospitalized and undergoing wound care by NS. Adult BP were included regardless of age, burn thickness, and burn surface area. BP, SP, and NS were asked the following questions after wound care had been provided:

- 1. Did you feel comfortable using this technology?
- 2. Was the patient's sense of privacy compromised?
- 3. Did use of the video module enhance the provision of care?
- 4. Did use of the video module improve team communication?
- 5. Overall, were you satisfied with the use of the platform?

Results: BP with ages ranging from 18-74 years old and with injuries involving 8-44% TBSA were included. Interviews from 38 patient encounters were conducted, and included input from 4 SP, 6 NS, and 24 BP.

The BP, SP, and NS surveyed all reported comfort using this technology. There were no reports of concern for patient's privacy. SP felt they could make a final management plan in 74% of the cases, with difficulty arising in 26% of cases due to image resolution. BP reported that use of the video modules contributed positively to their care in 87% of cases, with issues related to communication and lack of understanding arising in the other 13%.

Conclusions: Telemedicine was well accepted by all the BP, SP, and NS. The perception from NS and SP was that it enhanced prompt communication contributing to better patient care. Final management decisions were achieved in most cases, with picture resolution being identified as an area for improvement. With improved picture quality, this technology can likely be used as a reliable decision-making tool to improve care.

589 Burn Center Trainees: Not Just for Surgery or Plastic Surgery Residents

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Introduction: The Burn unit offers a unique training environment for residents. The Accreditation Council for Graduate Medical Education (ACGME) requires all General Surgery trainees to have knowledge of burn physiology and experience with initial burn management. However, there are no burn requirements for other ACGME-sponsored training programs except for Plastic Surgery. Since care of the burned patient spans multiple settings – the intensive care unit, operating room, wards, outpatient clinic, and the emergency department – having residents from varied specialties might benefit not only the trainee, but also the Burn Center.

Methods: A retrospective review of all residents rotated to the burn center of an American Burn Association verified unit was performed. Data from the 7/2018-6/2018 academic year were collected by analyzing resident rotational and call schedules of both intra institutional and inter-institutional residents. The specific time period was chosen to account for COVID affecting the number of residents more recently.

Results: A total of 48 residents rotated at the burn center during the studied academic year. Within the institution, there were 34 residents (71%): 12 general surgery interns (8 categorical, 4 preliminary), 2 plastic surgery interns, 10 emergency medicine (EM) residents, and 10 anesthesia residents. There were 14 residents (29%) from 3 outside institutions: 3 plastic surgery residents, 8 surgery interns from one program, and 3 surgery interns from another program. All surgical specialty trainees were interns, whereas other specialties, EM and anesthesia, were PGY2 trainees.

Conclusions: While most residents were from general surgery and plastic surgery programs (58%) due to ACGME requirement, a significant portion of the resident complement (42%) was from non-surgical specialties. EM residents gain competency in wound reading as well as burn critical care. Anesthesia residents learn surgical management of the burn patient and critical care procedures. Since the burn center is a tertiary referral center, having outside residents rotating in the burn unit might facilitate transfers and increase knowledge of proper resuscitation.