Caring for the Polytrauma Patient: Is Your System Surviving or Thriving?

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When taking care of the polytrauma patient, coordinated care between services has been demonstrated to lead to improved outcomes on various levels. However, most trauma centers function in a constant state of chaos, where communication between services is sporadic and haphazard. It is in this environment that communication between services is paramount, not just to improve the flow of information between services, but to improve overall patient care.

Each of the authors come from different residency training programs and in each, there was very limited coordination between the general surgery and orthopedic trauma services. In most cases, discussions about the daily care of patients would be between junior residents and interns, who may not recognize the big picture in the polytrauma patient. This can lead to inadequately resuscitated patients going to the operating room, or unanticipated intra-operative needs slowing down treatment including inadequate lines/monitoring and blood available. In addition, poor communication in the postoperative period can lead to inaccurate weight-bearing status and physical therapy plans being initiated, as well as incorrect information being relayed to the patients' family members.

At Vanderbilt University Medical Center, the orthopedic trauma fellows meet with the general surgery trauma team every morning during the trauma conference to review the plan for all orthopedic trauma patients on the general surgery trauma service. We briefly review old patients but primarily focus on new patients to discuss optimal timing for the operating room (OR) and anticipated intra- and postoperative needs. We also focus on ensuring appropriate postoperative plans have been established to facilitate patient disposition in the postoperative period. These meetings occur at 7 am every morning—even on weekends and holidays—and last anywhere from 5 to 20 minutes. During these meetings, the general surgeons may highlight aspects of a patient's physiologic status that we, orthopaedic surgeons, had not recognized and recommend that we postpone surgery a few hours while they optimize the patient for the OR. In other cases, we discuss anticipated length of time in the OR, patient positioning, which can sometimes be an area of concern, and blood loss. These discussions may lead both the general surgeons and orthopedic trauma surgeons to change their current approach to better meet the needs of the patient by looking at the bigger picture.

Through this coordinated approach, our services operate very well with one another, which equates, in our opinion, to better overall patient care. The following is one case example highlighting the collegial relationship between the two services.

A middle-aged male was shot with a high-powered rifle resulting in a comminuted femur fracture and dysvascular extremity. The vascular surgery team felt that the leg could not be revascularized and recommended immediate amputation. After discussing it with orthopedic trauma, it was felt that an amputation might be necessary, but that it did not need to occur that night and that an attempt at limb salvage was possible. Following this discussion, the patient underwent external fixation by the orthopedic trauma service and the general surgeon performed leg fasciotomies. While this is a relatively common scenario at many trauma centers across the country, we want to highlight that communication between services not only lead to improved patient care by attempting to salvage the limb, but also improved communication with the family. The family and the patient were then able to have time to adjust to the possibility of an amputation should limb salvage not be successful.

All too often our trauma services operate independently of one another. While the case presented here is a relatively common scenario in one form or another at many trauma centers, we would venture to guess that many of the orthopedic trauma and general surgeons may never even be found in the operating room at the same time. Due to our frequent daily interactions, our two services have developed a camaraderie with one another that facilitates an open collegial relationship that makes interservice communication easy, which we feel leads to better overall patient care.

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We sought to share the experience we have had as fellows in orthopedic trauma and surgical critical care and acute care surgery as well as to highlight the effectiveness of daily communication. It requires a commitment from both services to reserve the same 15 or 20 minutes every day to meet. But once these daily exchanges become the norm, it leads to a change in culture. And rather than surviving in a state of chaos in the busy trauma centers, we can thrive in a culture of coordinated patient care. ■

Commentary

Oscar D. Guillamondegui, MD, MPH, FACS, Trauma Medical Director, and Associate Professor of Surgery, at Vanderbilt University Medical Care Center, provides additional insight on the topic of caring for the polytrauma patient. His commentary is available online at http://www.amjorthopedics.com.