HPC comments on COVID-19 and its effects on orthopedic trauma and fracture management.

While the direct medical effects of the COVID-19 pandemic are tangential to orthopedic trauma and fracture management, the indirect effects on our patients and their management, as well as the effects on our health care delivery systems and providers need to be discussed. CMS, the American College of Surgeons, as well as the American Academy of Orthopedic Surgeons have all issued formal statements with regard to the management of elective procedures. Fracture management and orthopedic trauma are unique aspects of orthopedic surgery that are often gray rather than "black and white".

For the purposes of this discussion, we will be addressing fracture management and orthopedic trauma, not procedures generally considered to be more elective than fractures. The orthopedic surgeon must consider many issues when choosing to either proceed, delay, or cancel fracture surgery. First and foremost is the safety and well being of our patients and fellow care providers, nurses, surgical technicians, etc. The orthopedic traumatologist possesses a unique skill set and knowledge base that cannot be replicated by other surgeons. For this reason, measures should be taken to protect our availability for the management of complex trauma.

Inpatient surgery likely carries a greater risk of exposure to ill patients and care providers, and when possible, outpatient surgery should be considered when surgical intervention is deemed necessary. Telemedicine should be utilized when appropriate to minimize both patient and provider exposure. Deliberate minimization of face to face encounters, while not compromising patient care, should be part of the thought process as to operative versus non-operative management. In certain situations, surgical intervention may actually decrease exposure.

In addition to the areas where the orthopedic traumatologist's clinical acumen is required to determine the specific management methodology, other issues need to be considered.

- 1. Current and projected burden of COVID cases in both the facility and region.
- 2. Supply of PPE locally, regionally and nationally, and the effects of PPE utilization weighed vs. the patient's individual situation.
- 3. ICU and ventilator capacity locally and regionally.
- 4. Health, age, risk factors and co-morbidities of the patient.
- 5. Relative urgency of the procedure and assessment of the risks of delayed fracture management.

Clearly, the surgeon **and** patient, while considering the aforementioned concerns, must weigh each individual situation. Utilization of resources, severity of injury, potential long-term disabilities and the global health of our patients should all be carefully contemplated in these unique times.