ORIGINAL ARTICLE

# Dilemmas in COVID-19 Crisis: Have Responsibilities of Orthopedic Surgeons Clearly Defined?

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## Abstract

Coronavirus disease-2019 (COVID-19) has come up as most difficult problem as of today faced by whole world especially by the medical community. All kinds of measures are being done by various governments and health officials to deal with this present pandemic. Intensivists, physicians, and anesthetists have defined role in primary and ICU care. Although the orthopedic community is not involved in first-line management of COVID-19-infected patients, we have equal responsibility to provide emergency care to all trauma patients and various other orthopedic emergencies. While delivering services, it is essential to restrict the consumption of various resources. It is our collective responsibility to prevent the spread of infection among healthcare workers and patients. Lockdown implemented by various governments has impacted the global economy, which in turn resulted in reduction of purchasing power of patients, so we may have to choose more cost-effective implants and curtail the number of investigations. While performing operations, certain procedures like using diathermy and saw blade generate aerosols. So, it is our responsibility to understand these procedures and to make use of them only when absolutely essential. We may experience second wave of cases later this year. Relaxation of lockdown may not mean relaxation from the virus.

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Coronavirus disease-2019 (COVID-19) is the latest crisis that has engulfed the world. The World Health Organization (WHO) declared COVID-19 a global pandemic in March 2020.[1] Such is its impact that any discussion, whether global or local, is somehow related to coronavirus in one way or the other. The social media has also played its role in spreading the information and misconceptions alike like wildfire. It is indeed a global war in which healthcare workers are quoted as the first line of defense against the enemy. Although the orthopedic practice has been markedly affected by the crisis, yet it can be arguably commented that the orthopedic community is not the flagbearer of the response against the COVID crusade. Intensivists, physicians, and anesthetists have their roles defined in ICU care. Various scientists are busy in drug discovery and industries have also attempted to do their bit. Corporations such as Dyson converted from production of vacuum cleaners to ventilators.[2]

Various authorities across the globe have attempted to play their part. The UK government introduced a bill to reinstate more than 65,000 healthcare workers who had retired since 2017.[3] There were reports that some orthopedic specialists in the United Kingdom, the United States, and European countries were being posted in intensive care units and emergency departments to deal with coronavirus crush. Soon, various recommendations in wake of permutations of disease load started to float in India as well. We started preparing for managing the COVID patients in case the situation goes out of control. Thankfully, the disease load has not been unbearable in India and so far the orthopedic community has not been "required" to stand at the forefront. However, this does not label us as mere passive participants. The orthopedics community has its own roles and responsibilities during these testing times as well. It is essential that every member of the community understand his or her role so that there is no controversy in the path to attain victory against the ever-increasing wrath of coronavirus.

Until vaccines are available, we have to ensure that the healthcare systems are not overburdened. A patient who is infected can be the source to many other healthcare workers. A surgical procedure is a team effort involving professionals from other departments such as anesthetists, technicians, etc. It is our responsibility to ensure carrying out relevant tests does not infect the patients. Although elective surgery shall resume in near future, we have to constantly monitor and restrict ourselves and not flood the medical resources.

Certain things would never be as they were before. With relaxation in lockdown, it would take time for the society to reacclimatize with the "new normal." We have to share the responsibility to smoothen the transition to this phase of "new normal." We have to ensure the relevance of social distancing and sanitization is not forgotten. We have to ensure our outpatient clinics are not overloaded.

Lockdown has also impacted the nation's resources. India is staring at its first recession in the last 40 years. GDP could shrink by 25%.[4] The crisis has created significant stock market shifts and marked rise in unemployment. This leads to reduction in purchasing power of the population. Not many citizens in our country have the luxury of private health insurance or the cover of the AYUSHMAN Bharat scheme. The best we can do in this time is to understand the economics of a diseased individual and offer the treatment that accommodates well both to his medical as well as financial

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status. We have to acknowledge that our implant choices may be curtailed owing to reduction of purchasing power of the patients. This may pave way for renegotiations of vendor contracts either at the individual level or at the institutional level.

Fearful minds lead to disastrous results. We may find fear both in the minds of patients and colleagues. The patients may be apprehensive to visit hospitals citing it to be the source of infection. Similarly, some of our colleagues may have their reservation against the workplace or visiting patients frequently due to fear of contracting the infection. Either ways, this trepidation is the recipe of a poor doctor–patient relationship. It is our responsibility to ease out sources of false alarms from the minds of patients and our colleague to restore the sanctity of patient–doctor relationship.

The virus is known to spread through aerosol-generating procedures (AGPs). Use of high-speed burr, saw blade, and diathermy is notorious to create aerosols.[5] The WHO has recommended airborne protection for procedures that generate aerosol based on assessment of risk.[6] It is our responsibility to understand these procedures and to make use of them only when absolutely essential. Given the nature of viral transmission through AGPs, percutaneous or minimally invasive procedures and arthroscopic procedures would appear safer to perform.[5] The safety profile further increases if the procedure is conducted under regional anesthesia compared to a procedure done under general anesthesia.[5] Various intraoperative modifications such as preferring osteotomes over bone saw, saline irrigation using syringe thereby avoiding the pulsed lavage system should be implemented to decrease aerosol generation. The importance of limiting aerosol generation cannot be overemphasized to the orthopedic community. It is also essential that we are fully aware of intricacies of donning and doffing of PPEs. Hannum et al.[7] revealed that healthcare individuals who had a formal training on respirators fared better results on qualitative assessment tests of techniques compared to those who did not achieve formal classes on this aspect. It is our responsibility to ensure that we get appropriate information on equipment such as PPE so that our safety and safety of our colleagues is not compromised. Besides, we have to ensure that negative pressure theaters are being used as their efficacy is well documented in regards to severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS).[8,9] Ensuring proper OT room air exchange and adequate amount of time between cases are also additional facets about which we have to be careful.

The official seal of American College of Surgeons states, "To serve all with skill and fidelity." These testing times by no means give us any license to compromise the quality of care provided to patients. Strategies have to be devised to strike a balance between providing skilled care to each patient and overexhausting our senior surgeons. The Salzburg concept[10] of creating COVID surgery service (CSS) can be remodeled and separate teams each including specialists of complementing expertise can be formed. It is ensured that only one team is being exposed to patient at a particular point of time. It provides for backup in case there is breach in protection against infection. It would be appropriate to see a senior surgeon to take lead in performing procedures as they are on better side of the learning curve and are more likely to perform the procedure in less duration. Although this may hamper the quality of training, this can be compensated later when circumstance improve. This can pave way for further advancement in virtual surgical training software development and acquisition.

There would be many unfortunate patients who could not seek medical advice during the lockdown. Our community is expected to see more number of patients with malunion, nonunion, infected follow-ups, stiff joints due to nonavailability of physiotherapists, and aggressive tumor patients. We need to realize many of them have landed into the situation for no fault of their own. We need to be more empathetic toward them; our counseling sessions need to further improve to adjust to the "new normal" scenarios. We also need to address that the surgical procedure would be more challenging than before owing to these factors. Wearing PPE kits leads to decreased dexterity, impaired visibility, and dehydration.[11] These factors can combine to impede surgical expertise. Mental apprehensions while operating further complicate the matter. It may take time for us to realize this change and adjust to "new normal."

We would like to submit to the fact that not much is known about the virus. We may experience second wave of cases later this year. Relaxation of lockdown may not mean relaxation from the virus. The orthopedic community has its share of responsibility to contribute to the health care against this fight. It is not time to rejoice; rather, it is time to retain the guard and stay vigilant.

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