European Journal of Orthopaedic Surgery & Traumatology (2020) 30:555–557
https://doi.org/10.1007/s00590-020-02670-x

EDITORIAL

Lead the way or leave the way: leading a Department of Orthopedics through the COVID-19 pandemic

Cyril Mauffrey[1,2] · **Alex Trompeter**[1,2]

Published online: 17 April 2020

Dear Readers

We hope that you are staying safe during this COVID-19 pandemic that undoubtedly represents the biggest challenge humanity has faced in many generations. The global nature of the threat, the invisibility of the enemy and the unpredictable target have all contributed to creating the perfect storm hitting what we assumed was a robust equilibrium. Cynics say that perhaps, our planet will remain the only beneficiary of this crisis through reduced pollution, a well-needed breath of fresh air for the disappearing fauna and flora. Optimists, however, believe that once this hurricane is over, we will be more united, better prepared and more appreciative as a society of those essential jobs (those that help us survive during this time of pandemic: the trash man, the frontline hospital staff, the food supply chain workers, the cashier, the teachers and many more). The general population (not involved in health care) has had ample time for reflection through a someways possibly positive time away from work, at home with family. However, it is true that this has turned into a real nightmare for many: with unemployment, rising bills, homeschool chaos, risk of depression, social isolation, growing violence and a sense of no light at the end of the tunnel. While the current and short-term outlook is bleak, we, as healthcare providers and leaders, must be there now more than ever. There are those on the front line taking care of patients, some organizing supplies of personal protective equipment, those ensuring that we still deliver care for patients victim of trauma and others organizing and creating ICU beds. The list is endless, but we need to act now. The spread of COVID-19 is happening rapidly. The surge of cases is upon us, the peak of the curve forthcoming. We cannot be complacent and wait to embark on a period of rumination after this is all over, wondering what if…. We need to act now. As orthopedic surgeons, we are not the vanguard in this war. That role falls to our intensive care, anesthetic, medical and nursing colleagues, not to mention the huge number of allied healthcare professionals supporting them. So, what is it that we, as an orthopedic community, should be doing?

Clinical care and how it is delivered The entire department will need to adapt to the crisis and focus on urgent/emergent needs. The basic services that cannot be discontinued, at least in level I trauma centers, include emergent fracture care, infections, tumors and dislocations. The American College of Surgeons has issued a document highlighting some of those triage criteria [1]. This applies to all surgeries. The purpose of such a strategy of canceling non-urgent services is multifaceted: preserve valuable personal protective equipment, avoid unnecessary exposures to and from patients from COVID-19 and finally reduce the inpatient bed, nurse and staff essential resources to treat COVID-19 and/or trauma patients. The key strategy here is to have a robust scheduling team that will facilitate the cancelation of elective work and help administrate the running of a department through uncharted waters.

The perioperative committee should also reduce the number of operating rooms that will be utilized to about half or even less. This consolidation process protects staff, equipment and resources. For clinics, the focus should be geared toward trauma care with level loading of such clinics throughout the week.

Now that our non-trauma colleagues have more time on their hands, they can be utilized to staff those clinics during the week ensuring adequate access to trauma patients and postoperative patients. We may be called upon to support our medical colleagues on their wards.

The drastic cultural shift in duties and responsibilities is not an easy task. Surgeons who work on the trauma call

✉ Cyril Mauffrey
mauffreyc@gmail.com

[1] Department of Orthopedics, Denver Health Medical Center, 777 Bannock Street, Denver, CO 80204, USA

[2] St George's University Hospital, London, UK

will have to be paired in teams with one or two residents (also working in teams). This allows some level of protection from infection when one team is off while ensuring continuity of care by the team covering the urgent operating room and the call. Attendings and consultants need to be prepared to deliver many aspects of care and administration themselves.

The new schedule will undoubtedly include providers that are busier than others. The Chairman/DOS/Clinical Director should have a very clear understanding of his staff's clinical ability and desire to cross train in other areas of the hospital should the need appear. Surgeons/nurses/residents with anesthesia, emergency room and intensive care experience should be ready to deploy in other areas when required. Those with no experience should be willing to enroll in rapid educational courses to familiarize themselves with ventilators. Flexibility and good leadership are and will be paramount.

Communication During this crisis, some opportunities arise and what was in the works for many years, has now materialized instantly. Telemedicine, for example, has been and will remain an incredibly powerful tool that will change the face of healthcare delivery. We have set up telehealth visits daily that can be staffed by residents or providers to allow access to patients with non-urgent needs and provide some level of counseling, referral to physical therapy, and prescribe medications and reassure. Regional telemeetings supporting peripheral units that may see an increase in their level of trauma patients due to re-triage in their network are also valuable.

Education and meetings Participation to in-person educational events is no longer safe or recommended. Once again the department should be organized to maintain the minimum requirements which in our minds include daily fracture conference and mortality and morbidity (M&M) weekly meetings, along with specialist training particular to this pandemic. For the former, we suggest a daily morning conference with minimal attendees in person: one chief resident, one junior resident and the resident on night duties. Plus one faculty from the orthopedic trauma team and one from the hand/spine team (if that reflects your service) attend in turns to ensure continuity of care, planning of surgeries and quality control. The M&M occurs weekly using internet platform. The majority of the department can attend such educational, quality control meeting. Some institutions, including ours, have maintained weekly virtual didactic activities to ensure continuity of learning opportunities for our learners. Various platforms are available. We found that this time was ideal to enhance national and international cooperation inviting guest speakers from other institutions both nationally and internationally.

In our opinion, such changes will change for the better, the format of future educational opportunities including grand rounds lectures. For our weekly resident teaching, we reinforce the importance of reverse classroom structure where residents prepare a lecture on a predetermined topic (following the Academy's or the Royal College of Surgeons curriculum). This educational event can include a journal club to familiarize learners with critical appraisal of available evidence (or lack of). The introduction of technology and virtual meetings into our normal working patterns should be a welcome addition for future delivery of orthopedic care and education.

Research Research structure and productivity, under current circumstances, will be affected. The majority of non-essential clinical staff has been sent home to work remotely, and this, usually, includes research coordinators and research fellows. Despite this potential challenge, we may actually become more efficient. While it may be more challenging to recruit or follow up patient enrolled in prospective trials, database analysis, systematic reviewers, book chapters and technique papers can enhance the department's academic productivity in a time where clinical productivity suffers. In addition, research coordinators and fellows can prepare research protocols by formulating research questions and hypotheses ready to be looked at when the hospitals resume their activity.

Operations The operational aspect of the department will need to be adjusted. This requires a strong leader that has an excellent relationship with the hospital's administration. The chairman, Director of Service (DOS) or Clinical lead for the department will be the crucial bridge (or highway under the current climate) between the group and the administration. Lines of communication between the Chairman/DOS/Clinical lead and his department should be open, transparent and bidirectional. I have set up a daily call in conference where all members of the department can ask questions, and updates on the status of the crisis can be exchanged. It is critical that the team understand that they are valued members and that the situation is extremely fluid. Schedules that may work this week may become obsolete the next.

Ethical considerations Members of the department should be ready to participate in some extremely challenging ethical decisions. It is crucial to create an ethics committee that has racial/religious/socio-economic diversity and that include clinicians and members of the public to inform those decisions. Criteria should be put in place in advance to guide those decisions and be blinded to patient-specific issues that may sway the decision making. (This is really tough.) Some may have national guidelines that have been developed to support this process.

There is a huge amount of work to be done in getting your trauma service prepared for the next few weeks. There is no doubt the majority of units have got plans in place, but our experience is that by the time your plans are circulated they will need to change again. You need the next two or three iterations of planning ready to go at the drop of a hat. Until a couple of months ago, 'Getting it Right First Time' was a mantra well appreciated in orthopedics. With the COVID-19 pandemic, we may not get it perfectly right as there are too many unknowns, but we have to have plans in place—Getting it Right In Time is perhaps the more appropriate mantra now. We have to have dynamic processes and systems that allow us to move forward at the pace the virus dictates, not how we would like to work.

Finally, we must stay optimistic and we should not stop stifle hope. This feeling is perhaps better highlighted by the fact that despite the uncertainty, the doom and the daily metrics that keep climbing exponentially (even when you convert the curves to logarithmic ones), we are making plans for when this invisible microscopic malignant lethal threat goes away. When normality inevitably returns, our orthopedic patients will need us the most, and will have to be there for them. When this ends, may we find that we have become more like the people we wanted to be, we were called to be, we hoped to be, and may we stay that way---better for each other, because of the obstacles we have overcome. You do not need to know precisely what is happening, or exactly where it is all going. What you need is to recognize the possibilities and challenges offered by the present moment and to embrace them with courage, faith and hope [2].

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

https://www.facs.org/covid-19/clinical-guidance/elective-case/orthopaedics

Laura Kelly Fanucci and Tomas Merton, related by Steven Lowenstein, the Associate Dean for Faculty Affairs at the University of Colorado, School of Medicine