Anesthesia Finances in the Age of COVID-19

PART 4 – The Journey After COVID-19

Howard Greenfield, MD; Robert Stiefel, MD & Keandra Brown-Davis, MHA

Parts 1, 2 and 3 of Anesthesia Finances in the Age of COVID-19 dealt specifically with the immediate financial implications of various levels of anesthesia support during the COVID-19 pandemic and the impact on facility surgical revenue during the recovery from this crisis. In our past examples, surgical case volume and anesthesia professional fee revenues were down 80% due to cancelation of elective operative and diagnostic procedures. In many instances, anesthesia groups have been asked to reduce their subsidy, or change the current support arrangement, while maintaining enough healthy staff to cover all service lines within the hospital. That has left many groups unable to afford to keep their full "pre COVID-19" staffing levels. This is a potential concern for healthcare leaders who believe that once the COVID-19 crisis begins to abate, patients will be flocking back to the facilities for surgery resulting in an almost immediate return of volume and revenue.

In Part 4 of our series, we will now consider the likely New Normal in the immediate aftermath of COVID-19 and explore a number of reasons why that sudden surge in volume and revenue may not materialize in the manner anticipated.

Will the patient scheduled for a total knee arthroplasty in early March still have health insurance in June?

According to a recent article from CBS News, the historic surge in unemployment claims in the past three weeks paired with job losses for almost 10% of the U.S. workforce has caused an unprecedented increase in the number of uninsured Americans. Almost half of U.S. workers get health insurance coverage through their employers and as many as 1.5 million people have lost their coverage in the last two weeks of March alone. That number could swell to 7.3 million Americans by June 30 based on Federal Reserve estimates of the number of workers who are expected to lose their jobs in the upcoming months. These numbers do not include family members who may be covered under an employer-sponsored plan. The effects of this loss of insurance and uncertainty as to when employees may regain health insurance will certainly impact our healthcare systems, and the timing of any planned or elective surgery.

Patients need to commit time to restart businesses

Many patients who had planned to take time off for elective procedures and recovery may now choose to delay their surgery and devote time to restarting shuttered businesses. Employers' back-to-work plans will depend on geography, and employers in rural areas and suburbs that saw fewer confirmed cases of coronavirus and resulting deaths will have an easier time convincing employee that it's safe to return to work. "The close quarters of city offices may add another barrier to urban employers whose workspaces are not built for social distancing. How we will go from nearly country-wide quarantine to some semblance of normal without widespread testing for COVID-19 is still unknown. But returning to work will almost certainly happen in waves, driven by consumer demand and employer desperation" said Erik Gordon, a professor at the University of Michigan's Ross School of Business. Common sense dictates that elective surgical schedules will ramp up in areas less impacted by COVID-19, yet it is exactly these areas where a meaningful number of potential patients will return to their workplace.

Will elective surgery outpatients be fearful of going into hospitals?

Patients will want every assurance that a hospital which cared for COVID-19 patients has been cleaned and sterilized before going in for their elective procedure. In a recent Anesthesiology News article, Franklin Dexter, MD recommended that *"only one case should be performed in each OR daily, which will afford institutions the opportunity to clean each room thoroughly including terminal cleaning with the addition of ultraviolet-C light. That's why we recommend multimodal terminal or deep cleaning after each case."* What exactly deep cleaning is and how it should be applied to facilities in the AC-19 era is the subject of many discussions.

It is unknown how long the air inside a room occupied by someone with confirmed COVID-19 remains potentially infectious. Facilities will need to consider factors such as the size of the room and the ventilation system design (including flowrate air changes per hour, and location of supply and exhaust vents) when deciding how long to close off rooms or areas used by ill persons before beginning disinfection. According to CDC recommendations, taking measures to improve ventilation in an area or room where someone was ill or suspected to be ill with COVID-19 will help shorten the time it takes respiratory droplets to be removed from the air.

Will these facts delay the re-opening of hospital OR's? Will there be a mandated change in hospital HVAC systems? Will patients, when possible, choose to have their cases done at ASC's that have been closed or not exposed to COVID-19 patients? Will surgeons elect to delay or move large numbers of cases to surgery centers to protect themselves and their patients from exposure? Only time will tell.

Should all patients and healthcare providers need to be tested for COVID-19 before elective surgery?

Because of the false-negative rates with COVID-19 testing, hospitals will need to proceed in the near term as though all patients are infected. However, if you are a patient having an elective knee arthroscopy, wouldn't you want to know that the highly skilled and dedicated individuals comprising your surgical team, who took care of many COVID-19 patients last month, were also tested before your surgery? With testing in such short supply, will that be possible before we expect to see a surge in elective surgery?

Delays in surgical patients obtaining preoperative clearance

Many surgical patients with co-morbidities will need to redo their preoperative clearance as they will have exceeded the 30-day window prior to surgery. Will CMS allow for 60-90-day windows? How many primary care, general internist and cardiology offices will have reopened and be able to schedule patients for re-assessment? Will the hospitals now need to provide this service to prevent further delays? We feel it is likely that getting preoperative preparation protocols back on track will take time, and will cause delays in smooth elective case restarts, especially for patients with significant coexisting disease.

Hospital shortage of surgical supplies and medications

Everyone is familiar by now with the severe shortage of ventilators and Personnel Protection Equipment (PPE) available to the physicians, nurses and healthcare workers on the frontline. Few are aware of the impending shortage of sedative hypnotic drugs such as dexmedetomidine and propofol, and neuromuscular blocking agents such as vecuronium and rocuronium, all of which are used to intubate and keep patients asleep in the OR or ICU. Last week the Drug Enforcement Administration loosened restrictions on controlled substances needed for the ICU treatment of COVID-19 patients, increasing by 15% the allowed production volumes of fentanyl, morphine, hydromorphone, codeine, ephedrine, pseudoephedrine, and certain intermediates for their production. The agency also boosted the amount of ketamine, diazepam, midazolam, lorazepam, and phenobarbital that can be imported from overseas.

Hospitals are among the most resource-dependent organizations in our economy, producing virtually nothing while consuming a steady stream of supplies from outside sources. In recent years, hospitals have tended to focus on supplies as a cost sink that should be managed as sparsely and efficiently as possible. This lean, just-in-time approach doesn't allow for stockpiles of ventilators and masks for unlikely events such as the current pandemic. As the

COVID-19 pandemic recedes, our healthcare system can't go back to business as usual. This crisis has revealed the dangers of viewing supply chains solely in terms of cutting costs and healthcare organizations may need to approach supplies from a public health perspective, building up reserves for low-probability, high-impact threats. Short-term stabilization and equilibration of medications and supplies in the aftermath of the crisis may leave facilities unable to meet pent up surgical demand for a period of time.

In short, each facility should develop its own formula or roadmap to determine how best to accommodate backlogged cases. Items to consider include the date elective surgery was halted, the number of cancelled cases as a percentage of total volume, the ability to run surgical suites longer and extend weekend hours and the reallocation and management of block scheduling. As discussed in previous installments of this series adequate anesthesia coverage may be an impediment to meeting pent up demand as we emerge from this crisis. In many cases the limiting factors may also include the COVID-19 testing of all healthcare providers, changes in patients' insurance status, access to PPE, surgical supplies and medications.

Our thought is that ramp up of surgical volume emerging from the crisis will need to be carefully considered based on the unique situation of each hospital and healthcare system. Relatively unaffected states will be able to restart elective procedures sooner rather than later. At a minimum, they should have an ample supply of ventilators, surgical instruments and medications, but must first assure healthcare providers and patients that PPE will be provided and that ongoing testing and monitoring of COVID-19 is in place. How rapidly, elective surgical volume will return will be up to each hospital and health system in conjunction with their physician partners. Together they must weigh their readiness based on the factors discussed here and determine their ability to justify the risk/benefit ratio to themselves and their patients.