



A Surgical Deep Freeze: Backlogs, Burden and New Beginnings

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“It’s such a cloudy day. Seems we’ll never see the sun or feel the day has possibilities. Frozen in the moment”

— Neil Peart —

A Surgical Deep Freeze

The COVID-19 pandemic led to an upheaval of global health systems and economies as resources have had to rapidly shift to contain the virus and protect limited healthcare capacity. Containing the virus without a cure or vaccine has necessitated drastic measures in physical distancing. These measures have included the cancellation (or deferral) of non-urgent, so called 'elective', surgical procedures across all specialties. We are indeed in a metaphorical freeze of elective surgery worldwide. For many regions these restrictions will remain in place for the unknown length of time it will take for COVID-19 infections to plateau or decline. While restrictive policies have had the desired effect on confronting the virus, we are just now beginning to sense the impact they have had on the lives of our non-COVID-19 patients.

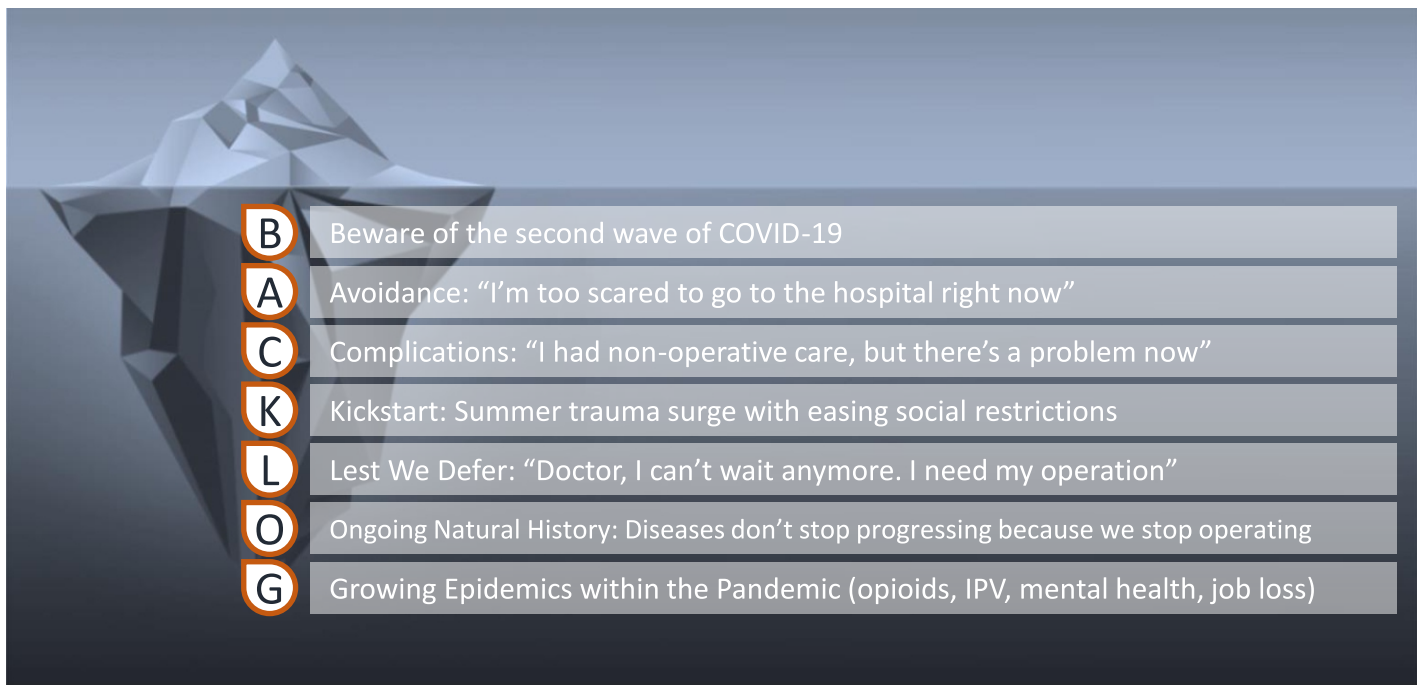
Models estimate that across all surgical specialties, over 28-million surgical procedures around the world will have been cancelled over a 12-week COVID-19 operating room shutdown period. Orthopedic surgery stands to be the single hardest hit specialty, with nearly 6.3 million cancelled cases, equating to an 82% reduction in surgical-care access for musculoskeletal (MSK) patients. The remaining sliver of orthopaedic operating room time has largely been reserved for medically necessary procedures in patients facing a substantial permanent decline in function without urgent surgical care. While access has been reserved for those with the most severe injuries, life-threatening tumors or devastating complications, the remainder of orthopaedic patients wait. For how long? Everybody has a hunch that it's a long time, but nobody really knows. Daily, the list of unmet surgical care in patients grows and threatens to overwhelm health systems and societies. *And now for the bad news...This is just the tip of the iceberg.*

7 Considerations That Make Your Waitlist Much Bigger Than You Think

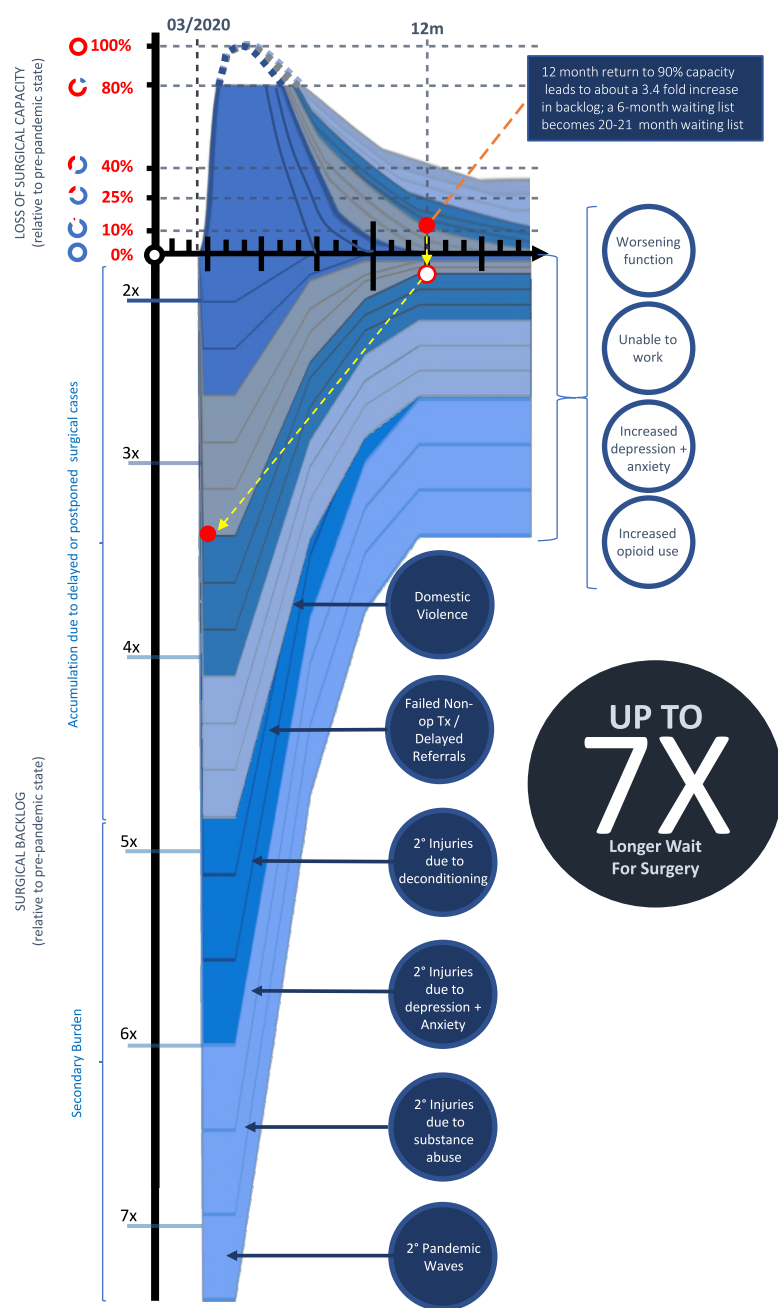
While many factors contribute to surgical waitlist lengths, access to the operating room is a key driver. It is the main determinant of the rate at which waitlists decrease. The more surgeries one performs the more likely one is to chip away at the waitlist of patients who require surgery. We can argue, albeit it's a losing argument at the onset, that orthopaedic surgical waitlists were in a steady state prior to March 11th, 2020. The impact of physical distancing has reaches far deeper than pre-COVID-19 waitlists. Our simple acronym **B.A.C.K.L.O.G.** identifies at least 7 possible hidden sources of unmet burden of orthopaedic patients that is the growing consequence of the COVID-19 pandemic(Exhibit 1).

INSIGHT Fact

March 11, 2020 signifies the date the World Health Organization officially named COVID-19 as a pandemic



Backlog is based simply on the accumulation of cancelled surgical cases over time. While virtual care provides an option for patients with bone and joint complaints, they unfortunately do not replace in-person clinical assessments in the majority of patients. As policies relax, surgeons should expect an influx of delayed referrals from providers who have not been able to properly assess their patients with lingering musculoskeletal issues or injuries in the preceding months. Added burden will come from a large portion of patients who received non-operative management by necessity for their orthopaedic issue, and who have since continued to deteriorate due to lack of surgical availability. These patients will continue to wait alongside of those who had their surgeries cancelled, with both groups having to wait even further as urgent and emergent cases will continue to take priority. With the reopening of societies, motor vehicle accidents, pedestrian injuries and outdoor activity-related trauma will certainly increase, particularly after months of restrictions. Another wave of injuries may be the result of stressors including anxiety, depression, drug abuse and domestic violence.



“Consider a pre-COVID surgical waitlist of 6 months to surgery now becoming a 21 month wait. And this is a not a worse case scenario; rather, it's an optimistic one.”

Models Suggest Waitlists May Grow to 7 times Pre-COVID Numbers

OrthoEvidence has modelled potential growth in the waitlists for orthopaedic surgery in Exhibit 2. As health systems begin the process of reopening surgical-care, the likelihood of returning to 100% of pre-pandemic surgical activity soon has becoming a fleeting reality. At best, many health systems are likely to be functioning at 90% capacity in 12 months. As an example, we show that a 12 month recovery to 90% of pre-pandemic capacity would lead to approximately a 3.4 fold increase in surgical wait-times [red circles on Exhibit 2]. This means that a pre-COVID surgical waitlist of 6 months to surgery would become a 21 month wait. And this is a not a worse case scenario; rather, it's an optimistic one.

Exhibit 2:

“The Burden that Lies Below”

Time is on the x-axis (origin at Jan 1, 2020), The y-axis has loss of surgical capacity above the x-axis; Increase in surgical wait times below the x-axis

“The Beginning is the most important of the work”

Plato

Three A's to Navigating the Unmet Burden Orthopaedic Care

To navigate this backlog of patient care, we must **Analyze** the problem carefully. While there is a tendency to focus only on the immediate issues, a forward looking view is needed. **Advocacy** cannot be productive unless we have a clear picture of unmet burden of orthopaedic care, in the present, and also projections for the future. Careful analysis allows strong positions for advocacy. Analysis further provides clear roadmaps to **Addressing** immediate opportunities to optimize care. Limited access to functionally restorative surgery necessitates re-investment in integrated healthcare teams, adoption of virtual technology to facilitate patient access to care providers, and focus on evidence-based implementation of non-operative management. In the end we have choice—to watch the backlogs and burden grow—or innovate new solutions in a new world post-COVID-19.

“Perhaps that is where our choice lies---in determining how we will meet the inevitable end of things, and how will greet each new beginning”

Elana K Arnold

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