

ISSUE TWO: GENERAL SURGERY

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General surgery in Alberta

- Alberta's general surgeons are facing growing human resources shortages that are limiting their ability to provide urgent, life-saving care to patients.
- Many hospitals across Alberta are increasingly being forced to enact diversions; the term used to describe situations when patients are transferred to other facilities due to a lack of available services, including when the general surgeon has no Tier 1 (support team) staff available to help with essential work.
- General surgery is the backbone of surgical care in our hospital system. Every full-service hospital requires general surgeons to function and provide safe, timely care.
- The vast majority of the emergency conditions treated by general surgeons, if not rectified promptly, lead to serious outcomes such as sepsis, long-term complications and sometimes death.

What is general surgery?

General surgeons expertly provide upper gastrointestinal, colorectal, pediatric, pancreatic, oncologic, bariatric, breast, head and neck surgery, and play a critical role in trauma and critical care. When people arrive at emergency rooms requiring an appendectomy, a hernia repair or experiencing a bowel obstruction, general surgeons are the ones often tasked with the interventions they need. Likewise, if patients require exploratory surgery or a colonoscopy to determine the presence of cancer, general surgeons will be the ones handling the surgical procedures.

Patients are waiting too long for care

We take for granted that when we need surgery, skilled general surgeons will be available to care for us. In reality, it is becoming increasingly difficult for patients to get access to the timely elective or emergency surgeries they need.

Hospitals in Alberta's major centres are increasingly being forced to enact diversions, the term used to describe situations when patients are transferred to other facilities due to a lack of available services, including when the general surgeon has no house staff available to help with essential work. In Calgary, [diversions have become concerningly commonplace](#). Diversions are now occurring for the Trauma Program at the Foothills Medical Centre (FMC). FMC is the Level 1 Trauma Centre, responsible for the care of critically injured patients, for all of Southern Alberta.

Quite simply, this is something that should never happen in any hospital, especially large hospitals that offer the most advanced and high-tech specialist care. This is unprecedented in North America as far as we know. Most Albertans don't understand that if they come to an emergency room in a large hospital in one of the province's major cities for critical issues like perforations, ruptured appendix, obstructions, bleeding or other trauma, they may not get the timely care they need as they would have done in the past.

Growing staffing shortages

General surgeons are dealing with an unprecedented shortage of surgical support house staff. House staff are either junior or senior surgical residents or clinical surgical assistants who support on-call general surgeons. They see emergency department consults, intensive unit consults and acute care surgery services management from various subspecialty services in a hospital. Alberta has been struggling to attract and retain surgical residents to training programs in recent years and the problem has now reached a tipping point. Without the presence of these team members, it is almost impossible for general surgeons to do their jobs.

There are also restrictions on the hours clinical surgical assistants can work, with shorter day shift limits recently imposed by some training programs. In addition, certain surgical training programs no longer allow residents to work alone on-call at night, so they must be accompanied by another resident. This has severely limited the pool of residents who can support the work of general surgeons.

Physician assistants can provide support but are in short supply as there are no training programs west of Manitoba – only 90 graduate nationally each year. Plans are in place for a two-year physician assistant (PA) program to start at the University of Calgary in the fall of 2024, which will graduate 20 PAs – but the need is much greater than this across both the province and Western Canada.

In any of these scenarios, the result is shrinking surgical capacity and the decreasing likelihood of timely, appropriate surgical interventions for patients who arrive at Alberta hospitals.

Increasing demands for care

Incredible advances in surgical and medical care have made it possible for people to survive illnesses and injuries that just a few years ago would have been fatal. But while those advances are incredible accomplishments, they also require ongoing care for advanced problems to be monitored, treated and corrected. Unfortunately, the pool of available general surgeons has not kept pace with the growing needs of patients.

Alberta is experiencing [a population boom](#) that will see our province reach 5 million residents by the end of 2024. This exceptional population growth, the fastest in Canada, has added additional pressure to an already buckling health care system that is short on both staff and beds. [The Edmonton zone has been short approximately 500 beds since 2016 and by 2036 is expected to be short by as many as 3,000 beds](#), a problem that was compounded by the recent announcement that [construction of the South Edmonton hospital was being paused](#). Earlier this year, media reported on patients being treated in hallways or squeezed into rooms intended for fewer people. Many front-line staff described having to use plastic sheeting and duct tape to create temporary treatment spaces, leading to the phrase “[duct tape medicine](#).”

Alberta’s population is also getting older, with the number of people over the age of 65 rising faster than any other age group. When it comes to surgery, older patients often have more complex needs and may require longer stays in hospital to recover, given their medical complexity and relative frailty.

Impacts on medical education

In addition to clinical duties, Alberta's General Surgeons support medical student and residency training in all five zones. This training consists of teaching the complexities of decision-making, management of surgical diseases and, for residents, the technical skills needed to operate. Training occurs both in instructional and practical formats. Medical schools in Alberta compensate physicians for teaching and significant support is given to our internal medicine colleagues to protect their time away from clinical duties. General surgery has lagged well behind in having protected non-clinical time that is appropriately compensated. Instead, it is simply expected that this work will be done on top of clinical duties that often see the surgeon already working 70-80 hour weeks. With less support for clinical work, and increasing demands on practicing general surgeons, it is becoming increasingly difficult to sustain the training of the next generation of surgeons. This could result in a significant shortage of this crucial workforce in the future.

Pressures throughout the health care system

Alberta’s ongoing family medicine crisis means that many Albertans don’t have access to primary care. As a result, illnesses that require surgical investigation or intervention are being caught later, which can increase the complexity of the required surgery. Often, people who would have been able to receive primary care before a condition became critical are now getting sicker or living in pain that forces them to head to emergency departments for urgent treatment.

An ongoing shortage of anesthesiologists across Alberta regularly results in delays or even last-minute cancellations of elective surgeries and makes it difficult to perform life-saving emergency surgeries. While some zones have been able to

recruit locums to assist with their anesthesia needs, the locum pool is drying up because the emergency work is so demanding and the volume of on-call work is relentless. Likewise, there simply aren't enough surgical nurses to staff operating rooms at full capacity.

Chartered Surgical Facilities (CSF) are another complicating factor. For patients who need particular surgeries such as knee and hip replacements, these facilities and programs may significantly shorten wait times. In our current environment, however, as we struggle with a global health human resource crisis, CSFs must rely on the same shrinking pool of medical staff that could work in Alberta's acute care hospitals. CSF patients typically are considered lower acuity, and patients who have complex needs or comorbidities are left to go through acute care hospitals for surgical care.

Shortages of non-medical supports, including the housekeeping staff, are also concerning. Without sufficient trained support staff to expertly clean and disinfect operating rooms (ORs), turnover time takes longer and can average 50 and 70 minutes per procedure. Hiring more housekeeping staff would improve efficiency and allow the ORs to be better utilized so more procedures could be performed each day.

Mandated clinical information systems have significantly increased the workload for general surgeons, offloading tasks that used to be performed by clerks onto surgeons. This impacts the time surgeons have available in the operating room. With high turnover procedures, like endoscopy, the use of current information systems has slowed those down by as much as 20%. It has had a similar impact on some emergency departments, where it has dropped surgical volumes by about 20% leading to delays and diversions.

What must change

Alberta's general surgeons need more space and staff support to run those spaces. This includes general surgeons, residents, clinical associates, physician assistants, nurse practitioners and other Tier-1 supports. We also need:

- Adequate anesthesia support and surgical nurses in our hospitals to do complex cases and to reopen operating rooms that are currently closed.
- More hospital beds in Alberta's largest cities.
- A review of the clinical information systems to permit some of the administrative duties recently offloaded on surgeons to be returned to the clerical staff. This would free up surgeons to be able to care for patients.
- To increase trained housekeeping staff to permit faster OR turnovers to reduce delays in the OR.
- Incentives for general surgeons to see the patients on-call, including those who arrive in the middle of the night, and to be available after hours for trauma and remove the threat of further reductions to general surgeon compensation that have been planned via Z-codes or AHS overhead.
- To find ways to encourage more medical students to choose general surgery. They need to see a well-functioning environment that allows general surgeons to provide all the care they were trained to provide in the way it should be provided.

Without those changes, surgeons can't do the work Albertans need them to do – diversions will continue, surgical wait lists will get longer and Albertans' care will be at stake.

Resources

Your Surgery Journey: Patient Guide

<https://myhealth.alberta.ca/Alberta/Pages/Your-Surgery-Resources.aspx>

Your Child's Surgery

<https://www.albertahealthservices.ca/ach/Page16811.aspx>

Enhanced Recovery After Surgery

<https://www.albertahealthservices.ca/scns/page10959.aspx>

After Your Surgery

<https://myhealth.alberta.ca/Alberta/Pages/After-Your-Surgery.aspx>

Preparing for your surgery

<https://cags-accg.ca/patient-care/preparing-for-your-surgery/>

Alberta Surgery Waitlist

https://healthanalytics.alberta.ca/SASVisualAnalytics/?reportUri=%2Freports%2Freports%2Fd0dd62a3-001d-443c-a395-9431b63f142b§ionIndex=0&sso_guest=true&reportViewOnly=true&reportContextBar=false&sas-welcome=false

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