

Ambulatory surgery centres: a potential solution to a chronic problem

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SUMMARY

Long wait times for elective surgery in Canada have been a persistent problem for many years and the recent pandemic has made the situation substantially worse. Current evidence suggests that ambulatory surgery centres are more cost-effective and efficient in the delivery of ambulatory surgical services than larger institutions. We explore the merits of a network of publicly funded ambulatory surgery centres.

Health care systems in Canada have been plagued by long wait times for elective surgery for many years, and the recent pandemic has made the situation substantially worse. The Canadian Institute for Health Information has estimated that almost 600 000 fewer surgeries were performed in the first 22 months of the pandemic compared with 2019 (excluding Quebec).¹ We explore the merits of using publicly funded ambulatory surgery centres (ASCs) to improve surgical capacity and discuss some of the policy challenges that will arise.

Although ASCs are increasingly being used in the United States to provide ambulatory interventions, these procedures tend to occur in large, full-service hospitals in Canada. The benefits attributed to these stand-alone centres over hospital-based outpatient procedure departments (HOPDs) are numerous but must be viewed with some skepticism, given that patients undergoing surgery in ASCs tend to be healthier than those undergoing surgery in HOPDs. Nonetheless, ASCs have been shown to be a safe place for patients to have their surgery, as confirmed by numerous scientific publications, including one from the largest publicly funded ASC in Canada.² They have also been shown to be a cheaper method of delivering ambulatory surgical care. In 2010, Saskatchewan Health experimented with a privately operated ASC model of delivery to reduce wait times and found that the cost of performing 34 different procedures in these private clinics was, on average, 26% less expensive than the cost of these procedures in hospitals.³

As ASCs are not required to deal with urgent and emergent cases, scheduling of patients is more reliable as patients do not get bumped. Reliable scheduling also allows surgical teams to specialize in certain procedures, leading to greater efficiency and lower costs.⁴

Given that patients prefer to recover from surgery at home, in a familiar environment,⁵ keeping patients out of hospital after surgery is preferable and is consistent with the Home First philosophy of care that is currently promoted in many Canadian hospitals. Not only will this save money, the chance of nosocomial infection and postoperative delirium will be minimized.

Going forward, a growing number of procedures will likely be performed with the expectation of same-day discharge, facilitated by home monitoring and expanded virtual care. Several studies have already confirmed the feasibility and safety of same-day discharge for patients undergoing procedures

that were previously felt to require hospital admission. For example, a recent Canadian study showed that segmental bowel resection can be performed as an outpatient procedure by adhering to conservative criteria of patient selection, by using a protocol of enhanced recovery after surgery and by supplying patients with a smartphone application to facilitate discussion with a physician during the postoperative period.⁶ Similar studies support the use of same-day discharge for other commonly performed procedures including bariatric surgery,⁷ adrenalectomy,⁸ nephrectomy⁸ and joint replacement surgery.⁹ Ambulatory surgery centres are ideal environments for the management of these cases but should have the capacity to provide overnight care. This will allow more patients who require monitoring, such as those with sleep apnea, or those who simply require observation, to have surgery performed in these centres.

The creation of such a network of ASCs is not without challenges, including human resource planning, funding models and the potential for these centres to increase inequity with respect to access to care. With the expansion of surgical services, more training positions for nurses, surgeons, anesthesiologists and allied health professionals will need to be created to supply the required workforce. Although this process will take time and require additional funding, governments can quickly start to fill the gap in human resources by facilitating the immigration, certification and licensing of foreign-trained health care workers.

By insisting that ASCs become part of a publicly funded hospital system, several benefits can be achieved. Administrators can minimize the impact of hospital staff leaving for employment in these centres by restricting their movement until their positions are filled. Use of ASCs will ensure that doctors who plan to work in these centres maintain on-call responsibilities at their home hospital. Having ASCs associated with a hospital will also allow for resource sharing and provide patients of ASCs a place to go should they require admission to hospital.

The case mix and funding models used to support these ASCs will be at the discretion of their respective provincial and territorial governments. An activity-based funding model, currently used to encourage the performance of some procedures, may be a useful tool to incentivize the productivity of ASCs. To ensure value for the taxpayer, 1 or more quality measures could be tied to this funding.¹⁰ In terms of physician compensation, the fee-for-service (FFS) model is probably the best method to use to ensure maximum productivity as FFS physicians and surgeons, whose case mix is primarily outpatient, will likely benefit the most financially from the creation of ASCs. Those with a primarily inpatient practice may also benefit if they are able to access additional surgical beds to perform catch-up inpatient surgeries. Physicians paid through other models

who are interested in working in an ASC may want to reconsider their method of remuneration or be given incentives to encourage productivity.

With ASCs becoming part of a hospital system, an institutional surgical waitlist can be created for common procedures to ensure that wait times for surgical patients are equitable. As ASCs are more likely to be created in urban centres than rural centres, where they are likely to be of most benefit, health departments must ensure equity of access for surgical procedures in rural centres. They must also be willing to cover the costs for home services, including physiotherapy and occupational therapy, for patients who do not have private medical insurance to ensure equitable postoperative care.

As the currently delivery model of surgical care in Canada has led to unacceptable wait times, the creation of a network of ASCs deserves serious consideration. A substantial investment by our governments will be required, and several policy challenges will need to be addressed, including human resource management, the development of effective funding models and ensuring equitable access to care.

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References

1. *Wait times for priority procedures in Canada*. Ottawa (ON): Canadian Institute for Health Information; 2022. Available: <https://www.cihi.ca/en/wait-times-for-priority-procedures-in-canada#:~:text=Half%20of%20patients%20waited%20between,of%20the%20pre%20pandemic%20levels> (accessed 2022 May 2).
2. Oxley P, Mian R, McNeely C, et al. Canada's largest purpose-built public day-care surgery centre: a retrospective audit of patients requiring transfer to an inpatient hospital. Canada's largest purpose-built public day-care surgery centre: a retrospective audit. *BCMj* 2021;63:330-5.
3. MacKinnon J. Learning from the Saskatchewan Surgical Initiative to improve wait times in Canada. Fraser Institute 2016. Available: <https://www.fraserinstitute.org/studies/learning-from-the-saskatchewan-surgical-initiative-to-improve-wait-times-in-canada> (accessed 2022 May 7).
4. Flynn JM, Striano BM, Muhly WT, et al. A dedicated pediatric spine deformity team significantly reduces surgical time and cost. *J Bone Joint Surg Am* 2018;100:1574-80.

5. Hardy A, Gervais-Hupé J, Desmeules F, et al. Comparing ERAS-outpatient versus standard-inpatient hip and knee replacements: a mixed methods study exploring the experience of patients who underwent both. *BMC Musculoskelet Disord* 2021;22:978.
6. Lee L, Eustache J, Baldini G, et al. Enhanced recovery 2.0 - same day discharge with mobile app follow-up after minimally invasive colorectal surgery. *Ann Surg* 2022;276:e812-8.
7. Deghan Manshadi SD, Dehghan K, Robertson DI, et al. Safety and outcomes of performing laparoscopic Roux-en-Y gastric bypass and sleeve gastrectomy at an ambulatory site of a tertiary care hospital in Ontario. *Can J Surg* 2022;65:E38.
8. Abaza R, Murphy C, Bsatee A, et al. Single-port robotic surgery allows same-day discharge in majority of cases. *Urology* 2021;148:159-65.
9. Verdier N, Boutaud B, Ragot P, et al. Same-day discharge to home is feasible and safe in up to 75% of unselected total hip and knee arthroplasty. *Int Orthop* 2022;46:1019-27.
10. Trenaman L, Sutherland JM. Moving from volume to value with hospital funding policies in Canada. *Healthc Pap* 2020;19:24-35.