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Editorial

Improved Wait Times for Coronary Revascularization: Cause to Celebrate Spotting the Iceberg in Time or Time to Look Under the Surface?

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Although waiting for medical services is generally an accepted practice in Canada, Canadians have consistently identified long wait times as their number one health care concern. In 2004, the First Ministers acknowledged the need to improve wait times. This led to a call to establish standards for acceptable wait times for a broad range of medical services, including cardiac care. ²

Although cardiac care involves a number of important services and other procedures, Canada's federal, provincial, and territorial ministers of health selected only coronary artery bypass graft surgery (CABG) as the sole national benchmark by which to measure access to cardiac care. Throughout the 1990s, governments and health care systems struggled with wait lists for cardiac surgery. In response to headlines about patients dying while waiting for open heart surgery, resources were added. Patients were even sent to the United States, where excess capacity existed, to cope with long waiting lists.

In this issue of the journal, Southern and her colleagues³ demonstrate that these efforts—along with marked changes in practice, including higher rates of percutaneous revascularization (percutaneous coronary intervention [PCI])—have dramatically shortened wait times for CABG. During the past decade, there has been a marked decrease in per capita cardiac surgery (from 91 to 61 per 100,000 population for CABG in Alberta and from 66 to 51 per 100,000 population in British Columbia [BC]). Median waiting times in Alberta and BC have decreased from 31 days to 13 days in Alberta (between 1995-2006 and 2007-2008) and from 17 days to 11 days in BC (between 2000-2001 and 2007-2008).

Similar changes were recently shown in Ontario, and in comparison to New York State, per capita CABG rates decreased more in New York States, thereby resulting in no dif-

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E-mail: Blair.ONeill@albertahealthservices.ca See page 263.e3 for disclosure information. ference in CABG rates between the two jurisdictions.⁴ PCI rates have increased in both jurisdictions so that twice as many are still performed per capita in New York State.

Undoubtedly, the stagnant growth rates contributed to improved wait times for CABG in all jurisdictions. Yet, during this same time period (and as Southern et al.³ report in this issue), the rates of cardiac catheterization increased (458 in 1997 to >550 per 100,000 population in 2004 in Alberta and 447 in 2000 to >472 per 100,000 population in 2007 in BC); as did PCI (136 to >180 per 100,000 population in Alberta and from 151 to 186 per 100,000 population in BC). There was not, however, a corresponding increase in wait times for either of these cardiac procedures. Rather, and as postulated by the authors, wait times for procedures in these cases also decreased dramatically, likely due to additional catheterization lab capacity, as well as changes in practice—in this case, use of ad hoc PCI at the time of cardiac catheterization.

Why, then, are Canadians still unhappy? As always, the devil is in the details. It is important to define patient wait times from the perspective of patients and their families rather than as a time waited for a single procedure.

A more useful approach to reexamination and standardization of wait time definitions comes from the report from the Western Canada Waiting List Project,⁵ which advocates a "path-to-care" approach in defining wait times. This approach encourages the separate consideration of each of the individual time intervals identified in the path toward surgery, including those for access to primary care, access to specialist consultation, the decision to treat (including wait time for major diagnostic tests and wait time for subsequent surgical consultation), and, finally, the wait time for surgery. This approach is superior because it considers total wait time from the patient's perspective and also allows for the examination of where it is in the pathway that wait times are unacceptable or cause a delay, thus allowing policy makers and system managers to identify specific targets for wait time improvement interventions.

Similarly, the Canadian Cardiovascular Society (CCS) has defined acceptable wait time benchmarks for the broad array of

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The Cardiovascular Patient Journey

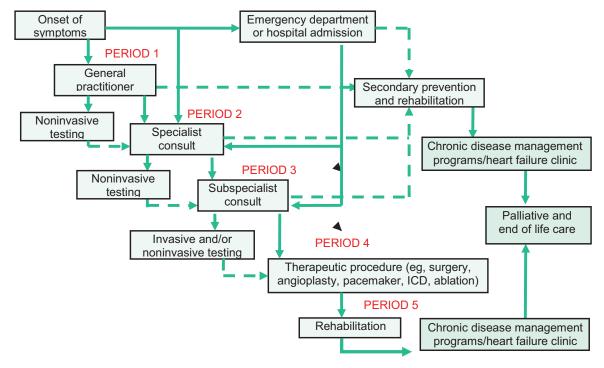


Figure 1. The cardiovascular patient journey (continuum of cardiac care). Total Patient Wait Time = PERIOD 1 + 2 + 3 + 4 + 5.

cardiovascular services, starting with access to a specialist as well as to important procedures.² The "cardiovascular patient journey" is depicted in Figure 1. As depicted, from the patient's perspective the wait starts with access to primary care or emergency services. Then, there is a wait for noninvasive tests such as stress testing, echocardiography, or myocardial perfusion studies either before or after consultation with the specialist. Following this, the patient may require the opinion of a subspecialist—an electrophysiologist or interventionalist—and then further testing or an invasive procedure may occur. Only then will the patient see the cardiac surgeon or have cardiac surgery scheduled. That is not the end of the journey, as the patient requires a cardiac rehabilitation program and return to his or her primary care practitioner or network.

Légaré et al.⁶ showed that only 50%-60% of the median wait was spent on a wait list for cardiac surgery (defined as catheterization to surgery). They showed that the traditionally reported wait time grossly underestimates (by >2-fold) the actual wait time individual patients experience when waiting for CABG. The median wait time from presentation to surgery was >100 days, and the mean wait time was >145 days. Access to a specialist and to diagnostic testing was responsible for the other half of the wait for cardiac surgery. Wait time measurement and management must include all of the steps of the patient journey.

Wait times are also only one metric by which to measure access and the application of evidence-based therapies. A closer look at the study from Ontario⁴ reveals that compared to New York State, there is 30% less acute intervention in ST-elevation myocardial infarction—a therapy associated with lower mortality and better long-term outcomes. The system also must

take responsibility for measuring and monitoring wait times for the various components of the patient journey. This is the value of the large clinical registries such as the National Cardiovascular Data Registry (NCDR) in the United States and the provincial registries in BC, Alberta, Ontario, Quebec, and Nova Scotia in Canada.

Cardiac rehabilitation is recommended for most, if not all, patients with documented cardiovascular disease to enable patient self-management and reduce future cardiac events. However, less than one third of eligible patients receive this essential part of the patient journey. Simply measuring the wait time, therefore, will not provide a complete picture of patient access to cardiac rehabilitation.

It is important to celebrate our successes, such as the improvement in wait times shown in Alberta and BC. However, we must realize that measuring and reporting access to a procedure represent only the tip of the iceberg. The ideal access to the care "dashboard" would report wait times across the entire patient journey and beyond the procedure to appropriate chronic disease management programs such as cardiac rehabilitation or heart failure clinics or even palliative care, where appropriate. It would also include such metrics as types and rates of reperfusion in ST-elevation myocardial infarction and percent catheterization and revascularization rates in moderate- and highrisk non–ST-elevation acute coronary syndromes. It would include percent attendance in cardiac rehabilitation and in heart function clinics for those with heart failure.

The CCS, in collaboration with the Public Health Agency of Canada, and with the active participation of the Canadian Institute for Health Information and the 5 large provincial clinical registries, is helping to develop a consensus on a national set of key quality indicators so that "dashboards" of quality cardiac care can be developed. In addition, to allow comparisons of care and outcomes nationally, the CCS is facilitating development of common data definitions. We will then be able to better measure and manage our cherished health care system—at least for cardiovascular diseases.

Disclosures

The authors have no conflicts of interest to disclose.

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