

## The waiting game: the emergency patient as a customer

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*Any customer can have a car painted any colour he wants so long as it is black.*

—Henry Ford (1923)

The digital age has allowed us to do many things more easily. We can shop online, know whether the movie we want to see is sold out before we leave home, or book a restaurant seating. Another piece of information that we can glean from the electronic tea leaves of the Internet is information on wait times at Canada/US border crossings. While driving to the border from a city such as Vancouver, where options exist regarding which route to take, there are electronic roadway signs that provide wait times for the various crossing locations. With this regularly updated information, a traveler can decide on a familiar route or choose a less traveled crossing with a shorter wait time. With no disrespect to the importance of border crossing information, it is vexing that electronic means to display and disseminate wait times in emergency departments (EDs), whether for patients or emergency medical service personnel, barely exist in Canada. Moreover, publishing ED wait times remains a relatively low priority for most organizations.

In this issue, Yip and colleagues report a study titled “Influence of Publicly Available Online Wait Time Data on Emergency Department Choice in Patients with Noncritical Complaints.”<sup>1</sup> This research involved a survey of 1,211 patients to determine the proportion who access static ED wait times data on a

website and the desire of patients to access such information. The authors concluded that although only 10% of patients accessed the hospital website where this information was housed, 45% said that they would like to use such a website. A similar percentage felt that they would use wait times to guide their choice of an ED. It should be underscored that these were patients who made their own way to an ED; those arriving by ambulance were excluded. Nevertheless, in most Canadian EDs, roughly 75 to 80% of patients arrive independently.

There is surprisingly little research on the impact of real-time ED wait time information on patient flow and patient care. Currently in Canada, only Calgary has a website that displays real-time data for four hospitals and two walk-in clinics.<sup>2</sup> Vancouver Coastal Health is scheduled to go live with a similar system in six urban hospitals later this year. Ontario currently only provides average value wait time information for each ED.<sup>3</sup> Beyond not being in real time, the Ontario definition of wait time refers to the length of stay of the ED visit and not the time until the patient is seen by a physician. Clearly, such information would have minimal utility in the moment when, as a potential patient, one was trying to decide which ED is least busy. In contrast, many American hospitals provide ED wait times for treatment on their hospital home pages.<sup>4,5</sup> Most such situations involve private hospitals that use the wait times predominantly as an advertisement rather than a patient-centred tool. In further dramatic contrast to Canada, many of these US sites

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have wait times to care that are in single-digit minutes.

So why have Canadian EDs been so reluctant to embrace the concept of providing real-time wait data to patients? A likely reason is the technical limitations of many of the information systems currently in existence. It can cost as much as several hundred thousand dollars to create interfaces to collect real-time information, particularly if many different systems have to provide this information. As provinces and intraprovincial health regions invest in common health information systems, the cost to create real-time interfaces to provide wait time information will drop.

The position of the Canadian emergency medical community on the concept of displaying such information for would-be patients has not been studied. Dr. Brian Goldman, emergency physician and CBC Radio host of the show “White Coat, Black Art,” has suggested that wait times might give problematic messages to very sick patients who might use such a Web-based tool.<sup>6</sup> The concern would be, for example, that someone with chest pain might avoid coming to the ED because of a long posted ED wait time. This is a legitimate concern. Innes and colleagues compared Canadian Triage and Acuity Scale (CTAS) assessment scores by parents and triage nurses in a pediatric hospital.<sup>7</sup> They found that parents were able to correctly predict a CTAS 1 to 2 level 72% of the time. Indirect evidence to the contrary also exists in the literature. Guttman and colleagues examined the impact of wait times and ED length of stay on short-term mortality and the outcomes of patients who left an ED without being seen.<sup>8</sup> They found that those who left the ED without being seen had no increased risk of short-term mortality. The inference is that patients have a sense of how sick they are and conduct themselves accordingly.

Most Canadians are well aware that the ED is a very busy place where delays to care are a regular occurrence. They know this from reading regular sensational newspaper stories about patients’ negative ED experiences. They know this from their own experiences and the experiences of family and friends. Most patients already expect a significant wait, so one could argue that providing real-time information is unlikely to deter them from coming to the ED. In addition, I have no doubt that the provision of any such information on a website would include a disclaimer or notification that

patients with potentially serious conditions should stop browsing immediately and call 9-1-1.

Another concern about providing this wait time information is the potential for the unintended consequence of having more patients drawn to EDs. It is not inconceivable that such technology might make EDs even busier than they already are. Calgary urban EDs have reportedly experienced a 12% increase in ED volumes since the launch of their website in July 2011 (Grant Innes, University of Calgary and Alberta Health Services, personal communication, January 21, 2012). The Calgary region experienced the largest percentage change in population of large urban Canadian cities (12.6%) since the last census in 2006.<sup>9</sup> As well, the Calgary region wait time information included urgent care centre wait times that were actually longer than the posted wait times in the other listed ED. These clinics only experienced a 1% increase since the website launch (Grant Innes, personal communication, January 21, 2012). In comparison, the Vancouver Coastal Health region has experienced just under a 5% increase in ED volumes each of the last 2 years, and there is currently no publicly available real-time patient information.<sup>10,11</sup> The assessment of the impact of information availability during a period of underlying general annual increases in ED volumes is difficult. The creation of a real-time data tool that actually had an impact on ED arrival volumes would have true value. It would suggest that means exist to better match ED volume inputs to capacity on a regional level. The cautionary tale from the study by Yip and colleagues is that work needs to be done to market such a tool so that more patients actually use it.

It is arguable that there are a number of potentially positive effects of providing real-time information on wait times to ED patients. In a regional setting, it seems intuitive that just as with border crossings, real-time information would improve flow. Patients might avoid busier EDs if they knew there were prolonged wait times at that site. This could help maximize regional capacity without any effect on the costs of providing care. Providing real-time information to ambulances is already happening in some Canadian cities and works in a similar fashion to avoid ED overuse when alternative sites that are less busy exist.<sup>12</sup> It is even conceivable that there might be a “shame factor” that would facilitate improvement in the wait times at outlier EDs. No one wants to be the place with the worst wait times.

Wait times are not the only information that could be displayed on real-time websites. Information on which days of the week and hours of the day are busiest might allow patients to become more educated consumers of ED care. Patients might learn to avoid the peak times, thus leading to smoothing of operational demands. Some EDs do not treat children. Some hospitals function as urgent care centres and do not treat high-acuity patients. Some have restricted hours of operation. Details of this nature could provide guidance to patients and families seeking medical attention. Information on alternative venues for care such as walk-in clinics, nurse help lines, and doctors accepting new referrals could also be included on wait time websites.

Would patients really have time to check a website for wait time information? A survey was done of 634 patients who visited one of the six urban regional EDs in Vancouver Coastal Health in 2010.<sup>13</sup> The goal of the study was to look at factors influencing a patient's decision on which ED to use in the health region. These patients were self-directed to the ED and had a CTAS level of 3 to 5 only. A total of 122 (19.24%) patients waited less than 1 hour from the time they became ill or injured to the time they came to the ED, 78 (12.30%) waited between 12 and 24 hours, and 263 (41.48%) waited 24 hours or longer. The upshot is that most patients who are ambulatory have some time to think about which ED they are going to attend. Some of those patients will end up with renal colic or appendicitis and are the kind of patients who benefit from an ED visit even if they do not come immediately to the ED when their symptoms start.

In the Yip and colleagues study, the low proportion of patients who accessed the available information underscores the need for hospital and government promotion to maximize the use of websites that provide such information. Dedicated websites whose titles describe the location of such information is an example of one means to increase public use of real-time data tools. The fact that the local hospital website in the Yip and colleagues study provided only static, rather than real-time, information may also have contributed to the underuse of these data.

A remaining question is whether or not our aging population would actually use electronic information of this nature. Yip and colleagues noted that "the majority of health care resources are consumed by patients over the age of 65 in the United States."<sup>1</sup>

Although undoubtedly true, the majority of patients who access adult-oriented EDs are under the age of 65. In Vancouver, for example, even in geriatric-heavy EDs, only 20% of the ED patient population is over 75.<sup>10</sup> This means that the majority of patients who use the ED are also those who are Internet savvy and could benefit from having real-time Web-based resources.

In the end, the study by Yip and colleagues only scratches the surface of the psyche of a patient's decision-making processes about when and which ED to use. From this study, we learned that younger patients are more likely to use wait time information; however, further work is required to understand the complexities of these decisions. Other important factors patients might consider before coming to an ED include distance, comorbidities, parking, cleanliness, perception of inpatient care, pain, and previous experiences. A better understanding of how the preference for wait times is affected in a multi-ED regional system is also required.

Some may chafe at the idea of creating increased accessibility to see less sick people more quickly. They rightly understand that "fast-track" patients are not the cause of ED overcrowding.<sup>14</sup> But not all ambulatory patients are CTAS 4 and 5. Some are CTAS 2 and 3. Most of us would agree that the unseen patient in the waiting room is at the greatest risk in our EDs. If some patients can self-direct to less busy EDs, then we create greater overall capacity in the system and offer, for little cost, the chance to reduce this risk.

In my view, one of the huge benefits of having real-time ED wait time information is to elevate the patient to the status of a customer—someone with a choice. Patients should not have to merely accept whatever service their local ED chooses to provide. There are potentially other EDs and acute care options, just like car colours in the quotation from Henry Ford, to choose from. In the end, the Ford Motor Company acquiesced and gave its customers what they wanted: different choices. By creating the ability for patients to become educated consumers of our EDs, we will almost certainly create improved patient satisfaction, improved ED capacity, and better patient care. It is time that we provided this real-time information to our patients. Let's not "wait" any longer.

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