

## Emergency Department Overcrowding

Last Updated: July 2011

### BCMA Position

- That the BC government establishes a maximum Emergency Department length of stay benchmark of less than six hours (from arrival to Emergency Department exit).
- That all admitted patients must be transferred out of an Emergency Department to an inpatient area within two hours following a decision to admit.
- That overcapacity protocols be implemented in all BC hospitals, and used as a short-term solution until functional acute care capacity is sufficient.
- That all BC hospitals optimize bed management strategies to ensure the appropriate use of existing and future acute care beds.
- That the BC government sufficiently increase the number of functional acute care beds to meet clinically appropriate access standards

### Background

Emergency department (ED) overcrowding in BC has become a significant patient safety and quality of care concern. Our EDs are regularly in a situation in which they have no available diagnosis or treatment stretchers within the EDs for urgent and emergent patients.<sup>i</sup> As a result, these patients are left for unacceptable periods in waiting rooms (emergency access block). In addition, according to BC Ministry of Health data, more than one-third of patients who require hospitalization wait more than ten hours to be transferred to an appropriate inpatient hospital bed after a decision to admit has been made and a bed is requested (hospital access block).<sup>ii</sup>

The primary cause of ED overcrowding is impaired flow of admitted patients from the ED to hospital inpatient units. Prolonged 'boarding' of inpatients often leaves the ED with no available care spaces or nurses for arriving emergent and urgent patients. This ED outflow block arises from several factors, including a shortage of acute care beds, staffing shortages that lead to bed closures, limited community care resources, and a lack of integration between community-based and hospital resources. BC experienced a significant decrease (-42%) in acute care bed capacity<sup>1</sup> per 1,000 population

between 1991/1992 and 2001/2002 from 3.6 to 2.1. Subsequently, a slower decrease (-15%) in acute care bed capacity occurred province-wide between 2001/2002 to 2010/2011 from 2.1 to 1.8.<sup>iii</sup> The paucity of acute care beds means that most BC hospitals frequently operate at unsustainable occupancy rates of higher than 90%, a level at which regular bed shortages, periodic bed crises, and hospital overcrowding are inevitable.<sup>iv,v,vi,vii</sup>

Furthermore, up to 20% of acute care beds are used by patients who require an "alternate level of care" (ALC) but cannot access this care because of shortages in community resources and chronic/palliative care beds.<sup>viii</sup> Such bed blockage impedes patient flow, increases wait times for inpatient beds, and increases lengths of stay.<sup>ix</sup>

### Analysis

ED overcrowding is symptomatic of demand exceeding capacity in hospitals and requires system-wide solutions. This can be addressed immediately, with existing resources, through mechanisms to improve patient flow. We recommend implementing overcapacity protocols so

1998/1999) were included in the analysis. Stand-alone mental health facilities were excluded. Beds per 1,000 population are based on all ages population using population estimates as of June of each year from BC STATS, Government of BC, PEOPLE 32.

<sup>1</sup> The acute care bed counts are a snapshot of the beds available at the end of each fiscal year. Rehabilitative (including those in stand-alone rehabilitation hospitals) and Discharge Planning Unit beds (post

that all hospitals have an organized approach to deal, in the best manner possible, with situations of demand exceeding capacity. It is anticipated that the need to regularly utilize such protocols will end when initiatives to increase inpatient and ALC bed capacity are successful.

The supply of functional acute care beds must be increased to a level where ED patients admitted to the hospital have access to one in a timely manner. The supply of beds should be based on standards that reflect the ability to place patients in appropriate beds in a timely fashion rather than on target occupancy levels. The utilization level, therefore, becomes a by-product of the analysis, not the target itself. The acute care bed supply must respond in real time to changes in population growth, demographics, patient acuity, and technology. These factors, along with human resource requirements, should be incorporated into any long-term planning for acute care bed supply. Training, recruiting, and retaining appropriate staff, especially nurses, is crucial for keeping acute care bed capacity functional.

Inpatient bed capacity can also be improved by optimizing bed management. Effective bed management strategies can smooth the degree of variability in admission and discharges. Such strategies can target discharge planning, admission procedures, capacity planning, operational planning, and hospital policies for bed availability priorities and bed use. Hospital overcapacity protocols, along with expedited discharges and discharge processes, should help improve patient flow, thus maintaining required ED capability and avoiding EDs reaching a critical occupancy level.

The BCMA recommends setting a provincial benchmark for total ED length of stay. ED length of stay begins when the patient is first registered or triaged in the ED and ends when the patient physically leaves the ED. An ED length of stay benchmark must be measurable and be linked to an accountability framework in order to adequately assess performance. Reliable, complete, and accurate data, such as ED process time and ED length of stay, must also be collected at every ED so that progress can be measured and evaluated.

Setting ED length of stay benchmarks must be linked with positive incentives and infrastructure investment for meaningful change to be achieved. The UK has achieved significant reductions in ED wait times following the adoption of a country-wide target that all

patients should be admitted, discharged or transferred within four hours of arrival at an ED.<sup>x</sup> This was coupled with financial incentives, accountability measures, and tackling access delays to inpatient beds, specialist doctors, and diagnostic investigations. Ninety-seven percent of patients now spend four hours or less in UK EDs.<sup>xi</sup>

Measures designed to help hospitals achieve ED length of stay benchmarks must be appropriate to the local context. There will not be a “one size fits all” solution. ED overcrowding issues must be dealt with urgently through collaborative action between the BC Ministry of Health, health authorities, hospital administrators, front-line emergency physicians, and staff in order to effect the necessary change needed for safe access to emergency care and improved patient flow.

## References

- <sup>i</sup> Canadian Association of Emergency Physicians and National Emergency Nurses Affiliation, Joint Position Statement. Access to acute care in the setting of emergency department overcrowding. *Can J Emerg Med* 2003; 5(2): 81-6.
- <sup>ii</sup> Yaffe, Barbara. MDs reveal ER horror stories. *Vancouver Sun*. April 28, 2006.
- <sup>iii</sup> BC Ministry of Health, Planning and Innovation Division, 2011.
- <sup>iv</sup> Wait Time Alliance. It's About Time: Achieving benchmarks and best practices in wait time management. Final Report. August 2005.
- <sup>v</sup> Bagust A, Pace M, Posnett JW. Dynamics of bed use in accommodating emergency admissions: Stochastic simulation model. *BMJ*. 1999; 319: 155-8.
- <sup>vi</sup> Forster AJ, Stiell I, Wells G, Lee AJ, van Walraven C. The effect of hospital occupancy on emergency department length of stay and patient disposition. *Acad Emerg Med* 2003; 10: 127-33.
- <sup>vii</sup> Hoot, NR, D. Aronsky. (2008) *Systematic review of emergency department crowding: causes, effects, and solutions*. *Ann Emerg Med*. 52(2): 126-26.
- <sup>viii</sup> Canadian Association of Emergency Physicians. Background: Emergency Department Overcrowding in Canada. 2004.
- <sup>ix</sup> Wait Time Alliance. (2011) *Report Card on Wait Times in Canada*.
- <sup>x</sup> UK Department of Health. Transforming Emergency Care in England. October 2004.
- <sup>xi</sup> UK Department of Health. Total time spent in A&E from arrival to admission, transfer or discharge, Acute Trusts in England, including activity at partner PCTs, 2009-10 October to December (Q3). 2010