



## Access to acute care in the setting of emergency department overcrowding



---

Canadian Association of Emergency Physicians and the National Emergency Nurses Affiliation

---

### JOINT POSITION STATEMENT

The Canadian Association of Emergency Physicians and the National Emergency Nurses Affiliation have developed the following position statement regarding overcrowding in Canadian hospitals.

#### ACCESS TO EMERGENCY CARE

Hospital emergency departments must be capable of providing access to appropriate assessment and treatment within time frames specified by the *Canadian Emergency Department Triage and Acuity Scale (CTAS)*. Appropriate assessment and treatment requires, at minimum, an available stretcher, a qualified nurse, and the equipment and supplies necessary to deal with conditions requiring urgent and emergent intervention.

#### ACCESS TO HOSPITAL CARE

Emergency departments are loud, brightly lit environments where patients lie on hard stretchers with limited privacy or dignity, poor access to bathroom facilities, and little or no opportunity for sleep. These are not reasonable, safe or humane conditions for sick people. Patients requiring hospital admission should not be held in emergency departments, hallways or waiting rooms for more than 6 hours.

#### IMPROVING ACUTE CARE ACCESS

Institutions that cannot provide these defined levels of access to emergency and hospital care must implement strategies that focus on moving inpatients to appropriate hospital beds within 6 hours. Strategies to move non-urgent patients out of the emergency department will not have a meaningful impact on overcrowding or access to care.

#### MATCH CARE LEVEL TO NEED

To gain the maximum health benefit from our overstretched acute care system, it is essential to match level of care to patient need. Denying ill and injured patients access to emergency or hospital care because acute care beds are occupied by alternate level of care (ALC) patients is inefficient, costly and dangerous. Hospitals should modify their policies and procedures to assure that acute care resources are provided on a priority basis to patients who need them the most. Governments and Health Authorities must provide sufficient community resources and ALC beds to care for patients who no longer require acute hospitalization. Community resources should be provided on a priority basis to patients who need them the most.

### PRISE DE POSITION CONJOINTE

L'Association canadienne des médecins d'urgence et l'Affiliation nationale des infirmières et infirmiers d'urgence ont établi la prise de position qui suit concernant l'encombrement dans les hôpitaux canadiens.

**ACCÈS AUX SOINS D'URGENCE**

Les départements d'urgence canadiens doivent être en mesure d'offrir un accès à une évaluation et à un traitement adéquats dans les délais raisonnables spécifiés par *L'échelle canadienne de triage et de gravité pour les départements d'urgence* (ÉTG). Pour une évaluation et un traitement adéquats il faut, au minimum, une civière disponible, une infirmière qualifiée et l'équipement et les fournitures nécessaires à la prise en charge de patients nécessitant des soins urgents.

**ACCÈS AUX SOINS HOSPITALIERS**

Les départements d'urgence sont des lieux bruyants et très éclairés où les patients, couchés sur des civières dures, sont privés de leur intimité et de leur dignité, ont un accès médiocre aux toilettes et ont très peu de chance de pouvoir dormir. Ce ne sont pas là des conditions raisonnables, sécuritaires et humaines pour des personnes malades. Les patients qui doivent être hospitalisés ne devraient pas être gardés à l'urgence, dans les corridors ni dans les salles d'attente pendant plus de six heures.

**AMÉLIORATION DE L'ACCÈS AUX SOINS ACTIFS**

Les établissements qui ne peuvent offrir ces niveaux définis d'accès aux soins d'urgence et hospitaliers doivent mettre en place des stratégies axées sur le transfert des patients hospitalisés vers leur lit d'hôpital dans un délai de six heures. Les stratégies visant à sortir les cas non urgents du département d'urgence n'auront pas un impact significatif sur l'encombrement ni sur l'accès aux soins.

**AJUSTEMENT DU NIVEAU DE SOINS AUX BESOINS**

Afin d'offrir les meilleurs soins possibles dans le cadre de notre système de soins actifs débordé, il est essentiel d'ajuster le niveau des soins aux besoins des patients. Le fait de priver des patients blessés et malades d'un accès à des soins urgents ou hospitaliers en raison de l'utilisation des lits de soins de courte durée pour des niveaux de soins différents est inefficace, coûteux et dangereux. Les hôpitaux devraient modifier leurs politiques et leurs procédures afin de s'assurer que les lits de soins de courte durée soient offerts sur une base prioritaire aux patients qui en ont le plus besoin. Les autorités gouvernementales et de la santé doivent offrir des ressources communautaires suffisantes et des lits de soins de longue durée pour s'occuper des patients n'ayant plus besoin d'être hospitalisés. Les ressources communautaires devraient être offertes sur une base prioritaire aux patients qui en ont le plus besoin.

**Introduction**

Canadian emergency departments (EDs) often deal with more sick patients than there are staffed stretchers to treat them in. Acutely ill people overflow into hallways and waiting rooms, ambulances are diverted from hospital to hospital looking for an ED that will accept incoming patients and, after arriving, ambulance attendants often cannot off-load patients onto an ED stretcher. Sick patients endure prolonged waits in ED waiting rooms and face unacceptable delays in care. ED overcrowding has been described, defined and studied for over two decades.<sup>1-8</sup> Despite a range of initiatives and management strategies, it is worsening, and it remains the most serious issue confronting Canadian EDs. The ultimate consequence of overcrowding is a lack of access to timely and appropriate care for the sickest patients in our system — those described in Levels I, II and III of the *Canadian Emergency Department Triage and Acuity Scale* (CTAS). This document reviews ED overcrowding and makes recommendations aimed at resolving this crucial patient care issue.

**Definition of overcrowding**

Several criteria have been used to help define overcrowding; these include ambulance diversion, staffing, availability of beds and ED volumes.<sup>1-4</sup> Overcrowding should not be defined in terms of the number of patients in a department, but rather on the ability to provide necessary patient care. Therefore, *emergency department overcrowding* is best defined as a situation in which the demand for emergency services exceeds the ability of a department to provide quality care within acceptable time frames.\*

Based on this definition, it is clear that ED volumes are not the primary determinant of overcrowding and that overcrowding is actually a form of "access block." It is also important to clarify that "non-urgent" patients do not contribute substantially to overcrowding.<sup>5</sup> Although they comprise a significant proportion of patients who come to EDs, they do not occupy acute care stretchers, they require

\* Time frames will generally be based on the *Canadian Emergency Department Triage and Acuity Scale* (CTAS).

little or no nursing care, and they typically have brief treatment times. These “non-urgent” patients consume a small fraction of ED resources, generate minimal incremental costs,<sup>6</sup> and do not displace sick patients who need emergency care. The American College of Emergency Physicians’ report on overcrowding<sup>7</sup> states that “non urgent emergency department use simply leads to overcrowding in the waiting room, not over crowding in emergency department treatment areas.”

## History

ED overcrowding was described in the early 1980s. Several causative factors were identified, including an aging population, rising infectious disease rates (particularly the AIDS epidemic), substance abuse, psychiatric illness, the effects of poverty on health, and hospital bed and staffing shortages.<sup>3,8,9</sup> In the early 1990s strategies to address overcrowding were developed,<sup>1,9–12</sup> but most hospitals took little or no action. In situations where there were more sick patients than hospital beds to accommodate them, it was cheaper and easier to house supernumerary patients in the ED than to devise appropriate inpatient solutions, so this became an accepted practice for almost all Canadian health care facilities. Sadly, the term “corridor patient” became part of the medical lexicon, and overcrowding became the ED’s problem rather than the institution’s problem.

In the mid to late 1990s, Canadian health care restructuring and regionalization reached its peak. Economic pressures and a philosophical shift away from acute care led to hospital bed closures and increasing numbers of patients held in EDs. In Ontario alone there was a 22% decrease in acute care beds and a jump in occupancy from 85.6% in 1994/95 to 93% in 1999/2000.<sup>13</sup> With an aging population, fewer hospital beds and fewer EDs, the remaining EDs dealt with rising patient volumes and acuities. By the mid to late 1990s, overcrowding was the most significant problem facing emergency care providers. Several organizations tried to address the overcrowding issue, including the Canadian Association of Emergency Physicians (CAEP),<sup>14</sup> the American College of Emergency Physicians (ACEP),<sup>7</sup> and the Emergency Section of the Ontario Medical Association.<sup>15</sup>

## Overcrowding and quality of care

### Double standards

When a hospital has more sick patients than there are beds to accommodate them, one possible solution is to distribute supernumerary patients between the ED and the appropriate inpatient care areas. This would bring all of the insti-

tutional resources to bear and allow nursing units throughout the hospital to share the patient care load and “triage” care to patients who need it the most. But the default position in Canadian hospitals is to build a firewall that contains most or all of the supernumerary admitted patients in the ED. Only emergency resources are brought to bear and the “access block” is much more severe than it needs to be.

This practice is only possible if a series of “double standards” are enforced. For example, most administrators feel it is unsafe to manage even 1 or 2 “hallway patients” on inpatient units; yet they accept the practice of managing 10 or 20 patients in ED hallways. They believe that adding 1 or 2 supernumerary patients (a 5%–10% workload increase) to an inpatient ward imposes unacceptable stress on inpatient staff, but that adding 10 or 20 such patients (a 50%–100% workload increase) to the ED does not.<sup>9</sup> No hospital administrator would allow 20 off-service medical patients to be admitted to a 20-bed surgical unit, or allow stable admitted patients to occupy *all* of the hospital’s critical care beds; yet, it is common practice to fill all of an ED’s acute care stretchers with admitted off-service patients. The end result of this series of double standards is that inpatient units are *relatively* protected from overcrowding stresses, that EDs shoulder a disproportionate burden, and that standards of care for patients in EDs fall far below those seen elsewhere in the hospital. To change this, hospitals must adopt a philosophy of equally shared responsibility for patient care. Until decision-makers view EDs as equal to other departments, give ED staff the same considerations as inpatient staff, and provide ED patients the same rights as other patients, the crisis in ED access and quality will continue.

### Perverse allocation of acute care resources

When most or all of a department’s stretchers and nurses are diverted to the care of admitted patients, emergency nurses and physicians find it difficult or impossible to address their primary mission of providing emergent and urgent care to their communities. Newly arriving patients cannot be placed in (already full) treatment areas; paramedics cannot unload their patients and respond to emergencies in the community;<sup>16</sup> and patients who should be assessed and treated are “blocked” in waiting rooms. Consequently, few Canadian EDs can meet the nursing and physician evaluation time objectives specified in the CTAS guidelines.

Delays in timely nursing and physician care lead to delays in diagnosis, treatment and disposition, which have been associated with adverse outcomes and deaths in many Canadian EDs.<sup>2,17</sup> Accumulation of undiagnosed, untreated people

in waiting rooms increases the workload of triage nurses, who must constantly re-triage waiting patients to detect critical deteriorations and to assure the sickest patients get the first available treatment space. Time spent re-triaging interferes with primary duties and creates an environment that is in itself an impediment to safe patient care. Care provider stress leads to burnout and loss of skilled people. Patient dissatisfaction leads to verbal and physical abuse. Sadly, one death in a Canadian ED was directly related to a family member's frustration with access to care. The chaotic situation in Canadian EDs is a recipe for medical error.

These factors have given rise to the ironic and dangerous situation that exists today, where the sickest patients in the system — those who have not yet been evaluated or stabilized — are left in waiting room chairs and on ambulance stretchers in hallways, while the most stable patients — those already diagnosed and treated, and those awaiting placement in the community — have access to higher quality care in staffed inpatient beds. Although logic suggests that patients with the greatest need for acute care interventions should have first dibs on hospital resources, institutions seem to have accepted a system where exactly the opposite occurs. This perverse model of allocating acute care resources has been described as “normalization of deviant behaviour.”

### ***Inappropriate care for admitted patients***

Overcrowding reduces access to emergency evaluation and treatment, but an often-overlooked aspect of the problem is the inhumane and inadequate care provided to patients who require hospitalization. EDs were designed to provide immediate life-saving care as well as assessment, diagnosis and treatment of medical and surgical urgencies and emergencies. They were not intended to function as inpatient care units. In the ED, patients lie on hard stretchers — not beds. They are held in large open rooms where the lights never go off, where the noise never stops, and where normal sleep is impossible. They generally lie in full view of medical personnel, other patients and, in many cases, the public. There may be only one bathroom for every 20 to 30 patients. Comfort, dignity, privacy and confidentiality are foreign concepts — especially when there are additional patients crammed into waiting rooms, hallway spaces and between existing stretchers.

### ***Why previous solutions have failed***

Illness and injury are neither constant nor predictable. Peaks and valleys in patient acuity and volume are the rule rather than the exception. When more patients arrive requiring urgent and emergent care, it is the ED's responsi-

bility to cope with this input variability and provide the necessary care. Similarly, when more patients require inpatient care, it is the hospital's responsibility — not the ED's responsibility — to provide this. Although it is generally acknowledged that overcrowding is a system problem rather than an ED problem, most hospitals maintain policies and procedures that contain overcrowding in the ED as much as possible. These policies eliminate motivation on the part of anyone outside the ED to solve the problem — hence guarantee failure. As long as “policy firewalls” artificially focus overcrowding pressures in EDs, there will be little impetus for meaningful, system-wide change to solve this key access problem. The negative impact of overcrowding on patient care must be the motivator to create an overall institutional acceptance that this workload must be shared.

## **Management strategies**

Numerous strategies targeting ED overcrowding have been developed over the past 15 years.<sup>1,4,7,9-12,15</sup> These have had a mitigating effect on the problem, but they do not counter the impact of hospital and bed closures, and our aging, increasingly complex ED patient population. Appendix 1 (see page 86) lists several strategies that will improve access to care, maximize quality of care and help maintain patient dignity.

Within the ED, it is important to optimize internal processes, reduce avoidable admissions and shorten ED lengths of stay. However, because the core of the problem is poor access to inpatient hospital beds, the most effective strategies will be those that improve inpatient utilization and focus on moving the “right patient” to the “right bed” within a reasonable time frame. It is essential that all stakeholders participate in implementing the necessary strategies, since this is beyond the capability of the ED. Responsibility for successful implementation ultimately lies with the hospital administrations, regional health boards and government.

## **Alternate level of care patients**

Health care restructuring and regionalization have dramatically decreased the number of acute care beds over the past decade, forcing many hospitals to target unrealistic occupancy rates of over 90%. A recent British study<sup>18</sup> looking at occupancy rates has shown that “at rates above 85% risks become discernable and above 90% the hospital system is subject to regular bed crisis.”

Alternate level of care (ALC) patients include those requiring chronic care, chronic complex care, transition care,

respite care and palliative care. These patients have a large impact on hospital occupancy rates and frequently block access to acute care beds. While they do not require the specialty services and high level care provided in acute care institutions, they cannot be discharged home, and when all appropriate community beds have been occupied, they must, by default, stay in the acute care setting. Furthermore, when these patients present to EDs, there is often no option but to admit them to the hospital. Because of the number of these patients and their required lengths of stay, they consume a disproportionate amount of acute care resources and have a large impact on the delivery of acute care. If ALC patients could be placed in appropriate community settings, the issue of ED overcrowding would be minimal in most acute care hospitals.

The solution to this problem is to ensure that there are an adequate number of ALC beds outside the walls of acute care institutions. This is perhaps the most important factor in the overcrowding problem, and it will increase dramatically over the next decade as the population ages and their care needs increase. Consequently, health care planners must assign a high priority to quantifying and resolving the extent of ALC needs in Canadian communities.

## References

- Lynn SG, Kellermann AL. Critical decision making: managing the emergency department in an overcrowded hospital. *Ann Emerg Med* 1991; 20:287-92.
- Schull MJ, Slaughter PM, Redelmeier DA. Urban emergency department overcrowding: defining the problem and eliminating misconceptions. *CJEM* 2002;4(2):76-83.
- Kollek D. Overwhelmed in emergency: examining ER status at Hamilton Civic Hospitals. *Ont Med Rev* 1990;57:11-3.
- Graff L. Overcrowding in the ED: an international symptom of health care system failure. *Am J Emerg Med* 1999;17:208-9.
- Dickinson G. Emergency department overcrowding [editorial]. *CMAJ* 1989;140:270-1.
- Richardson LD, Hwang U. Access to care: a review of the emergency medicine literature. *Acad Emerg Med* 2001;8(11):1030-6.
- Crowding Resources Task Force, American College of Emergency Physicians. Responding to emergency department crowding: a guidebook for chapters. Dallas: ACEP; Aug 2002. Available: [www.acep.org/search/index.cfm](http://www.acep.org/search/index.cfm) (accessed 2003 Jan 29).
- Gallagher EJ, Lynn SG. The etiology of medical gridlock: causes of emergency department overcrowding in New York City. *J Emerg Med* 1990;8:785-90.
- Lynn SG. Managing the overcrowded emergency department. In: Salluzzo RF, editor-in-chief. *Emergency department management: principles and applications*. St. Louis: Mosby-Yearbook Inc.; 1997. p. 173-8.
- Lynn SG, Allison EJ, Kellerman AE. Hospital overcrowding and emergency department backup. In: Hellstern R, editor. *Managing the emergency department: a team approach*. Dallas: American College of Emergency Physicians; 1992. p. 59-70.
- American Association of Emergency Physicians, American Hospital Association. Strategies to alleviate ED overcrowding. 2001 Dec 21. Dallas: American College of Emergency Physicians; 2002. Available: [www.acep.org/1,4774,0.html](http://www.acep.org/1,4774,0.html) (accessed 2003 Jan 29).
- Feferman I, Cornell C. How we solved the overcrowding problem in our emergency department. *CMAJ* 1989;140:273-6.
- Ontario Hospital Association. A matter of hospital resources: an emergency care action plan. August 2000. Toronto (ON): Ontario Hospital Association; 2000.
- Canadian Association of Emergency Physicians and National Emergency Nurses Affiliation. Joint Position Statement on emergency department overcrowding [policy]. *CJEM* 2001;3(2):82-4.
- Drummond AJ. No room at the inn: overcrowding in Ontario's emergency departments. *CJEM* 2002;4(2):91-7.
- Schull MJ, Szalai JP, Schwartz B, Redelmeier DA. Emergency department overcrowding following systematic hospital restructuring: trends at twenty hospitals over ten years. *Acad Emerg Med* 2001;8:1037-43.
- Redelmeier DA, Blair PJ, Collins WE. No place to unload: a preliminary analysis of the prevalence, risk factors, and consequences of ambulance diversion. *Ann Emerg Med* 1994;23:43-7.
- Bagust A, Place M, Posnett JW. Dynamics of bed use in accommodating emergency admissions: stochastic simulation model. *BMJ* 1999;319:155-8.

Correspondence to: Dr. Andrew Affleck; [afflecka@shaw.ca](mailto:afflecka@shaw.ca)

Please see page 86 for Appendix 1.

## **Appendix 1. Potential strategies to deal with overcrowding in emergency departments (EDs)**

### **Control input wherever possible**

1. Create regional or provincial bed access management to assure that interhospital transfers are directed to hospitals that have the capacity to manage the patient requiring transfer.
2. Develop prehospital care policies to divert Levels II and III patients to appropriate nearby hospitals during periods of severe overcrowding.

### **Avoid unnecessary admissions**

1. Support ED-based programs that reduce the need for hospitalization (e.g., outpatient IV antibiotics; outpatient anticoagulation for venous thromboembolism; ED procedural sedation for appropriate minor operative procedures).
2. Create 12–24 hour rapid diagnosis and treatment units that aggressively investigate, treat and discharge patients who would, in the past, have been admitted to hospital. These units may be based in EDs.
3. Increase ED access to diagnostic tests when these tests preclude the need for inpatient investigation.
4. Assign a discharge coordinator for the ED.
5. Establish multi-disciplinary ED-based rapid response teams to coordinate community supports and enable discharge of patients who will not benefit from hospitalization (e. g., the frail elderly).
6. Nurture closer liaisons with primary care providers to assist with patient disposition.
7. Develop information systems to facilitate the transfer of valuable patient information from the community to the ED and from the ED to the community.

### **Enhance the flow of sick patients from the emergency department to the ward**

1. Assign top priority to emergency admissions.
2. Distribute supernumerary (i.e., “hallway”) patients equally between all wards, including the ED.
3. Institute “daily quota” beds. If there are an average of 10 admissions per day, inpatient units should assure that 10 daily quota beds are available to accommodate the expected admissions.
4. Designate “flex beds” that can be used by different services based on daily need.
5. Establish “admission units” during peak daytime hours. Such units, physically separate from the ED and staffed by ward nurses, would accept and hold admitted patients from the ED until their assigned inpatient bed is ready. This decompresses the ED and reduces the need to admit off-service when the “right” bed will be available later the same day.
6. Allow direct admission to the floor for stable patients being transferred from another facility when a bed is open on the floor.
7. Invoke a “30-minute rule” for transfer to the floor when a bed is assigned.
8. Automatically assign patients to “off-service beds” when defined ED thresholds are reached.
9. Establish acceptable consultation time frames to avoid disposition and treatment delays.
10. Electronically capture key process times including time to ED stretcher; time to physician; time to disposition decision; consultation delay; length of stay (LOS) or admitted and discharged patients.
11. Identify and open over-census beds when specified ED thresholds are surpassed. These may necessitate include opening temporarily closed beds, using non-traditional spaces like sunrooms, conference rooms and auditoriums, or adding beds to existing rooms.

### **Optimize inpatient acute care lengths of stay**

1. Assign a utilization coordinator for the hospital.
2. Ensure there is a Most Responsible Physician (MRP) accountable for every admission.
3. Identify LOS benchmarks for key case-mix groups, establish LOS targets, and measure performance.
4. Estimate expected LOS for patients at the time of admission.
5. Begin discharge planning at the time of admission. This includes a discharge notification process.
6. Electronically monitor key discharge processes, including time from discharge to bed availability and time from bed availability to transfer.

### **Provide alternate levels of care for alternate level of care (ALC) patients**

1. Lobby for appropriate availability and utilization of community subacute and ALC beds.
2. Move patients who are “just waiting” (e.g., for investigations, for a ride home) out of hospital areas that are staffed for acute care.
3. Designate a discharge lounge and suitable waiting areas.
4. Match care provided to care required. Do not occupy acute care beds with patients who do not need them. Move ALC patients to defined units or holding areas where staffing levels and care resources provided match what the patient requires.