

Access to acute care in the setting of emergency department overcrowding

A joint position statement of the Canadian Association of Emergency Physicians and the National Emergency Nurses Affiliation.

Introduction

Canadian emergency departments often deal with more sick patients than there are staffed stretchers in which to treat them. Acutely ill people overflow into hallways and waiting rooms, ambulances are diverted from hospital to hospital looking for an emergency department that will accept incoming patients and, after arriving, paramedics often cannot offload patients onto an emergency stretcher. Sick patients endure prolonged waits in emergency department waiting rooms and face unacceptable delays in care.

Emergency department overcrowding has been described, defined and studied for over two decades in the literature. Despite a range of initiatives and management strategies, it is worsening and it remains the most serious issue confronting Canadian emergency departments. 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 one, two and three of the Canadian Triage and Acuity Scale (CTAS). This document reviews emergency department 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 emergency department volumes (Lynn & Kellerman, 1991; Schull & Redelmeier, 2002; Kollek, 1990; Graff, 1999). 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 (Lynn & Kellerman).

Based on this definition, it is clear that emergency department 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 (Dickinson, 1989). Although they comprise a significant proportion of patients who come to emergency departments, they do not occupy acute care stretchers, they require little or no nursing care, and they typically have brief treatment times. These “non-urgent” patients consume a small fraction of emergency department resources, generate minimal incremental costs (Richardson & Hwang, 2001), and do not displace sick patients who need emergency care. The American College of Emergency Physicians report on overcrowding states that, “non-urgent

emergency department use simply leads to overcrowding in the waiting room, not overcrowding in emergency department treatment areas” (American College of Emergency Physicians, 2002).

The history behind overcrowding

Emergency department 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, as well as hospital bed and staffing shortages (Kollek; Gallagher & Lynn, 1990; Lynn). In the early 1990s, strategies to address overcrowding were developed (Lynn & Kellerman; Lynn; Lynn & Yeh; American Association of Emergency Physicians, American Hospital Association, 2002; Feferman & Cornell, 1989), 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 emergency department 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 emergency department’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 emergency departments. 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 (Ontario Hospital Association, 2000). With an aging population, fewer hospital beds and fewer emergency departments, the remaining emergency departments dealt with rising patient volumes and acuities (Fatovich, 2002). By the mid to late 1990s, overcrowding was the most significant problem facing emergency care providers. Several key organizations tried to address the overcrowding issue, including CAEP (Canadian Association of Emergency Physicians) and NENA (National Emergency Nurses Affiliation), ACEP (American College of Emergency Physicians), and the emergency section of the Ontario Medical Association (Drummond, 2002).

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 emergency department and the appropriate inpatient care areas. This would bring all of the

institutional 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 emergency department. 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 one or two “hallway patients” on inpatient units; yet they accept the practice of managing 10 or 20 patients in emergency department hallways. They believe that adding one or two supernumerary patients (a five to 10% workload increase) to an inpatient ward imposes unacceptable stress on inpatient staff, but that adding 10 or 20 such patients (a 50 to 100% workload increase) to the emergency department does not (Lynn). 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 emergency department’s acute care stretchers with admitted off-service patients. The end result of this series of double standards is that inpatient units are protected from overcrowding stresses, that emergency departments shoulder a disproportionate burden, and that standards of care for patients in emergency departments 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 emergency departments as equal to other departments, give emergency department staff the same considerations as inpatient staff, and provide emergency department patients the same rights as other patients, the crisis in emergency department 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 (Schull, Szalai, Schwartz & Redelmeier, 2001); and patients who should be assessed and treated are ‘blocked’ in waiting rooms. Consequently, few Canadian emergency departments can meet the nursing and physician evaluation time objectives specified in the Canadian Triage Acuity Scale (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 emergency departments (Schull & Redelmeier; Redelmeier, Blair & Collins, 1994). 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 ensure 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 burn-out and loss of skilled people. Patient dissatisfaction leads to verbal and physical abuse. Sadly, one death in a Canadian emergency department was directly related to a family member’s frustration with access to care. The chaotic situation in Canadian emergency departments 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 priority for hospital resources, institutions seem to have accepted a system where exactly the opposite occurs. This perverse model of allocating acute care resources can be described as “normalization of deviant behaviour.”

Overcrowding reduces access to emergency evaluation and treatment, but an often-overlooked aspect of the problem is the decreased and inappropriate care provided to patients who require hospitalization. Emergency departments were designed to provide immediate lifesaving 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 emergency department, 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 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 emergency department’s responsibility 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 emergency department’s responsibility — to provide this. Although it is generally acknowledged that overcrowding is a system problem rather than an emergency department problem, most hospitals maintain policies and procedures that contain

overcrowding in the emergency department as much as possible. These policies eliminate motivation on the part of anyone outside the emergency department to solve the problem — hence they guarantee failure. As long as ‘policy firewalls’ artificially focus overcrowding pressures in emergency departments, 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 emergency department overcrowding have been developed over the past 15 years (Lynn & Kellerman; Graff; American College of Emergency Physicians; Lynn; Lynn & Yeh; American Association of Emergency Physicians, American Hospital Association; Feferman & Cornell; Drummond). 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 emergency department patient population. Appendix A lists several strategies that will improve access to care, maximize quality of care, and help maintain patient dignity.

Within the emergency department, 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 timeframe. It is essential that all stakeholders participate in implementing the necessary strategies, since this is beyond the capability of the emergency department. Responsibility for successful implementation ultimately lies with the hospital administrations, regional health boards and government.

Alternate level of care (ALC) 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 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” (Bagust & Posnett, 1999).

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 emergency departments, 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 emergency department overcrowding would be minimal in most acute care hospitals.

The solution to this problem is to ensure that there is an adequate number of ALC beds outside the walls of acute care institutions. This is perhaps the most looming 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.

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

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Access to emergency care

Hospital emergency departments must be capable of providing access to appropriate assessment and treatment within timeframes specified by the Canadian Triage 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 with little or no opportunity for sleep. These are not reasonable or humane conditions for sick people. Patients requiring hospital admission should not be held in emergency departments, hallways or waiting rooms for more than six 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 six 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 patient need to level of care. 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 both 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. 

APPENDIX A: Potential strategies to deal with overcrowding

Control input wherever possible:

1. Create regional or provincial bed access management to assure that inter-hospital transfers are directed to hospitals that have the capacity to manage the patient requiring transfer.
2. Develop pre-hospital care policies to divert level two and three 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- to 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 emergency departments.
3. Increase emergency department access to diagnostic tests when these tests preclude the need for inpatient investigation.
4. Assign a discharge coordinator for the emergency department.
5. Establish multidisciplinary 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 emergency department.
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 emergency department 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 timeframes 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 for admitted and discharged patients.

Executive summary

- emergency department overcrowding can be defined as: a situation in which the demand for emergency services exceeds the ability to provide care within a reasonable timeframe, causing physicians and nurses to be unable to provide appropriate and timely quality care.
- emergency department overcrowding is a critical problem in the health care system.
- emergency department overcrowding has been escalating for more than a decade despite numerous attempts to resolve it. Hospital restructuring, regionalization and bed closures have all exacerbated the problem.
- the main cause of emergency department overcrowding is the practice of holding admitted patients in the emergency department when inpatient beds are full or unstaffed.
- holding admitted patients in the emergency department for several days has, for unexplainable reasons, become routine practice.
- this routine practice can be described as the “normalization of deviant behaviour”, as this practice has become the norm with the impact on patient care being contrary to what the health care system is intended to provide.
- emergency department overcrowding is directly associated with access to patient care in that:
 - it blocks access to quality care for patients presenting to the emergency department
 - it impedes and blocks access to quality care for patients being treated and assessed in the emergency department
 - it has a significant negative impact on and blocks access to appropriate care for patients admitted to the hospital who must stay in the emergency department
 - it results in a loss of patient dignity, privacy, safety and confidentiality when they are examined, treated and admitted into the emergency department hallways
- well-defined emergency department overcrowding management strategies have been developed and must be implemented.
- the deficiency of long-term care resources outside of acute care facilities is the single most important factor in blocking acute care beds
- hospitals, health care authorities and governments must come to the realization that emergency department overcrowding and access to care is a quality of care, patient safety, patient dignity, privacy and confidentiality issue which is a joint responsibility.
- while long-term solutions are developed, hospitals must share the workload and burden to minimize the impact of access to patient care in the setting of emergency department overcrowding. 

11. Identify and open over-census beds when specified emergency department thresholds are surpassed. This may necessitate 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 length of stay (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.

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