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# Emergency department overcrowding: Waiting for disaster

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## Introduction

Emergency department (ED) overcrowding is both an international and national problem. In Canada, concerns of overcrowding are becoming more and more of the “norm”, and faced by our EDs on a daily basis. Canadian EDs provide essential and critical services to roughly nine million Canadians a year (Schull et al., 2002) and this number is expected to rise in the future, especially with the expected increase of the aging Canadians. At such large patient volumes, ED overcrowding is evident within our current health care system. ED overcrowding is thought to be associated with many adverse effects and, if overcrowding persists in Canadian EDs, there is cause for concern about poor outcomes and compromised levels of quality care. Essentially, without addressing this issue, ED overcrowding has the potential to create an enormous hazard to public safety.

This paper focuses on a review of the Canadian-based literature on ED overcrowding, and its purpose is to define ED overcrowding and to establish that it is a serious problem facing the Canadian health care system. After presenting the definition of this problem, its major causes and effects will be discussed. Another important aspect of ED overcrowding that is becoming increasingly controversial is the legal and ethical issues involved in providing ED health care. These concerns will be discussed in relation to both physicians and hospitals. To conclude this literature review, potential overcrowding solutions, strategies, and recommendations will be identified and discussed. These recommendations will be directed to both hospital administrators and the government, the individuals who have an impact on this trend of ED overcrowding, since many causal factors lie outside the ED and beyond ED staff control. The ED human resource issues, in relation to the causes and effects in ED overcrowding of professional staff shortages and staff morale respectively, will not be discussed.

Although these issues are important in relation to ED overcrowding, they are not included in this discussion.

The topic of ED overcrowding is familiar to most Canadians and is recognized as a major Canadian health care issue, however, there are several limitations with the research conducted in this area. First of all, the research in this area is limited as a result of many factors, mainly the lack of a clear definition of ED overcrowding. In combination with a lack of a clear definition is the notion that many of the studies conducted to date focus on single institutions and there is no data or conclusions on this topic from a nationwide perspective. Not only are the studies conducted from single institutions, but the causes and effects of ED overcrowding are based on very little quantitative analyses. Rather, they are based on consensus statements, staff surveys, or self-reports that may be extremely biased or grounded on uneducated or false assumptions. There is little hard evidence on this subject and, as a result, overcrowding is not clearly understood. The lack of information and, in particular, quantitative information, has limited the development and application of systems-wide quality improvement measures (Schull et al, 2002).

Likewise, of the few studies and publications that have been released which look at the causes of ED overcrowding, none have been prospective. Without these types of studies, it is impossible to prove with certainty that any specific factor may be a definite cause of ED overcrowding. A more scientific approach to evaluating this problem, and providing a clear and precise definition to this problem, may help close the gaps between the individual opinions that are currently available to provide more rigorous evidence of the problem (Schull et al., 2002).

The final limitation encountered during this literature review is that most of the limited work already done in this area is based on United States ED overcrowding. Since the scope of this paper excludes a review of ED overcrowding in other jurisdictions, the research findings from studies in the United States would not be considered. The rationale behind excluding these other studies is that the definition, causes and effects, and

viable solutions to ED overcrowding differ greatly from region to region, even across Canada and, therefore, make it hard to generalize across regions. Accordingly, materials focusing on the ED situation in other countries would offer little guidance in finding a remedy to the Canadian problem.

## What is emergency department overcrowding?

Emergency department overcrowding is defined as a “situation in which the demand for service exceeds the ability to provide care within a reasonable time, causing physicians and nurses to be unable to provide quality care. It can be measured by monitoring patient waiting times, including the time from registration to physician exams, time to be seen by a consultant, and the time necessary to move admitted patients to appropriate inpatient beds” (CAEP, 2002). ED overcrowding can occur at any time and create unpredictable workloads characterized by peaks and valleys resulting from patient volumes and acuity, causing huge frustrations for ED staff and patients (CAEP and NENA, 2003). The result is often a decrease in the quality of health care, increased public health hazards, and diminished patient outcomes.

ED overcrowding has not just been a phenomenon of recent years, but has been around for decades. It has developed into a chronic crisis and is an issue confronting health care systems around the world, and Canada is no exception. Overcrowding was initially reported in the early 1980s, and was thought to be a “result of several factors including an aging population, rising infectious disease rates (particularly the AIDS epidemic), substance abuse, psychiatric illness, the effects of poverty and hospital bed and staffing shortages” (CAEP and NENA, 2003). By the early 1990s, many strategies were proposed to address this issue of ED overcrowding, yet most acute care facilities took little time to implement such suggestions, as many institutions felt the costs of implementing such initiatives would be far greater than keeping the ED patients in-house (CAEP and NENA, 2003). Because of these inactions on the part of many Canadian hospitals, ED overcrowding became a common problem recognized all across Canada. “By the mid to late 1990s, the era of restructuring and regionalization in the Canadian health care system hit its peak. This was a direct result of the recession that created tremendous economic pressures and closed large proportions of acute care beds, leading to a major upsurge of ED overcrowding during this period. By the time the late 1990s hit, ED overcrowding was the largest issue facing ED health care providers” (CAEP and NENA, 2003). Since then, this phenomenon has not subsided; rather, it is becoming worse. Today, ED overcrowding can be considered an epidemic in emergency departments nationwide.

Although this topic of ED overcrowding is continuously described and defined as the most serious issue confronting Canadian EDs, it is a multi-factorial problem caused by a combination of both internal and external, yet interrelated, factors. Most of these factors are external to the ED and, therefore, beyond its control. This has led to the belief that ED overcrowding is primarily a “systems problem” reflecting

bottlenecks throughout the entire health care system, rather than an issue isolated within the EDs themselves. However, most hospitals maintain policies and procedures that constrain overcrowding to the ED as much as possible and, as a result, eliminate the motivation for anyone outside the ED to solve the problem (CAEP and NENA, 2003).

As concluded by Drummond (2002), ED overcrowding remains poorly understood by government, managers, administrators, and leaders of organized medicine, despite the ‘chronicity’ of the problem, combined with an impressive international literature base. “As a result of the widespread reports of overcrowding, multiple countries have raised doubts about the capacity of emergency services to ever provide dependable and rapid emergency care” (Schull, 2002).

## Causes of emergency department overcrowding

ED overcrowding, as previously stated, is not the result of a single factor, but is rather a combination of interrelated factors. A major limitation in determining the causes of ED overcrowding is that prospective studies are needed to determine such causes. Without such studies, it is hard to make any definitive conclusions as to the actual causes of the overcrowding. Some of the most frequently suggested causes of ED overcrowding are described below:

The lack of beds for admitted patients in the hospital is thought to be a significant contributing factor to ED overcrowding. The lack of hospital bed availability is considered by many individuals as one of the greatest causes of overcrowding. However, this is considered to be a commonly-held “belief”, since there is little data demonstrating this effect (Forster et al., 2003).

“Over the past five years, it has been noted that the number of hospital beds in Canada has been reduced by almost 40%. Although some of these beds have been converted away from acute care to home care and long-term care beds, there has been and continues to be a problem admitting patients away from the ED in a timely fashion” (CAEP and NENA, 2001). This, in turn, “prevents ED physicians and nurses from accomplishing their primary mission, providing emergent and urgent care to communities” (CAEP and NENA, 2003), as stretchers are being occupied by patients awaiting hospitalization.

In one study done by Forster et al. (2003), titled *The Effect of Hospital Occupancy on Emergency Department Length of Stay and Patient Disposition*, investigators conducted a retrospective review of administrative databases of two 500-bed, academic acute care hospitals to examine whether hospital occupancy is associated with admitted patients’ length of stay in the ED, as well as determining whether hospital occupancy was associated with physician referral for admission. Results of this study show that the total number of beds in the hospital decreased from 610 in 1993, to 432 in 1999 for cost-saving purposes and that the daily hospital occupancy was 89.7%. Accordingly, the ED length of stay (LOS) was found to be significantly associated with hospital occupancy. A 10%

absolute increase in occupancy reflected a 5% increase in patient ED LOS before being admitted into a hospital bed. However, hospital occupancy levels that exceeded 90% contributed to the majority of the increased ED LOS. It was also determined that physicians do not alter their level of referrals for admission based upon hospital bed availability.

This increased occupancy as a result of fewer inpatient beds is typically a result of restructuring. In a 2001 study conducted by Schull et al. called, *Emergency Department Overcrowding Following Systematic Hospital Restructuring*, investigators attempted to determine the effect of restructuring through a time series analysis of monthly overcrowding from 1991 to 2000 in EDs in Toronto, Ontario. During this 10-year time period, complex hospital restructuring started in 1997, which consisted of ED closures and mergers, increased ambulatory and community care programs, and major hospital bed cutbacks occurred (Schull et al., 2001). Hospital bed closures were, however, a continuous occurrence throughout the entire study period.

Results of the study by Schull et al. (2001) showed that before restructuring, moderate to severe overcrowding was not increasing and occurred roughly 10% of the time and that, during restructuring, both severe and moderate overcrowding began to increase significantly at a rate of 0.4% monthly (30% of the time). This finding held even after controlling for ED utilization (total ED visits did not predict overcrowding) and demographics. It was also noted that during each year of the restructuring period, the occupancy rate in hospitals increased and exceeded 90% and peaked at 96% in 2000.

We can therefore conclude, based on the above results, that the higher the hospital bed occupancies, the greater the LOS is in the ED for admitted patients. A British study identified in CAEP and NENA, 2003, acknowledged the fact that “at rates above 85%, risks become discernable and above 90% the system is subject to a regular bed crisis”. Following the study that determined the effect of hospital restructuring on ED overcrowding, it was found that when occupancy rates typically exceeded 90%, overcrowding was present 30% of the time. In our health care system, many acute care hospitals are constantly restructuring and are continuously operating at occupancy levels greater than 90%. Therefore, without changes that will eliminate the lack of inpatient beds, the negative effect hospital occupancy rates have on ED overcrowding is unlikely to dissipate.

Lack of access to primary care, physicians, nurse practitioners, or specialists and diagnostic services are also major factors contributing to ED overcrowding in Canada. Many Canadians do not have access to a family physician or nurse practitioner, and access to these individuals is limited. Another concern is that waiting times to seek specialist care, as well as for tests and procedures, are so long that many Canadians feel they have no other choice but to seek ED care. As an individual’s condition worsens, they see the ED as a “safety net” that will provide the specialist consultations, CT scans, ultrasounds and other diagnostic and laboratory tests on the spot, thereby providing quick results as opposed to waiting for weeks or months to access these tests via regular outpatient services (CAEP and

NENA, 2003). Drummond (2002) notes that the lack of, or delay in, on-call specialist consults are an integral component of emergency care. Typically, there are substantial wait times involved in attaining a specialist consult in the ED, and many times it takes multiple attempts before the specialist arrives, during which time the ability to provide rapid urgent and emergent care is compromised. There are also huge delays involved in waiting for diagnostic and laboratory services testing and result acquisition in the ED because not all hospitals provide 24-hour-a-day services. As a result, patients remain on stretchers, utilizing resources while they wait for a diagnosis, and thus contributing to overcrowding.

“Bed-blockers”, otherwise known as Alternative Level Care (ALC) patients, require “chronic care, chronic complex care, transition care, respite care, and palliative care” (CAEP and NENA, 2003). Because of the health of many of these individuals and the corresponding lack of home care, community care and long-term care available to these patients in the community, many have no choice but to remain in acute care facilities where they occupy a bed that could be used by patients waiting to be admitted from the ED. According to the article published by Drummond (2002), hospitals reported that the number of beds these patients occupy is upwards of 20 to 25 per cent. Although ALC patients do not require the high levels of care and specialty services that are offered in acute care facilities, they remain there, consuming a large proportion of the resources that could otherwise be used to alleviate the problem of ED overcrowding and facilitate patient flow. Ultimately, it becomes much more costly to provide chronic care in an acute care setting.

The increased complexity and acuity of patients are important factors thought to contribute to ED overcrowding. With the increasing age of the population, the ED is seeing many individuals with complex conditions and chronic diseases such as AIDS, mental illness, diabetes, and cardiovascular disease, just to name a few. Patients such as these require many different and complex assessments using advanced diagnostics and lab tests (CAEP and NENA, 2001). Often, these complex treatments do not warrant hospitalization, but require patients to remain in the ED while they receive sometimes lengthy assessments and procedures. Such assessments expand the scope of practice of emergency medicine since physicians acquire the responsibility for outpatient follow-ups and developing patient management plans, and contribute to an increased patient LOS where they occupy a stretcher, inhibit patient flow through the ED, and contribute to overcrowding (CAEP and NENA, 2001).

Recently discharged inpatients also contribute to the increased complexity and acuity of patients who are entering EDs, and have the potential to act as a source of ED overcrowding. The impact that these patients actually have on ED overcrowding was investigated in a 2001 retrospective, observational study by Baer et al. This study looked at all patients presenting to the ED within seven days of inpatient discharge from the hospital. They were identified as “returns.” With the increased focus on decreasing the LOS of inpatients following surgical procedures or various illnesses, many patients are typically released after a



predetermined LOS, providing there are no complications. For these patients, the ED is seen as a “safety net” following their release from the hospital, yet patients presenting to the ED utilize many resources that cannot be used for other patients requiring care.

Results from this study show that only a small percentage of patients returned to the ED (~3%), but this is a very complex group of patients. These patients spent more time being evaluated and treated than other patients in the ED. The returns were also more than twice as likely to be admitted into the hospital as other patients (47% versus 19% respectively). In conclusion, it was found that the resources needed to evaluate and to treat these patients are relatively high when compared with those of the “average” ED patient (Baer et al., 2001) and contribute to ED overcrowding.

Increased volume of patients presenting with non-urgent problems is also thought to be a major contributor to ED overcrowding. What is not recognized is the fact that large volumes of non-urgent patients do not cause overcrowding and that this is a well-known myth of the Canadian health care system. “Although non-urgent patients occupy a large amount of space in the ED, particularly in the waiting room, they actually consume a very limited proportion of the ED’s resources - i.e., stretchers and nurses. These patients add very little to incremental costs and do not displace patients who need emergency care” (CAEP and NENA, 2003). In fact, efforts that will seek to move these non-urgent patients to other health care settings will not alleviate the current problem of ED overcrowding. Rather, they will simply transfer costs from one health care institution to another (CAEP and NENA, 2001).

## The effects of ED overcrowding

The conditions of Canadian emergency departments have been deteriorating over the past couple of decades and, with health care restructuring and reform becoming more the norm, ED overcrowding is expected to continue as a serious health care problem. The definite effects of ED overcrowding are understudied in the literature, yet many health care professionals and members of society are continuously dealing with adverse outcomes of this phenomenon on a regular basis.

The effect ED overcrowding has on the care of admitted patients as a result of their increased LOS is unknown. There are only a few studies that relate quality of care to the duration of ED stays. These studies have found that prolonged ED stay is associated with decreased patient satisfaction due to the increased delays in the treatment of pain and suffering. However, there are no studies evaluating outcomes of this care (Forster et al., 2003). As ED overcrowding inhibits patient flow into and out of the ED, the backlogs of ED patients face increased waiting times before they even see a nurse or physician. “Many individuals wait for extended hours in a stretcher or chair before they can be admitted into the hospital, receive appropriate treatment, testing, or specialist care. As a result, patients’ pain and suffering in physical, mental, and emotional health is delayed beyond acceptable limits” (CAEP and NENA, 2001). ED overcrowding also causes huge

dissatisfaction among patients waiting for care for extended periods of time, meaning that more and more individuals are leaving the ED before they can receive the care they need. All of these consequences are totally unacceptable to both ED physicians and nurses, whose goal is to provide emergent and urgent care within appropriate time limits, but who are too busy and are constrained by limited resources to attend to the patients who need them.

Prolonged waiting times mean patients experience prolonged periods of pain and suffering before hospitalization, treatments, and procedures are available. This has created a renewed interest in patient safety and the increased risk of medical errors that can occur as a consequence of inadequate patient care. Overcrowded EDs are environments with enormous potential for medical error because of the delays in providing patient care, the intensity of decision-making, the pressure to move patients out quickly, the lack of observation and monitoring when patients are cared for in hallways and waiting rooms, and increased stress on caregivers as their scope of practice continuously increases (Drummond, 2002). Although much of the evidence for this is anecdotal, there is a growing concern that ED overcrowding will lead to increased medical errors in the future. Another factor contributing to the increased risk of medical error is the fact that the specialty of emergency medicine is concentrated in providing fast emergent and urgent care and is often much different than other disciplines of medicine. With an increased proportion of patients receiving their care completely within the ED, and with admitted patients being held in the ED for extended periods of time, emergency physicians are having to expand the levels of care they provide and, at times, this is beyond their scope of practice, and has the potential to contribute to a greater number of medical errors that adversely affect patient outcomes.

Another one of the most obvious adverse effects of ED overcrowding, particularly in urban centres, is ambulance diversion. Ambulance diversion, otherwise known as “redirect consideration” and “critical care bypass”, has a large impact on the quality of health care provided to Canadians, and its incidence is increasing. “Redirect consideration” is a request that the ambulance dispatch centre send all critically ill patients to another ED because, at such time, the resources in the ED are being stretched, but another critically ill patient could be accommodated if necessary. “Critical care bypass” occurs when the hospital cannot admit even one more critically ill patient without compromising the care of patients already in the ED; the ED is closed to the ambulance (Upfold, 2002). “The negative consequences of these directions include increased transport times of critically ill patients, increased possibilities of poor clinical outcomes, limitations on system-wide response times, discontinuity of care and, of greater concern, is that paramedics, upon the declaration of ‘redirect consideration’, need to assess the patient’s condition to determine whether it will permit longer transport to another facility” (Drummond, 2002). Overall, patients should never be denied access to the ED for an urgent or potentially critical problem, as this is against the Canadian health care systems values (CAEP and NENA, 2001).

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## Ethical and legal issues surrounding ED overcrowding

The issue of ED overcrowding has elicited quite a debate as to whether it is reasonable, legally and ethically, to hold a physician or hospital liable in negligence for failing to treat, or for inadequately treating an individual in need of emergency care due to ambulance redirect, critical care bypass, patient overcrowding, lack of personnel, equipment or both (Walker, 2002).

Currently, there is no case law concerning this issue and in many cases, resolutions regarding such issues remain in the hands of the judicial system, say the authors of several articles who take opposing views in this debate (Kollek, 2002; Upfold, 2002; Walker, 2002). Many argue that it is unethical for EDs to go on critical care bypass and refuse a critically ill patient, regardless of ED overcrowding and lack of resources, according to the physicians' and hospitals' "duty of care" principle.

According to Upfold (2002), physicians owe a duty of care to their patients, but in general this exists only when there is a pre-existing professional relationship with the patient. Essentially, they can refuse to provide emergency care when this relationship is non-existent. However, as an emergency physician, such a relationship is rare. Typically, emergency physicians have a contractual relationship with the community and, as a result, there is a duty, and the community has the right to rely on the care being available when needed. By going on critical care bypass or ambulance redirect, the potential for patient harm is foreseeable and is in breach of the physicians' duty of care, upon which they may be held liable (Upfold, 2002).

The flip side of this coin is the notion that the reason physicians and hospitals employ ambulance diversion is because ED overcrowding has created a situation in which resources, both human and physical, are so stretched that having one more critical patient in the ED may put themselves and other patients in the department at harm (Kollek, 2002). Physicians in this situation have a duty to all patients who enter the ED, and accepting one more critically ill patient may put more than one other patient at risk, due to limited resources. It is thought to be unreasonable and unethical to hold physicians liable for not delivering adequate care to patients they never get to see because of ambulance diversion, or whom they see too late because of patient backlog, often without adequate diagnostic tools. These are all adverse outcomes as a response to ED overcrowding, a health system issue, not an issue controllable by physicians in the ED. Hospital cutbacks have created an environment where emergency physicians cannot reliably deliver the standard of care that is legally and ethically expected of them (Kollek, 2002).

Whether physicians, hospitals, or the government are held responsible for such actions is currently determined by the justice system. However, both sides of the story have debatable legal and ethical issues that surface every day, many directly as a result of ED overcrowding.

## Conclusions and recommendations

Because ED overcrowding is recognized as a problem resulting from numerous interrelated and multi-factor causes that rest outside the ED, it is unlikely that quick fixes in the ED will alleviate this crisis situation currently seen across the country. It is apparent to the specialty of emergency physicians that a long-term solution will require concerted efforts and strong lobbying to influence the government and hospital administrators so that they understand the issues behind and seriousness of this national crisis. "The community and government must identify ED overcrowding as a high priority health concern and acknowledge that the prolonged waiting in EDs by admitted patients is unacceptable" (CAEP and NENA, 2001). Once a partnership develops between such bodies, action must be taken to help resolve or, at a minimum, facilitate a change in the trend of ED overcrowding. This is a serious issue that requires the development of standards of care for patients, so that negative outcomes can be avoided, as well as financial and philosophical support from the government (CAEP and NENA, 2001).

It must also be recognized that putting money alone in the ED to alleviate the problem of ED overcrowding in Canadian hospitals is not enough. If this is the approach that government and hospital administrators take in recognition of this problem, the solution will not be enough. As previously discussed, ED overcrowding is a whole-system issue and it requires multiple factors to be assessed and addressed simultaneously in order to contribute significantly to eliminating or at least reducing the problem. To put money back into the ED to increase the number of beds that are available or simply re-open previously closed beds is only one part of providing patient care in the ED. There is currently a lack of emergency human resources that are required to handle the increased bed capacity. Staff are overworked already. More diagnostic services, treatments, and procedures will also need to be completed on the increased volume of patients. Opening beds leads to a much greater amount of expenses and resources that are required outside the ED (CHSRF, FCRSS 2000). There are multiple things that can currently be done to facilitate change in this area. However, we present four major recommendations that can be made to the government and hospital administrators to help alleviate this problem for the long term.

### **1. Address the lack of beds. Set priorities on increasing long-term care beds first.**

The lack of beds for admitted patients in the ED needs to be resolved. Currently 20 to 25 per cent of inpatients occupying beds are "bed blockers"/ALC. Usually, these patients are in an acute care facility simply because they have nowhere else to go, and this is a significant contributor to increased ED LOS and overcrowding. A key government intervention at this point would be to increase the number of long-term care beds, such that ALCs can move out of the acute care beds they currently occupy and into a setting that is more appropriate for them. This will alleviate ED overcrowding, improve patient outcomes, and save money for the government by having ALC patients receiving their chronic care in an institution more

suiting for them. As previously mentioned, it costs far more to have an acute care bed occupied with chronic care patients who should be somewhere else.

## **2. Increase community care across the country, starting with increased home care services.**

It should be recommended to the government to increase the levels of community care, particularly home care in communities all across Canada. This is another way to get bed-blockers out of acute care facilities and into a more appropriate setting where they can receive the level of care that they require. Such an approach helps facilitate patient flow within hospitals and removes admitted patients from the ED into inpatient beds. This will free up resources for other patients waiting in the ED, thus decreasing overcrowding.

## **3. Hire nurse practitioners for inpatient wards to facilitate more efficient discharge of patients.**

Another recommendation that could be made is to allow for nurse practitioners to enter health care facilities, where they can do the large quantities of paperwork required by physicians before inpatients can be discharged from the hospital. Often times, patients are ready to go home but physicians and residents are so busy that the papers for discharge are not filled out until half a day or so after the eligible time of discharge. At times, where shorter inpatient visits are suggested and enforced, such time delays in discharge mean that inpatient beds are unnecessarily occupied when they could have removed a patient awaiting admission from the ER. Nurse practitioners in the hospital can perform such a role and would be important in reducing ED overcrowding by facilitating patient flow. Nurse practitioners can also play a role in the emergency department, providing non-urgent care, however it is unclear how this would alleviate the issue of overcrowding.

## **4. Define parameters of a Canadian Emergency Department Information System (CEDIS) and facilitate its implementation nationwide.**

The final recommendation that may be necessary to help ease the pressures of ED overcrowding in Canada would be the implementation of an information system. Specifically a CEDIS that tracks waiting times, patient volumes, admission rates, other relevant ED data, benchmarks, performance indicators, and other necessary quantitative data. This will help identify system inefficiencies and help facilitate studies that can establish causative factors and definitive effects of ED overcrowding and patient flow. In the submission by CAEP to the Romanow Commission, they "identified the importance of implementation of ED information systems across the country, that will develop standard performance reports that facilitate inter-institutional and inter-regional comparisons". As well, the working group composed of CAEP, NENA, and the CEDIS national working group also agreed upon the standard data elements that would be necessary for such a system to provide them with both quality improvement and clinical research (CAEP, 2002).

The recommendations provided here focus on eliminating, or at least reducing some of the major problems inhibiting efficient patient flow from an entire health care system perspective. These are best accomplished through the government, both federal and provincial, health authorities, and hospital administrators. Changing the internal workings of the ED to fix overcrowding would be ineffective at this point in time, as the problem rests almost entirely outside the ED. Without actions in the near future, ED overcrowding will continue to contribute to poor patient outcomes, and we may contribute to even greater disasters in the future. ❏

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