Critical care bypass: coming full circle

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A tragedy in Toronto early this year became the flash point for a health care system in crisis. On Friday, Jan. 14, 2000, the emergency department (ED) medical director at the Markham Stouffville Hospital, Dr. Anne Clarke, called to inform me about a teenaged boy with asthma who was on life support after a severe asthmatic attack early that morning. Because the nearest Toronto hospital had been on critical care bypass, the boy's ambulance transport time was 18 minutes — 15 minutes longer than it would have taken to reach the closer facility.

Later that day, I issued a directive to the land paramedics of the City of Toronto Emergency Medical Service (EMS) indicating that, under specified circumstances (see Table 1), they should transport patients to the nearest facility regardless of hospital bypass status. I anticipated much resistance to this directive. To my surprise, it was greeted with a collective sigh of relief.

In 1988, Toronto emergency departments faced overcrowding, staffing shortages and concerns about the quality of ED care. Elective surgeries were being cancelled and beds closed. The Metropolitan Toronto Central Resource Registry was developed to assist hospitals in placing overflow ED patients into facilities that could care for them. In addition, it helped the Department of Ambulance Services direct patients to the closest ED able to provide resources.

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The terms *Redirect Consideration* (RDC) and *Critical Care Bypass* (CCB) were developed to describe hospital status to ambulance dispatchers. RDC signifies that the ED is experiencing a level of activity that allows it to accept only critically ill or injured patients. CCB signifies that the ED has exceeded all available critical care resources and cannot receive critically ill or injured patients. Software was designed to enhance communication between hospitals and the ambulance service and to provide a central database from which to generate reports.

Over the years, with escalating bed closures, an aging population and increasing numbers of alternate level of care patients in acute care beds, it became apparent that the system was being stretched to the limit. This was reflected in the participating hospitals' accumulation of RDC and CCB hours, which increased three- and nine-fold respectively between 1991 and 1999.[1]

Turf battles ensued. When paramedics brought patients to hospitals that were on RDC, hostile emergency staff greeted them. Hospitals accused each other of playing by different "rules." Some hospital administrators used RDC status to protect available beds, so that elective surgical procedures would not be cancelled. Others avoided RDC, accepted more emergency patients and filled their beds, while their surgical departments and patients suffered. At first it was easy to deal with non-compliers, but as resources dwindled, the system ground to a halt.

Critical care bypass, a state previously utilized only under the most extraordinary conditions, became commonplace. It was unclear to EMS whether hospitals on CCB were truly unable to resuscitate patients brought to their door, whether CCB status reflected overflowing critical care units, or merely that it indicated staff frustration. Paramedics, respectful of ED decisions and cognizant of the liability of taking a patient to an unprepared hospital, carried patients far afield,

Table 1. Indications for transport to the nearest hospital*

1. Patients in cardiac or respiratory arrest with a potentially reversible cause (e.g., airway obstruction, primary hypoxia, cardiac tamponade, tension pneumothorax, persistent or recurrent ventricular fibrillation or tachycardia)

2. Patients in a pre-arrest state, shock or respiratory failure who do not respond to advanced or basic life support rendered by paramedics on scene or en route.

*This directive does not supercede local trauma triage guidelines.

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resulting in longer times to definitive care. Rumours abounded, particularly amongst ambulance staff, that hospitals were "using" CCB for everything from protecting intensive care unit beds to dealing with nursing shortages. It seemed we had come full circle and that the system originally designed to relieve pressures on emergency departments was now doing just the opposite.

The causes of these phenomena are evident to anyone working in an ED. Traditional hospital systems, facing increasing demand and dwindling resources, are cracking up. Despite our (collective) finger in the dike, we can no longer hold back the waves of sick and injured flooding our emergency departments, spilling over into our ambulances and communities.

What can we do?

There is no simple answer. Initial efforts to improve communication and rationalize resources have failed. The ED is a thermometer that reflects the status of hospital systems, and ours have reached the boiling point. The problems are systemic and the system needs an overhaul. Peer accountability is important, and hospitals must play by common rules. With restructuring and amalgamation, communication and cooperation between institutions is essential. Facilities within geographic regions must address common problems and develop consistent approaches to overcrowding. In addition, they must communicate with ambulance and other community services. All of these efforts will require support from the Ministry of Health.

Finally, ambulance services must function as a link from the hospital to the community. In our increasingly "vertical" health care system, there needs to be a continuum from injury and disease prevention, to home care, to community outreach programs, to outpatient health care facilities, to community hospitals and to academic health centres. Patients need transport to and from different facilities and levels of care. Social agencies need to collaborate with medical agencies to determine the optimal level of care for patients, and patients must be educated, with their medical, cultural and social needs in mind.

Recent media attention has focused politicians and the public on our issues. The emergency medical community has the opportunity and the responsibility to address these issues in public debate, and to advocate rational solutions. Emergency physicians are canaries in the coal mine and must continue to be a voice of reason both individually and collectively while our window of opportunity remains open.

Reference

1. Schull MJ, Redelmeier DA, Szalai JP, Schwartz B. Trends in ambulance diversion for Toronto emergency departments from 1991 to 1999 [abstract]. Acad Emerg Med 2000;5: In press.

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