PREPARING FOR THE GERIATRIC TSUNAMI – AN EMERGENCY DEPARTMENT PARADIGM SHIFT

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SUMMARY

The Emergency Department has witnessed multiple paradigm shifts within a very short period of time. It is likely that the aging of the population will create the greatest shift to date. As the number of people over age 75 swells, the demands on the emergency department to have available multi-disciplinary geriatric capabilities to manage their complex non-medical problems risk overwhelming the ability of the department to manage the acutely ill and injured as is its mandate. Crowding could spiral out of control, resulting in worsening outcomes for emergency department patients. Anticipating the geriatric tsunami and preparing a health care system, both in and outside of a hospital will be critical. Creating a geriatric emergency department in isolation risks having governments designate the emergency department as the portal of entry for all community geriatric needs, which can only compromise further acute care, care already threatened by tightened budgets, increasing health care costs and insufficient community resources.

Key words: Overcrowding, hospital operations, emergency department, emergency medicine.

INTRODUCTION: WHAT HAS COME BEFORE HAS PAVED THE WAY

North America has witnessed remarkable paradigm shifts in the clinical practice of emergency medicine (EM) over the past 40 years. Prior to the existence of the specialty of emergency medicine, the emergency room was essentially a holding facility for specialists or Family Physicians to see their patients prior to admitting them to a hospital bed or to returning them home. On site coverage was provided by moonlighting physicians in need of additional revenue, physicians often without any training in acute care. With the advent of EM, a new paradigm was introduced, focusing on acute care and resuscitation practiced increasingly by physicians with specific training in emergency medicine. Even with the arrival of this first EM paradigm, there were non-medical imperatives: the homeless, the neglected elderly, the victims of sexual assault or intimate partner violence.

Despite core EM training objectives focused almost exclusively on acute illness and injury, clinical practice restricted to that area of expertise was so temporary, one wonders if it was only a mirage. Hospitals faced increasing financial constraints. In Canada, large numbers of acute care beds were closed, without increases in long term care facilities. The percent of (reduced in number) acute care beds occupied by long term care patients often exceeded 20% of total bed capacity, placing additional pressure on emergency departments (ED) to either discharge patients that would have been previously admitted or to crowd them into hallways. During that same time period in the United States, the total number of hospitals decreased every year. Insurance companies started dictating duration of stay and criteria for reimbursement for various medical conditions. The causes were different, but the results were the same as in Canada: overcrowded EDs, with delays in initial care, and extended duration of care by the emergency medical team. This new paradigm became the next accepted norm despite accumulating data demonstrating worse patient outcomes and satisfaction. Need for paramedical services such as social work and

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physiotherapy working in the ED increased. A new physical structure was created within the ED: a 24-hour short stay unit that avoided admissions while increasing further the scope of practice of the emergency physician.

At the same time as medical beds became a shrinking commodity, so too was the infrastructure for patients with mental health concerns. Many long term care facilities were closed, resulting in increasing numbers of patients with chronic mental health diseases in the street or under the care of family members unable to cope. Visits to the ED increased, requiring another paradigm shift: the establishment of Emergency Psychiatry Units in the ED with the presence of psychiatry nurses and assessment teams. Increasing demand was placed on social workers due to the lack of community resources for this group of patients, expanding further the non-medical resource demands in the ED.

The ED has been impacted by other influences as well: infectious diseases such as SARS, TB, and H1N1 have forced hospitals to forego an open concept for individual rooms, increasing infrastructure costs and staffing needs. Violence and terrorism have resulted in EDs with metal detectors at entrances, and bullet proof glass at registration. While EDs have decreased in number, they have the necessity to become larger, with sub-areas of care under the direction of the ED - essentially mini-hospitals.

Why have these paradigm shifts occurred and why have they been imposed on the ED rather than finding novel health care systems to support them? In large part, we have been our own worst enemy. From the first days of our specialty, we have said that the ED is the safety net of the health care system rather than being the safety net for the acutely ill and injured. Unlike other specialties, we have not attempted to define inclusion and exclusion criteria for care. No other specialty has accepted to be a 'catch-all'; for in-patients, the role of a Hospitalist had to be created to take on this approach. When other areas come under pressure, the easiest solution is to default that care to the ED. Think of where patients without a primary care provider, with post-op complications or with addiction issues all go, to name but a few. The universal answer has become the ED. Such an approach is justifiable in a private health care system, where market share drives the hospital bottom line. Outside of the United States, however, such an approach can only be to the detriment of the acutely ill or injured patient, as evidenced by the research available (1). Unfortunately, the opportunity to advocate specifically for the suported area of expertise of EM, appears to have been lost in North America, but has not yet passed in South America.

THE NEXT PARADIGM SHIFT– THE AGING POPULATION

By 2050 more than 30% of the North American population will be considered elderly; in South America it will rise to approximately 25% (2). It has been said that more people over age 65 are alive today than have ever died before. Increasingly we will need to address the specific needs of this growing age group. Unlike other age groups, multiple non-medical problems are inherent and intertwined with the medical ones. Inability to care for our elders will become an ever increasing societal burden as both medical and social complexities arise. Possible solutions could include non-hospital ones. Studies have reported on EMS teams evaluating home situations when dispatched, initiating community support action rather than transporting to the ED (3). An open access medical facility with a multidisciplinary team could manage new and ongoing medical problems, and prevent others while organizing home and community solutions for the elderly. Patients coming to the ED could be safely discharged back to such facilities to continue care and obtain the necessary support rather than being admitting to an acute care bed. This would require a revamping of existing health care models, for no system has included all of the paramedical and social disciplines required for the elderly in its universal care infrastructure. Education of patients and their families about preparing for needs of the aging needs to be integrated in a new health care model that prioritizes *anticipation and prevention*. In South America such discussion and preparation can pre-empt the geriatric tsunami; in North America it is too late. The compromise has been once again adapting the emergency department to this new paradigm.

Government debt is rising while GDP per capita stagnates or drops with an aging population. Combined with an ever more expensive medication list, governments will be facing a financial wall. Health care focus will have to become more financially responsible, with the most cost effective approach - prevention rather than reactive care-becoming the base model. Focusing on staying healthy for as long as possible rather than spending money on illness once it occurs should become the expected norm. We need to stop spending large amounts of money on the last 6-12 months of life as currently happens. Supportive end-of-life facilities could compensate for the diminishing younger population base's inability to care for the increasing number of elderly. The societal debate over what *should* be done versus what can be done must take place. Wherever that debate leads us, however, the fallout of an aging population will be that the sick elderly will still have to be seen somewhere; already in United States those over age 75 represent the age group with the largest number of visits to EDs(4). In North America, that 'somewhere' entry point has by default

become the emergency department. In countries lacking strong Primary Care services, the impact on the ED risks being even more dramatic.

No matter what health care system is developed, the emergency department will receive increasing numbers of the ill and injured elderly. Just as the ED has adapted to the paradigms listed above, so too must it adapt to this paradigm of an aging population. As it stands, most emergency physicians are probably ill prepared to deal with the complexities of geriatric medicine, with inadequate training objectives during residency training (5). Medical care cannot be easily separated from the physical and social care needs of the elderly, so that the ED will have to build an infrastructure than can address all facets of care in a timely fashion. If the health care system does not develop simultaneously a support system external to the hospital, the ED risks being overwhelmed and crowded to dysfunctional levels solely by the *non-medical* demands of the elderly. Care must be taken to create a geriatric friendly ED that:

1) Achieves buy in from all involved stakeholders
2) Addresses the needs of the emergency geriatric patient without encouraging excessive referrals or prolonged stays in the department
3) Allows normal flow and functionality for other age groups - reserving space for one age group without increasing the ED footprint could severely limit the space for other age groups in most EDs.
4) Meshes with a hospital and system equally adapted for geriatric patients, with an inpatient acute rehabilitation ward and processes for rapid transition back into the community for respite care, alternative care and long term care facilities.

For almost every country except the United States, the concept of a **geriatric emergency department (GED)** will not be a marketing strategy aimed at increasing hospital and ED revenues. Rather, a dedicated program with specific needs will further cut into a strained hospital budget. Financial constraints will be in play for everyone; many national health care administrators will identify that placing all the geriatric 'eggs' in one basket (the ED) for medical investigation, initiation of transition into social support or a long term care facility and localization of a multi-disciplinary team will create a cost effective and simple solution. In such a set-up, Primary Care providers will often have more limited access to such services, risking the default of their efforts to the ED unless the new system accounts for rapid access from the community providers.

Several United States medical organizations have collaborated to produce a guideline for a geriatric emergency department (6). In addition to infrastructure recommendations, it also provides direction for screening, medication management, assessment of falls, delirium & dementia and palliative care. Key to such a document's success is standardization of care through effective knowledge translation, as well as defining clearly the roles of the GED, including the 'negatives': who does *not* require hospital admission, who should not be sent to the GED from the community, and duration of GED stay. In line with the notion of cost effective prevention, screening to predict future adverse outcomes becomes a critical aspect of the GED role; existing strategies unfortunately still fall short (7).

When one considers the increasing needs of the elderly *outside of* the hospital, it becomes evident what the GED will have to be able to address:

1) Deconditioning after injury or illness
2) Declining cognitive function
3) Loss of functional independence
4) Adapting home environments to decreased functionality and impairments
5) Home care support for meals, bathing, medical needs (wound care, peritoneal dialysis, etc.)

The GED will have to have direct access to, or have working in the department, a comprehensive team including physiotherapy, occupational therapy, social worker, a geriatric nurse, a wound care nurse and home care nurses. Nurses and the pharmacist within the unit should have specific expertise with geriatric patients. To continue to function well, it will have to be able to transfer patients directly to respite or rehabilitation beds outside the hospital. It will also have to be able to ensure home care within 12-24 hours of discharge: in addition to acute medical care such as IV medications and wound care rehabilitation, meal support, assessment of fall risk etc. will also have to be available in a timely fashion. The GED cannot be built in isolation, but within the context of a system established for this paradigm. That has not yet happened systematically in Canada, placing an inordinate burden on the ED team. The elderly present 24 hours a day to the ED; the multi-disciplinary team should be available 7 days a week, 16 hours a day at a minimum, or the system will risk being overwhelmed with patients waiting to be seen by the various members of the team.

The physical setup of the GED will have to include beds adapt to the physical limitations of the elderly, nearby adapted bathroom facilities, large clocks easily read from any bed with time and date, a dedicated area for physiotherapy to assess patient function (not a hallway), and areas for meeting with multiple family members. While specifically of benefit to the elderly, many of these requirements will be of value to patients and families of almost every age group.

PROPER USE OF A GERIATRIC EMERGENCY DEPARTMENT – SEEING THE RIGHT PEOPLE

As written above, a GED cannot be built in isolation, but within a dovetailed system. Exit block from the GED must be minimized, with priority given to transfer patients to alternative health care facilities when their social needs are the primary problem. Similarly, the health care system needs to better configure patient care outside of the hospital to minimize transfers to the ED.

Electronic medical records will need to be shared across the system. Medication databases are already helping providers deal with patients who do not know or cannot tell us what they take. Medication errors occur most frequently at the time of transfer from one service to another, be it from the ED to the ward or from a long term care facility to the ED (8). Improved medical care needs to be provided in LTCs: proper medication reviews to identify drug-drug interactions and adverse effects could prevent many transfers and admissions. Having a health care provider and Point of Care testing available could further decrease transfers. Society needs to be much more definitive about supportive care at the end of life, eliminating futile 'keep the patient alive at all costs care.

Multi-disciplinary community clinics could become the entry point for Primary Care Providers and families looking for supportive care and evaluation of the elderly, rather than the ED. Currently such patients are sent by ambulance to the ED in most cities, at a point when the family cannot cope any more. Having 7 day a week access to clinics in the community would encourage earlier intervention and planning; transportation to and from the facilities could be by much less expensive methods than ambulances with paramedics. Availability of such facilities would minimize the frequency of a family leaving a parent in an ED out of desperation and fatigue, for transport services would access such facilities as the first destination.

Finally, the GED has to define clearly what its function is not. It cannot become a holding unit for people waiting placement to avoid admissions, admissions that often result in months-long stays because of social (not medical) reasons. It cannot become known as the sole entry point for multi-disciplinary care of the elderly. It cannot be built in isolation, for the needs of the elderly far exceed any capability of what a GED could provide - a system must be planned for and built, with the GED managing the acute medical and social emergencies. As our society ages, society must recreate itself to accommodate this change. Expecting an ED to be the solution for the needs of the elderly - a one size fits all solution - may be convenient for planners but would ultimately ensure worse overall care, not just for the elderly but for all ED patients.

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