

Virtual Mentor

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POLICY FORUM

Ending Ambulance Diversion in Massachusetts

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Ambulance diversion is the practice of temporarily closing a facility, typically an emergency department, to incoming ambulances. Since the 1990s, emergency departments nationwide have relied on ambulance diversion more and more to address emergency department crowding [1, 2]. While there is little data to document adverse effects of ambulance diversion, this practice is thought to reduce the availability of EMS personnel, interfere with patient choice of hospital and continuity of care, increase ambulance transport time, and promote crowding at neighboring hospitals [3, 4]. Organizations such as the American College of Emergency Physicians (ACEP) and the Institute of Medicine have discouraged the routine use of ambulance diversion [5]. In its 2006 report on emergency care in the United States, the Institute of Medicine urged that diversion be “eliminated except in the most extreme circumstances, such as a community mass-casualty event” [6]. Yet diversion is hardly a rare occurrence. One study based on data from the National Hospital Ambulatory Medical Care Survey concluded that approximately 45 percent of emergency departments diverted ambulances in 2003. An estimated 501,000 ambulances were diverted that year, or approximately one ambulance per minute [7].

On January 1, 2009, Massachusetts became the first state in the U.S. to successfully ban ambulance diversion. The state Department of Public Health (DPH) directive prohibited ambulance diversion except in cases of internal hospital disasters that rendered the emergency department unusable (known as a “code black”) [4]. This policy was enacted after a decade of efforts by Massachusetts DPH to encourage hospitals to voluntarily limit ambulance diversion.

Failure of the Voluntary Approach

In 1999, Massachusetts DPH convened a multidisciplinary team of physicians, nurses, administrators, and EMS personnel to form the Statewide Boarding and Diversion Task Force. The agency sought to phase out ambulance diversion on a voluntary basis by encouraging hospitals to address the causes of emergency department crowding [8].

Emergency department crowding is thought to increase the risk of harm to patients and interfere with timely care of emergency patients, threatening the principle of nonmaleficence [9]. Some sources have suggested that visits by the uninsured or patients with minor complaints are to blame for emergency department crowding [10-12]. There is a growing consensus, however, that ED crowding results from lack of inpatient resources and hospital-wide operational inefficiencies [13-16]. Hospital

crowding and lack of inpatient beds lead to prolonged boarding of admitted patients in the emergency department. This undermines the principle of justice, which necessitates the just distribution of health care resources [9]. When emergency departments become filled with admitted patients awaiting an inpatient bed, their ability to care for new patients is limited. One study suggested that periods of ambulance diversion may be associated with higher hospital revenues, thus providing a financial disincentive for hospitals to limit ambulance diversion. The authors note that in such situations, the case for limiting or ending ambulance diversion must be made on moral and ethical grounds, such as patient safety and quality of care [17].

The Massachusetts DPH boarding and diversion task force distributed a set of “Best Practice Guidelines” designed to help hospitals improve patient flow and develop alternatives to ambulance diversion [18]. The agency noted that some Massachusetts hospitals and entire regions had successfully done away with diversion through deliberate operational measures designed to improve patient flow. But despite such efforts by the task force over the ensuing decade, ambulance diversion continued to be a common practice among Massachusetts hospitals [19], perhaps because of insufficient financial motivation for hospitals to alter their practices and possibly because of lack of understanding of the hospital-wide causes of ED crowding.

Why Mandatory Prohibition Succeeded

On July 3, 2008, Massachusetts DPH announced that it was forgoing its prior strategy and pursuing the mandatory elimination of the routine use of ambulance diversion [4]. One predicted consequence of prohibiting ambulance diversion was severe crowding of overwhelmed emergency departments forced to accept all those who sought care, as mandated by EMTALA. Another concern was that ambulances would spend more time at hospitals waiting to transfer the patient to ED personnel, delaying their response to the next emergency. In anticipation, the task force held conference calls for the agency and hospital administrators to address concerns related to the landmark policy.

The agency is monitoring emergency department crowding to evaluate the effects of the policy on hospitals across the state. Preliminary reports have suggested that the end of ambulance diversion has been a relative success due to operational changes made at individual hospitals in anticipation of the diversion ban [20, 21]. The changes made have varied among hospitals, but a common theme has been improving efficiency on the inpatient units to promote earlier hospital discharge when possible. Examples include drawing labs earlier in the morning so that results are available earlier and physicians can make treatment decisions and hiring nurse practitioners to assist with inpatient discharges. One Boston hospital developed a “surge pod” for ED patients awaiting inpatient beds, making more ED beds available for new patient [3, 21].

Initial reports from Boston EMS, the municipal EMS provider for the city of Boston, suggest that there have not been long waits before patients can be transferred from EMS to hospital staff. The apparent success of the policy supports the idea that

ambulance diversion can be eliminated when hospitals optimize efficiency and patient flow. Perhaps this landmark Massachusetts policy will serve as a model for changes in emergency care nationwide.

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