Boarder Patrol: A Reform Policy for America’s Paralyzed Emergency Departments

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Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 10(4)

1936-9018

Bloomfield, Peter J
Landman, Adam B
Rosenbloom, Robert C.

2009-01-01

Peer reviewed
The story is not new. America’s emergency departments (EDs) are frequently overcrowded, their ability to provide high quality emergency care compromised by lack of space and required attention to admitted patients boarding in the ED, awaiting a hospital bed upstairs.

We first experienced ED boarding as residents where sign-outs were along the lines of: “Sixty-year-old male, sign-out of a sign-out, admitted, boarding for the past 48 hours, chest pain patient, I think.” To an ED resident, the problem was clear. Later, at a California Chapter of the American College of Emergency Physicians (Cal/ACEP) meeting, we were surprised when a visiting state representative, asked about her approach to ED boarding, replied, “What’s boarding?” We realized that many of our elected representatives, patients, and hospital leaders are not aware of the true cause of ED crowding. With the support of Cal/ACEP, we developed a short video to explain to the layperson what boarding is, its causes, consequences, and possible solutions (available under “Supporting Material” of the article at http://escholarship.org/uc/uciem_westjem).

The Problem and Consequences

What we saw in our training program is actually a national problem. According to the National Hospital Ambulatory Medical Care Survey, 87% of large, high volume EDs board patients, and 83% of EDs overall board patients.1

A growing body of evidence shows that ED crowding negatively impacts patients’ health. According to a recent Government Accounting Office (GAO) report, the average wait time for a critical patient that should be seen IMMEDIATELY was 28 minutes.2 Crowding has been shown to increase the rate of medical errors,3 and studies suggest an increased mortality of 30%-4,5 and a doubling of the rate of serious complications from acute coronary syndrome.6 Recent studies have also shown an association between ED crowding and delay or failure to receive antibiotics or pain medications7,9. Even more concerning, a 2007 study of ICU boarders found that they had 30% higher mortality than non-boarders, after adjustment for severity of illness.10 This suggests that boarding critically ill patients, in terms of mortality, may be equivalent to withholding aspirin from patients having heart attacks.

The Causes

The causes of crowding are complex; however, studies have repeatedly shown that the major driver of ED crowding is lack of inpatient beds for admitted ED patients.11,12 These “boarders” spend hours to days in the ED, taking up space where new patients should be seen.

Some common misconceptions about ED crowding are worth clarifying. Uninsured patients are not the driver of ED crowding; growth in ED visits is actually due to insured individuals.13 Moreover, the problem is not one of inadequate ED beds. Although 45 hospitals and 44 EDs closed in California between 1996 and 2007, existing EDs have expanded beds by 26%,14 at a rate outpacing population growth. The ratio of ED beds to patient visits has actually improved.

Finally, the issue is not one of EDs being crowded by non-emergent patients. In fact, the true cause of crowding and boarding is that the EDs are crowded by sicker patients. In 2002 in California, 48% of total ED visits were urgent or non-urgent. In 2007, the proportion of these lower acuity patients fell to 33%, leaving more moderate, severe, or critical acute patients.14 With sicker patients presenting to the ED, it makes sense that the admission rate climbed as well, contributing to more patients boarding in the ED.14

Possible Solutions

With costs to build new hospital inpatient and ED beds approximately $1 million per bed, new construction is an untenable short-term solution.15 The key to alleviating...
crowding is improving patient flow, from ED entry to in-patient bed and ultimately to appropriate discharge, requiring the commitment and cooperation of leadership and staff throughout the hospital. One effective strategy at State University of New York-Stony Brook relocates admitted patients during times of ED and hospital crowding to inpatient wards regardless of bed availability. This strategy has reduced ED crowding and is preferred by patients.\textsuperscript{16,17} Even a bed in a hallway upstairs on an inpatient unit is preferable to the chaos and noise of the ED. At Los Angeles County+USC Medical Center, a hospital-wide surge plan is routinely activated as their hospital or ED reaches threshold crowding levels. Hospital resources are successively mobilized, including inpatient hallways, to maximize ability to delivery patient care.\textsuperscript{18} Other creative approaches include inpatient discharge lounges, streamlining nurse sign-outs, reducing specialty consultant response times, encouraging timely patient discharge, and improving admission and discharge processes.\textsuperscript{14,19}

**CONCLUSION**

The “Boarder Patrol” video complements recent popular press and review articles and represents our effort to inform non-emergency caregivers on how ED boarding plays a significant role in ED crowding and increases patient morbidity and mortality.\textsuperscript{20,21} Emergency physicians can be leaders, guiding efforts to reduce ED crowding using evidence-based practices. We highly encourage policy makers to enact legislation, such as California’s AB-911,\textsuperscript{22} enabling and encouraging hospital administrations to bring about critical and necessary structural and cultural changes to help admitted patients depart the ED so patients in waiting rooms and in ambulances can be seen promptly. California’s overcrowding bill was unfortunately vetoed because the Governor apparently misunderstood that emergency physicians and hospitals were aligned in the goal to decrease boarding admitted patients in the ED when in fact hospitals may have a perverse financial incentive to divert inpatient beds for patients undergoing elective procedures.\textsuperscript{23} Increased public pressure on hospitals, The Joint Commission, governors and legislators demonstrates that boarding is an unacceptable practice.

**Acknowledgements**

The Boarder Patrol video would not have been possible without the contributions and commitment of all the patients, actors, and content experts as well as the leadership and staff of Cal/ACEP. A special thank you to Arna Vodenos and Robert Davidian, who provided much of their high quality, professional film making services in kind for this project.

Conflicts of Interest: By the WestJEM article submission agreement, all authors are required to disclose all affiliations, funding sources, and financial or management relationships that could be perceived as potential sources of bias.

Disclosures: Dr. Rosenbloom is President of the California Chapter of the American College of Emergency Physicians (Cal/ACEP). Funding: This project was generously funded by the California Chapter of the American College of Emergency Physicians (Cal/ACEP). Dr. Landman is currently in the Robert Wood Johnson Foundation Clinical Scholars Program and is funded by the US Department of Veterans Affairs and the Robert Wood Johnson—Foundation.

**REFERENCES**


