

REPORT OF THE COUNCIL ON MEDICAL SERVICE

CMS Report 3-A-09

Subject: Emergency Department Boarding and Crowding

Presented by: David O. Barbe, MD, Chair

Referred to: Reference Committee G
(J. Leonard Lichtenfeld, MD, Chair)

At the 2008 Annual Meeting, the House of Delegates adopted as amended recommendations contained in Council on Medical Service Report 2, “Access to Psychiatric Beds and Impact on Emergency Medicine.” Recommendation 4 of the amended report (Policy D-130.969, AMA Policy Database) called for the American Medical Association (AMA) to issue a progress report on the effectiveness of measures implemented to mitigate boarding and crowding in the emergency department (ED) as a follow-up to the 2008 American College of Emergency Physicians (ACEP) task force report on boarding, “Emergency Department Crowding: High-Impact Solutions.” The Board of Trustees referred the requested report to the Council on Medical Service for a report back to the House of Delegates at the 2009 Annual Meeting.

This report summarizes solutions to ED boarding and crowding; highlights specific hospital examples; identifies resources hospitals can use to mitigate ED boarding and crowding; reviews ED performance measures; examines proposed legislation; outlines AMA policy and activity; and presents policy recommendations.

BACKGROUND

A number of systemic health care issues have been identified as potentially contributing to the problem of ED boarding and crowding: limited access to primary care services, lack of established medical homes, lack of adequate access to on-call specialists, inadequate inpatient and outpatient mental health services, shortage of emergency physicians and nurses, shortage of inpatient beds, closing of EDs, high rates of uninsured and underinsured, the medical liability environment, and the lack of a health information technology infrastructure. However, internal hospital procedures affecting patient flow have consistently been reported to be the key problem – and the key opportunity for improvement.

The 2008 ACEP task force report on boarding, “Emergency Department Crowding: High Impact Solutions,” provides a summary of overcrowded EDs, outlines solutions to reducing emergency department boarding and improving the flow of patients through emergency departments, and identifies internal emergency department and hospital-wide actions and processes designed to improve access and flow. ACEP has also released “The National Report Card on the State of Emergency Medicine, Evaluating the Emergency Care Environment State by State, 2009.” The “Report Card” evaluated the conditions under which emergency care is delivered in the United States, issuing an overall grade of “C-” for the nation with a “D-” for access to emergency care.

HOSPITAL SOLUTIONS

ACEP's task force report on boarding, "Emergency Department Crowding: High Impact Solutions," outlines various recommendations to mitigate ED boarding and crowding. The report suggests moving emergency patients who have been admitted to the hospital out of the emergency department to inpatient areas, such as hallways, and conference rooms; coordinating the discharge of hospital patients before noon; coordinating the schedule of elective patients; and increasing the flow of patients. Hospitals around the nation have been implementing these solutions with varying degrees of success, along with other creative solutions such as redirecting non-urgent patients to more appropriate settings and eliminating ambulance diversions. Solutions have been categorized according to the point at which they make an impact on the flow of patients through the emergency department process (i.e., input, throughput or output).

Input Solutions

Input factors refer to why patients present to the ED, including demographic characteristics such as aging and morbidity, ambulance diversion practices, availability of alternative sites of care, insurance status, perceptions of quality, and physician referral practices.

On January 1, 2009, the Massachusetts Department of Public Health (MDPH) instituted the first statewide ban on ambulance diversion in the country. The ban was issued after nearly ten years of studying ambulance diversion in the context of ED boarding and crowding, and experimenting with a successful two-week ban on ambulance diversions in Boston. According to MDPH officials, ambulance diversions only create more problems such as interfering with patient choice, increasing the time patients spend in ambulances, tying up vehicles and shifting crowding to other hospitals. The ban is intended to encourage creative, more appropriate, solutions to ED boarding and crowding. Along with the ban, hospitals were provided with recommendations to aid in efficient patient flow and a 24-hour hotline was instituted for hospital administrators to use if problems arise. To date, MDPH reports that there have been no major crises as a result of the ban, and preliminary data indicate emergency medical services (EMS) turnaround times are stable or down.

Throughput Solutions

Throughput factors refer to the operations of the ED, such as how ED processes impact patient flow. Examples include the registration process, staffing resources, care process, availability of specialty, ancillary, and diagnostic services, accessibility of clinical information, scheduling of elective surgery, housekeeping process, and informational technology systems.

Nearly ten years ago, Stony Brook University Medical Center pioneered a "Full Capacity Protocol," also known as the "Adopt-a-Boarder" program, which sends admitted patients boarding in the ED to inpatient hallway beds when the ED is crowded. This model distributes the boarding problem throughout the hospital, thereby encouraging a hospital-wide response. Initial results demonstrated that almost 50 percent of transferred patients were assigned a room immediately or in less than one hour and the average length of stay for patients boarding on the inpatient floors was almost one day less than the average for similar patients boarded in the ED. A four-year study of this model concluded that the transfer of boarding ED patients to inpatient hallways is associated with lower mortality and lower admissions to the intensive care unit. Hundreds of hospitals nationwide have since implemented similar processes.

The Agency for Healthcare Research and Quality funded an initiative in 2006 by Banner Health, “Door-to-Doc” or D2D, to redesign patient flow processes in eight Banner EDs. Under the D2D model, a clinical team rapidly triages each patient, allowing accelerated treatment of less sick patients and faster admission for those who are very ill and require inpatient care. Use of the two-track patient flow model resulted in a significant decrease of 58 percent from 117 to 49 minutes in the average time from patient arrival to being seen by a physician. In addition, the percentage of patients who left without being seen by a physician decreased on average from 7.1 to 1.7 percent, and the average ED length of stay decreased by 14 percent. Since its initial success, the D2D model has been refined and is being used as a model for improvement in additional hospitals throughout the country.

Output Solutions

Output factors refer to the ability to move an ED patient to the next destination, such as subsequent care in the community, and hospital capacity to transfer ED patients to critical care and other inpatient units.

The Minnesota Medical Association (MMA) has developed a task force comprised of physician members from psychiatry, emergency medicine, family medicine, and internal medicine to address the boarding of psychiatric patients and resulting ambulance diversion problem in Minnesota. A primary goal of the task force is to address the state’s shortage of psychiatric inpatient beds by increasing the number of psychiatric beds by 200 per year for the next three years. Along with developing recommendations on how to increase the number of beds, the task force has formulated measures to gauge the success of a reformed system. Goals include reducing the average length of ED stay for psychiatric patients to less than 6 hours and for admissions locations to be within 20 miles in metropolitan areas and 60 miles in rural areas.

RESOURCES

The following resources are available to aid hospitals in assessing current operations and improving efficiency:

- ACEP Emergency Department Data Institute (EDDI) is an initiative to collect and report ongoing, comprehensive normative data on ED operations. EDDI clients or subscribers pay a fee to participate.
- Urgent Matters is a national initiative funded by the Robert Wood Johnson Foundation dedicated to finding, developing and delivering strategies to improve patient flow and reduce ED crowding. Urgent Matters highlights best practices through its educational activities including e-newsletters, Web seminars and regional conferences.
- The Institute for Healthcare Improvement (IHI) provides participating hospitals with access to an interactive learning community focusing on operational and clinical improvement in the ED. This resource allows teams from a wide variety of organizations to work with each other and IHI faculty to rapidly test and implement meaningful, sustainable change.
- EMPATH: The Hospital Operations Company is a consulting firm dedicated to addressing hospital performance issues including crowding, ambulance diversion and ED performance issues. The firm focuses on ED and inpatient length of stay, inpatient intake and discharge processes, critical care bed utilization, and the integration of services provided by the ED,

operating room, ancillary department, and inpatient staffs. Recommendations and assistance are provided to improve hospital performance.

PERFORMANCE MEASURES

The AMA-convened Physician Consortium for Performance Improvement® (PCPI) is committed to enhancing the quality of care and patient safety by taking the lead in the development, testing, and maintenance of evidence-based clinical performance measures and measurement resources for physicians. The following nine PCPI performance measures have been developed for emergency medicine through collaboration by ACEP and the National Committee for Quality Assurance (NCQA):

- 12-Lead Electrocardiogram Performed for Non-Traumatic Chest Pain
- Aspirin at Arrival for Acute Myocardial Infarction (AMI)
- 12-Lead Electrocardiogram Performed for Syncope
- Vital Signs for Community-Acquired Bacterial Pneumonia
- Assessment of Oxygen Saturation for Community-Acquired Bacterial Pneumonia
- Assessment of Mental Status for Community-Acquired Bacterial Pneumonia
- Empiric Antibiotic for Community-Acquired Bacterial Pneumonia
- Fibrinolytic Therapy Ordered within 20 Minutes of 12-Lead Electrocardiogram for AMI
- Care Coordination for Percutaneous Coronary Intervention

These measures have been designed for individual physician quality improvement and for calculating reporting or performance measurement at the individual physician level. In addition, performance measures are currently being developed for discharge from the ED to promote quality care through the standardization of discharge instructions.

The AMA has also created tools to assist physicians who may elect to participate in the Centers for Medicare and Medicaid Services (CMS) Physician Quality Reporting Initiative (PQRI). The tools for the claims-based reporting of individual quality measures and measures groups are designed to facilitate the data collection required to report clinical performance data. For 2009, there are seven PQRI measures for emergency medicine:

- 12-Lead Electrocardiogram Performed for Non-Traumatic Chest Pain
- Aspirin at Arrival for AMI
- 12-Lead Electrocardiogram Performed for Syncope
- Vital Signs for Community-Acquired Bacterial Pneumonia
- Assessment of Oxygen Saturation for Community-Acquired Bacterial Pneumonia
- Assessment of Mental Status for Community-Acquired Bacterial Pneumonia
- Empiric Antibiotic for Community-Acquired Bacterial Pneumonia

In 2007, the National Quality Forum (NQF), with funding from CMS, identified measures for public accountability and quality improvement related to emergency care at both the facility and practitioner level. In 2008, the NQF endorsed the following ten national voluntary consensus standards for hospital-based emergency department care:

- Median Time from ED Arrival to ED Departure for Admitted ED Patients
- Median Time from ED Arrival to ED Departure for Discharged ED Patients
- Admit Decision Time to ED Departure Time for Admitted Patients

- Door to Provider
- Left Without Being Seen
- Severe Sepsis and Septic Shock: Management Bundle
- Confirmation of Endotracheal Tube Placement
- Pregnancy Test for Female Abdominal Pain Patients
- Anticoagulation for Acute Pulmonary Embolus Patients
- Pediatric Weight in Kilograms

These measures aim to improve efficiency and care coordination in EDs.

PROPOSED LEGISLATION

At its April 2007 meeting, the AMA Board of Trustees adopted the recommendations of the Council on Legislation to support the Access to Emergency Medical Services Act of 2007 with the provision that it is not funded at the expense of other Medicare Part B physician services. The bill (H.R. 882) was introduced in the House by representatives Bart Gordon (D-TN) and Pete Sessions (R-TX). A companion bill (S. 1003) was introduced in the Senate by Senators Debbie Stabenow (D-MI) and Arlen Specter (R-PA). This legislation was reintroduced in 2008, remaining in committee throughout the year with growing support in Congress. It was reintroduced in February 2009 (H.R. 1188/S. 468) to be considered by the 111th Congress in the context of comprehensive health system reform. The proposed legislation seeks to address a series of issues identified in the three Institute of Medicine (IOM) reports on the “Future of Emergency Care” released in June 2006.

Specifically, the Access to Emergency Medical Services Act of 2009 (H.R. 1188/S. 468) addresses three critical issues: the increasing gap in emergency services demand and capacity; the ED crowding and boarding problem; and issues related to unfunded mandate and uncompensated care for emergency services. The bill has three main components: 1) creation of a bipartisan commission on access to emergency medical services to address a series of issues impacting the delivery of emergency services; 2) authorization of additional emergency trauma physician payments through Medicare to all physicians who provide care under the Emergency Medical Treatment and Active Labor Act (EMTALA), including all on-call specialists; and 3) directing CMS to study and develop standards and incentives to alleviate ED boarding.

AMA POLICY AND ACTIVITY

Prior to Council Report 2-A-08, the Council previously considered the issue of ED crowding in CMS Report 1-A-02, “Overcrowding and Hospital EMS Diversion,” which recommended increased federal funding for ED expansion, staffing, availability of beds, and an increased overall system capacity. In addition, the report recommended better integration of ambulatory care and urgent care centers into the emergency health care system, and that greater efforts be made to educate both patients and physicians on the appropriate use of the ED. The report concluded that local, multi-organizational task forces would be best suited to devise local solutions to the problems of ED overcrowding and diversion (Policy H-130.945).

The Board of Trustees subsequently issued two reports on emergency medicine: BOT Report 14-I-06, “The Future of Emergency and Trauma Care” and BOT Report 3-I-07, “The Looming Crisis in Emergency Care in the US – Managing the Causes and Consequences.” BOT Report 3-I-07 provides an update on the recommendations contained in BOT Report 14-I-06, which established Policy D-130.971. Consistent with Policy D-130.971, the AMA has met with relevant

specialty societies to increase dialogue about emergency care workforce issues. In addition, the AMA supports the creation and funding of additional residency training positions in specialties that provide emergency and trauma care and for financial incentive programs, such as loan repayment programs, to attract physicians to these specialties. Furthermore, the AMA advocates for physician payment and financial support for providing EMTALA-mandated emergency care.

DISCUSSION

ACEP should be congratulated for devoting considerable resources to highlight and address the crisis in our nation's EDs. In addition to the low-cost high-impact solutions outlined in ACEP's task force report on boarding, "Emergency Department Crowding: High Impact Solutions," the following additional solutions were presented in the "Report Card" issued by ACEP: creating stronger EDs through national health care reform; passing the Access to Emergency Medical Services Act (H.R. 1188/S. 468); enacting federal and state medical liability reforms; infusing a greater level of federal funding and support into disaster preparedness targeted for emergency medical preparedness and response; increasing support for the nation's health care safety net; developing greater coordination of emergency services; and increasing the use of systems, standards, and information technologies to track and enhance the quality and patient safety environment. Although difficult to quantify, there is evidence that the effects of ACEP's recommended solutions are beginning to have a positive impact on communities, hospitals, and physicians as they work together to address the problems of boarding and crowding in EDs. The Council encourages ACEP to monitor the progress of its recommended solutions.

While ACEP has been instrumental in addressing the issue of ED boarding and crowding, the contributing factors and key solutions go beyond emergency medicine. ED boarding and crowding is a hospital-wide patient flow issue, resulting in longer wait times and lower quality care for all patients presenting to the ED. The practice of ED boarding affects the uninsured and insured alike and is experienced in urban, suburban and rural hospitals. It has and will continue to affect every physician's patients until systemic solutions are implemented. The Council believes that collaboration between organized medical staff and emergency department staff is needed in order to implement hospital-wide solutions and reduce ED boarding and crowding. The Council also believes that dissemination of best practices in reducing ED boarding and crowding is key to solving this problem on a national level. The implementation of solutions should be monitored to ensure they do not inadvertently have a negative effect on access to and quality of care.

Improving the quality and efficiency of emergency care will require widely accepted evidence-based performance metrics in order to enable quality improvement and further accountability. The AMA-convened PCPI has worked closely with ACEP and other specialties involved in providing emergency services and inpatient services to develop and adopt the use of evidence-based performance measures, and the Council encourages their use. To ensure consistency in measurement, to advance efforts in quality improvement, and to advance innovative solutions that address emergency services, the Council supports the adoption and harmonization of ED performance measures that capture variation and enable quality improvement at the individual physician, team, facility, and community levels.

This report accomplishes the request to issue a progress report on the effectiveness of measures implemented to mitigate ED boarding and crowding as a follow-up to the 2008 ACEP task force report on boarding, "Emergency Department Crowding: High-Impact Solutions." Accordingly, the Council recommends that Policy D-130.969 be rescinded.

1 RECOMMENDATIONS

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3 The Council recommends that the following be adopted and the remainder of this report be filed:

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5 1. That our American Medical Association (AMA) congratulate the American College of
6 Emergency Physicians for developing and promulgating solutions to the problem of emergency
7 department boarding and crowding. (Directive to Take Action)
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9 2. That our AMA support collaboration between organized medical staff and emergency
10 department staff to reduce emergency department boarding and crowding. (New HOD Policy)
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12 3. That our AMA support dissemination of best practices in reducing emergency department
13 boarding and crowding. (New HOD Policy)
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15 4. That our AMA continue to encourage entities engaged in measuring emergency department
16 performance (e.g., payers, licensing bodies, health systems) to use evidence-based, clinical
17 performance measures that enable clinical quality improvement and capture variation such as
18 those developed by the profession through the Physician Consortium for Performance
19 Improvement®. (New HOD Policy)
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21 5. That our AMA continue to support physician and hospital use and reporting of emergency
22 medicine performance measures developed by the Physician Consortium for Performance
23 Improvement®. (New HOD Policy)
24
25 6. That our AMA continue to support the harmonization of individual physician, team-based, and
26 facility emergency medicine performance metrics so there is consistency in evaluation,
27 methodology, and limited burden associated with measurement. (New HOD Policy)
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29 7. That our AMA rescind Policy D-130.969. (Rescind HOD Policy)

Fiscal Note: Staff cost estimated to be less than \$500 to implement.

References for this report are available from the AMA Division of Socioeconomic Policy Development.