The Need to Re-Engineer the Way Hospitals Work and Respond

National CME Emergency Management Audioconference

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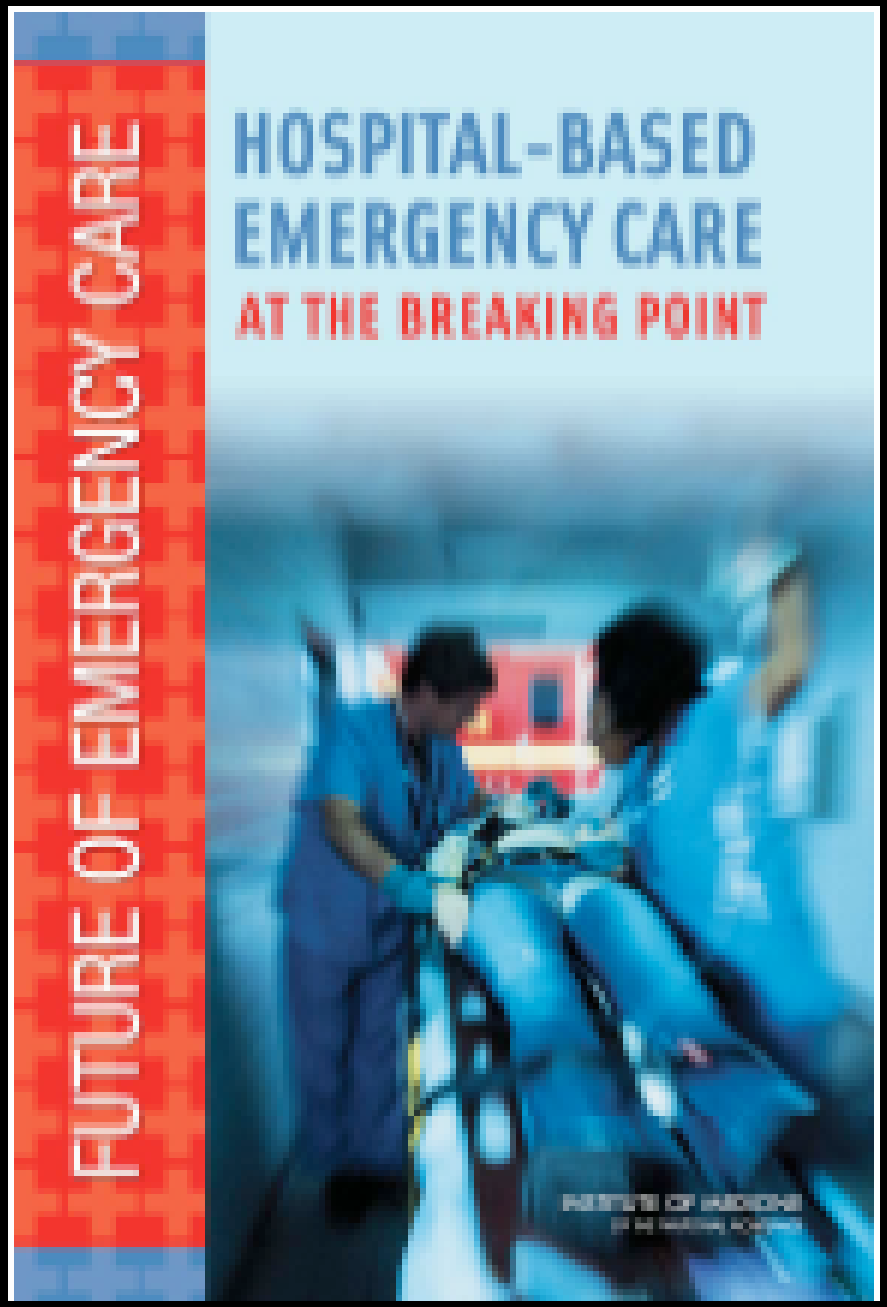
Brent Asplin, MD, MPH
Head, Department of Emergency Medicine
Regions Hospital, St. Paul, MN
Associate Professor & Vice Chair
University of Minnesota Dept of Emergency Medicine


FUTURE OF EMERGENCY CARE
HOSPITAL-BASED EMERGENCY CARE
AT THE BREAKING POINT

Statement of Task

- The objectives of this study are to:

  (1) examine the emergency care system in the U.S.;

  (2) explore its strengths, limitations, and future challenges;

  (3) describe a desired vision of the emergency care system; and

  (4) recommend strategies required to achieve that vision.

Key Findings

- Between 1993 and 2003:
  - ED visits grew 26% to 114 million annually
  - The number of EDs decreased by 400
  - The number of operating hospital beds decreased by nearly 200,000

Key Findings

- Crowding and diversion
- Fragmentation: limited coordination of the regional flow of patients
- Lack of system accountability
- Inadequate emergency preparedness

Recommendations: Areas of Emphasis

- A new era of operations management in U.S. hospitals
- Improving emergency preparedness

A New Era of Operations Management in U.S. Hospitals

- Hospitals: Adopt operations management techniques and IT improvements to enhance patient flow, supported by training and certification organizations.
- CEOs: Lead the effort to improve patient flow
- Hospitals: **End inpatient boarding in the ED and ambulance diversion**, supported by CMS working group, Joint Commission.

Hospital Wide View of Patient Flow

The goal:

Develop a system-wide view of patient flow and operations management with clear lines of responsibility

- Is your CEO on board?

High Impact Strategies for Improving Patient Flow

- American College of Emergency Physicians (ACEP) Task Force Report on Boarding
  - April 2008
- What selected strategies have been shown to improve patient flow and alleviate ED boarding?
- http://www.acep.org/WorkArea/downloadasset.aspx?id=37960

High Impact Hospital-Wide Strategies

- Full capacity protocol
- Elective surgery smoothing
- Earlier inpatient discharges

Full Capacity Protocol

- Pioneered at Stony Brook University Hospital
- Also called "Adopt a Boarder"
- Strategy designed to distribute boarding patients to inpatient units, rather than keep all of them in the ED
- The majority of patients either go directly to an inpatient bed or are placed in a bed within one hour of arriving on the unit

Elective Surgical Flow

- Managing artificial variation in demand
- The secret: you reduce delays AND you can do more surgeries!

Natural vs. Artificial Demand

- Natural variation
  - Stochastic and predictable using queuing theory
- Artificial variation
  - Wide variations in demand created by scheduling bottlenecks (e.g. OR block schedules)
  - Creates greater variation in demand than the predictably unpredictable demand for emergency admissions

Variability in Demand

- Program for management of variability in health care delivery
  - http://management.bu.edu/research/hcmrc/mvp/index.asp
- Litvak, Long, Cooper, and McManus. Emergency department diversion causes and solutions. Acad Emerg Med. 2001 Nov;8(11):1108-10.

Earlier Inpatient Discharges

- Requires senior leadership support to hold inpatient managers accountable for goals
- Project management and data support are critical
- Find an "early adopter" unit with a key inpatient physician and nurse manager

Daily Operations and Emergency Preparedness

- For events that are ultimately managed by your hospital, your disaster response will be more effective if it represents scaling of daily operations
- New processes rarely work well during a disaster
- Important caveats:
  - This changes as the scale of the event increases
  - This limitation can be mitigated (to some extent) with regular practice and disaster drills

High Census Protocols

- Tiered operational responses to daily surges in patient demand
- Excellent opportunity to scale communication, transport, and ancillary operations
- These capabilities will translate into better emergency preparedness

ED Boarding and Disaster Preparedness

- Most disaster response plans call for the immediate transfer of ED boarders to inpatient units
- If we do not allow boarders to sit in ED hallways during disasters, why do we let it happen every day?
- A hospital that is boarding inpatients in the ED is less prepared to respond to a disaster than it otherwise would be

Take Home Points

- The IOM has called for a new era of operations management in our hospitals
- Day to day surges in demand are good opportunities to scale hospital operations and practice components of a disaster response plan
- Hospitals that have reduced or eliminated inpatient boarding in the ED are better prepared for disasters than those who haven't

Questions?

- E-mail:

  Brent.R.Asplin@HealthPartners.com