

A System-Wide Approach to Creating
High Performance Emergency Departments

WHITE
PAPER



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“Organizational performance stems from organizational culture and that is the result of leadership.”

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~ N.R. Zenarosa, MD
Regional Medical Director
EmCare

Introduction

This white paper identifies key challenges faced by emergency departments (ED) and offers a discussion of potential solutions. The paper focuses on the successes achieved in the Baylor Health Care System through its partnership with a single service provider at multiple facilities.

Challenge

The emergency care system is challenged in a number of ways. Some of the key concerns include an increasing demand for services, a difficult reimbursement environment and inefficient system-wide processes that affect ED throughput.

The Baylor Health Care System provides emergency medical care in eight of its fifteen facilities across the Dallas-Fort Worth Metroplex, serving more than 375,000 emergency department patients per year. Baylor partnered with EmCare to provide management and staffing services for the eight emergency departments. This single source management infrastructure alleviates the challenges incurred from multiple providers and allows for the development and implementation of processes and procedures that can be utilized system-wide.

EmCare® accomplished this by working with senior executives on system-wide initiatives as well as local ED management at each hospital.

“Organizational performance stems from organizational culture and that is the result of leadership,” said Dr. N.R. Zenarosa, the EmCare regional medical director who oversees the eight Baylor emergency departments.

“We recognize performance gaps, calculate the cultural gaps and close them with strategic leadership,” he said.

Dr. Zenarosa is the physician leader for Baylor’s emergency medicine service line. He serves on a Baylor committee with hospital chief medical officers and corporate executives to determine system-wide initiatives and protocols. He also co-chairs a monthly council of hospital ED managers and ED nursing managers to iron out more granular issues.

“For example, we might have a system-wide initiative to reduce mortality from sepsis. Each hospital has different levels of resources. So we do a deeper dive at the individual sites to figure out how to achieve the greater goal,” Dr. Zenarosa said.



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“EmCare has elevated the quality and consistency of ED medicine throughout the entire Baylor system. EmCare has moved ED care to the next level.”

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~ Joel Allison
 CEO
 Baylor Health Care Systems
 Dallas, Texas

The Baylor Health Care System invested about \$150 million several years ago in a “clinical transformation” initiative to improve how care is delivered. Hundreds of Baylor physicians and executives have taken quality-improvement classes. The system’s Best Care Committee (BCC) acts as a sort of clinical legislature to align and drive quality initiatives on what will be evidence-based care at Baylor and determine how best to spread it quickly throughout the system.

Designated “physician champions” help drive BCC initiatives. Baylor also placed physicians in system and hospital leadership positions. EmCare internally restructured its Baylor-dedicated personnel to mirror the culture change at Baylor.

Dr. Zenarosa serves on the BCC and said the parallel transformation at Baylor and EmCare has sharpened EmCare’s focus. “Performance comes from culture (which) comes from leadership. We worked with all the stakeholders – nurses, radiologists, lab technicians, all the stakeholders – to change the traditional ED mindset,” he said. “We changed our culture to fulfill the requirements of our partner, to make Baylor better.”

Joel Allison, president and chief executive officer of Baylor Health Care System, said, “EmCare has elevated the quality and consistency of ED medicine throughout the entire Baylor system.”

“EmCare was the first (company) to create a model I consider the gold standard (in ED care). As EDs become major points of access for patients, getting adequate physician coverage is a priority for patient satisfaction and care. EmCare has moved ED care to the next level.”

Mr. Allison said he appreciates the fact that EmCare has one contact person to whom he can turn and who is responsible for quality, coverage issues and patient satisfaction. “They’re great partners,” he said, “because the process is more efficient and cost-effective.”

Rosemary Luquire, Baylor senior vice president and chief nursing officer, said, “EmCare has been a very good partner. They see themselves as Baylor. They have an exquisite patient-focused perception of care. They devote the resources to getting it right. They are really stellar to work with.”

The chief nursing officer at flagship Baylor University Medical Center is Claudia Wilder who added, “Working with EmCare has been seamless. They are very supportive of everything we’re doing to improve patient satisfaction.”



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EmCare applies best practices, risk mitigation, process improvement and established care guidelines at all of its affiliated facilities.
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Developing Solutions for Overcrowding

EmCare applies best practices, risk mitigation, process improvement and established care guidelines at all of its affiliated facilities. At Baylor, the system-wide initiative has fostered the development of numerous approaches to managing the challenges faced by its emergency departments. One of the most successful was the development of an innovative protocol to manage overcrowding at BUMC.

The 1,025-bed urban teaching hospital is a Level I trauma center with more than 1,250 physicians on the medical staff, about 200 medical residents and fellows and 5,225 employees. Like many urban teaching hospitals, BUMC was struggling with periodic overcrowding in its ED.

Half of the U.S. EDs like BUMC are at or over capacity, according to the American Hospital Association (AHA). About 45 percent of urban hospitals have diverted ambulances in the past 12 months, according to an AHA survey. The most-cited reason is lack of critical-care beds, followed by general ED overcrowding. Since 1990, the number of hospital EDs has decreased by about 10 percent while the number of ED visits has grown by about 40 percent.

The situation is expected to worsen for the entire Baylor Health Care System as health reform unfolds. The 2010 U.S. Census identified Dallas-Fort Worth as the fastest-growing metropolitan area in the nation. Texas also has the highest number of uninsured patients in the nation, according to the Kaiser Family Foundation. Once they are insured, either by Medicaid or through private health exchanges, many will be seeking health care. That has led the state to predict that the number of insured Texans will grow by 50 percent by 2020 – from 18 million to 27 million.

In addition, Massachusetts's experience with near universal health insurance coverage has exploded the myth that only the uninsured use the emergency department. A 2009 Massachusetts Medical Society study found that fully insured Massachusetts residents use the ED at a rate 40 percent greater than that of the United States. Medicaid patients use the ED twice as much as the uninsured, and three times more than the privately insured. The reason: They do not want to – or cannot – wait 44 days to see the doctor, as is the case in Massachusetts, according to a state health care agency. The problem will become especially acute in Texas, which, according to the 2010 U.S. Census, has half the number of physicians per capita as Massachusetts.

According to a study in *Health Affairs*, EDs already handle 28 percent of first-contact non-emergent care in the United States, compared to 42



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“(The department) went from being the size of a locker room to a football field.”

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~ Claudia Wilder
CNO
BUMC
Dallas, Texas

percent in doctor’s offices. The flood of newly insured patients is likely to increase the ED acute-care load significantly. A study in the *Journal of the American Medical Association* found that ED visit rates have increased at twice the rate of growth of the U.S. population from 1997 to 2007. Medicaid patients accounted for a large proportion of the increase, often coming with more severe illnesses and complications.

About half of hospital CEOs predict they will lose revenue because of ED queues caused by health care reform, according to an American College of Healthcare Executives survey.

BUMC already has a large patient census, with about 80,000 ED visits in 2007. To help deal with that increase and additional patients in the future, the hospital expanded its ED from 20,000 to 78,000 square feet.

According to Mr. Allison, EmCare’s advice and involvement were critical in several Baylor ED expansion projects, including BUMC. “They were very helpful in designing positive, patient-centered facilities,” he said.

Ms. Wilder said, the department “went from being the size of a locker room to a football field.” ED visits increased by 10 percent, more than triple the forecast.

BUMC used a five-level Emergency Severity Index triage system:

1. Emergent with life/limb threatening condition;
2. Emergent with potential of life/limb threatening condition;
3. Urgent;
4. Semi-urgent; or
5. Non-urgent.

Level 3 patients, who comprised more than 40 percent of the total, were a particular problem. An estimated 10-14 percent of this group left without being treated. They often were forced to wait in the ED because of the more critical patients before them. Baylor needed a tiered response to address tiered level of acuity.

EmCare deployed a Rapid Medical Assessment (RMA) system that essentially resulted in a virtual ED expansion.

An RMA team includes a physician, registered nurse and ED technician. EmCare designates sub-waiting rooms, some of which have recliners, for Level 3 patients. The nurse selects patients that could be handled more quickly because their illness required little more than what could be dealt with in a 15-minute physician-office visit. The physician evaluates



“(Rapid Medical Assessments are) used when there are more people than beds.”



~ Dighton Packard, MD, FACEP
Chairman of ED
BUMC
Dallas, Texas

the patient and may order tests or treatment. The patient occupies an ED bed for no longer than they are actively treated. Otherwise, they spend their time in the RMA sub-waiting room.

Dighton Packard, MD, FACEP, EmCare’s Chief Medical Officer and chairman of the ED at BUMC, said RMA can be used in a variety of ways based on how the ED is staffed and how the department is laid out.

“But the concept is the same: RMA is used when there are more people than beds. We try to find patients who don’t need to lie down. We see them using RMA and put them in a chair. This allows us to use each bed more efficiently.”

The Results

Baylor’s use of EmCare’s RMA and the ED partnership has produced many benefits. Among them:

- **Improved patient satisfaction.** The percent of patients who were likely to recommend Baylor rose swiftly from 77 percent to 99 percent and patient satisfaction has remained at high levels. Besides RMA, the ED created a “Push to Full” efficiency program to reduce wait times.
- **National recognition.** BUMC earned the annual Press Ganey Top Improver Award for Emergency Department in September 2009. BUMC is one of only eight facilities out of more than 10,000 health care facilities that collaborate with Press Ganey to have achieved this recognition.
- **Increased staff satisfaction.** ED staff turnover was more than 28 percent in the first four months of 2008. After RMA and other patient-centered initiatives, turnover dropped to less than 4 percent for the remainder of the year. ED management’s philosophy is simple: A happy staff creates happy patients. The department enthusiastically celebrates patient compliments and achievements. EmCare-affiliated physicians and ED staff members worked collaboratively to improve processes.
- **Improved LWBS.** The percentage of Level 3s who left without being seen dropped from 14 percent to 2 percent.
- **Less crowding.** RMA and other efforts decreased the patient length-of-stay by 40 percent. This helped offset the fact that BUMC ED visits grew from 80,000 to 96,000.
- **Reliable staffing.** EmCare was able to determine the optimal days and times to use RMA, based on hourly census and patient



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*EmCare has been the
Baylor Health Care
System's emergency
department management
partner since 1972.*
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acuity. It has achieved ED staffing coverage of more than 96 percent. EmCare uses economies of scale to cast a wide net to recruit physicians to fit a facility's specific situation. Dr. Zenarosa said, "We like to say we have national resources but a local presence." According to Mr. Allison, "This is EmCare's specialty, and they have the infrastructure to supply physician talent."

- **Hospital-physician alignment.** A February 2011 *Journal of the American Medical Association* commentary characterized the work of hospital improvement resting primarily with hospital administrators and nurses, with physicians taking a peripheral and sometimes-obstructionist role. The authors called for a "physician management infrastructure" that already exists at Baylor and EmCare.
- **Well-positioned for the future growth and innovation.** EmCare's RMA has helped Baylor absorb the consistent increase in BUMC's ED caseload and prepare for an inevitable onslaught of new patients that health reform will create.

Summary

EmCare has been the Baylor Health Care System's emergency department management partner since 1972. EmCare was founded to help serve Baylor's physician staffing needs and is now the nation's largest emergency department contractor, according to a *Modern Healthcare* survey.

The single source emergency department management initiative utilized by Baylor eliminates the challenges health care systems face when using multiple providers. It allows for the development and implementation of processes and procedures that can be utilized system-wide and it engenders improved organizational performance by providing strong strategic leadership. And most importantly, it elevates the quality and consistency of the emergency medical care provided throughout an entire health care system. ■



About EmCare®

EmCare is *the leader in physician services™* serving more than 500 hospitals nationwide. Founded nearly 40 years ago, today the company handles more than 9 million patient encounters annually. The integrated company consists of four service lines including emergency medicine, hospital medicine, anesthesiology and radiology/teleradiology. The company is focused on:

- Delivering high quality clinical care
- Improving performance metrics
- Achieving superior patient and staff satisfaction
- Managing costs

For more information on how EmCare can help your hospital strengthen its emergency medicine practice, feel free to visit us online at www.EmCare.com. Following the link "Solutions for Hospitals" will offer more information on the services EmCare's other specialty divisions – Hospital Medicine, Anesthesiology, and Radiology / Teleradiology – can provide. You may also contact a business development representative directly at (877) 416-8079.

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