The Problem

Several processes used in the care of patients of Advocate Illinois Masonic Medical Center’s emergency department had great opportunity to reduce waste, remove non-value-added steps and increase the efficiency of patient care.

Several pain points were identified:

» The movement of laboratory specimens from the emergency department to the lab could be delayed for up to an hour due to inefficient and ineffective hand-offs between the nurses and unit secretaries.

» The average length of stay for a patient whose treatment included a CT scan was near seven hours.

» Nurses and ED technologists were taken away from the bedside to transport patients to other areas, rather than utilizing transportation services due to excessive wait times.

Overall, these factors combined lead to poor associate and patient satisfaction.

The Solution

The ED leadership team supported a series of rapid improvement events and projects to tackle issues. Multi-disciplinary and cross-functional team members were selected from all areas of the hospital to participate to better understand the current pain points. Teams were provided with “just-in-time” training on lean methodology and other improvement tools. Using this knowledge, these teams were given the task of coming up with creative solutions in order to minimize handoffs and improve overall performance. Team structure used the 1/3 process owner, 1/3 customer/supplier and 1/3 outside eyes approach to ensure an effective cross sectional perspective on the issues. This methodology was utilized to ensure that best practice knowledge was incorporated into a practical, results-driven new process.

Results

Improvement in the ED were as follows:

» The length of stay for ED patients needing CT scan saw an improvement of 13 percent, from 415 minutes to 363 minutes in August 2009.

» Patients needing an abdominal CT with contrast saw their length of stay decrease for 525 minutes in April of 2009 to 458 minutes in August 2009; a 14 percent improvement.

» The percent of “transportable” patients transported by the ED staff decreased from 25 percent to 10, an improvement of 15 percent.

» The average time patients wait from the greeting to triage in the ED improved from 4 minutes in November 2008, to 0.9 minutes in August 2009; a 78 percent improvement.

» The number of unreleased labs from the ED decreased from 10.5 per day to 2.6 per day; a 75 percent improvement.

Qualitative improvements included:

» Opened up 2 additional ED rooms for 12 hours per day by moving fast-track area out of the main ED into former triage rooms.
TEAM MEMBERS

Julie Busta, RN  
Emergency Department
Donna Charles  
Manager of Diagnostic Imaging
Patricia Chevalier  
Director of Support Services
Chris Farnan, RN  
Emergency Department
JR Gummadi  
Supervisor of Patient Transportation
Mary Hern  
Supervisor, Clinical Laboratory
Ben Imdieke  
Vice President for Development
Donna King  
Chief Nursing Executive, Executive  
Sponsor
Jim Knight  
Manager of Emergency Department,  
Process Owner
Pat Lee, MD  
Chief of Emergency Medicine
Phillip Quick  
Manager, Patient Access
Carolyn Quinn  
Risk Manager
Jeanette Reyes  
Assistant Clinical Manager,  
Emergency Department
Julie Varga, MD  
Emergency Medicine
Sharon Ward  
Director of Emergency Medicine,  
Trauma Services, and EMS, Sponsor

» Increased nursing satisfaction by allowing unit secretary to release labs orders
» Revised the patient identification process to ensure that every patient is accurately identified and supplied with an armband before any patient care occurs