

# Bronson Emergency Department Patient Admission Throughput Initiative

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## Background

In the spring of 2007, Bronson Methodist Hospital conducted a rapid improvement event (Kaizen) based on Toyota's Lean manufacturing principles to help discover waste, improve customer service and workflow, and create a more ideal process to move admitted patients from the Emergency Department (ED) to inpatient units safely and expeditiously. The team consisted of representatives from the ED, Process Management, Cardiology Unit and Hospital Bed Utilization. The goal was to decrease delays and improve communications that impact patient throughput. The hospital had six objectives for the patient admission throughput initiative (PATI):

1. Provide a consistent format for safe patient handoffs
2. Establish a reasonable time period for the patient admission process
3. Improve patient satisfaction
4. Improve patient outcomes by starting vital admission orders in a more timely manner
5. Increase patient safety
6. Decrease ED congestion and wait times

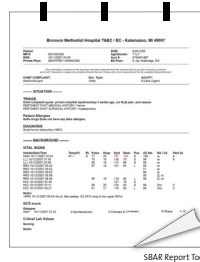
## Method

1. ED unit clerk is notified of ready bed.
2. ED unit clerk has five minutes to print an SBAR report (see sample) to the inpatient unit's printer.
3. Inpatient unit clerk will make sure that the charge nurse receives the report.
4. Inpatient charge nurse has 10 minutes to get report to the registered nurse (RN) that will take the patient.
5. Inpatient unit's RN has 15 minutes to review the SBAR report and call the ED RN with questions.
6. At 25 minutes elapsed time, the ED patient care assistant (PCA) or RN prepares the patient for transport and provides the inpatient unit with a call letting them know the patient is on the way.
7. At 30 minutes elapsed time, the patient is transported to the inpatient unit.

No called report is required if documentation is complete and the SBAR is sent. The inpatient unit can call at any time after notification and request the patient be transported earlier.

## Challenges

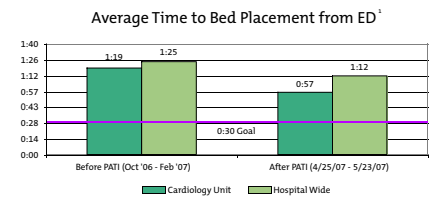
1. **Report Tool** – ED Shared Governance Council developed a standardized Situation – Background – Assessment – Recommendation (SBAR) handoff tool. During the rapid improvement event (Kaizen), this tool was adopted for the inpatient unit in an electronic format using Healthmatic ED (HMED). The report is populated with information from the chart, eliminating additional work for the bedside ED nurse.
2. **Educating Staff** – Executive support was obtained and a project champion from each unit was selected to serve as a resource. Education Services also helped. Staff appreciated the opportunity to provide input in the process during staff meetings and through the use of surveys. Several changes were made based on this feedback.
3. **Changing the Culture** – a) frequent rounding and communication with inpatient unit partners; b) progress reports to executive team and patient safety panel; c) attending multiple unit staff meetings d) conducting surveys; e) pocket and badge reference cards with process steps and report reference material; f) development of a program to encourage floor nurses to spend a shift in the ED and ED nurses to shadow on the inpatient units; g) creating an e-mail address for process concerns and a shared intranet directory to post relevant information; h) educational engagement to help sustain changes, including new hire orientation; i) most important, continued focus on patient safety.



## Results

### Primary Indicators:

- **Consistent Handoffs** – The computer-generated SBAR report format reduces the variability of reported information. The report is now legible and it prevents duplicate charting. ED charting has also improved.
- **Improve Time to Admission** – The goal is for the patient to be transported to the inpatient unit within 30 minutes.



### Secondary Indicators:

The patient admission throughput initiative is one of several process improvements that contributed to the outcomes.

- **Patient Satisfaction** – According to a Gallup survey, 89% of patients were satisfied or very satisfied with the Emergency Department in the first quarter of 2007, compared to 94.4% for the fourth quarter of 2007.<sup>2</sup>
- **Start Admission Orders Sooner** – With a 50.7% hospital wide decrease in the amount of time needed to transport a patient from the ED to the inpatient unit, it is assumed that critical orders are being implemented in a more timely fashion.
- **Patient Safety** – There is an inherent patient safety benefit to a consistent, timely method to transfer patients from the ED to the inpatient unit.
- **Reduce Congestion** – April to December 2007
  - ED admits boarded longer than eight hours decreased 77.8%.<sup>3</sup>
  - Median length of stay for ED admitted patients decreased 10.8%.<sup>4</sup>
  - 98.1% decrease in the percent of hours ED was on diversion.<sup>5</sup>
  - 55.2% decrease in the number of patients who left without being seen after triage.<sup>6</sup>

## Next Steps

**Critical Care Handoffs** – The hospital began piloting the PATI process in the critical care units in November. The process remains the same until the patient is transported to the critical care unit. The difference is that the ED nurse caring for the patient must transport the patient and perform a bedside face-to-face handoff with the nurse accepting the patient into the critical care unit.



Timeline	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Start	Initiation of PATI process	Implementation of PATI process	Expansion of PATI process to other units	Continued expansion and refinement	Implementation of SBAR report tool	Expansion of PATI process to critical care units	Continued expansion and refinement	Implementation of SBAR report tool	Expansion of PATI process to critical care units	Continued expansion and refinement	Implementation of SBAR report tool	Expansion of PATI process to critical care units

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