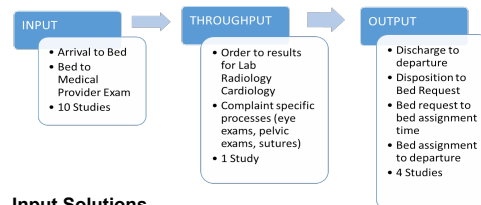# Improving Patient Flow in the Emergency Department: Redesign of a Nurse Greeter

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Background

- Emergency department (ED) overcrowding is a growing, widespread problem.
- Negatively impacts patient safety, quality of care, and staff satisfaction.
- The Joint Commission, Institute of Medicine (IOM), Agency for Healthcare Research and Quality, and Institute for Healthcare Reform have placed an emphasis on organizations to optimize and streamline patient throughput in the ED.

Review of Literature

INPUT	THROUGHPUT	OUTPUT
• Arrival to Bed • Bed to Medical Provider Exam • 10 Studies	• Order to results for Lab Radiology Cardiology • Complaint specific processes (eye exams, pelvic exams, sutures) • 1 Study	• Discharge to departure • Disposition to Bed Request • Bed request to bed assignment time • Bed assignment to departure • 4 Studies

Input Solutions

- Dedicated front-end triage nurse using the Emergency Severity Index (ESI) triage system (Nurse Greeter)
- Immediate bedding

Purpose

To implement a practice change to align the nurse greeter role with current evidence-based triage recommendations and to evaluate the impact of the practice change on patient flow measures and related outcomes.

Methods

Design: Practice change with pre- and post - evaluation

Setting: A high volume ED seeing over 100,000 patients a year. Certified as a level II trauma center, chest pain and stroke center
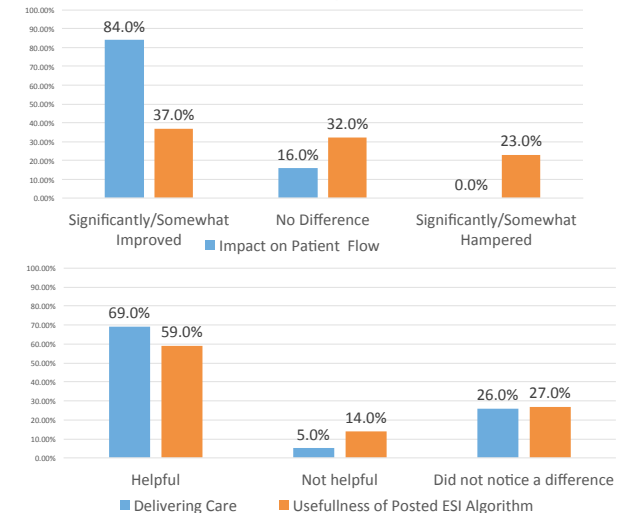
Practice Change

Redesign of Nurse Greeter job description and role
- Immediate RN contact with patients entering ED to obtain chief complaint
- Complete brief assessment of ABC and LOC
- Assign ESI triage acuity level
- Directly place in treatment room, if available
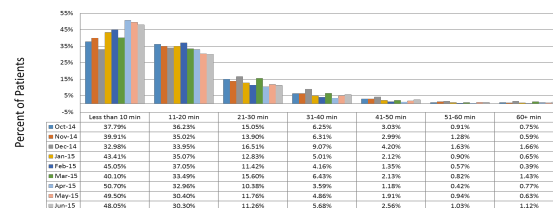
Goals and Outcome Measures

Improve Operational Efficiency	Improve Flow of Patients	Improve Patient Satisfaction	Practice Change of Staff
Left Without Being Seen Rate	Patient Arrival to Triage	Left Without Being Seen Rate	Percentage and role of staff educated
ED Capacity Diversion Hours	Patient Arrival to Bed Assignment	Overall Press Ganey Score	Patient Arrival to Triage
	Patient Arrival to Medical Provider Evaluation		
	Total Length of Stay		

Results: Time Study

Patient Arrival to Triage
Goal < 10 Minutes

	Less than 10 min	11-20 min	21-30 min	31-40 min	41-50 min	51-60 min	60+ min
Oct-14	37.79%	36.23%	15.05%	6.25%	3.03%	0.91%	0.75%
Nov-14	39.91%	35.02%	13.90%	6.31%	2.99%	1.28%	0.59%
Dec-14	32.98%	33.95%	16.51%	9.07%	4.20%	1.63%	1.66%
Jan-15	43.41%	35.07%	12.83%	5.01%	2.12%	0.90%	0.65%
Feb-15	45.05%	37.05%	11.42%	4.16%	1.35%	0.57%	0.39%
Mar-15	40.10%	33.49%	15.60%	6.43%	2.13%	0.82%	1.43%
Apr-15	50.70%	32.96%	10.58%	3.59%	1.18%	0.42%	0.77%
May-15	49.50%	30.40%	11.76%	4.86%	1.91%	0.94%	0.63%
Jun-15	48.05%	30.90%	11.26%	5.68%	2.56%	1.03%	1.12%

Results: Change of Culture

Impact on Patient Flow
- Significantly/Somewhat Improved: 84.0% / 37.0%
- No Difference: 16.0% / 32.0%
- Significantly/Somewhat Hampered: 0.0% / 23.0%

Delivering Care / Usefulness of Posted ESI Algorithm
- Helpful: 69.0% / 59.0%
- Not helpful: 5.0% / 14.0%
- Did not notice a difference: 26.0% / 27.0%

Discussion

- Clinically significant changes with trending down in metrics and immediate recognition of acutely ill patients.
- Process needs to be established before seeing results.
- Importance of staff engagement in process change.
- Retrospectively have more appreciation for the the challenge of the 'culture'.

Selected References

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Additional Information

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