Admit to Arrival to Inpatient Bed Process Improvement Project

MAGNET RECOGNIZED — AMERICAN NURSES CREDENTIALING CENTER

Salem Health® Hospitals & Clinics

Problem

Patients who had an admission order waited too long in the emergency department (ED) prior to transfer.

What Should Be Happening

Admitted patients should arrive to an inpatient bed once an admission order is placed in less than 106 min.

What is Actually Happening

- Admit order to inpatient arrival averages 118 min (12 minute gap).
- Multiple nurses (care management, patient placement, charge, and bedside) were involved in screening the patient before acceptance.
- Confusion existed about the responsibility for arranging transport from the ED to the inpatient room.

Impact of Gap

Supporting evidence: Patients who stay in the ED longer are at risk for increased mortality rates (2.5% increase for up to 2 hrs. in ED, and 4.5% increase when held over 12 hrs. in ED), increased length of stay, hospital acquired infections, medication errors and decreased patient experience survey scores.

Root Cause

Inadequate system to admit ED patients to an inpatient bed within 106 minutes.

Evidence

Singer, A. J., Thode Jr, H. C., Viccellio, P. and Pines, J. M. (2011), The Association Between Length of Emergency Department Boarding and Mortality. Academic Emergency Medicine, 18: 1324-1329. doi:10.1111/j.1553-712.2011.01236.x

Guttmann A ; Schull MJ ; Vermeulen MJ; et al. Association between waiting times and short term mortality and hospital admission after departure from emergency department: population based cohort study from Ontario, Canada. BMJ. 2011; 342: d2983

Carter E. J., Pouch, S. M. & Larson, E. L. (2013). The relationship between emergency department crowding and patient outcomes: A systematic review. Journal of Nursing Scholarship 46(2), 106–115.

Test of Change/Countermeasure

An interprofessional team assembled to evaluate the Salem Health throughput process. Using a Lean problem-solving approach, the team found multiple areas of waste in the ED boarding process. The team formed a hypothesis that if we redesign the system for patients moving from the ED to inpatient beds, then patients would transfer within 106 minutes or less.

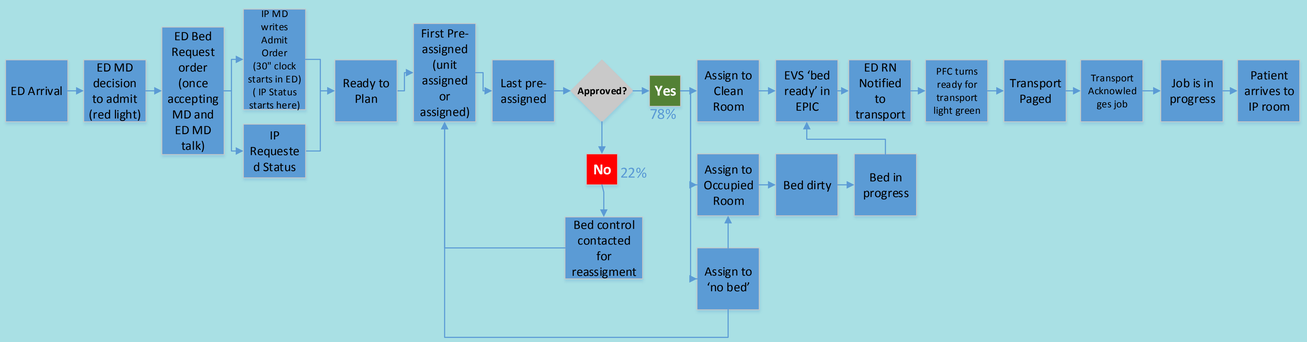
Tests of Change (TOC)

1. Transport process streamlined – January 2017 (TOC # 1)
2. Patient Flow Coordinator placing transport request – February 2017 (TOC # 2-a)
3. Nurse Manager hired for House Operations – February 2017 (TOC #2-b)
4. Patient Placement RN (PPRN) trained to Interqual criteria – March 2017 (TOC #2-c)
5. Transition Interqual screening from Case Manager to PPRN – April 2017 (TOC #3)
6. Full go live of PPRN screening all patients – June 2017

Changing the role of the Patient Placement RN (PPRN)

- Increased PPRN coverage from Mon-Fri 1000-2230 to 7 days per week from 0600-0330.
- PPRNs received Interqual training to better understand and anticipate the level of care needed for admitted patients.
- PPRN screens ED patients to triage appropriate placement, including probable admits, even before they have an admit order to better anticipate needs.
- PPRN role revised to support enhanced ED collaboration.
- Care managers no longer screen patients for admission and are not tasked with securing admission orders, enabling dedicated focus on providing care management needs to ED.

Redesigned ED Throughput Process Map



Meet the Team

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Laura Morin, BSN, RN, CCRN: Nurse Manager, House Operations
Tina Morris, MSN, RN, CCM, CMC, NE-BC: Administrator, Case Management
Swati Mehta, M.D., Medical Director, Salem Health Hospitalists

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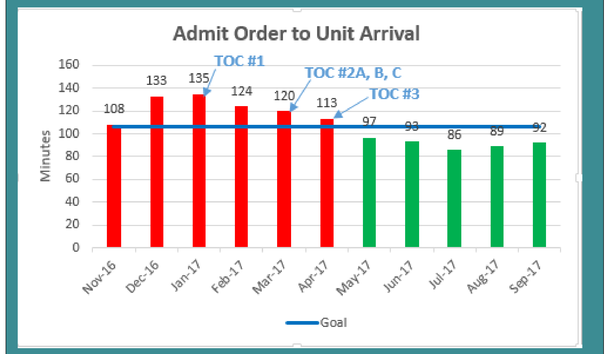
Outcome



Following the last TOC in April 2017, the post-intervention data showed the average time from ED admit order to inpatient unit arrival time decreased to 91.4 minutes, a 23% reduction!

Keys to Success

- Frequent Gemba (unit) rounding and coaching.
- Willingness to make appropriate adjustments based on feedback and objective data.
- Close oversight with the assistance of the continuous improvement consultant and nursing operations.
- Recognition of small gains and continued encouragement.
- Adopting throughput as an organization strategy made prioritization easier.
- Involving the appropriate stakeholders and keeping them informed.

Ongoing efforts

- Monthly monitoring of patients transferred to higher level of care within 4 hours of admission with chart review to determine opportunities to place the patient in the right bed the first time.
- Monthly monitoring of "bed reject" report (patients assigned to a unit but rejected by charge RN) with chart review, staffing & acuity review at time of rejection. Focus to break down barriers to successful patient placement.