Reducing Low Acuity Length of Stay: 
A Care Paradigm Transition

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Background

CHS Emergency Services service line has partnered with a LEAN Healthcare organization called X32 in an initiative to reduce length of stay (LOS) for low acuity patients (ESI Level 4/5). LOS is important because it has been linked to quality of care as well as patients perceived level of service excellence. Furthermore, studies have shown that when we reach a level of LOS less than 90 minutes, patients rank their overall experience at or above the 85% top box score.

What is LEAN?

LEAN is a systematic approach to eliminating waste, in healthcare waste could mean eliminating stockover, excess and non-value added steps in processes as well as reducing movement of supplies and patients including eliminating wait.

There is no identified plan or pathway to evaluate/treat/disposition low acuity patients. As a result, low acuity patients tend to wait longer to see the Emergency Physician. Creating lengthy queues of non-emergent patients results in overcrowded Emergency Departments and decreased throughput.

Problem

April 2016 Emergency Department leadership team attended initial training session with X32 facilitators. A plan to implement a rapid low acuity track was initiated. Over the course of the next several months, weekly meetings were held with key stakeholders in the Emergency Department. A care flow map was developed with input from the entire care team. This team also redesigned the nurses station to align with LEAN values of eliminating waste and movement in supplies.

Process Evolution

ED tracking board had to be modified to include changes in location and naming of new treatment areas. Additional beds were added to tracking board and colors were changed to assist in visualization of new care area. Staff were trained to this new care paradigm in a classroom setting, 2015 data was discussed to set a baseline for improvement. Additional physical signage was installed. Early August new mid-level provider was onboarded by Physician leadership to assist in the Direct Care tract.

Implementation

August 15, 2016 Go Live Date. Initially started the new care area operating from 1200-2100 as we identified that these hours were the highest arrival hours of low acuity patients. One PA and one RN operating 3 beds and 3 chair treatment area. ED leadership worked side by side with this team to identify issues. Manual process was implemented to ensure triage was done appropriately and track patients seen through this care area.

2015 Baseline LOS for low acuity patients was approximately 135 minutes, using LEAN methodology, if we can reduce low acuity LOS to less than 90 minutes we can effectively see 3 patients in this new process in the amount of time that we would have seen 2 patients in the prior state.

2015 Data Continued

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Results Explained

- CHS Lincoln was awarded the X32 Xcellence Award for most decreased length of stay in low acuity patients 2016.
- The Emergency Department was able to decrease the overall LOS for low acuity patients from a median of 130 minutes in Q1 and Q2 of 2016 to a median of approximately 100 minutes since the implementation of our care redesign.
- Median Door-to-Doc decreased from and average of 52 minutes in 01/02 2016 to approx. 32 minutes.

Lessons Learned:

- To be successful we must ensure appropriate patients are being triaged to this accelerated tract. Additional triage education was necessary.
- Can be difficult to onboard new midlevel providers to this area. Requires an experienced provider that is comfortable making dispositions without a great deal of testing.
- Having appropriate staffing in place at time of patient arrivals is key to meeting this goal of 90 minutes.
- The idea of discharging low acuity patients quickly requires a culture change within the Emergency Department.

Contact Information

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