HOUSTON Methodist LEADING MEDICINE

Streams of Care: Impact of Split Flow Model on Emergency Medicine

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Background

With wait times to see a provider averaging at over an hour due to a bottleneck of patients competing for the same resources, in addition to a construction project underway to expand the footprint of the current emergency department, the timing was right for Houston Methodist Hospital to implement a split flow model of care. This model allows for the nursing staff to quickly assess a patient's condition and then direct the patient to the appropriate treatment area for quicker care. High acuity emergency cases are managed in a 23 bed area with dedicated clinical staff and providers. Lesser acute cases are managed in a 10 bed area under the direction of a provider and clinical team, utilizing an attached care continuation waiting area for constant patient flow. Through the use of these dual streams of care with dedicated resources, patient wait times to see providers and start treatment measures was reduced dramatically, thus improving the overall patient safety and satisfaction level as well as quality of the experience.

Objective

The specific aim of this initiative was improve efficiency of care by decreasing the door to provider time and, as a result, provide a safer patient environment. As a supplement to this action, a decrease the number of patients who left without being seen, a decrease in the patient's length of stay and improvement in the patient's satisfaction with their visit was expected. By having a provider at the start of the care stream, reduction in unnecessary protocol was also projected.

Planning/Research Methods

A multidisciplinary team of providers, nurses, patient care assistants, patient access representatives and management was assembled into a steering committee to plan and implement over the course of the 6 months leading up to the change. Key subject matter experts from pharmacy, imaging and lab were also included on critical process flows that were applicable to their respective area. Research of best practices was conducted by reviewing published articles in addition to a site visit and conference calls to peer hospitals who have successfully implemented similar models.

Implementation Methods

This undertaking represented substantial change to the Emergency Department, complete with a new real estate footprint, new technologies, new roles and responsibilities and new process flows. Project management and change management efforts were married to address with tools such as process maps, job descriptions, mock run throughs and continual feedback loops. Through these endeavors the following improvements were made:

- New 10 room intake/supertrack area opened
- New technologies implemented including walkie talkies, nurse call systems, and patient/family tracking tools
- Dedicated provider moved to the front of the care process
- Clinical team roles clearly defined and communicated for understanding and ownership
- Communications to patient and family on to new care delivery model developed

Results

When comparing our 2015 pre-implementation baseline to the values returned at the end of the year, post implementation, the following improvements occurred:

- Door to Provider Time: 79.01 minutes to 38.81 minutes (51% reduction)
- Bed to Provider Time: 24.59 minutes to 14.30 minutes (42% reduction)
- Left Without Being Seen Rate:3.5% to 1.5% (57% reduction); estimated annual revenue increase of $745k
- Average Length of Stay (Discharge): 272.24 minutes to 234.57 minutes (14% reduction)
- Average Length of Stay (Admit): 482.55 minutes to 419.54 minutes (13% reduction)
- Patient Satisfaction (Overall): 82.1 to 83.4 (2% increase)
- Patient Satisfaction (Waiting Time to See Doctor): 71.6 to 78.4 (9% increase)
- Reduction in unnecessary EKGs: over 100 per month; estimated annual savings over $20k in direct cost

These improvements are seen in light of a 3% increase in ED patient volume.

Contact

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