Optimizing Emergency Department Throughput with Improved Triage Processes

Tammy Bimber MSN RN CEN SANE-A SANE-P

UPMC Northwest, Seneca, PA

Problem

- There were significant delays occurring at triage for all non-ambulance patient arrivals
- Patients were leaving before being seen by any medical professional

Background

- Annual ED volume > 32,000
- 12 beds dedicated to acute patient conditions and 6 beds dedicated to less acute patient conditions
- No triage protocols existed
- Negative comments on the Press Ganey surveys about the wait time to be taken to a room and seen by a provider
- The Joint Commission has revised recommendations effective in 2013 & 2014 for improved flow standards to address overcrowding in emergency departments

CMS Hospital Compare

Data published on CMS hospital compare website:

- Average time patients spent in the emergency department before they were seen by a healthcare professional
- Average time patients spent in the emergency department before being sent home
- Percentage of patients who left the emergency department before being seen

Plan

- Design triage processes to ensure patients are seen by a medical professional within 5 minutes of their arrival
- Develop triage protocols and guidelines for nurses to provide quality patient care when providers are unable to see patients quickly upon arrival

Within 15 months:

- Improve door to provider exam times to 15 minutes or less
- Reduce left without being seen rate by at least 30%
- Double patient satisfaction scores

Methods

In the first 3 months:

- Developed a team consisting of experienced ED leadership, ED physicians, and engaged bedside ED nursing champions with strong administrative support
- Identified shared visions and specific goals
- Reviewed evidence based literature on triage processes and ED flow
- Identified barriers to the existing triage model
- Developed new and revised triage processes using a direct bedding triage model with bedside registration
- Developed and implemented triage protocol guidelines
- Engaged bedside nursing team members educated all ED staff and sought each staff member's input prior to the new process implementation with leadership support
- Identified 3 additional exam rooms for use in high census
- Set April 3, 2012 as the go live date for the new process

For 3 months following go live:

- Weekly review and problem solving of process issues
- Engaged bedside nursing team members addressed resistance to change in real time
- Completed education on the Emergency Severity Index (ESI) for all nursing staff

Ongoing process improvement as needed

New Flow Design

Non-ambulance patient arrivals:

- Receive a quick registration in 30 to 60 seconds
- Triage nurse:
  - asks chief complaint and allergies
  - obtains height and weight
  - places patient immediately into the ED treatment area
  - Triage assessment completed by primary RN

All ED treatment areas will be utilized

Outcomes

Process	Mar-12	Jun-13	Goal
Door to Bed*	13	3	5
Door to Provider Exam*	23	10	15
Door to Discharge*	115	94	100
Left Without Being Seen Rates	0.5%	0.2%	0.3%
Press Ganey Percentiles	33%	75%	66%
*Average times are in minutes			

Evaluation of the Data

- Throughput data and left without being seen rates are monitored daily through the hospital's Emergency Department Performance Report
- Patient satisfaction data is monitored monthly through Press Ganey online reports
- Results were shared with staff daily for the first month then weekly to monthly as results became consistent.

Conclusions

- Triage processes significantly effect:
  - Door to exam times
  - Door to discharge times
  - Left without being seen rates
  - Patient satisfaction
  - Patient safety
  - Quality of patient care
- Engaged bedside nursing leaders have a significant positive impact on process development and implementation of new processes
- Consistent & engaged ED leadership with administrative supportive promotes the development & implementation of process change
- Triage process changes did not impact admission throughput times.

Future Plans

Develop and implement additional process improvements to improve admission throughput

References

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