Enhancing Clinical Efficiency by Implementing a Pediatric Care Coordinator Role

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Background

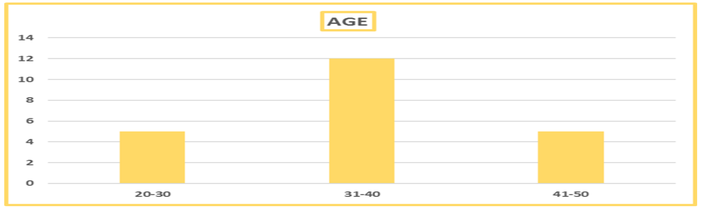
Approximately 800,000 children seek Emergency Department (ED) care each day in the U.S., and the increase in ED utilization has saturated the capacity of EDs and emergency medical services (EMS) in many communities. ED crowding threatens patient safety, increases medical errors, and prolongs length of stay. Studies have shown an association between ED crowding and throughput measures.

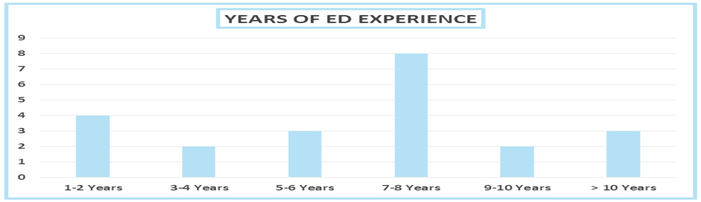
The time from when a patient arrives to the ED, to the time they are seen by a provider, is considered the door to doctor time. This is a component of ED throughput that is shown to have an impact on reduced quality of care, increased adverse events, decreased patient satisfaction, and increased patients leaving without being seen.

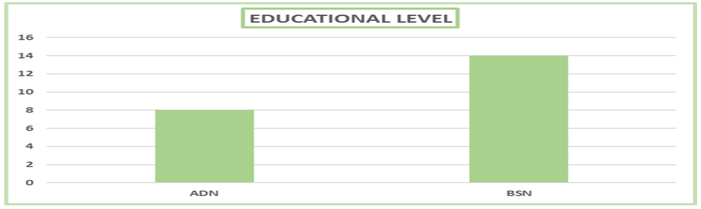
Purpose

Twenty-two pediatric dedicated clinical staff nurses participated in this quality improvement project. The purpose was to determine the impact of implementing a pediatric care coordinator role (PCC) on door to provider time.

Graph 1 -3 **Staff Nurse Demographics**







Methods

The pediatric clinical staff nurses completed a process map of their current triage workflows and identified barriers that contributed to the delay in door to provider evaluation, assessment and treatment. The contributing factors included:

- Pediatric and adult patients were triaged in the same location
- The same staff triaged both adult and pediatric patients
- There was not always a dedicated pediatric nurse staff assigned to work in triage
- In several instances, the adult patient was made a higher priority and assigned a treatment room ahead of a pediatric patient

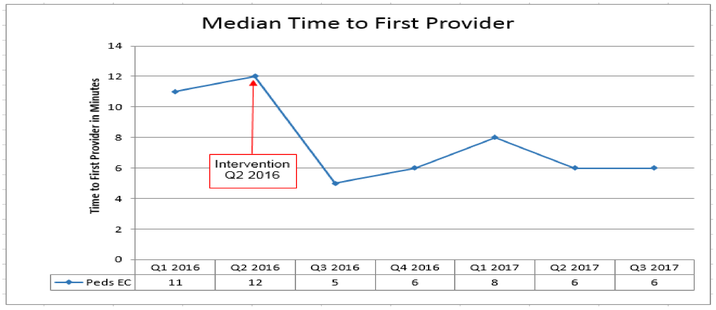
A literature review was completed to identify best practices to improve throughput and door to provider evaluation, assessment and treatment. Through the kaizen method, the clinical staff nurses trialed separating the adult and pediatric triage process, allocating a specific location for triaging pediatric patients located within the pediatric area, utilizing the pediatric assessment triangle (PAT), developing and implementing a pediatric care coordinator (PCC) role, and adjusting the current nurse staffing matrix to support maintaining the PCC role. They encouraged staff feedback through daily rounds, focus group sessions, and work email. They also monitored median time to first responder to determine the impact of the change.

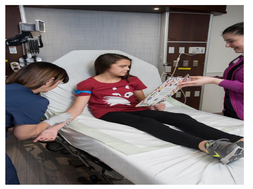
Results

During 1st quarter 2016, the median time to first provider was 11 minutes. The intervention time frame was 2nd quarter 2016. The post-intervention time frame was 3rd quarter 2016 to 3rd quarter 2017. During the post-intervention time frame, the ED median time to first provider was on average 6.2 minutes. This represents a 43.6% decrease in time to first provider.

The staff feedback from daily rounds and focus groups was positive with minimal suggestions for improving the process.

Graph 4 **ED Pediatric Median Time to Provider**





Implications

The results suggest implementing a PCC role, incorporating the PAT in the triage process and utilizing a dedicated triage area for pediatric patients may improve door to provider times and may provide improvement of pediatric care in a level II pediatric trauma center.

Conclusion

The implementation of a pediatric care coordinator (PCC) resulted in a significant improvement in door to provider time. The feedback from staff was that it was a valuable role for improving the care of the pediatric emergency department patient.

References

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(Nick Zamborowski, 2018)