

ESI Level 3 Rapid Evaluation Unit Impact on Throughput and Satisfaction

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Innovation...

Acuity level defines the pathway for patients as they arrive in the Emergency Department. The highest acuity, those that are critically ill require immediate attention and those with lowest acuity can often be treated and released in a timely manner through various models such as fast tracks. The middle acuity patients with an Emergency Severity Index (ESI) level 3, are often left to wait the longest. Development of a Rapid Evaluation Unit specifically targeting the Level 3 population has had lasting effects on throughput.

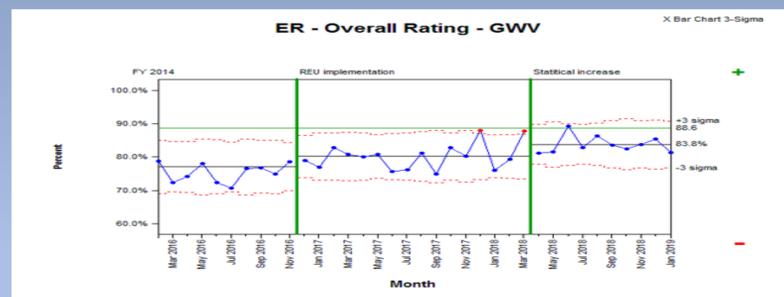
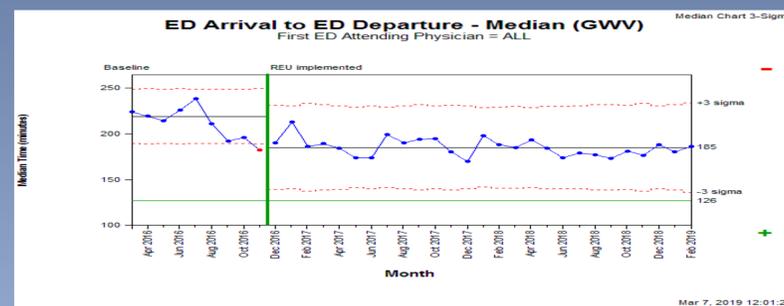
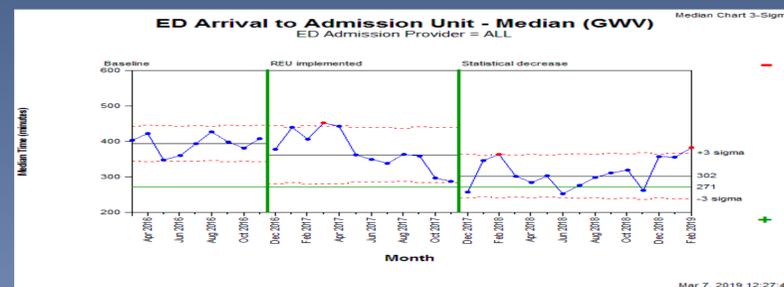


Focusing specifically on ESI acuity 3 patients, by creating a specific area along with dedicated medical staff for this patient population, we positively impacted overall length of stay (LOS) in our emergency department. In addition specific 3V criteria was developed to identify which of the ESI 3 patients would be cared for in the Rapid Evaluation Unit (REU) pathway.



Results...

Initial outcomes demonstrated a mean decrease in overall length of stay from ED arrival to Disposition for all patients from 249 minutes to 220 minutes pre and post REU implementation ($p < 0.001$). Subsequent outcomes showed a median decrease of 57 minutes for ED Arrival to Admission Unit and a mean overall LOS decrease of 67 minutes pre and post REU implementation ($p < 0.001$). Patient satisfaction showed a 4% improvement from 77% to 81% over that time period ($p < 0.05$).



Development, fine tuning, and maturation of the unit has attributed to the ongoing improvement in throughput measures in the emergency department. Generalized linear regression modeling estimates that 20-25% of a 113 minute mean decrease in LOS to date from implementation is directly attributed to the REU. The overall patient satisfaction rating today is at 84% correlating with the improved throughput.

Lessons Learned...

By focusing on ESI Level 3 patients with strict inclusion and exclusion criteria an impact on both ED Arrival to Discharge as well as ED Arrival to Admission was positively impacted. We believe Emergency Departments with similar volume and patient mix would benefit from a similar ESI level 3 Rapid Evaluation Unit. Through trial and error key lessons were learned fostering a successful operational unit today to include:

- Dedicated, private enclosed space within the ED
 - Converted 2 private exam rooms to 5 exam spaces
- Operates during peak hours
- Inclusion/Exclusion Criteria
- Dedicated staffing
 - 1 Attending, 1 RN



The Rapid Evaluation Unit has a target LOS of 120 minutes set by leadership to monitor throughput.

