

One of the biggest challenges the emergency department has faced is the rapid evaluation of patients when they first arrive. The traditional process for patient assignment in the ED was for physicians to pick up new patients when they were ready to see a new patient. While this system has many benefits, it resulted in some patients waiting for a long period of time before they were seen by a physician. In order to address this issue, physicians and nurses collaborated to change the paradigm of patient assignment from a “pull” system to a “push” system. This new “push” system was developed by front line team members in conjunction with nursing and physician leadership. Our ambitious goal was to have the patient seen within ten minutes of their arrival. We believe that by having the patient seen quicker, we could improve both the patient experience and patient safety. The process measures used to gauge our success was: median “Door to Doctor” time, “left without being seen” and our Patient Satisfaction Top Box% for “Care withing 30 min of getting to ER” as well as our “Likelihood to Recommend”.

To launch this initiative several interdisciplinary process improvement sessions were held. These sessions were facilitated by process improvement experts specializing in six sigma and lean management methodology. Front line nurses, doctors, and other support staff members collaborated to develop a new system. These front line team members then served as champions of the new process. These ambassadors helped to communicate the new process and train their peers.

The workflow that was developed detailed how patients should be assigned to physicians to match their schedule and account for patient flow throughout the day. The initial plan was to assign patients in a round robin fashion. However, once the program was implemented, feedback was received from the nurses and physicians that round robin assignment led to uneven patient loads for the physicians. An example of how this was problematic, was the assignment of two critical patients to team A while two non-critical patients were assigned to team B. In order to correct for this unintended consequence, the workflow was modified to account for both volume and acuity. Wide latitude was given to the triage nurse to distribute patients in a way that resulted in a balanced workload for both physician teams. In order for this to succeed, there were many meetings between the nurses and physicians to explain why the modifications were needed and what factors went into this new process. This required a tremendous amount of trust between the physicians and the nurses.

Another variable to be addressed was the different number of physicians on each team throughout the day. For example, at noon there are two physicians on team A and only one physician on team B. Once again it was found that increased communication between the physician and the triage nurse was required to properly balance the workload for each team. The trust that had been built was further strengthened by the physicians and nurses working together harmoniously.

Benefits of the new paradigm were seen almost immediately after the initiative began in November 2017.

- Our door to doctor time went from a median of 22.3 minutes in 2017 to 11.7 minutes by the end of 2018. This metric continued to improve in 2019 to 7.5 minutes and in 2020 went to 6.6 minutes.

- We also saw a decrease in the number of patients leaving without being seen from .7% in 2017 to .4% in 2018. The rate of patients leaving without being seen in 2019 was .38% and in 2020 was .35%.
- Additionally, patient experience scores also improved during this period.
  - Our Top Box% improved for the patient survey question, “Care within 30 min of getting to the ER. Top Box% scores over the four years were as follows: 3<sup>rd</sup> Q 2017 = 85.1%, 3<sup>rd</sup> Q 2018 = 91.9%, 3<sup>rd</sup> Q 2019 = 91.8% and 3<sup>rd</sup> Q 2020 = 93.9%.
  - Our likelihood to recommend percentile rank in 2017 was 54 and in 2018 improved to 58. The positive trend continued in this metric as well with a national percentile rank of 82 achieved in 2019 and 91 in 2020.

In 2018 we laid down the foundation of trust and mutual respect required to achieve the tremendous strides which we realized in 2019 and 2020. This type of accomplishment demonstrates the synergy of teamwork, collaboration, and mutual respect.

In 2020 we faced an unprecedented challenge, the corona virus pandemic. This caused many dynamic modifications to be made to our staffing model which in turn affected the way patients were assigned to the two physician teams. In order to address the scope of the challenge the physicians met regularly with the nursing team to work out a method which would be agile enough to accommodate the evolving physician schedule. This involved daily huddles where very specific plans for the day’s assignment were synchronized between the physician and the triage nurse.

Our collaborative working relationship between nurses and physicians led to continued improvement in door to doctor times, left without being seen rate and ultimately patient experience.