LAWRENCE GENERAL HOSPITAL

Increases Physician Efficiency With MEDITECH's BCA Solution

Omer Moin, MD, was striving to make data more useful and meaningful to his medical staff. As the chief of emergency medicine at Lawrence General Hospital (Lawrence, MA), Dr. Moin oversees a dynamic, urban ED located in one of the most underserved communities in the commonwealth. Lawrence General serves a diverse population, many of whom are vulnerable. Easy access to the right data is critical for ED physicians to provide better, more efficient care.



So Lawrence General partnered with MEDITECH Professional Services to create a customized ED Throughput dashboard, enabling Dr. Moin and his team to leverage the data most helpful to them as a busy ED in an urban environment.

Tailoring dashboards to tackle area issues

A version of the ED Throughput dashboard is included with MEDITECH's Business and Clinical Analytics solution, but Dr. Moin wanted more specific metrics related to patient throughput, return visits to the ED, and behavioral health issues. Access to this information

would enable him and his team to improve the quality of care they provide.

In addition, Dr. Moin requested a provider scorecard on the dashboard. The scorecard would provide a more objective look at his medical staff's performance by identifying key metrics such as total ED visits, number of CTs ordered, and total 72-hour revisit patients. It would also show patients' average minutes in each ED throughput phase.

Accessing the right data

Lawrence General engaged MPS for several EHR-related initiatives, including collaborating with Dr. Moin and his team on BCA dashboards. Because BCA is capable of providing insights on specific sets of data points, Dr. Moin analyzed information in the EHR and determined which touch points collected the data he most wanted to see.

AT A GLANCE

Lawrence General Hospital (Lawrence, MA) has one of the busiest emergency departments in the commonwealth, with over 70,000 visits per year.



"We focused on the ED
Throughput dashboard not
only because of how powerful
it is for the ED, but because
of the even more powerful
impact it has on providers."

Omer Moin, MD, FACEP Chief of Emergency Medicine Lawrence General Hospital

Analytics from the ED Volume dashboard provide insights on:

Staffing

Census data such as ED counts by priority and ED counts by hour enable the leadership team to allocate staff more effectively.

LWBS rates

Opening up a fast track area in the ED enabled staff to see more patients, reducing the number who left without being seen.

ICU transfers

On a daily basis, the ED Volume dashboard displays the number of patients who were admitted to the ICU and the number of patients who were transferred to other ICUs when Lawrence General was at capacity.

Together, MPS and Dr. Moin created a dashboard that goes well beyond tracking the average minutes a patient remains in each phase of their stay, enabling the ED to identify potential bottlenecks. It also provides targeted analysis on patients presenting with mental health symptoms and has been used to make a business case for offering addiction services.

"BCA has taken us to levels not achieved on previous EMRs," he said. "It helps us answer questions about what's happening at any given moment in the ED."

Adding value to practice

The provider scorecard section goes into even deeper detail to help clinicians add value to their practice. Dr. Moin noted the scorecard has been particularly helpful to new physicians who recently completed their residencies.

Before introducing the scorecard to the physicians on his team, Dr. Moin worked with MPS to ensure the metrics would deliver insights the providers wanted to know, such as how many patients return to the ED within 72 hours (a metric that indicates discharge effectiveness) and the number of procedures, CTs, and ultrasounds ordered by each physician. It also includes the first provider/last provider to see the patient, which displays patient hand-offs upon shift change.

Dr. Moin also worked with MPS to create a nurse scorecard, similar to the one for physicians. Nursing metrics collected include how long it takes for the nurse to fully triage a patient, put the patient into a bed, and discharge a patient. Nurse leaders confirmed they were collecting the right information to enable them to track and trend performance, so they could focus on what to improve.

"It adds value to say that as an organization, we are looking at the clinical work that physicians and nurses are doing, and using this data to increase clinical understanding," said Dr. Moin.

Impacting emergency care

Every month, both scorecards are shared with clinicians, who can easily view their individual performance trends and compare them with their peers. Data is anonymized, but staff discuss their performance amongst themselves to see where they can improve individually.

Scorecards are especially helpful for ED physicians who have just completed their residencies. They can compare the number of CTs they ordered with the number ordered by their peers and look into reasons why they might be ordering more scans. Other useful metrics for new physicians include the amount of time each patient spends in the throughput phases, such as how long it takes the physician to decide to admit a patient; Dr. Moin noted these measures improve with experience.

But the numbers themselves don't tell the whole story. That's why the scorecard includes patients' Emergency Severity Index levels. Metrics include the number of patients who are rated as ESI 1 or 2 — the most severe categories — that the physician treated. Providers who are treating patients with a higher acuity will see fewer patients per hour than physicians who are treating people with less serious complaints. This is valuable information when providers look at their performance measures.

Scorecard metrics are also correcting misperceptions at Lawrence General. For example, some physicians thought that they were frequently seeing patients before the nurses had assessed them. Upon looking at the data, Dr. Moin learned physicians got to patients first less than 5% of the time.

Focusing on health equity

Now proficient in BCA, Dr. Moin is able to pull stats right before important meetings and build dashboards on the fly.

"This has revolutionized what I am able to do — not just for the ER, but also for the hospital," he said.

Lawrence General also worked with MPS on a health equity dashboard, which continues to evolve. It enables Dr. Moin and his team to identify disparities and track their progress, improving the quality of care for all patients.

