An ACC Accredited Medical Center Decreases Troponin Test Time

Chest Pain Center Accreditation empowered the healthcare professionals at Morin Medical Center[1] to decrease troponin test time, thereby improving CV patient care.

Challenge

Before the professionals at Morin Hospital started the process of accreditation, average door-to-troponin test times were greater than 120 minutes – a statistic well north of the hospital's 90-minute policy for all ER stat labs, including troponin. The elapsed time was also far greater than ACC Accreditation Services' recommendation for a "best-in-class" turnaround time of 60 minutes. Consequently, the facility urgently needed to tackle turnaround times so patients could receive proper care in a timelier fashion.

Since troponin testing was taking place in the hospital lab at that time, the initial approach involved implementing steps to improve laboratory proficiency. They conducted a three-month study to determine if it was possible to improve turnaround times. A sample tracer methodology was implemented that included timed intervals for the following: door to order, order to collect, collect to transport to lab, and receipt in lab to result. They traced everything from Point A to each subsequent touch point, including when the order was written, when it was carried to the next point, when the order was read and when it was delivered to the physician. Using a stopwatch helped determine the origin of the outlying numbers.

Despite implementing the time studies, carefully reviewing the workflow and addressing the slowdowns, the results continued to exceed the two-hour timeframe. Because they were determined and committed to improving patient care, they decided to look at point-of-care (POC) testing as an option.

"Our assigned accreditation review specialist offered up so much up-to-date information. She was able to walk us through the process to make sure we were doing what was best for the patient. I could ask questions and get her feedback, and I felt comfortable with the knowledge she gave me."

Morin Medical Center [1] Chest Pain Coordinator

Solution

When attempts to lower the lab times to within 60 minutes failed, the hospital adopted point-of-care testing as an alternative. This involves a hand-held, mobile analyzer that makes it possible to run the troponin test in the ED. As a methodology, POC has evolved as a quality test and instrument, and the benefits of POC blood analysis testing speak for themselves:

- Quicker test turnaround times
- Faster identification of patients with problems that require further testing
- A door-to-result average that is within the recommended time range
- An approach that is up to date with current AHA/ACC guidelines

Despite the benefits, POC testing posed some additional concerns that included educating staff and physicians; updating order sets, protocols and flow sheets; and understanding that the positive/critical values are different than lab troponins. Knowing this, the hospital spent about two months training personnel on the new process.

"Initially, there was some pushback from our staff who saw it as more to do," said the hospital's chest pain coordinator. "But once they realized how easy it was and how quickly they got results, they were all in." With point-of-care testing, they can find out if the patient's troponin is negative or positive, and then repeat the testing two hours later to determine the appropriate path of care. "Before working with ACC, we were doing the repeat times wrong. Our reviewer got us up-to-speed on the new times," the chest pain coordinator said.

ACC Accreditation Services™

1) Pseudonym

Results

With the implementation of point-of-care testing, the door-to-result troponin test times decreased from greater than 120 minutes to less than 40 minutes. Within one month of submitting the application for accreditation, the test times at the hospital decreased to 39 minutes.

POC testing sped the notification to the physician, resulting in a quicker diagnosis and improved care for ACS patients. The hospital also initiated Early Heart Attack Care throughout the community. This included education about bystander CPR, calling 911, and the signs and symptoms of a heart attack. The early heart attack care campaign resulted in increased volume in the cath lab, and it paved the way for primary intervention accreditation.

"I try to take my hospitals beyond operational improvement and look at their return on investment in the form of customer loyalty, referrals, lower length-of-stay and time in the ED. It's not just an operational improvement. ACC looks at the biggest and fullest impact," said Sue Perrier, ACC review specialist.

The chest pain coordinator and her team are grateful for the guidance they received from ACC. "Our ACC accreditation navigator offered us a wealth of up-to-date information," she said. "She was able to walk me through the process to make sure we were doing what was best for the patient. I could ask questions and get her feedback, and I felt comfortable with the knowledge she gave me."

To ensure its commitment to maintaining a cardiovascular community of excellence at the hospital, the facility is now working toward the renewal of its fourth chest pain center accreditation.

Look to ACC Accreditation Services

Hospitals that are intent on connecting quality and cost with outcomes and patient satisfaction look to ACC Accreditation Services to help them create cardiovascular communities of excellence. Achieving accreditation status improves a hospital's productivity, patient throughput, and the quality and consistency of care. In short, it better positions a hospital as a preferred provider of cardiovascular care.

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