

## Emergency Department (ED) Snapshot

### Bringing Critical Point-of-Care Improvements to One of Florida's Busiest Emergency Departments\*

\*The results shown here are specific to this facility and may differ from those achieved at other institutions. The information presented here is based on an actual facility, but the institution has requested anonymity in this promotional material.

#### Background

This medical center is one of the largest facilities in Florida, serving its community for over 80 years. It is a Level II Trauma Center.

- ED visits: **150,000 per year**
- Potential chest pain patients: **25-40 per day**
- ED beds: **100**
- Nurses: **19 per shift, two shifts per day**

Timely workups and bed shortages were a chronic problem. The ED frequently ran over capacity, and nurses reported feeling overwhelmed. Delays in patient care and diagnostic testing were frequent.

#### Goals

The overall goal was to develop a new care protocol and new documentation tools for patients with chest pain. As part of the new protocol, 2 beds in a private room were dedicated to chest screening, and additional i-STAT® System equipment was purchased for bedside testing.

Specific goals were to:

- **Improve time to evaluation and initial treatment** of chest pain patients
- **Reduce ED length-of-stay (LOS)** for chest pain patients
- **Facilitate recognition of acute myocardial infarction** and improve process of ruling out cardiac etiology

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#### Results\*\*

Prior to process change: **28 minutes**  
After process change: **21 minutes**  
**Improvement: 7 minutes**

Prior to process change: **4 hours 25 minutes**  
After process change: **3 hours 27 minutes**  
**Reduction: 58 minutes**

Average door-to-ECG time: **7 minutes**  
Average arrival to cardiac catheterization lab: **66 minutes**  
Turnaround time (TAT) for cTnI testing: **88.5% faster**

\*\*Protocols were instituted using *i-STAT cTnI*, *CHEM8+* and BNP.

The *i-STAT cTnI* test is an *in vitro* diagnostic test for the quantitative measurement of cardiac troponin I (cTnI) in whole blood or plasma. Measurements of cardiac troponin I are used in the diagnosis and treatment of myocardial infarction and as an aid in the risk stratification of patients with acute coronary syndromes with respect to their relative risk of mortality.

The *i-STAT BNP* test is an *in vitro* diagnostic test for the quantitative measurement of B-type natriuretic peptide (BNP) in whole blood or plasma samples using EDTA as the anticoagulant. BNP measurements can be used as an aid in the diagnosis and assessment of the severity of congestive heart failure.