

Point of Care Testing to Improve Timeliness of Care for ED Patients requiring CT Scan with Contrast

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Introduction/Problem

Patient throughput in Emergency Rooms (ED) is a challenge in ED's nationwide. Excessive wait times in ED's affects safe patient care, efficient patient movement through other hospital departments, and is a significant patient and family dissatisfier. Numerous process improvement projects have been aimed at reducing the length of stay in ED's with varying success.

One of the sources of dissatisfaction cited by patients in the BID-N ED is the wait time for testing and test resulting.

Turn around times (TAT) for CT with contrast were reviewed for steps in workflow and the associated times at each step. All CT testing with contrast requires identifying the patient's creatinine level prior to completing the study. This process required drawing the lab specimen, sending to the lab and awaiting the lab result value prior to sending the patient for the CT test. iSTAT, point of care testing device, is a method to test blood creatinine using the device in the ED. The lab specimen can be drawn by ED staff and the POC testing can provide accurate results within a much shorter period of time. This can reduce the time to patient ready for CT scanning.

The purpose of this improvement project was to determine if POC creatinine testing could facilitate a more rapid time to decision-making and CT testing.

Aim/Goal

Overall goal of this project was to reduce the time to CT testing for patients requiring CT with contrast while maintaining patient safety and clinical outcome.

- Maintain accuracy of lab results
- Reduce wait time for test resulting
- Facilitate more efficient ED throughput, including time to discharge and time to admit patients from the ED
- More time-efficient decisions re: consultations
- More timely dispositions to inpatient services, OR, home
- Improved overall throughput in ED
- Improved patient satisfaction

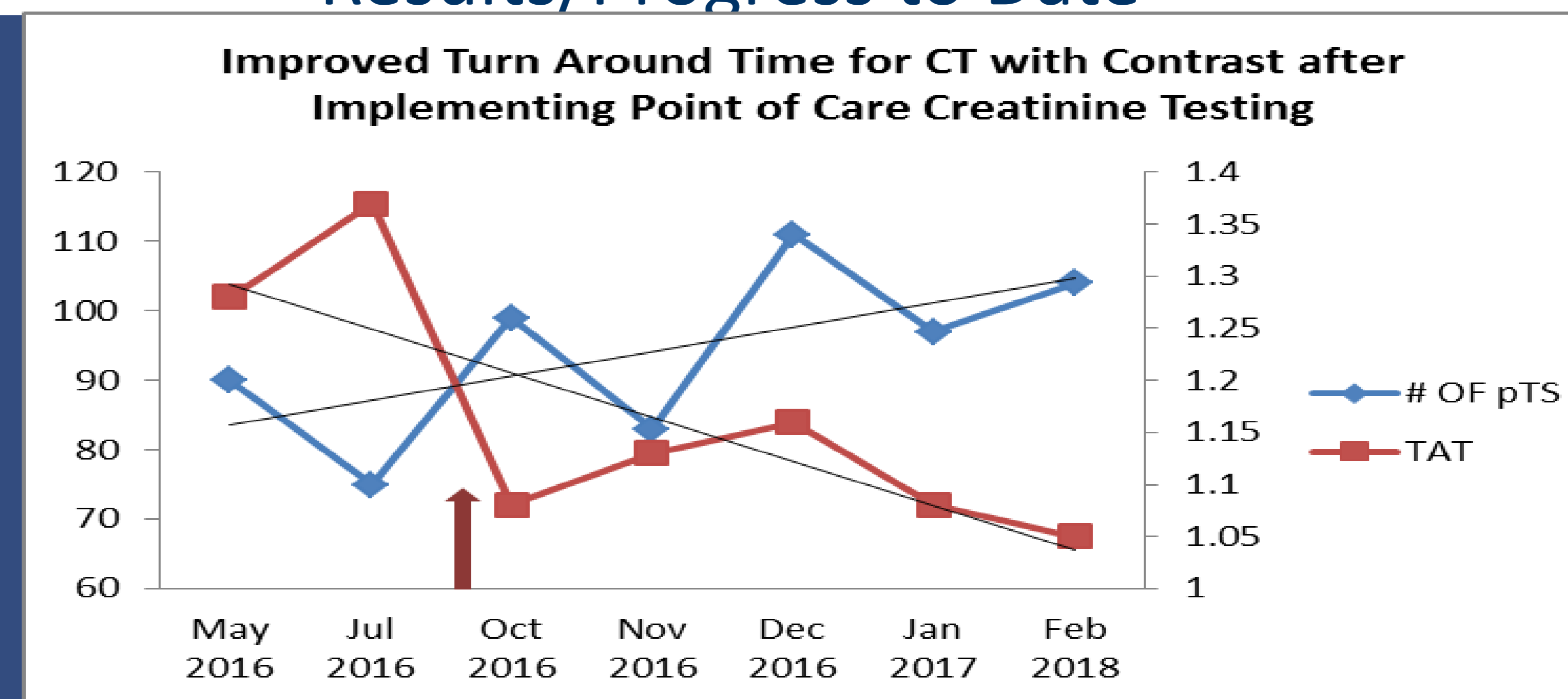
The Team

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The Interventions

- Initial baseline turn around time data collected
- Orientation and training re: use of iSTAT POC technology
- POC testing started September 2016
- Regular monitoring of process flow
- Ongoing evaluation of the process
- TAT for CT with contrast added to ED scorecard monitoring

Results/Progress to Date



- Successful implementation of POC testing
- Even with steadily increased patient volume in ED, TAT for CT with contrast decreased
- Over 18 months, overall TAT decreased by > 12%
- Accuracy of POC testing consistent and reliable
- Time to discharge time improved

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