

# ICE



INCREASING CLINICAL EFFECTIVENESS  
*Shifting Our Focus Beyond the Laboratory*

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CLMA ICE Winner: How  
Collaboration between Lab,  
Physicians, and Nurses Improved  
Emergency Department Patient  
Outcomes at Kaiser South  
Sacramento Medical Center – and  
with les POC Testing.

*Sue Traub, CLS, MHA*

# Kaiser Permanente

- Founded in 1945, Kaiser Permanente is one of the nation's largest not-for-profit health plans, serving more than 10.6 million members, with headquarters in Oakland, California. It comprises:
- Kaiser Foundation Hospitals and their subsidiaries
- Kaiser Foundation Health Plan, Inc.
- [The Permanente Medical Groups](#).
- At Kaiser Permanente, physicians are responsible for medical decisions. [The Permanente Medical Groups](#), which provide care for Kaiser Permanente members, continuously develop and refine medical practices to help ensure that care is delivered in the most efficient and effective manner possible.
- Retrieved from: <https://share.kaiserpermanente.org/article/fast-facts-about-kaiser-permanente/>



# South Sacramento Kaiser Medical Center

- Recipient of Healthgrades' highest distinction of America's Best 100 Hospitals in 2016.
- Recipient of the American Heart Association's Gold Plus Quality Award for Stroke Care.
- Joint Commission Advance Primary Stroke Center.



217 Licensed Beds

Level II Trauma Center with 46 Emergency Rooms

# Improvement Project – Lab & ED

- Integrate Resources.
- Utilize Experts.
- Improve Communication Between Departments.
- Build Teamwork by Creating Shared Goals.
- Engage Front Line Staff.
- Build Respect.
- Create Strong Organizational Culture.

**Improve Patient Outcomes.**



# Improved Stat Protime Turn Around Times to Improve Emergency Department Patient Throughput.

- **Project SMART Goal:**

To reduce average ED STAT Protime TAT from 54 minutes to 45 minutes or less from when order is place by provider to test completion by September 1, 2015.

- **Customer Benefit:**

PT often last item need for provider to decide patient outcome. ED Physician can discharge patients sooner.

- Improved ED Throughput – Decreased Patient LOS.
- Improve Stroke Patient Care (PT is on Stroke Lab Order Set).
- Improve Trauma Patient Care



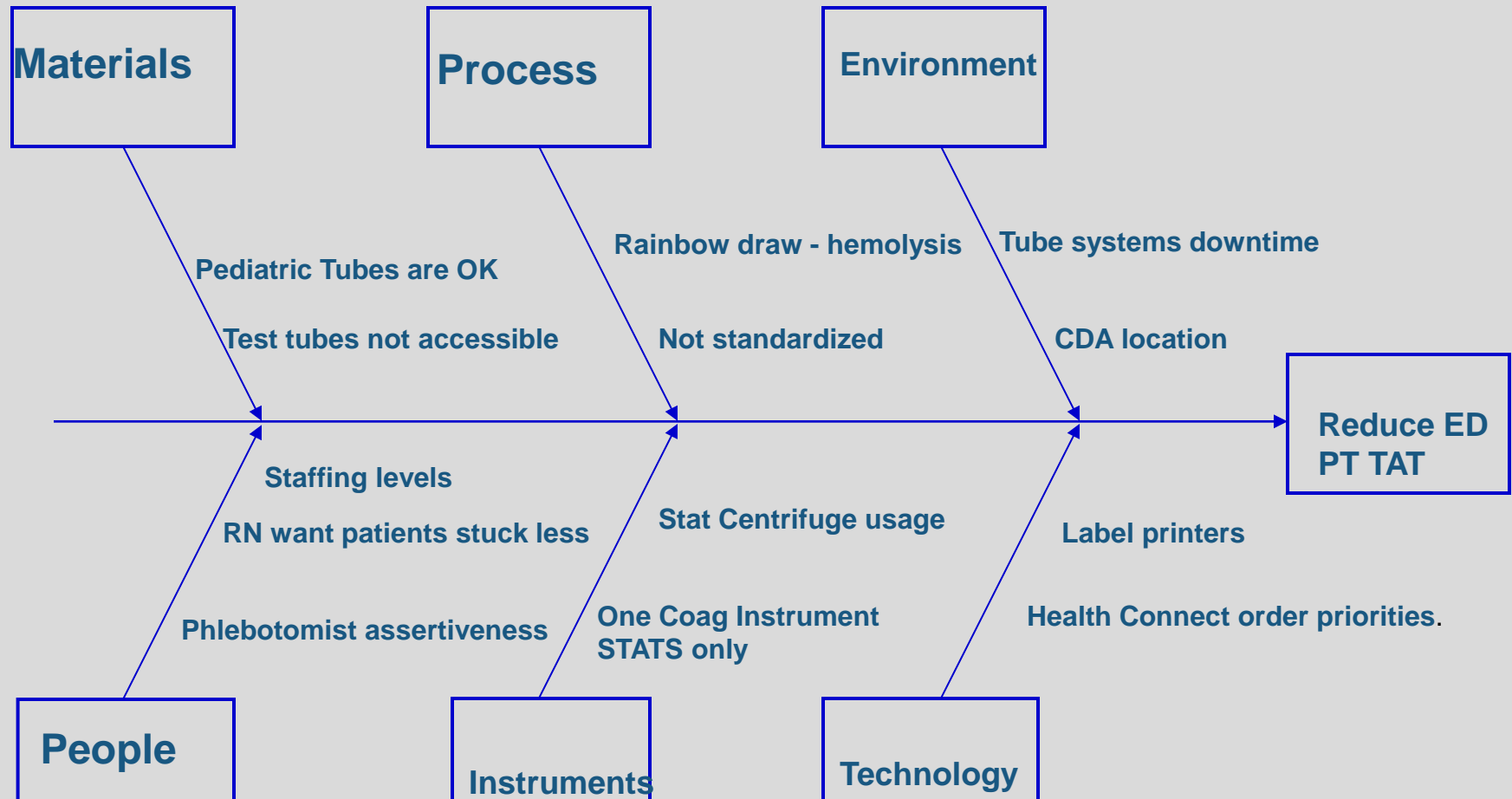
# Kick-Off Meeting – 4/15/15



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# Root Cause Analysis – ED & Lab Protime Optimization Project 2015





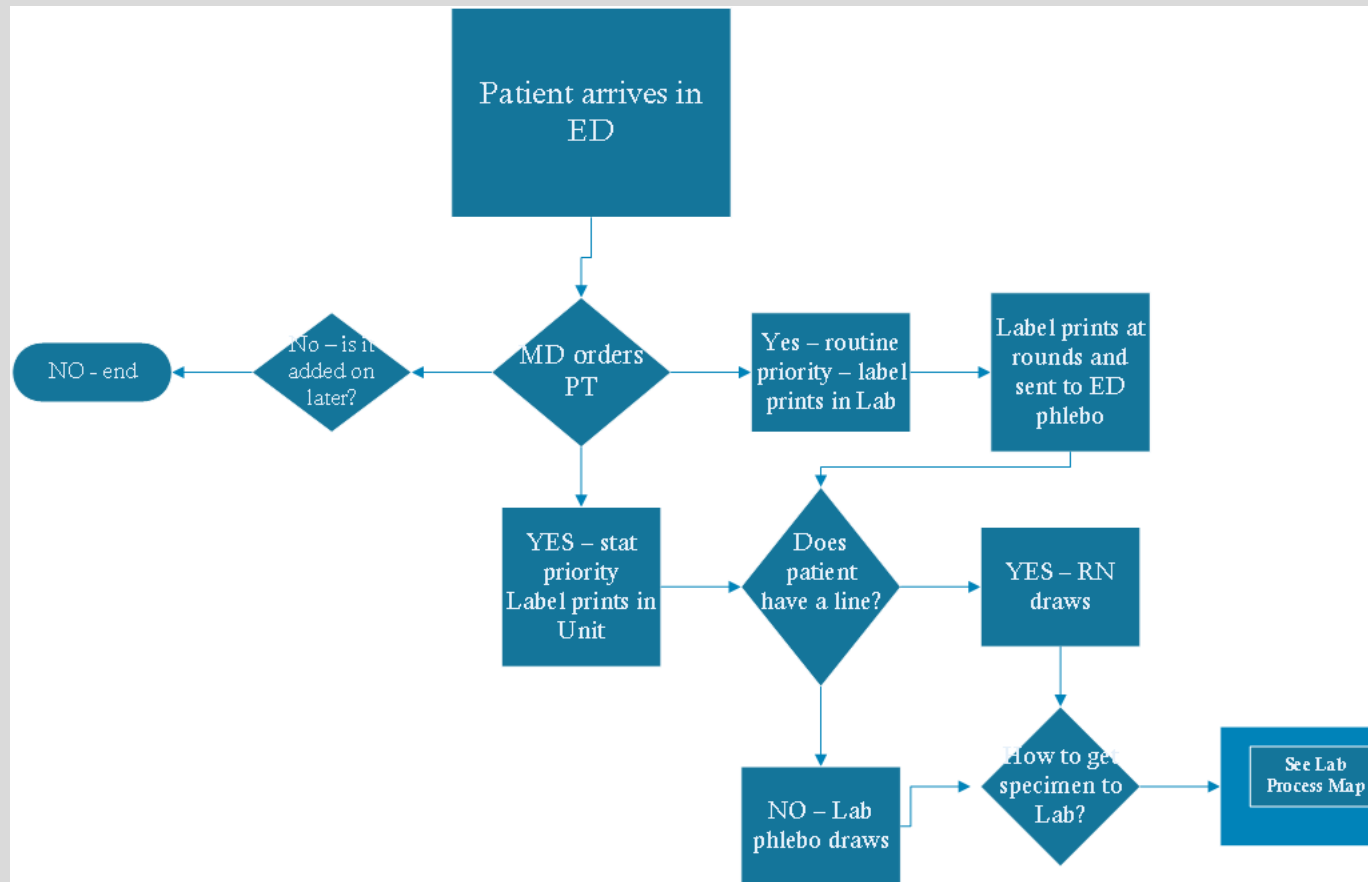
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## Shifting Our Focus Beyond the Laboratory

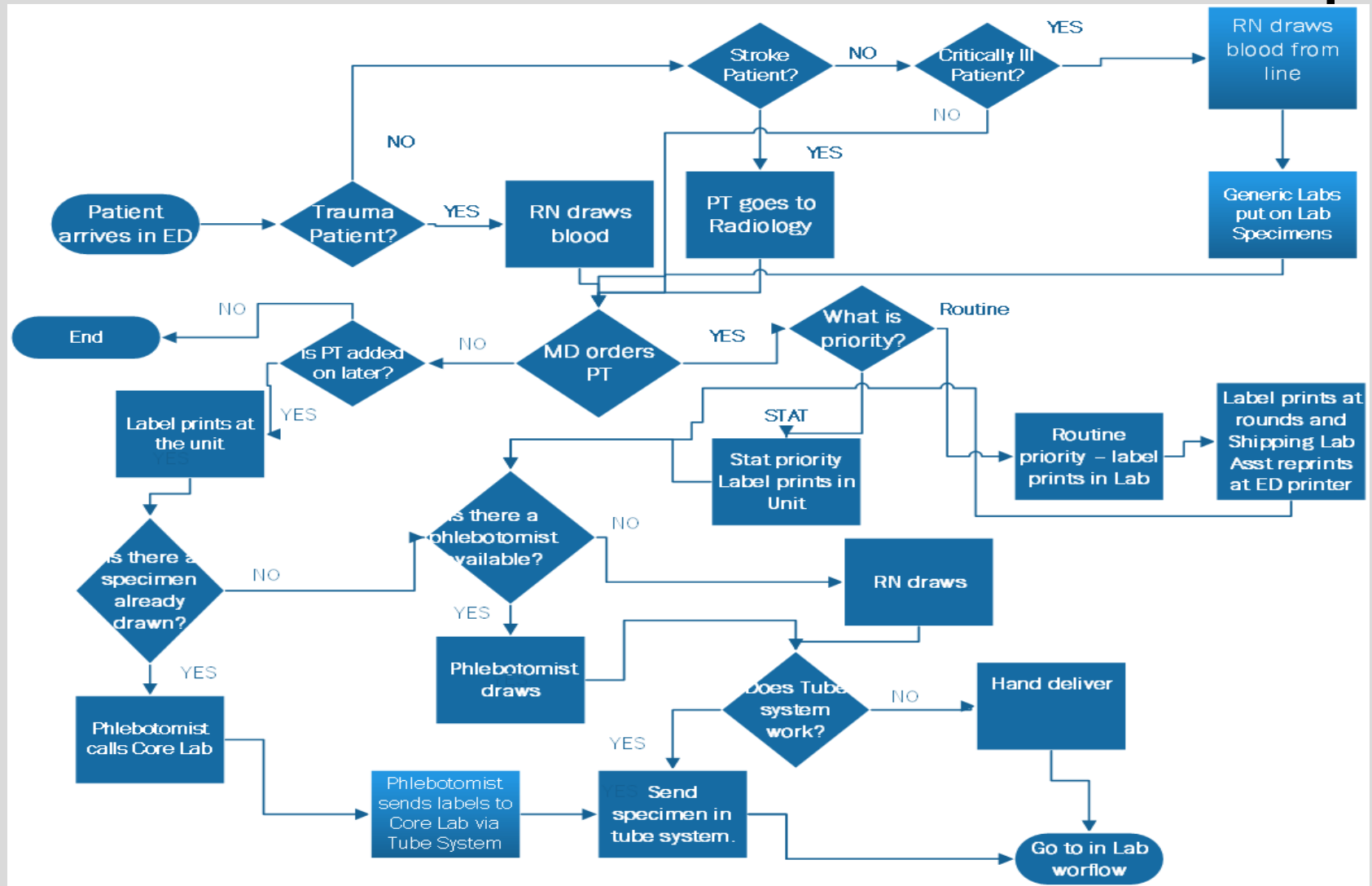




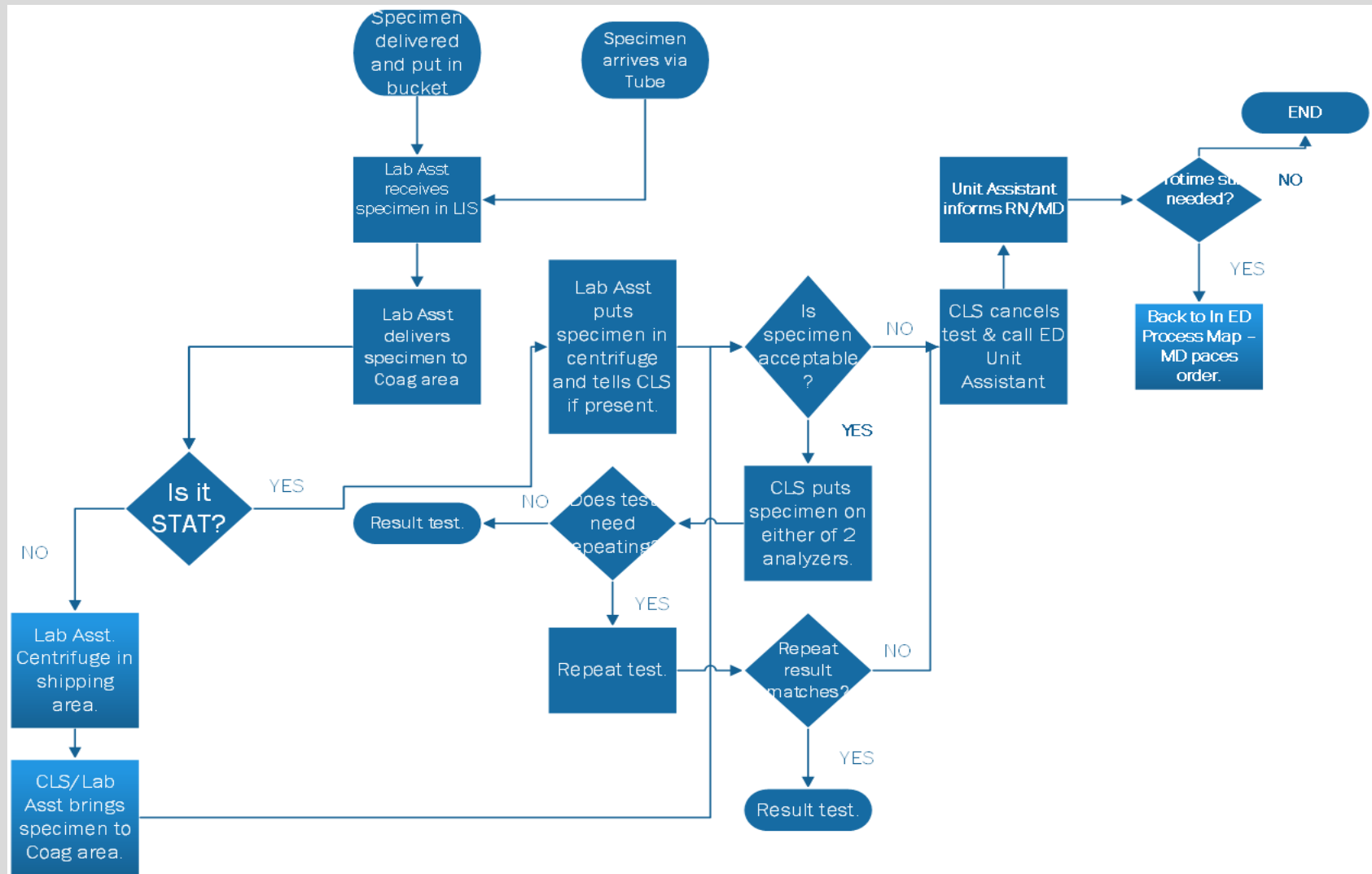
# Assessment Results – Initial ED Process Map



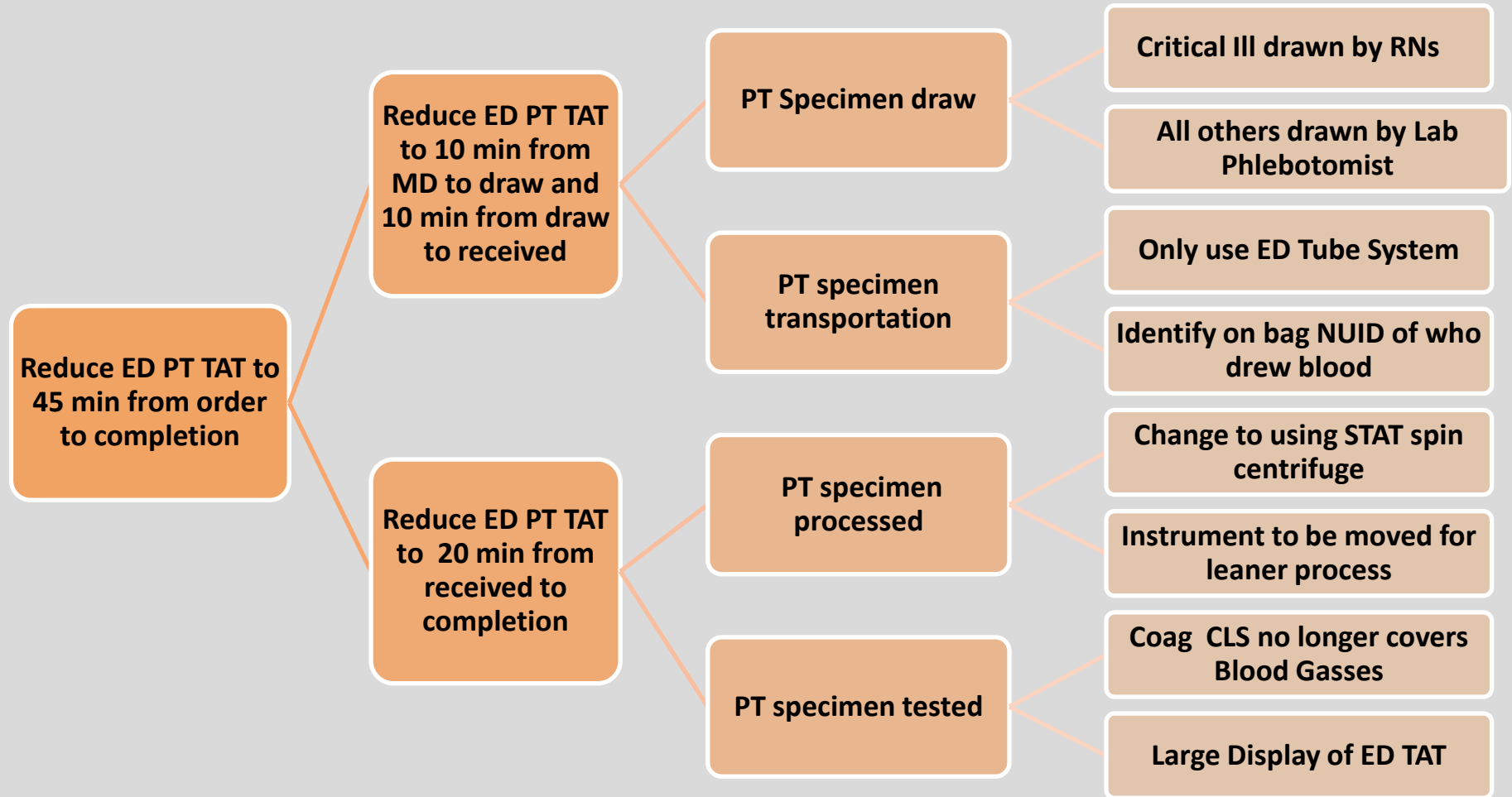
# Assessment – Final ED Process Map



# Assessment Results – Final Process

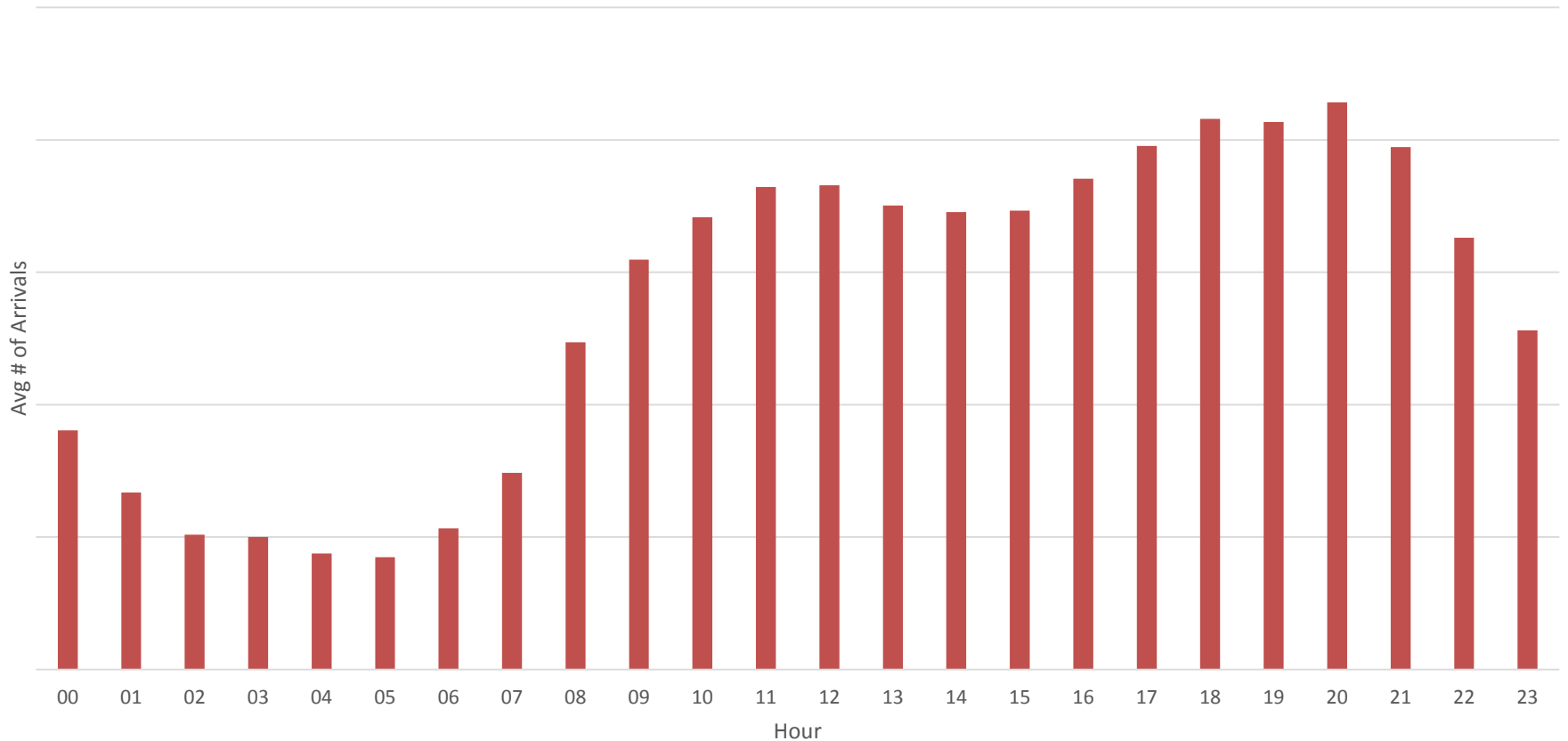


# Improve ED Protime Stat TAT



# ED Average Hourly Arrival Volume

SSC ED Average Hourly Arrivals  
April - September 2015

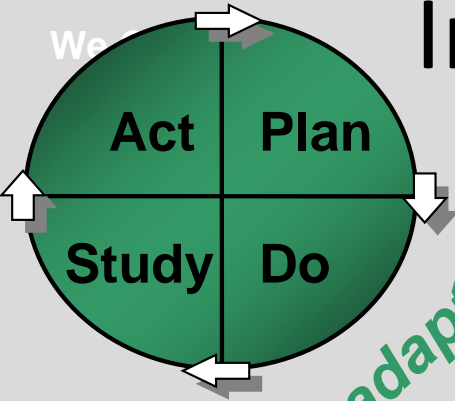


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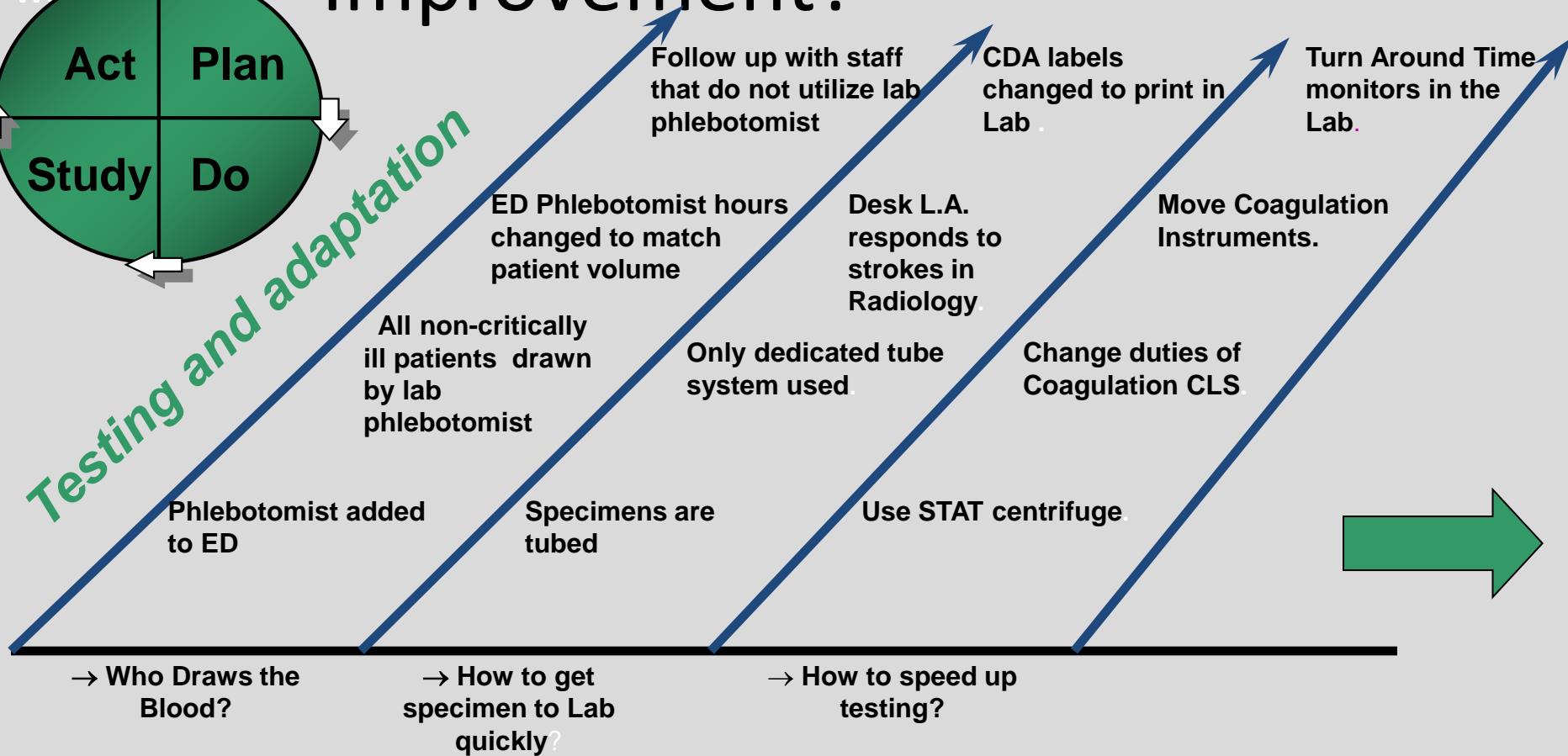
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# What Changes Lead to Improvement?



*Testing and adaptation*



# How Will We Know a Change Is an Improvement?

## Family of Measures

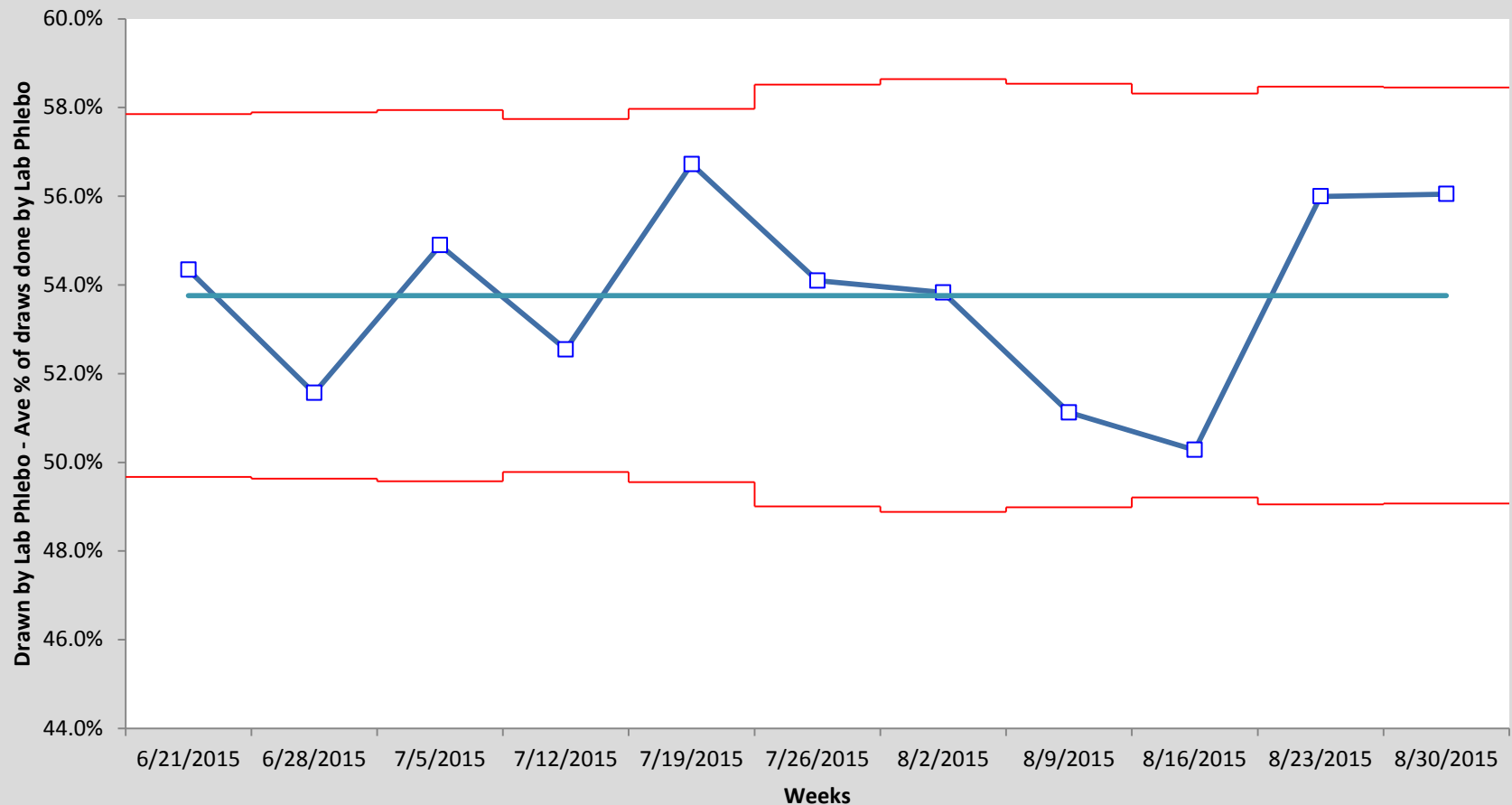
Measure	Operational Definition	Type	Data Collection Plan
MD order to specimen draw	The time between when order is placed in HC and specimen is drawn.	Process	<ul style="list-style-type: none"> <li>Weekly RILIS reports.</li> </ul>
# of ED patients drawn by ED phlebotomists.	The percentage of patients in the ED drawn by the Lab phlebotomists will be monitored	Process	<ul style="list-style-type: none"> <li>Daily RILIS reports.</li> </ul>
Specimen received to test completion	The time between when test is received in Lab LIS to completed in Lab LIS	Process	<ul style="list-style-type: none"> <li>Weekly RILIS reports.</li> </ul>
Overall TAT from MD order to test completion	The time between when test is ordered in HC and resulted in Lab LIS	Outcome	<ul style="list-style-type: none"> <li>Weekly RILIS Reports.</li> </ul>
# of ED blood culture contaminations	The frequency that the PT test is the last test before patient discharge	Balance	<ul style="list-style-type: none"> <li>Regional Monthly RILIS Reports</li> </ul>
PT TAT from door to test completion	JC standard of tracking when patient arrives in ED to PT test completion	Balance	<ul style="list-style-type: none"> <li>Stroke Committee audits</li> </ul>



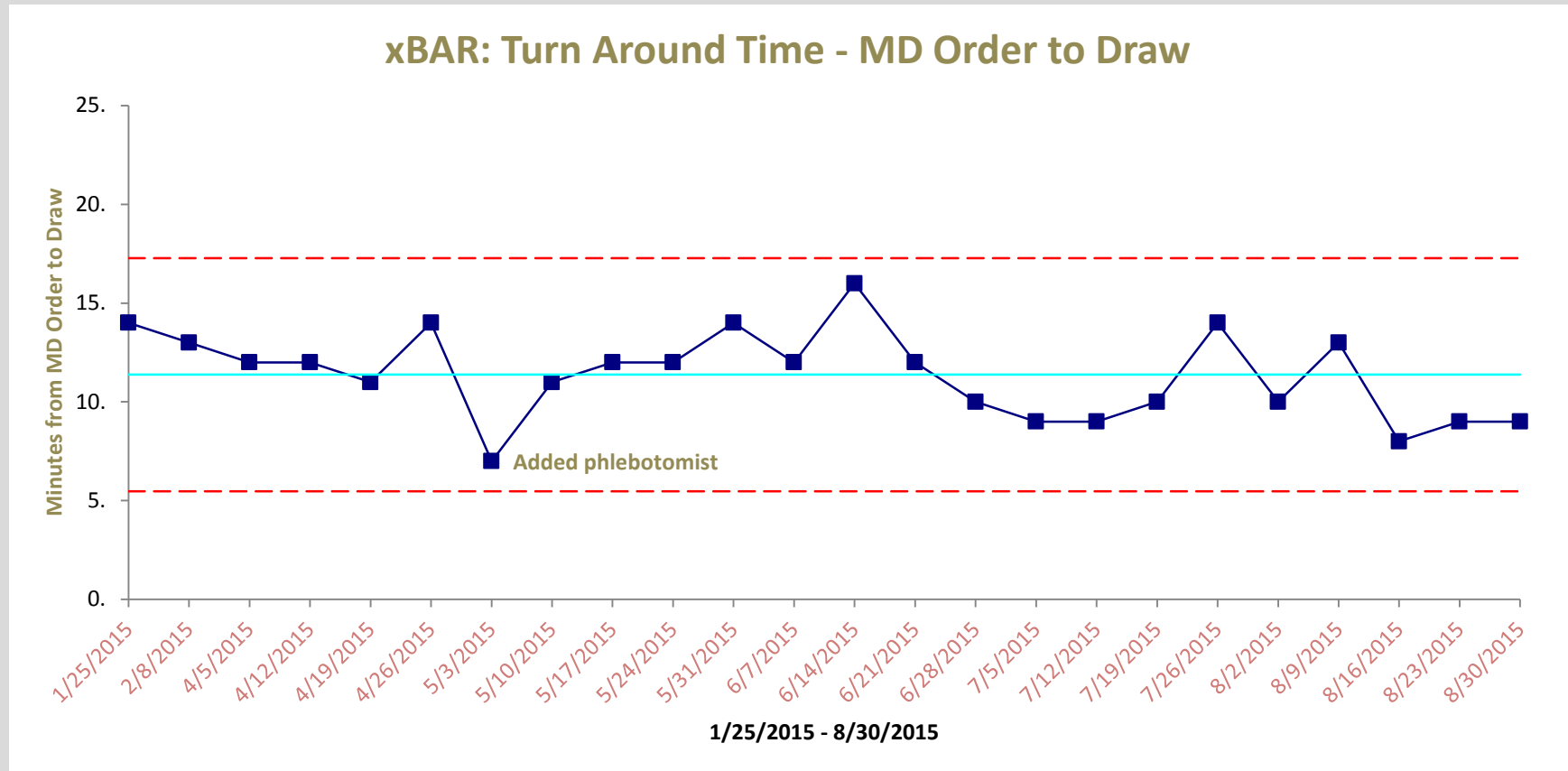


# Process Measure: Shows average weekly percentage of ED draws performed by the Lab Phlebotomists.

Drawn by Lab Phlebo / Ave % of draws done by Lab Phlebo p Chart

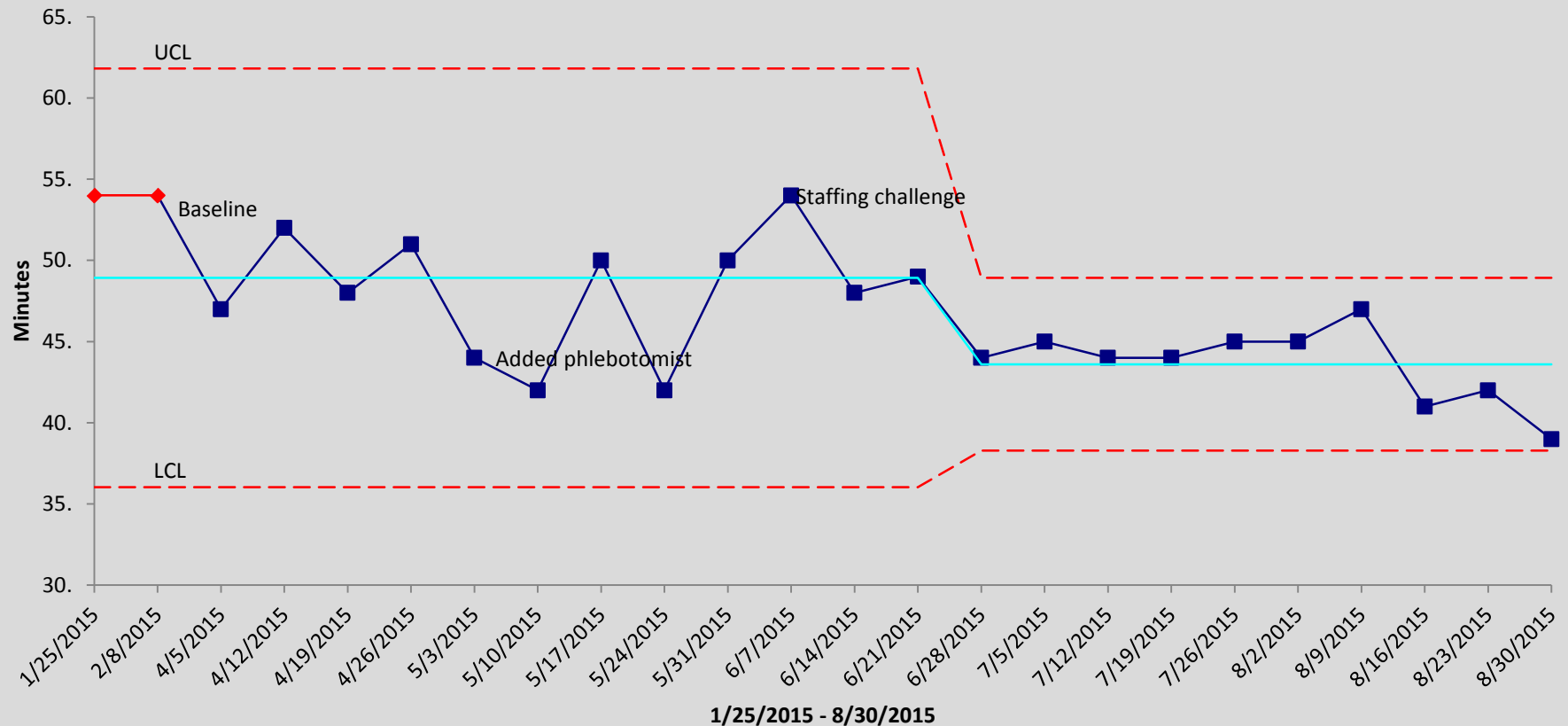


# Process Measurement: Shows the weekly average time from MD placing the PT order to patient being drawn.



# Project Outcome Measure: Weekly average ED STAT Protime TAT from order to result.

xBar Chart : ED Protime TAT - Outcome Measure



# Control Plan–Monitoring for Sustainability

Metric	Metric Definition	Measurement Method	Measurement Frequency	Goal	Control / Monitoring	Reporting Frequency	Alert Flags	Action
TAT Order to draw	Average Time of draw – time of order	Data from RILIS PT ED STAT TAT Report	Daily & Weekly	10 min	Report is run weekly	Reviewed when outcome metric not met.	>30 min	Notify Supvr & root cause
TAT recv'd in Lab to test result	Average Time of test result – time recv'd in Lab	Data from RILIS PT ED STAT TAT Report	Daily & Weekly	15 min	Report is run weekly.	Reviewed when outcome metric not met.	>45 min	Notify Supvr & root cause
TAT Order to test result	Average Time of test resulted – time of order	Data from RILIS PT ED STAT TAT Report	Daily & Weekly	45 min	Report is run weekly.	Outcome measure reviewed Every two weeks at meeting	> 2 hours – review above metrics	Notify Supvr & root cause

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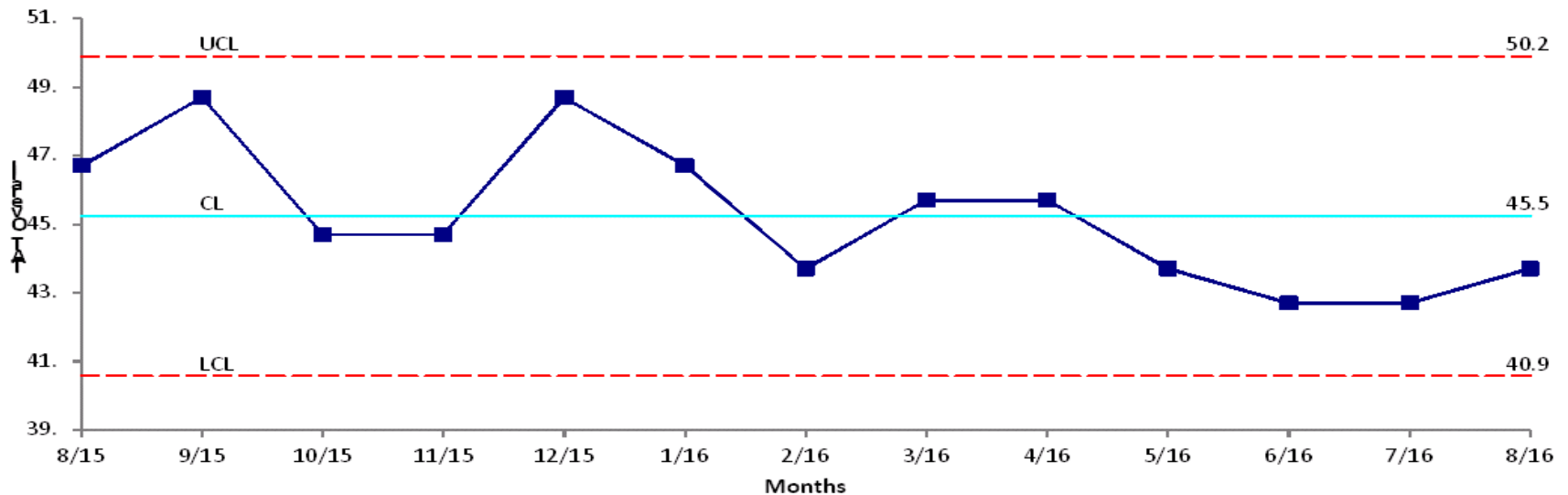


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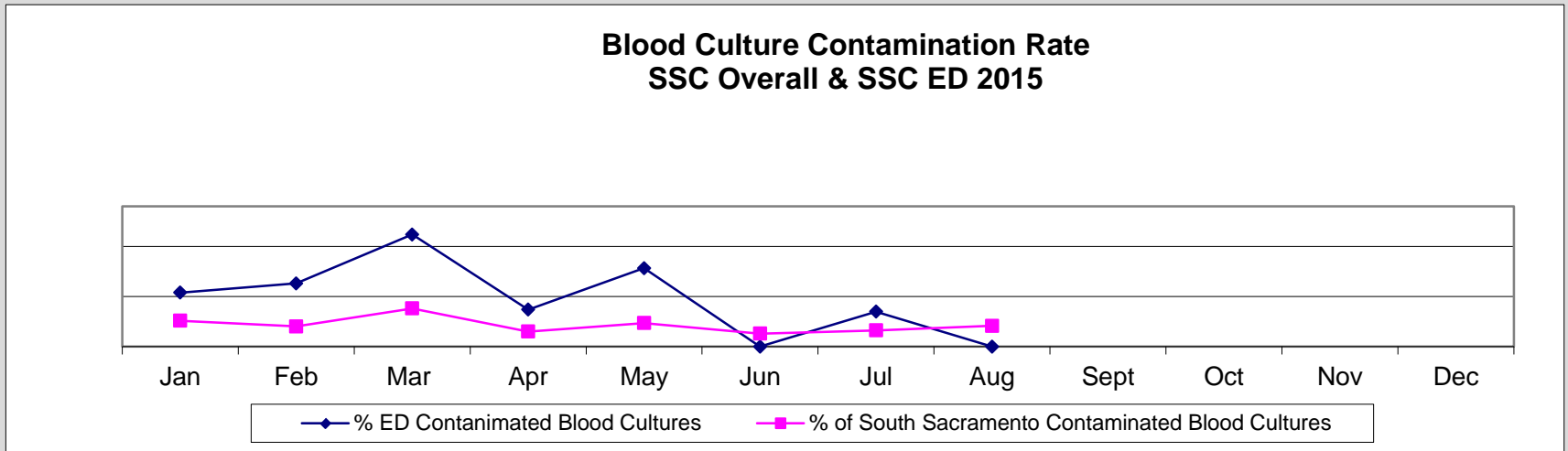
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# ED STAT Protime TAT sustained

Monthly Average Protime Stat TAT



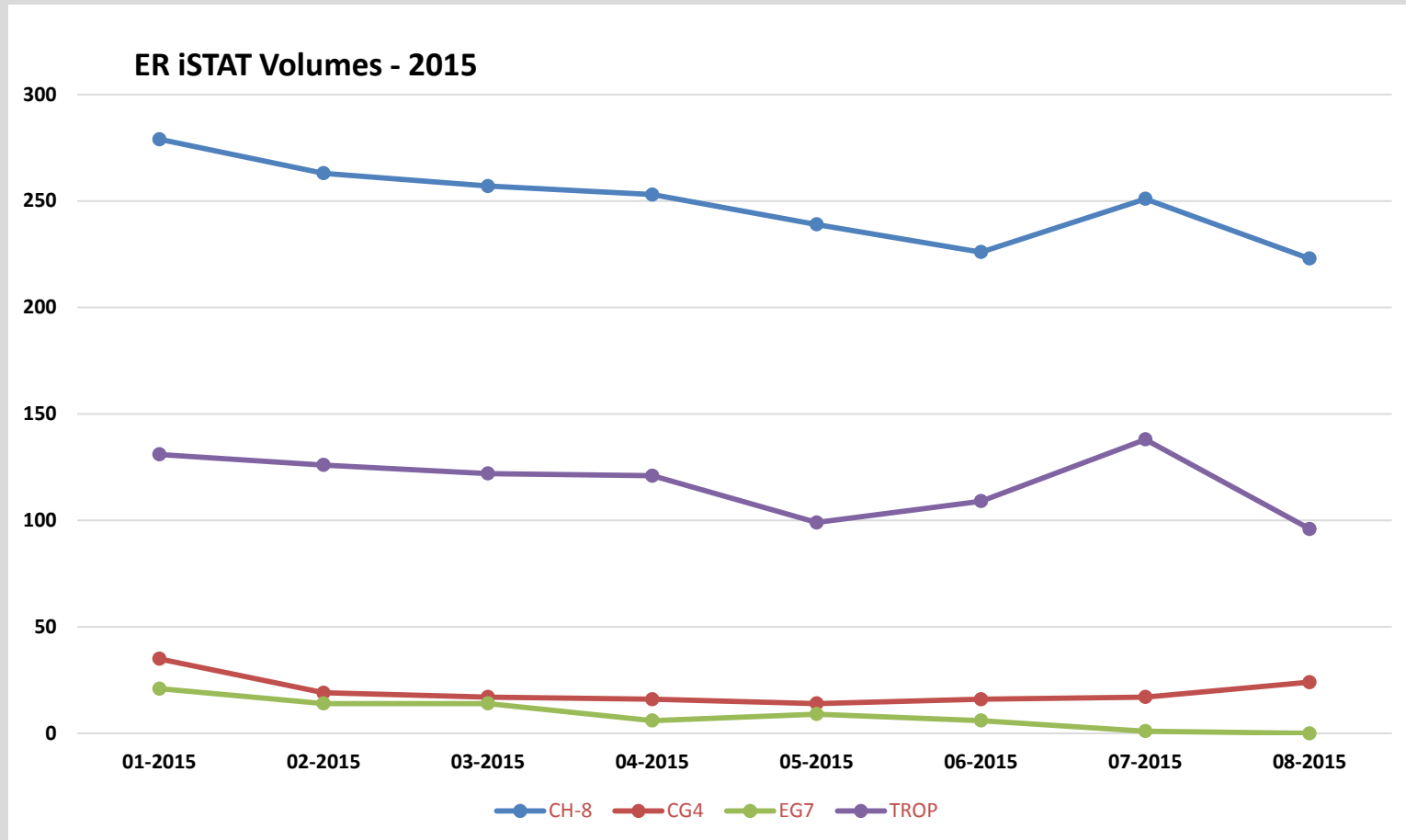
# Balancing Measure: ED Blood Cultures Contaminations



ED Blood Culture Contamination Rate was 0% two of the last three months of the project.

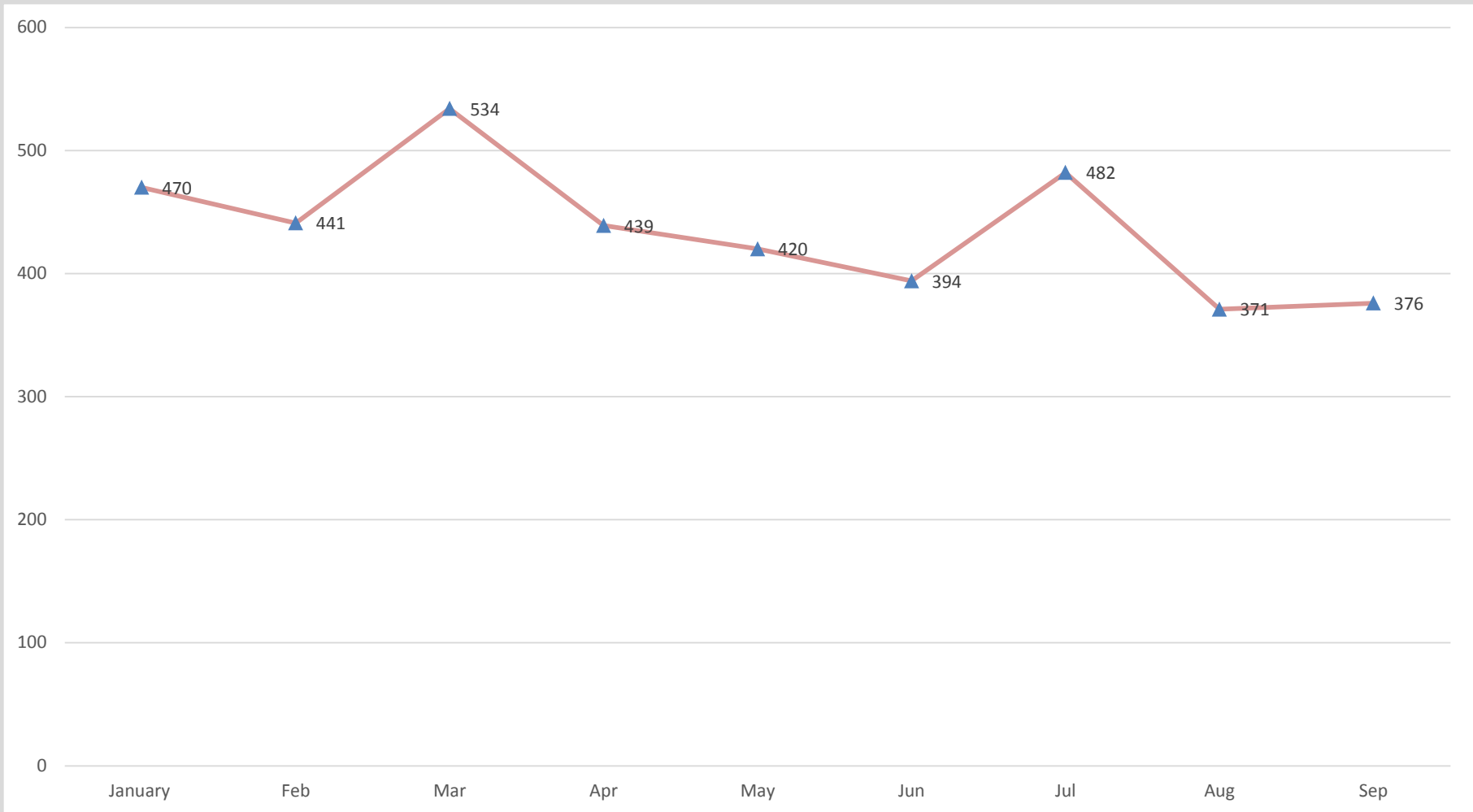
# Balancing Measure:

## ED iSTAT Usage – 26% reduction!





# Total ER IStat Usage Report 2016



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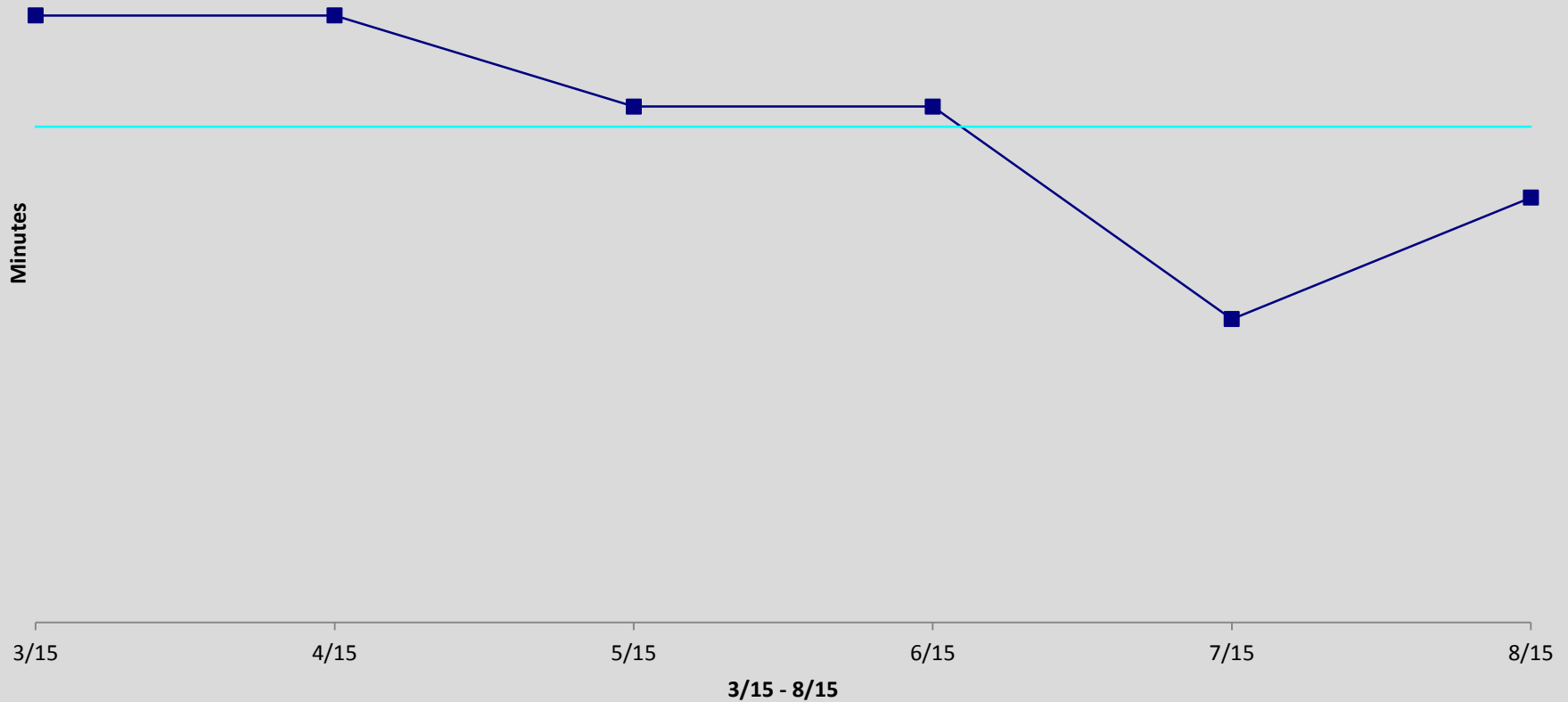


# ED Physician Feedback

- Champion Support: “A mosquito sneaks in and sucks your blood before you even know they were there. Over the past few weeks I have scarcely put in orders and the mosquito flies in and out before I am done interviewing the patient (not even an ouch) and often the labs are back after seeing the next patient. This trial with additional lab techs has been "phenomenal" just from an efficiency standpoint but when you add in the contamination and hemolysis issues it becomes even more helpful. We love the "mosquito" lab techs They are making a huge impact!!!!”
  - ED Chief.
- “Fantastic- you guys are amazing!” - Assistant Physician In Chief (PIC) over ED.



# ED LOS Acuity Levels: 1-3



6 minute improvement! 2600 less patient hours or 108 less patient days.

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# Lessons Learned

- Need RN Buy-In:

RN Survey monkey response: “Now I can spend more of my time doing other nursing tasks like education, meds, disposition etc. instead of worrying about their blood draw”.

- ED Phlebotomist can become a respected part of the patient care team with pictures on wall and a communication channel.
- Standardized workflows.
- Establish priorities.



# What went well.

- Physician engagement
- Leadership support
- Improvement advisor training

# What could have been better.

- More RN representation
- Committee member from off shifts



# Spread

- Regional Lab Quality – New Regional Goal of 15 minute Stroke PT TAT From Lab Received to Test Completion.
- Regional Lab Quality – Decision to move away from Point Of Care Testing for Stroke PT.
- Beginning of Collaboration with L/D and Perinatal with Pilot of Lab Phlebotomists drawing all specimens of Non-critically Ill Patients.



# Thanks To:

The ED PT Project Team

The Improvement Advisor Team

The Sponsor: AMGA

The Champions: Chief of ED & Assistant PIC

Front line staff:

Lab Clinical Lab Scientists

Lab Phlebotomists

ED RNs

ED Techs

Lab Assistants





# 2016 CLMA-Increasing Clinical Effectiveness Winner!



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# Questions ?

