



# Clinical Safety & Effectiveness Cohort # 13

**Optimize Call Center Operations to Improve Efficiency**



**Educating for Quality Improvement & Patient Safety**



# **The Team**

**»John Calhoon, MD**

**»David Abramson, MBA**

**»Debbie Gold**

**»April Lopez**

**»Aileen Wilkinson**

**»Facilitator: Edna Cruz**

# What Are We Trying to Accomplish?



## OUR AIM STATEMENT

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Place incoming referring physician calls in the appropriate CT authority within 1 minute, 90% of the time, by January 2014.

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# Project Milestones

- |                                  |                    |
|----------------------------------|--------------------|
| • Team Created                   | August 2013        |
| • AIM Statement Created          | September 2013     |
| • Held 1st Team Meeting          | September 17, 2013 |
| • Background Data                | October 2013       |
| • Workflow and Fishbone Analyses | October 2013       |
| • Interventions Implemented      | December 2013      |
| • Data Analysis                  | December 2013      |
| • CS&E Presentation              | January 2014       |

# Background

- Optimize the referral interactions between referring physicians and UT Medicine Cardiothoracic Surgery.
- Minimize difficulties associated with finding appropriate faculty surgeon on-call.
- Minimize ability for referring physicians to circumvent existing systems in place.
- We anticipate pushback from faculty and staff normally encountered in making changes to existing systems.
- Leadership is supportive of the need to make changes.
- I believe if we are able to make our call schedule work easily and get appropriate on-call faculty on the phone reliably and promptly, the work will serve as a template for UT Medicine.

# How will we know that a change is an indeed an improvement?

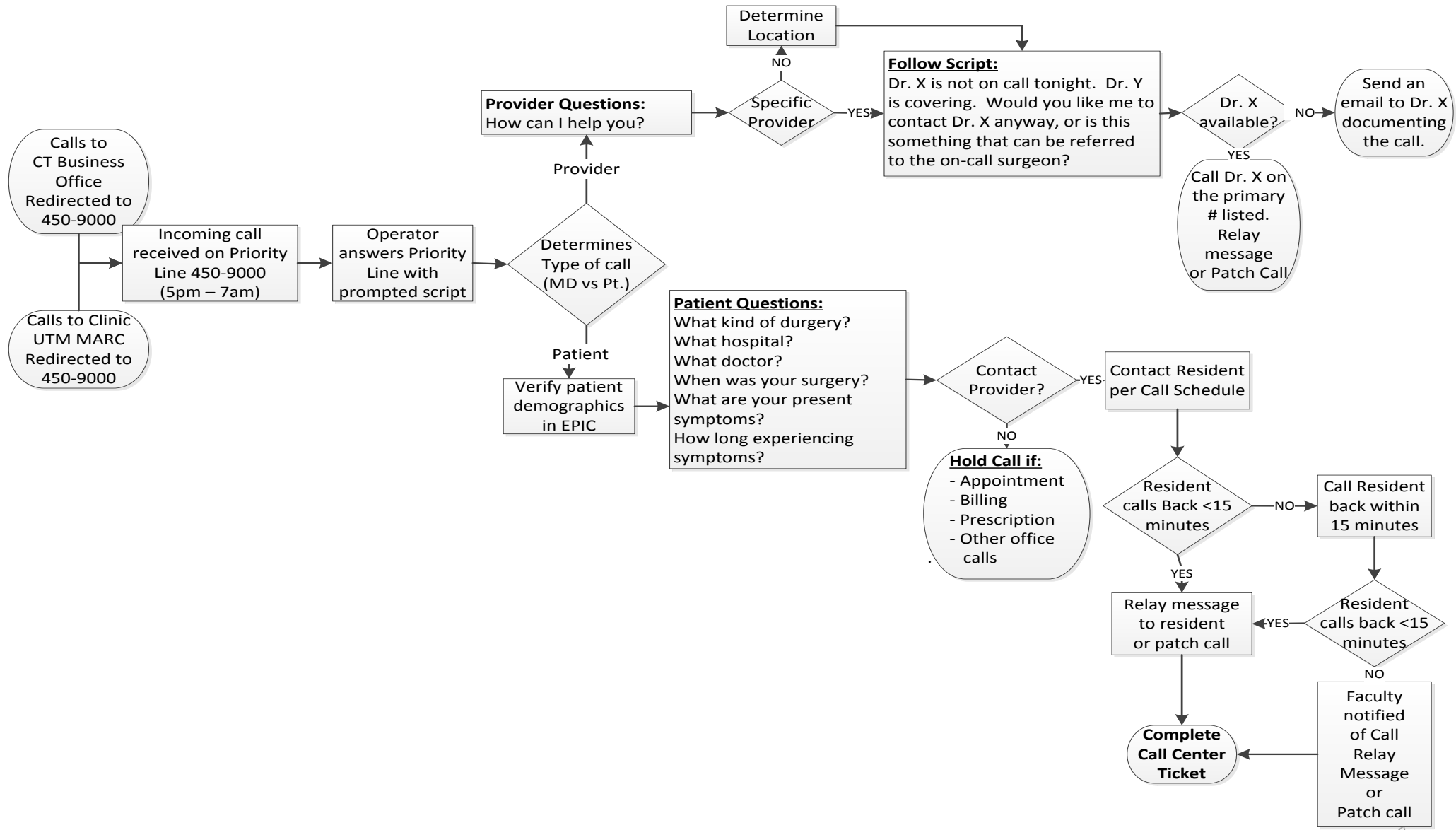
- **Types of measures** – The measure is quantitative in nature with a multiple timed series comparison of pre and post intervention results.
- **How you will measure** – The Return Call Cycle Time is collected on each call and measures the Date/Time call received to Date/Time of call returned by the on-call physician.
- **Specific targets for change** – The target set within the Aim Statement is to place incoming calls into the appropriate CT authority within 1 minute, 90% of the time, by January 2014.

# **What Interventions Can We Make That Will Result in an Improvement?**

Outline the changes that will be implemented by the UT Medicine Call Team and Cardiothoracic Surgery.

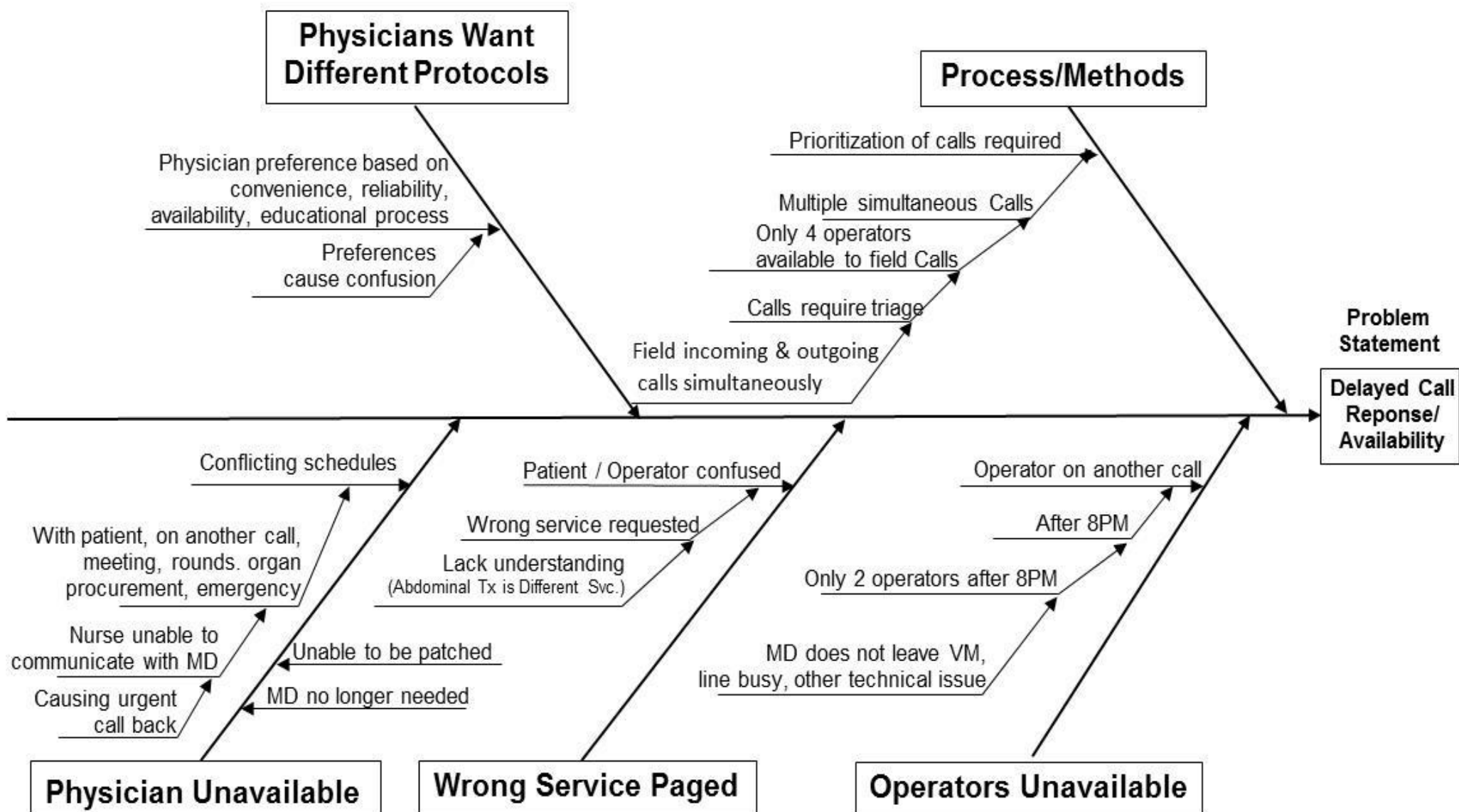
Determine findings from your process analysis tools, decision-making tools and relevant organizational factors.

# University of Texas Medicine – CT Surgery – Optimizing the Call Center System -- Flowchart



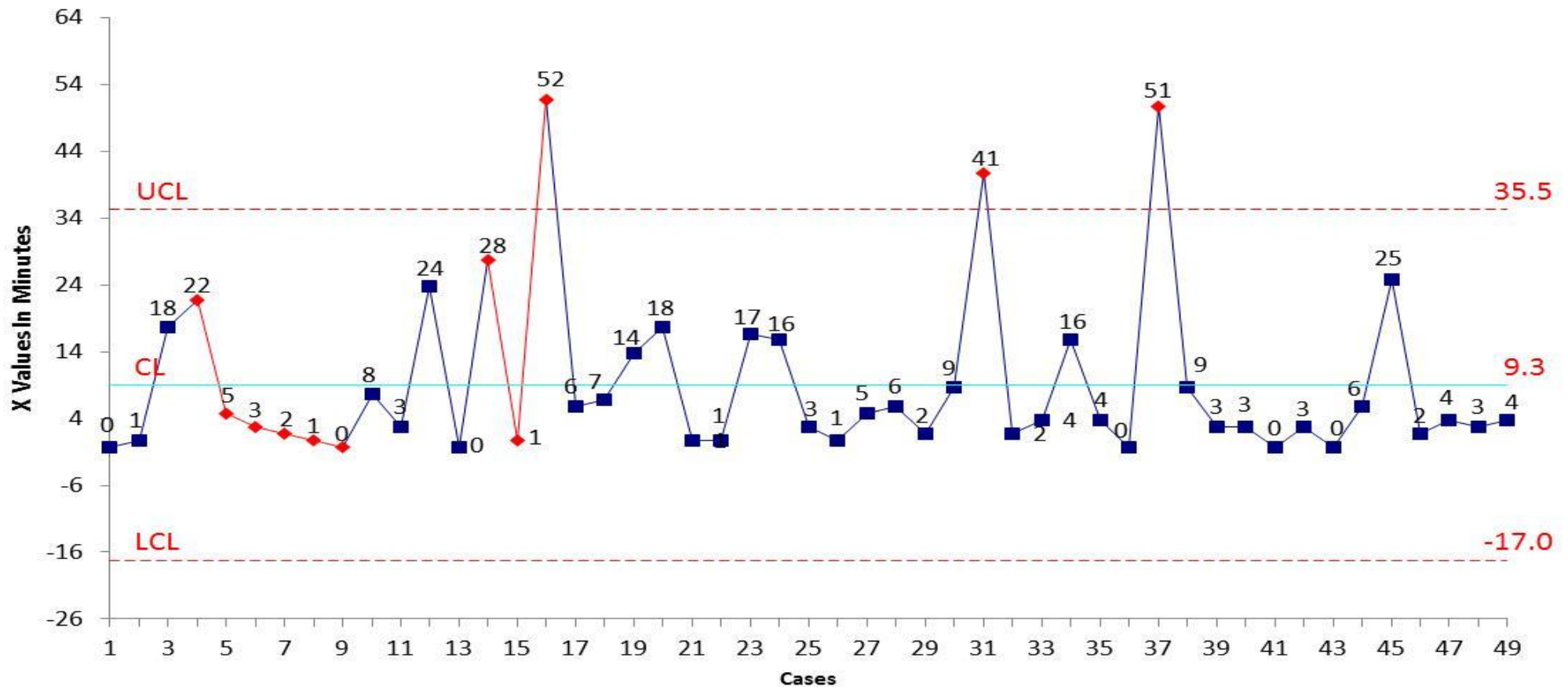


# UT Medicine - CT Surgery - Optimizing Call Center Cycle Time -- Cause & Effect Diagram



# Pre-Intervention Data

CT Surgery Call Center Cycle Time  
Page to Page Return Cycle Time  
Mean (X) Chart  
Data Range: Jul - Aug 2013  
n=49



# Pre-Intervention Data Con't

Pivot Table - Jan - Aug 2013				Pivot Table - Jul-Aug 2013			
Labels	Count of Calls	Sum of Page to Page Return Cycle Time	Avg of Page to Page Return Cycle Time	Labels	Count of Calls	Sum of Page to Page Return Cycle Time	Avg of Page to Page Return Cycle Time
5PM-11PM	131	847	6.5	5PM-11PM	30	221	7.4
11PM-7AM	60	857	14.3	11PM-7AM	19	233	12.3
Grand Total	191	1704	8.9	Grand Total	49	454	9.3

Descriptive Statistics Jan - Aug 2013		Descriptive Statistics Jul - Aug 2013	
Mean	8.8	Mean	9.3
Standard Error	0.9	Standard Error	1.8
Median	3	Median	4
Mode	3	Mode	3
Standard Deviation	12.6	Standard Deviation	12.5
Sample Variance	159.5	Sample Variance	155.7
Kurtosis	5.2	Kurtosis	4.4
Skewness	2.3	Skewness	2.1
Range	59	Range	52
Minimum	0	Minimum	0
Maximum	59	Maximum	52
Sum	1600	Sum	454
Count	182	Count	49

# Intervention Plan

- Primary Contact Medium will be Cellular Telephone.  
Backup after 2 attempts will be Pager
- Standardized Call Algorithm for Adult Cardiac & General Thoracic Surgery

# Implementing the Change

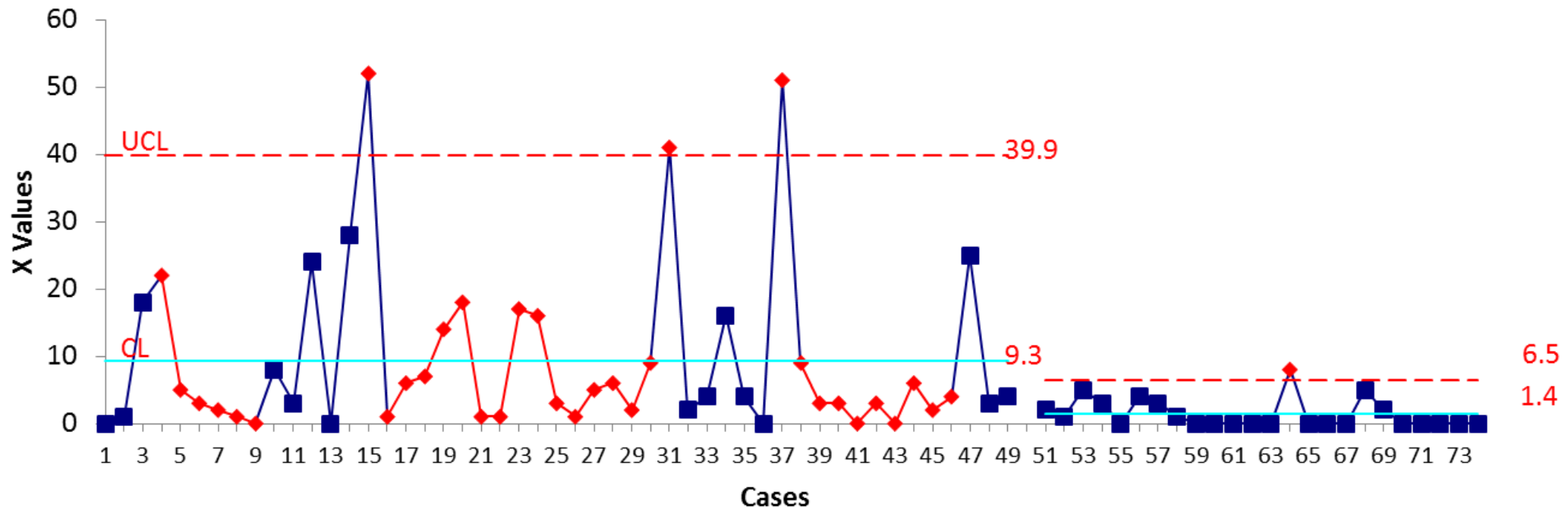
- Led Meeting with Cardiothoracic Surgery Faculty, Residents & Staff to Communicate Changes in Call Center Protocol on Thursday December 5<sup>th</sup>, 9:00am.
- Outline Proposed Intervention Strategies.
- Answered Questions and Addressed Concerns.
- Asked for Feedback the following Thursday.

# Implementing the Change

- Led Meeting with UT Medicine Call Center on December 18<sup>th</sup> with Call Center Director Debbie Gold and Supervisor, April Lopez.
- Asked John Calhoun, MD & HelenMari Merritt, MD to illustrate how call center operations play a critical role in the quality of care patients receive.

# Results/Impact

Page to Page Return Cycle Time  
Mean (X) Chart  
Mean (X) Page to Page Return Cycle Time in Minutes



**Intervention Implemented 12/18/2013**

# Expansion of Our Implementation

## **Act**

There is potential to expand the intervention strategies across the clinical practice as there are cost savings, measures of efficiency and increased effectiveness.

There is an opportunity to improve customer service to referring physicians and patients, optimizing speed and response time.



# Potential Return on Investment

The Return on Investment can be measured in the potential benefits derived and costs avoided as described below:

- Potential Referring Physician Satisfaction
  - Ease of Referrals
- Increase & Measurable Level of Efficiency & Effectiveness
  - Standardized Call Center Operations
- Improved Productivity
  - Potential for Reduced Staffing

# Conclusion/What's Next

- There was an 85% improvement in call response time.
- There was a 43% improvement in the number of calls that were routed to the appropriate faculty physician within 1 minute.
- 66% of calls met the project aim as describe above.
- The intervention strategies can be easily implemented across most disciplines in the practice plan.
- The call algorithms promote measures of efficiency through standardized operations and a significant reduction in the reliance on pagers and reduced expense associated with redundant methods of communication.

# Thank you!



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