Our Lab's Journey To One Piece Flow: Why it's Important to Move Upstream to Specimen Collection

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# Learning Objectives

- Empower you to impact change outside the traditional boundaries of your lab
- Invite you to engage your customers in helping you reduce lab TAT of results
- > Help reduce your OT
- > Build Stronger Customer Relationships

# Franciscan Health System

#### Part of CHI (Catholic Healthcare Initiatives)

- St. Joseph Medical Center-Tacoma (our "HUB")
- St. Francis Hospital Federal Way, WA
- St. Clare Hospital Lakewood, WA
- Enumclaw Regional Hospital Enumclaw, WA
- St. Anthony Hospital Gig Harbor, WA
- > Member of PacLab Network Labs
  - Have 13 Patient Service Centers and 3 IOPs
  - Serve 17 LTC and ~700 Assisted Living facilities

## My History with PI

- > Trained as an RPI Facilitator about 5 yrs ago
- Trained as a Work-Out / Change Agent about 3 years ago (GE Model)
- Got my start conducting RPIs in preparation for a lab remodel and installation of Total Lab Automation (BCI) as we knew we had to clean up some processes or run the risk of automating "bad processes"
- I got the bug and have continued to find things that I felt we could do better so continued with more RPIs and Work-Outs



# SJMC Demographics

- > 340 acute care beds
- > SJMC averages 55,000 ER visits/year (~150/day)
- > Very busy Dialysis Center & Trauma Unit
- SJMC is core lab for 4 of the system's hospitals and all of the Outreach work
  - 2.1 million billables / year
    - ⇒ 55% of our volume is Outreach
- > 14000 s.f. lab



# Why am I here today?

- Want to share my passion for Process Improvement Initiatives and their impact on our lab
- To invite you to think beyond your normal scope and consider how your customers can help you serve them better
- My team and I have realized some great changes in our relationships with our customers and in the service we can offer

# If you want lasting change

#### > When choosing PI initiatives:

- Be deliberate in what you tackle first
- Plan for a BIG win...everyone is watching
- Suggest Big Bang or Low Hanging Fruit
- Use each successive initiative to gain momentum
  - Involve new members of your team on each initiative
  - Recruit new "Change Agents"
- Resolve to affect a culture change
  - You know you "have arrived" when...



- Your work groups beat your door down to beg you to fix X,Y,Z
- Your team wonders why other departments in the hospital don't "get it"
- Your team expresses that if we don't all work together to help the patient we aren't doing our best work to serve them
  - "We can't do it without their help, can't you just make them change?"
  - My pat answer...we can't tell other departments how to do their work...or can we?

# An Intriguing Idea



- The questions my staff was asking got me thinking...
- Could I have been missing something all along?
- What if we engaged touch-points outside the lab and include our customers?
- > Where is our greatest opportunity?

# Lots of great data...now what?

- > Labs excel at collecting data
- What are you doing with the data?
  - Use it or stop counting
- Go to GEMBA often and ask yourself what do you really see?
  - Bottlenecks?
  - Ringing phones?
  - Variation?
  - Stress?



# What not to do with your data!





# TLA is single piece flow...

- ...yet we were feeding the line in batches
- Two very busy campus PSCs were delivering samples in big batches and dropping them off
- Samples sat in processing until someone had time to transfer samples to line racks
- Long Term Care Phlebotomists were dropping off about 120 draws every morning at about 0900 for Specimen Center to also put on the line
- Samples piling up waiting to be placed on the line



# Let your data lead the way

- > Allowed out data to point out next project
- > A great "opportunity" is identified in the high # of hold overs we have every day
  - Number of samples not sent to reference lab day of collection but held over to next day
  - Need to compete with National Labs
- > Associated with largest amount of OT by a single work group
  - Team of 5 with 50 hrs OT/pp



- > OT and hold-overs due to late delivery schedule of couriers
- Couriers pick up according to schedule established by marketing at account setup
- Facilitated an Out Patient Processing RPI and invited
  - Processors
  - Couriers
  - Marketing

# **OPP RPI / Scope & Target**

SCOPE: From specimen pick up to sample delivery at bench or line for testing

#### ≻TARGET:

- Decrease number of hold overs
- Decrease overtime
- Level the workload

## **Pre-RPI Scan Reveals**

- Workload studies show that there are many peaks and valleys and that lab's activity very directed by drop off schedule of couriers
- Couriers are on the road for many hours holding many samples while continuing to pick up more
   Lab staff sit idle waiting for big drop off
- Couriers are frequently within a few minutes of the hospital and yet drive by without dropping off
- Many clients have scheduled pick ups for after 2000 hrs yet offices closed with samples sitting in a locked box for hours
- When marketing asked about this we are told, "well, couriers can be everywhere at 5, right?"
- Late box is picked up at 2200 for a midnight flight to PAML

## Immediate Changes Implemented

Courier schedules are revamped so that

- Samples delivered to the lab every hour no more big "down time"
- Courier is never out holding samples for more than 2
  hours without dropping off at lab
- Last sample drop off target of 2100 established
- Late box pick up for shipment to reference lab is changed to 2300 giving us an extra hour to process samples and add them to the box
- Oh yeah, couriers no longer report to Security; They report to the lab ©

# What we accomplish

- > Holdovers reduced to from >100/day to <20/day
- > OT drops from 50 hrs/pp to less than 3
- Accountability
  - Hand held devices for courier to track each requisition
  - Accountability Stamp we know who touched every sample through every step of the process
- > FIFO
- Establish One Piece Flow for Outreach samples avoiding back-ups so IP and STATs are never delayed
  - "Feed the line" every 15 minutes

# Unanticipated benefits...

- With couriers reporting to the lab we now are more in control of their interactions with our customers
- Critical Values can be called at a more reasonable hour
  - No more 0100 critical fasting glucoses to call...
- Have capacity to add another quality step reviewing a pending report before OP Processors clock out so follow up can be started right away if needed

# A move to engage customers in Quality Initiative

- Roll out education for our clients with help of marketing so that:
  - Every sample has 2 patient identifiers
    Went from 277 month with single identifier to less than 13
  - Worked with Client on how to fold requisition so couriers don't have rework to unfold and refold requisitions to scan barcode
    - From 310 failures month to 20
- Have engaged our clients in providing quality step in exchange for great tracking ability and decreased phone calls to verify patient demographics
  - All win-win initiatives

# Next great opportunity...ER

- Our data reveals that greatest number of complaints come from Emergency Department
  - How can this be? They have the most closely monitored TAT
  - Our perception is that we meet established targets greater than 95% of time
  - How could something so good be so wrong



# A closer look reveals

- Classic debate: When does the clock start?
  - Sample receipt in lab versus test order time?
- The Process:
  - ER staff collect sample and drops them off in the StatLab which is in the ED
  - Lab Processor logs samples as received, labels the samples, and sends them to main lab for testing via PTS
  - Main lab Processors removed from PTS, place in Stat basket where they sit until samples retrieved from basket to be placed on the line or delivered for testing

# Wait Back Up the slide ...

Did I really just say...

# ... oh my, YES I did!

- Lab Processor logs samples as received, labels the samples, and sends them to main lab for testing via PTS
- Main lab Processors removed from PTS, place in Stat basket where they sit until samples are retrieved from basket to be placed on the line or delivered for testing
- > Processing time from drop off in StatLab to delivery for testing...7 - 15 minutes 90% of the time (and as much as 30+ minutes also noted!)

# **ED** Pushes for POCT

- ED wants to be able to control TATs and approaches Lab Management for POCT for TNI
- > Negotiate a deal in which we ask for an opportunity to fix the issue and promise to decrease TAT for all labs
  - Reveal that we need their help to do what needs to be done
- > Invite the ED to join us in an RPI
- > Dr Gioa Kaplan, ED Medical Director wants to be on the RPI Team
- > A blended ED/Lab team is selected and dates confirmed



# Scope and Target of RPI

#### Scope

From the time of test "order" until the time the sample is on the line or delivered to the testing bench for testing

#### Target

- To reduce the time from order to delivery to bench / line for testing
  - NIO to draw time under 15 minutes
  - Draw time to receipt in lab under 5 minutes
  - Lab receipt to delivery for testing under 2 minutes

#### **Bottlenecks-ED**

- > # of patient draws in the triage queue
- No visual to get help for ordering and drawing
- Patients needing EKG and blood draw tie up the one draw station for long time
- No consistent communication to MD/RN about when draw was actually done, or if unable to obtain sample
- > Delivery of samples to stat lab
- Timely ordering often samples in the lab without orders so testing does not begin

# **Bottlenecks-Lab**

- > Stat Lab- Logging all samples for tracking
- Holding samples and labels and tracking TATs
- > Stat lab staffing Short notice sick calls
  - At times had no replacement to cover StatLab
  - No good back up processes in place
- > Bottleneck of samples waiting in Stat Lab
- > Delivery time from PTS to testing bench

### Pre-RPI Scan Variability Cerner Order/Draw/Receipt



# **Pre-RPI** Attention to PTS

Variation in sample time to bench> 3 separate days, 36 carriers total

- 4/17/09: Average 6.25 min
- 4/24/09: Average 2.25 min
- 4/27/09: Average 4.34



# What did this team accomplish?

- Leveled the workload in both ED and Lab
- Closed the StatLab and consolidated workforce in the lab; able to level workload
- > Established visual controls for bottlenecks
- Gave lab access to ED's "white board" so we could enter comments about labs that need to be redrawn eliminating phone calls saving time for Lab and ED staff alike



# **Biggest Pay Off?**

- > The mutual understanding we gained for each others' departments
- To hear Dr Kaplan say that they won't need POCT in the ED after all
- To have the ED acknowledge their role in lab TAT and to commit to making the necessary changes
- My team feels validated and renew their commitment to best TATs possible

# The Lab is on the map...



# A Call from Hospital CEO

- She'd heard a few grumblings from one provider about morning rounds and she wanted to know if I felt sure we were doing the best we could...all the time
- I remind her that we'd done an AM rounds RPI a few years ago and felt confident that my phlebs were drawing patients in an about 3 minutes
- I round with my early morning phlebs and learn that we are still completing draws in 3 minutes but yes we have opportunity
- Work with the Director Of Med-Surg (unit that was getting the most complaints) and assemble an RPI team

# Team Gains Momentum before it starts....others beg to join

- The Lab/MedSurg RPI grows to include Critical Care and Rehab services
- > Others want to join but the team is already too large
  - We get all nursing units to commit to implement all changes the RPI team suggests
- > Pre-RPI scan is conducted and I go on a few more AM rounds

# A single barrier to success

- > In the pre-scan a single barrier is identified
- When AM phlebs come to the units to draw blood 10 - 15 minutes is used to find the nurse draw log and reconcile the orders with the nurses at each station
  - Each phlebotomist is dispatched to 3-4 different units every morning and repeat this at each unit
  - There is 30-60 minutes wasted verifying orders every day by each of 5 phlebs!
  - With each unit a phleb stopped at s/he got further and further behind so that by the time they got to Med/Surg they were 30-60 minutes late



- > RPI not needed for this issue
  - With experience you will be able to determine which tool is best in each case. The key is <u>do something!</u>
- Decision is made to use Work-Out Model
  - This is based on the fact that we had good processes in place that if followed we know would eliminate the problem
  - Greatest gain would come from focusing energy on retraining and accountability
  - Entire house could standardize practices and all our patients / MDs would benefit
    - A "call to arms" Lab is invited to present to every unit's team meeting and a "Nurse's Guide to the Lab" is created









# You can Help with AM Draws

#### > Draw logs sent to floors at 1930

- Are all orders entered?
- Are the right tests ordered?
- Is it a Lab or Nurse draw?
- Cancel all duplicate orders

#### Corrected draw logs sent to floors at midnight

- Any new admits need orders?
- Have any orders changed?
- Cut Off for all orders 0200
  Anything ordered after 0200 will be collected at 0700
- Leave copy nun dessignated area at the nurse's station for AM Phleb
- Implement lime green "Lab Communication" baskets

# Did you know...

- > Order of draw matters! Must be:
  - Blood Cultures, blue, red, gold, green, pink, purple, and gray
- Labeling tubes at the bedside by the person drawing the blood is a best practice
- Have you ever considered comparing STAR label to patient's armband before a blood draw?

# What we've accomplished

- Increased awareness on everyone's role in lab TAT
- Increased buy in from nurses to help by carefully placing labels
- Increased monitoring of orders by NS
- Better hand-off communication process between each unit and the lab
- Standing invite to quarterly nursing staff meetings to discuss lab issues

# I hope I have convinced you -Change is Good: You go first

- Want to share a great little video with you and then end with a few closing remarks that I hope will help you in your journey to continued improvement
- I also hope you've connected with the possibilities available to you when you involve your customers

Video Presentation Change is Good: You go first

Available for free at: www.simpletruths.com

# **Closing Thoughts**

- > When you get home take time to
  - Go to GEMBA
  - Stop and Watch and
- > I am sure you will uncover...
  - Once valid beliefs and practices that have outlived their usefulness
  - Misinformation that is "out there"
  - Misconceptions that are accepted without much thought or questioning

- > Each of you is likely collecting lots of data.
  - What is it telling you?
  - What are you doing about it?
- > As leaders we need to remove barriers as quickly as we can so that our people will become convinced that great things are happening
- "On the road to lasting change, there will be many tempting places to pull over and park." Don't! Keep the momentum going!
  - Author unknown

