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MEDICINE

Incorporating Lean Methods in Hospital-Wide Patient Safety Initiatives:

What Our Lab Team Is Learning about Effective Collaboration, Changing the Culture, and Sustaining Change

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It’s Not All Fun and Games

What Do You Know About Lupus?

The Bunsen Burner

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“ I don’t work with Bunsen burners!”

The Big Question

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“How comes so many providers and other members of the healthcare team don‘t really know what we do?”

Do we also Assume that..

- Providers know what we mean when we say that the LDH and the AST have to be cancelled due to hemolysis and the other tests in the panel are OK ?
- Providers know what we mean by the specimen is “contaminated” with IV fluids ?

State of Lab Medicine Education in Medical Schools

- In 1992, the Academy of Clinical Laboratory Physicians and Scientists (ACLPS), evaluated the status of laboratory medicine education in Medical Schools.
- They estimated the amount of teaching time for lab medicine in the average curriculum.
- **It revealed that required courses were conducted in only 57% of schools.**

State of Lab Medicine Education in Medical Schools

- A study conducted in 2013-2014 published in Academic Medicine, Journal of Association of American Medical Colleges showed improvement.
- Of the 98 schools that provided responses nearly 80% was requiring Lab Medicine as coursework.

Barriers

- “Respondents reported that there was not enough time to teach lab medicine in either the preclinical curriculum (88%) or clinical curriculum (86%)”
- “Less-than-adequate time was devoted to laboratory medicine and a lack of student interest in the discipline were other disconcerting findings”.

Authors concluded:

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“the effectiveness of these courses to train physicians to practice efficient and safe diagnostic testing and ultimately serve the public remains uncertain,”

A GAP..

- How do we account for the gap and ensure
- the quality, type and number of specimens, ordered, collected and transported to the lab, are properly addressed?

We could..

- Send the hospital policy and let them know that this is policy and must be followed?
- Threaten to withhold service if things do not change?
- Give up and say that's their loss as we discuss among ourselves the importance of lab, as "70% medical decisions for diagnosis comes from the lab"?

We could..

- Ignore it as there's no need to try, what's the point if they think we are at the bottom of the totem pole?

- Believe the narrative that we are at the bottom of the totem pole and so we need higher ups, maybe a nurse to represent us at meetings etc.?

I found that…

“When we contribute to positive outcomes, in a collaborative environment, we make an impact, demonstrate value and gain influence”.

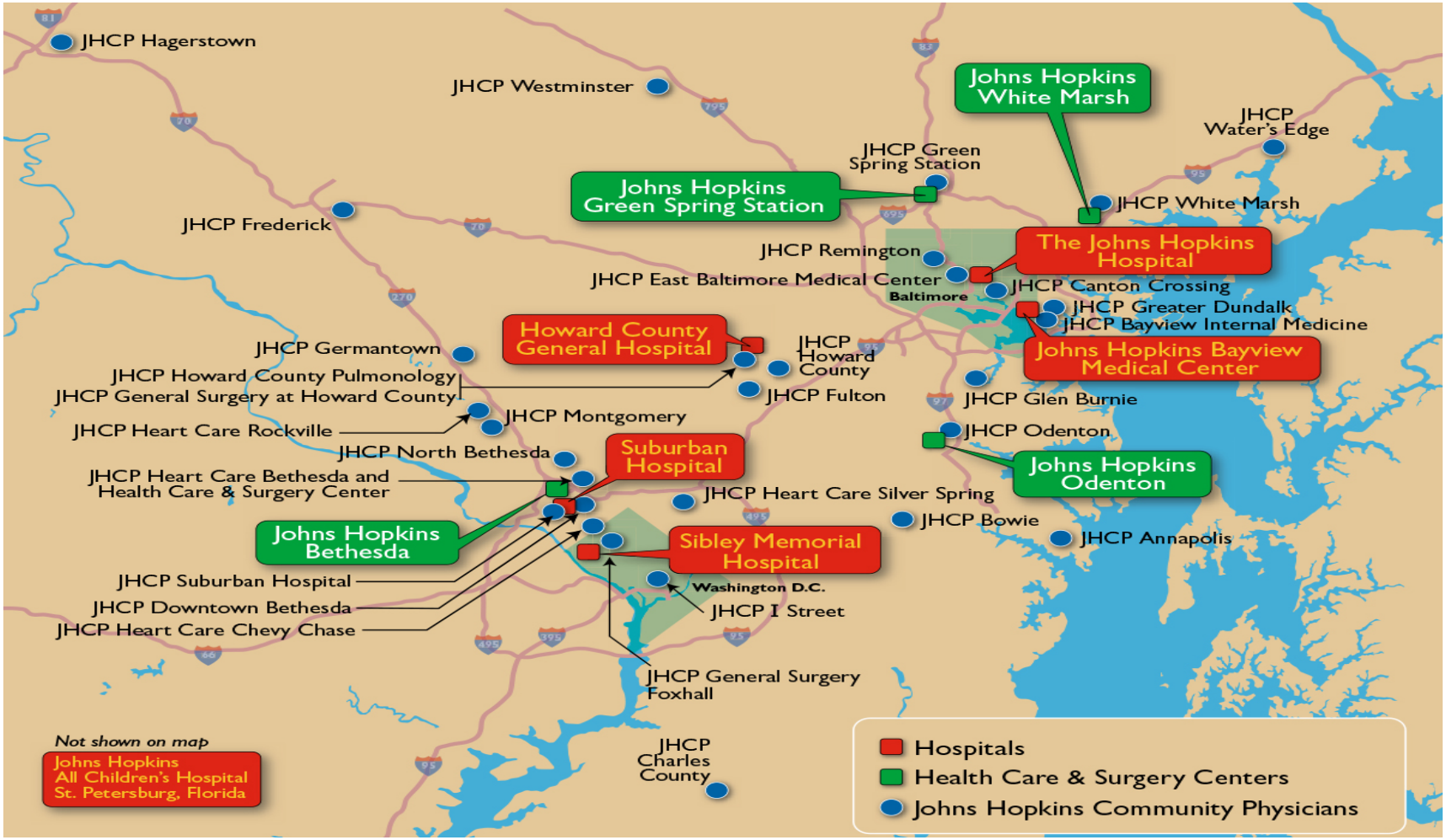
Objectives of This Talk

- Understand the need for laboratorians to show their value and align to institutional strategic goals.
- Describe the impact of Collaborative projects.
- Highlight Examples of Collaborative projects.
- Discuss Lessons Learned From Our Experience.

Why Is This Important?

- Move to value based care from volume based care.
- Value is in the eyes of the customers (patients, Providers, Payors-Medicare)
- Centers of Medicare & Medicaid Services(CMS) and The Joint Commission, set standards for what they determine to be value care.
- Monitoring and reducing chances of sepsis, stroke, Central Line Associated Blood Stream Infections (CLABSI), Patient Length of Stay etc.
- We show visibility through impactful work and projects that are aligned with these Core metrics and patient outcomes.
- We gain influence and are valued as an important part of the whole healthcare team.
- As we demonstrate our value and contribution we therefore can compete for important and scarce resources.

Johns Hopkins Hospitals and Health Care Centers



The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center (FY 2017)

The Johns Hopkins Hospital
The Johns Hopkins Hospital is the only hospital in history to be ranked first in the nation for 22 years by *U.S. News & World Report.*

1,154 licensed beds.

Johns Hopkins Children's Center
Consistently ranked by *U.S. News & World Report* as one of the top centers in the nation.

Johns Hopkins Kimmel Cancer Center
National Cancer Institute-designated cancer center; consistently ranked among the top in the nation by *U.S. News & World Report*.

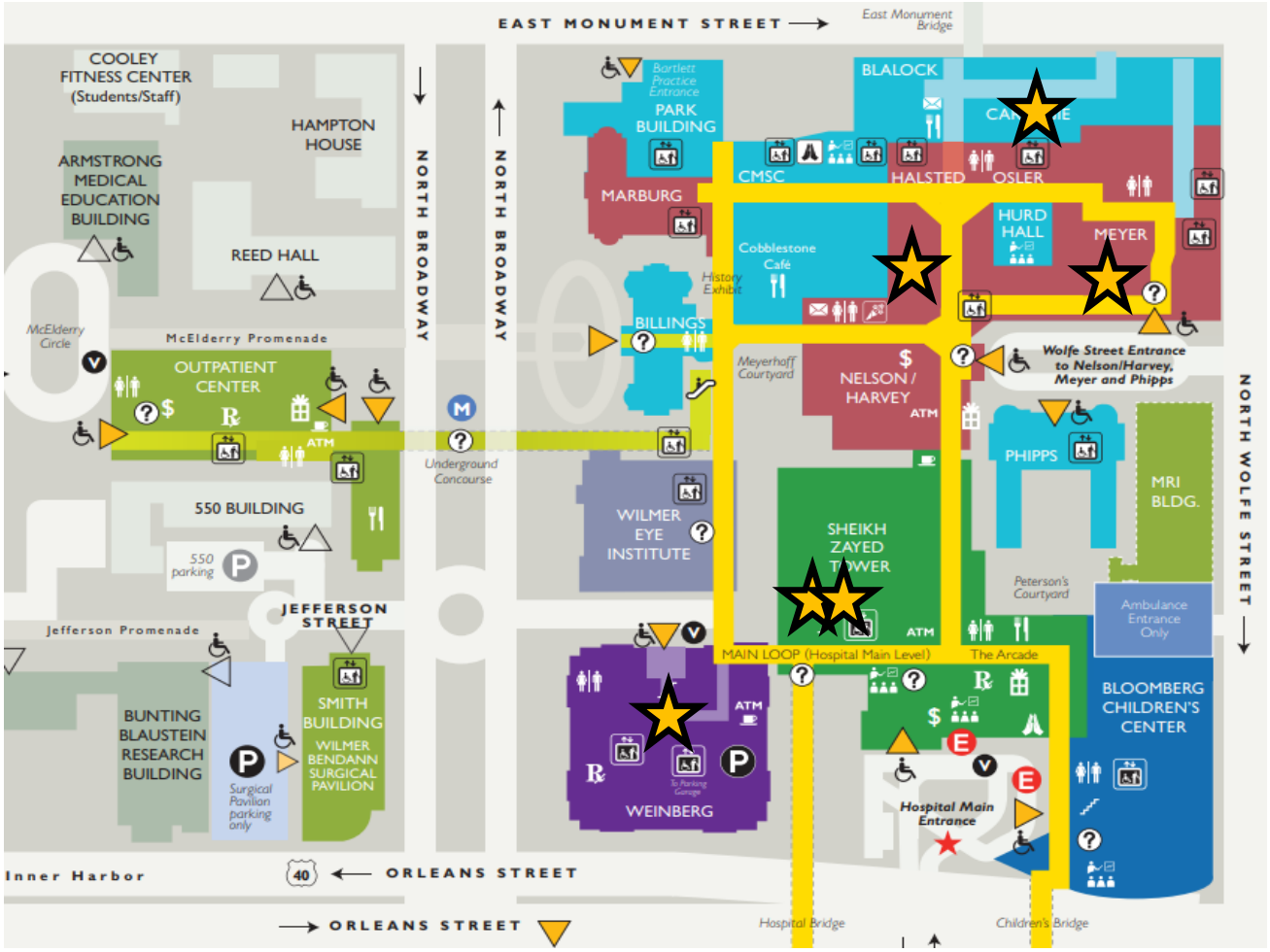
Johns Hopkins Bayview Medical Center
455 licensed beds.

Note: all licensed bed counts are 2017, including NICU

Armstrong Institute For Patient Safety

Peter Pronovost

- Peter Pronovost headed the institute 2011-2018 bringing together two Johns Hopkins groups already working on solutions—the Quality and Safety Research Group and the Center for Innovation in Quality Patient Hopkins.
- Dr. Pronovost was instrumental in developing the Comprehensive Unit Based Safety Program (CUSP) a method that can help clinical teams make care safer by combining improved teamwork, clinical best practices, and the science of safety.
- Dr. Pronovost was named by Time magazine as one of the world's 100 "most influential people" in the world for his work in patient safety.



= Lab locations

JHH Pathology Quality leadership

Pathology Continuous Quality Improvement team headed by Hazel Richardson and Jody Hooper, MD

Thomas Kickler, MD
(Core Lab co- chair)

Lydia Nelson
(Core Lab manager)

Lona Small (Core Lab QA Specialist)

So what happened after the escapades with my sister in- law….

I grew up and..

My class 70% physicians,

20 % nurses and 10 % other.

Genuine Desire To Work Together

- I worked with:
- A Chief Geriatric surgeon to convert a laboratory to Total Lab Automation.
- A Chief Nursing Officer to come up with policy and a tool to have patients make decisions on lab test selection and pricing in order to reduce test utilization.
- I worked with a hospital Chief Information Officer (a physician) to reorganize a lab section.

I confirmed that…

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“When we contribute to positive outcomes, in a collaborative environment, we make an impact, demonstrate value and gain influence”.

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REAL CASES:

PREVENTING BLOOD DRAWS ON RESTRICTED LIMBS

PATIENT SAFETY EVENTS

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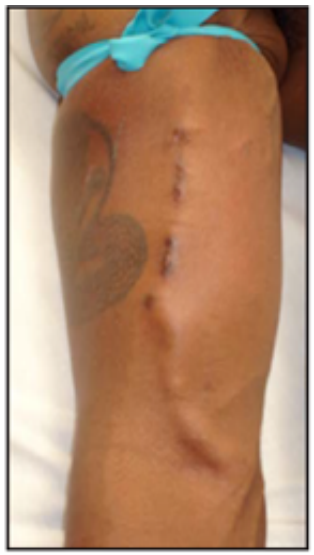
- Phlebotomy drawing or attempting to draw on restricted patients' arms.



Not seeing eye to eye

- Phlebotomy response:
- Signage for patients' restricted arms were either missing or not noticeable.

- Nurses counter:
- "Yes there were signage above the bed or somewhere in the room"

Phlebotomy CUSP team

Both Parties Agreed

- All parties wanted to make sure patients were safe
- All parties agreed that they did not want patients stuck on restricted limbs
- They agreed that the placement and type of signage should be easily visible.

Team Effort

- Facilities
- Nursing
  - Administration
  - Managers
  - Educators
- Phlebotomy
  - CUSP team
  - Management
  - staff

Hospital Wide Change

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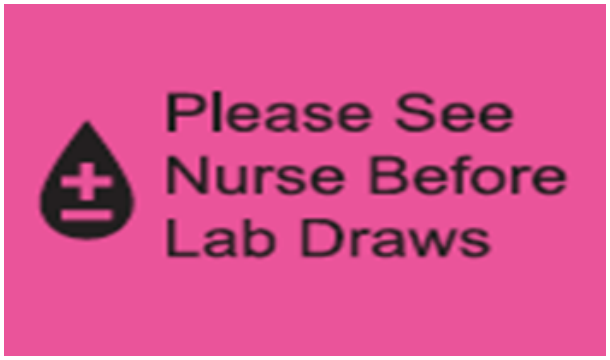
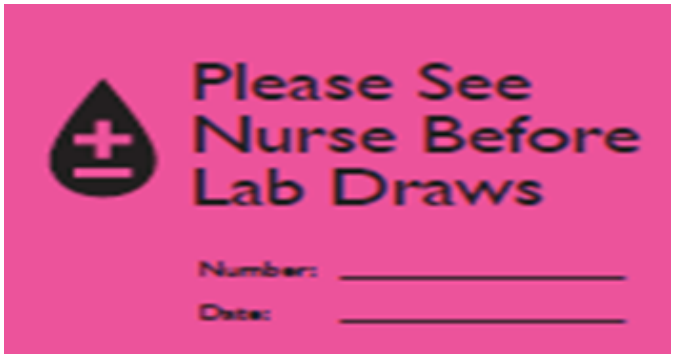




Champions Selected

- Nurse champions
  - Piloted and gave feedback on how this fit in their workflow
  - Implemented signage on their units and monitor for improvements.
- Phlebotomy champions
  - Audited implementation
  - Monitored to sustain change

Sustaining Change

- Collaborated with nurse champions and communicated the hospital-wide change, using multiple channels throughout the hospital, including Standard of Care and Patient Safety.
- Quarterly monitoring by Phlebotomy.
- Nursing administration place Kudos of the units that consistently use the signage correctly, on the Nursing Facebook page.
- Modifying hospital procedure to include signage.

ZB09W and ZB10W Winners

REAL CASES:

HELPING TO REDUCE THE RISK OF CLABSI (Central Line Associated Blood Stream Infections)

Patient Safety Issues

- Phlebotomy Complained that nurses were refusing to disconnect IV lines (as per then Phlebotomy protocol), in order for phlebotomy to collect specimens.
- Core Lab was concerned about the increase in IV specimen contamination and was already working with Department of Medicine to educate nurses in a previous Nursing Skills Day.

Not Seeing Eye To Eye

- Brought to the attention of Hospital Epidemiology and Infection Control (HEIC).
- Discovered that there was a hospital drive telling nurses, “If you disconnect you infect”.
- This was a drive to reduce the risk of Central Line Associated Blood Stream Infection (CLABSI).
- This was opposing what the lab required for quality specimens.

Focus Group

- Vascular Access Team
- HEIC team
- Phlebotomy team

Both Parties Agreed

- We all care about patient safety.
- We all want quality specimens.
- We all want to avoid cancellations.
- We all want accurate results.

Working goal: Collect specimens from patients with IV lines without increasing the risk of CLABSI, and at the same time ensure specimen integrity.

Hospital Wide Change

- Reviewed Best practice from Clinical Lab Standards Institute (CLSI)
- Made changes:
  - Pause IV lines for at least 2 min. before specimen collection.
  - Adjusted procedures for Phlebotomy and Vascular Access Team.
  - Decided on the type of waste tubes to be used by all involved.

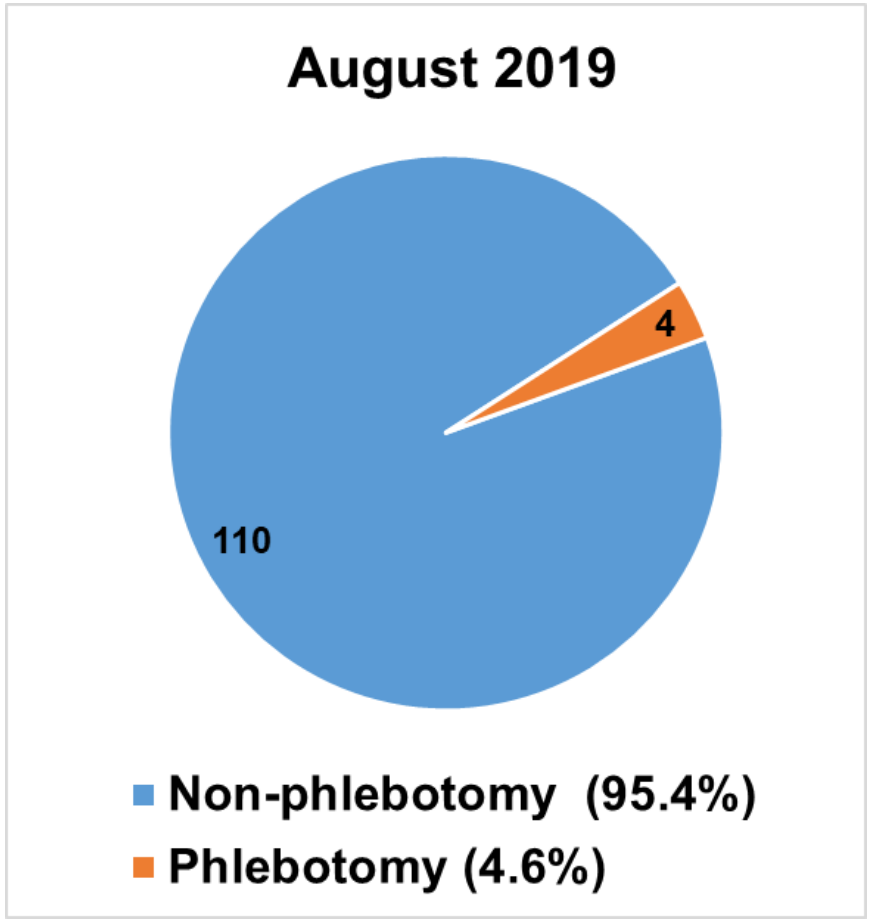
Lessons Learned

- Disconnecting IV lines for specimen collection increases the risk of CLABSI.
- Frequent entry to IV lines increases the risk of CLABSI.
- Reducing the frequency of cancellations and recollection could reduce the risk of CLABSI.

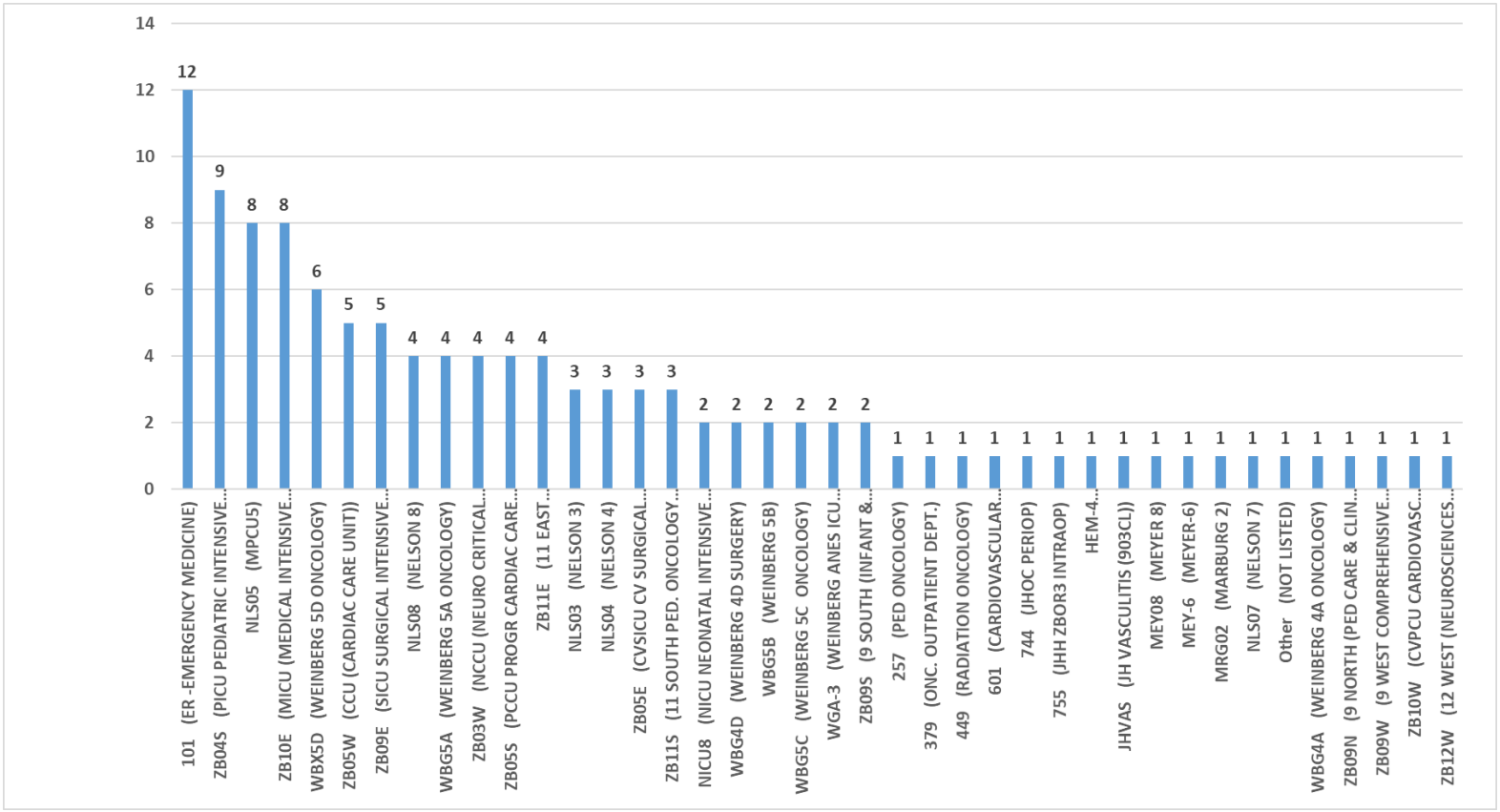
Teaming up with CLABSI champions

- **Working towards positive outcomes**
- Chemistry fellows and Quality (QA) were invited to present at the hospital's CLABSI fair.
- QA worked with the CLABSI team and presented at a monthly CLABSI champion meeting.
- Chemistry fellows now send monthly data on IV specimen contamination to CLABSI champions.

Phlebotomy vs. Non-phlebotomy



Number of cases per unit



Sustaining Change

- Modified collection procedure.
- CLABSI champions work closely with Core lab to receive data and drill down to the collectors.
- CLABSI champions follow up on drill downs, give feedback and training to units on proper specimen collection.
- Built strong partnership between Core Lab and CLABSI team with mutual help when needed.

Activity- 5 min.

- Get into groups
- Read Problem
- Answer questions
- Prepare to discuss

REAL CASES:

PATHOLOGY TEAMING UP TO ADDRESS PRE-ANALYTICAL ERRORS

Pre-Analytical Issues

Processing technicians reported many pre-analytical issues they were encountering on a daily basis with poor specimen labeling, preparation and transportation.

Agreed To Improve Acceptance Rate

- The QA office contacted unit managers and educators with an email messaging and requested that,
- “We work together to improve the acceptance rates of lab specimens that are collected and sent to the lab”.

The Communication Tour

- We presented at nursing departmental administrative meetings by sharing Tips, Tricks and Tools.
- to collect, prepare and transport specimens to the correct labs and avoid delays and cancellations.

The Communication Tour…

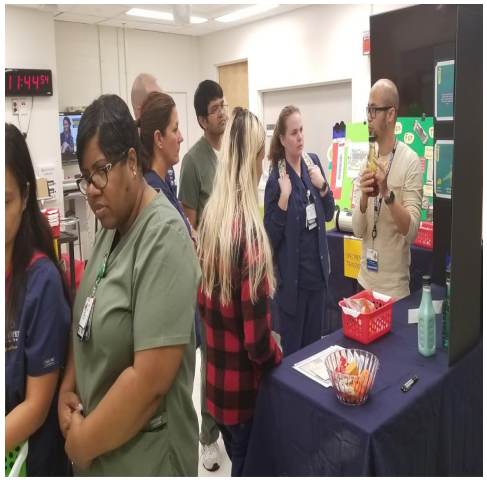
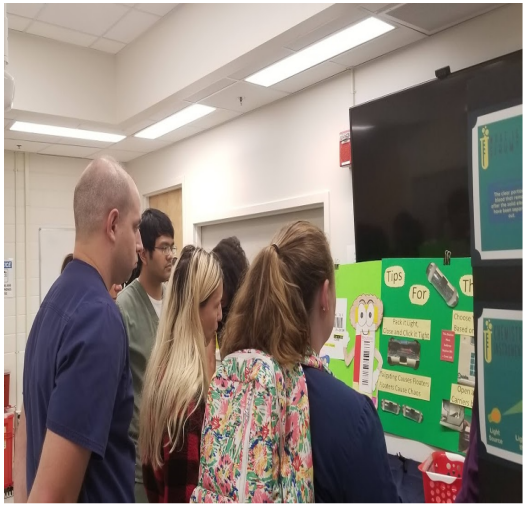
- Neuroscience Clinical Practice Meeting
- Pediatric Development Staff Meeting
- PEDS ED Staff Meeting
- Department of Surgery Education Meeting (Inpatient/ ICU/ Rehab/ PACU)
- Patient safety Committee Meeting
- Pediatric Senior Nurse Meeting

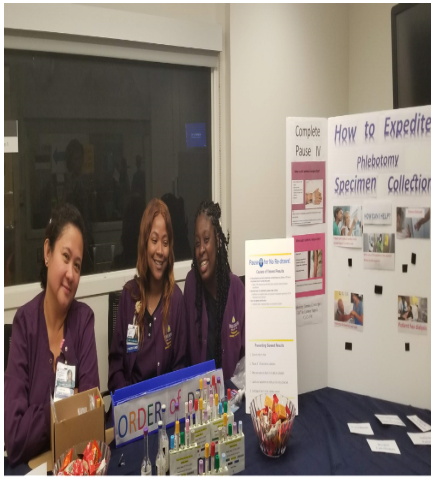
Engagement


Worst Dressed Tubes
Twisted Shirt
Cinched Belt
Turtleneck
Wrinkled


Get it Straight, Reduce the Wait!
Worst Dressed Tubes
Best Dressed
STRAIGHT

Nurses Skills Day






Sustaining

- Some educators asked to use our slide presentations and props to train their staff.

- We continue to be invited to meetings and have a full team
- with representative from different labs who can be rotated for in service based on availability.

REAL CASES:

PREVENTING PHLEBOTOMY DELAYS WITH PSYCHIATRY PATIENTS

Patient Safety Events

- Phlebotomy reported many delays in the psychiatry units due to missing and unscannable wristbands, patient refusals and patients unavailable.
- These were reported as patient safety events

Visit To Meyer- 5 CUSP Meeting

- One Psych unit (MEY-5) invited Phlebotomy to their CUSP meeting and discussed their desire to work with phlebotomy to resolve these patient safety issues.

Both Parties Agreed

- The phlebotomy delays caused results delays and therefore affected medication administration
- The delays also affected patient discharges.

Solution To Previous Phlebotomy Delays

- QA previously created a checklist to be used by nurses to ensure that patients are prepared before Phlebotomy arrive for rounding and we introduced the list.

Checklist-Piloted With Goal for Hospital- Wide Change

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HPO Path Vol I- POCT and Phleb/ Specimen Collection Phlebotomy; Phlebotomy Services To Units With POE Entry; RN Checklist To Expedite Phlebotomy;Appendi

TO EXPEDITE SPECIMEN COLLECTION

Before Phlebotomy Rounds,
Prepare Patients for Their Lab Draws

- ☐ **Inform Patients**
  Let your patients know to expect lab draws
- ☐ **Review Orders**
  Ensure correct order priority, avoid duplicate orders, and ensure "lab collect" order class
- ☐ **Check Wristbands**
  Are they correct and scannable?
- ☐ **Ensure Isolation Signs and Supplies Are Available**
- ☐ **Coordinate Other Procedures**
  For example, Dialysis and PT

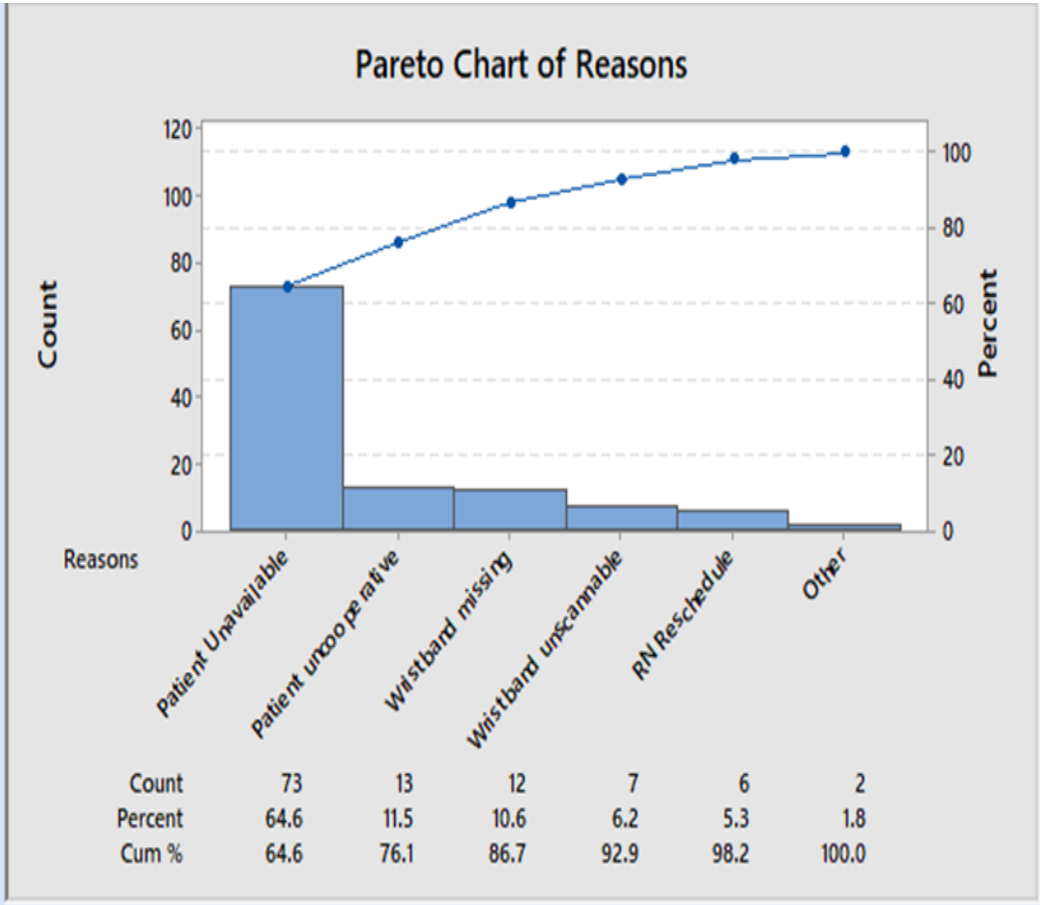
Champions Selected

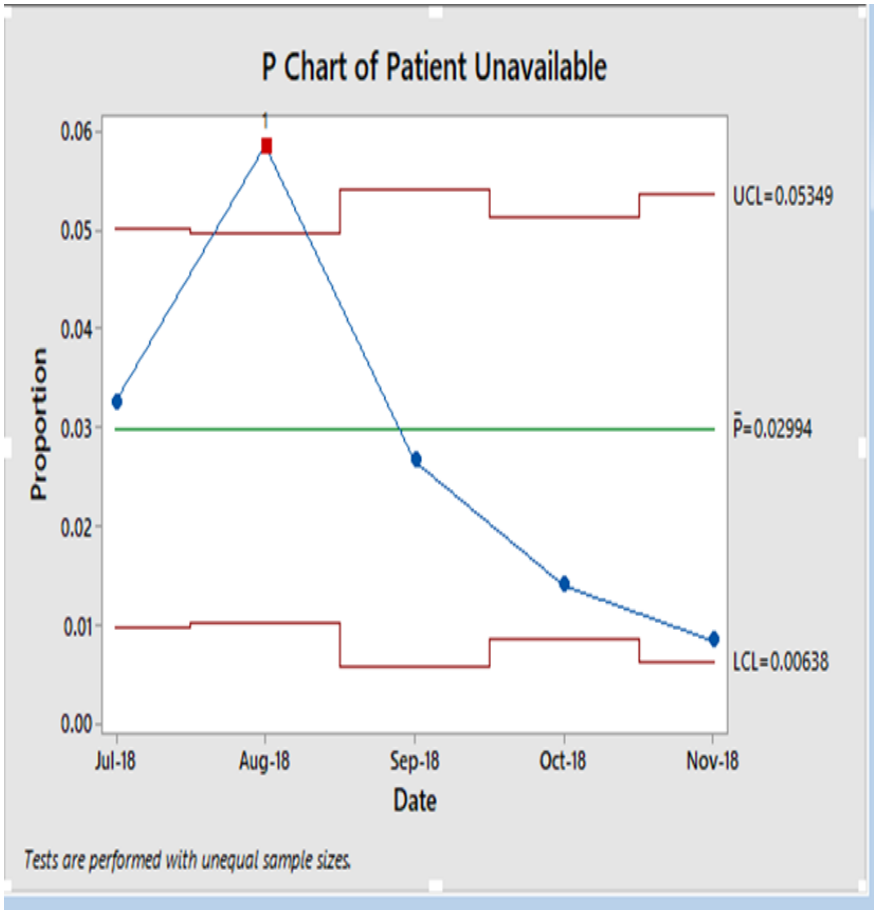
- Nurse champions
  - Pilot checklist and work with nurses to ensure adjustments in workflow.
- Phlebotomy champions
  - Piloted by communicating to nurses the time phlebotomy will arrive on the unit.

Communicate Value

- Meyer 5 joined with phlebotomy and presented the results of the pilot at their Psychiatry Quality Improvement Committee meeting.
- The committee was impressed with the project's connection to patient outcomes for improved medication administration, and patient length of stay.

Psychiatry Phlebotomy Delays





Sustain

- The Department of Psychiatry decided to adopt this measure as one of their Quality metrics.

Keys To Collaboration

1. Look for opportunities to Collaborate
   - these maybe opportunities for improvements as seen in the cases reviewed.
   - opportunities to answer questions about lab tests and other requirements.
2. Find common grounds with those affected.
   - If not think about what's in it for them (WIFT) as it relates to the patient.
3. Team- up with others affected by or will benefit from the solution.
4. **Look at ways to align improvements with institutional objectives and patient outcomes.**
5. Have someone own the change.
6. Communicate the changes.
7. Sustain changes through procedural modifications and monitoring.

LESSONS LEARNED

- Keep project top-of mind of all the stakeholders involved. People are very busy and have many balls and competing activities to juggle.
- Have leadership involvement as early as possible in the process, to whatever degree possible.
- Look at expertise, resources, and tools available as early as possible in the planning process and delegate responsibilities.
- Involve as many front-line team members in the planning, implementation and monitoring of the changes.
- Try to find as many channels and avenues as possible to communicate the status of your project and the changes once made.

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“When we contribute to positive outcomes, in a collaborative environment, we make an impact, demonstrate value and gain influence”

CTA

- Go out there collaborate, make an impact and demonstrate your value and influence!
- Connect with me on LinkedIn to discuss or learn about similar contents relating to Improved laboratory Practices.
- **Follow LinkedIn hashtag #Youareanimportantpartofthewhole**

Questions??