

Standardizing Point of Care Testing and Harmonizing Workflows Between Hospitals and Ambulatory Locations

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HEALTH SYSTEM

Disclosures

- Nonfinancial: President, KEYPOCC Keystone Point-of-Care Coordinators
- Financial – Honorarium/Speaker: AACCC; Cepheid Speaker Bureau



Objectives

At the end of the session, participants will be able to:

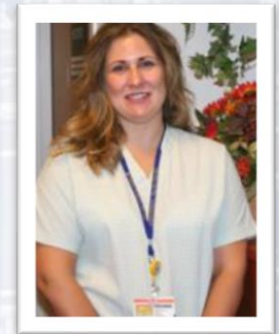
- Establish open communication and identify key players in standardization of point of care tests
- Discuss tools and strategies for multidisciplinary collaboration
- Identify POCT clinical considerations and managerial challenges

Point of Care Coordinators



Department of Pathology

Point of Care
Testing





Not shown on map
 All Children's Hospital
 St. Petersburg, Florida

- Hospitals
- Health Care & Surgery Centers
- Johns Hopkins Community Physicians

List of Current POCT

Interfaced Devices:

- ✓ ACT-LR, ACT Plus
- ✓ Creatinine
- ✓ INR
- ✓ Hgb
- ✓ Urinalysis
- ✓ HBA1c
- ✓ Urine HCG
- ✓ Glucose, whole blood
- ✓ O2 Saturation
- ✓ Blood Gases
- ✓ SARS-CoV-2 Only and 4PLEX Molecular

Non-Interfaced Tests/Devices:

- ✓ pH
- ✓ Strep A
- ✓ Rapid HIV 1/2 Antibody
- ✓ Rapid HCV
- ✓ Urine Drug Screen
- ✓ PPM (multiple)
- ✓ Tear Osmolality
- ✓ Fecal Occult Blood
- ✓ Specific Gravity
- ✓ Urine HCG
- ✓ SARS AG
- ✓ SARS-CoV-2 PCR

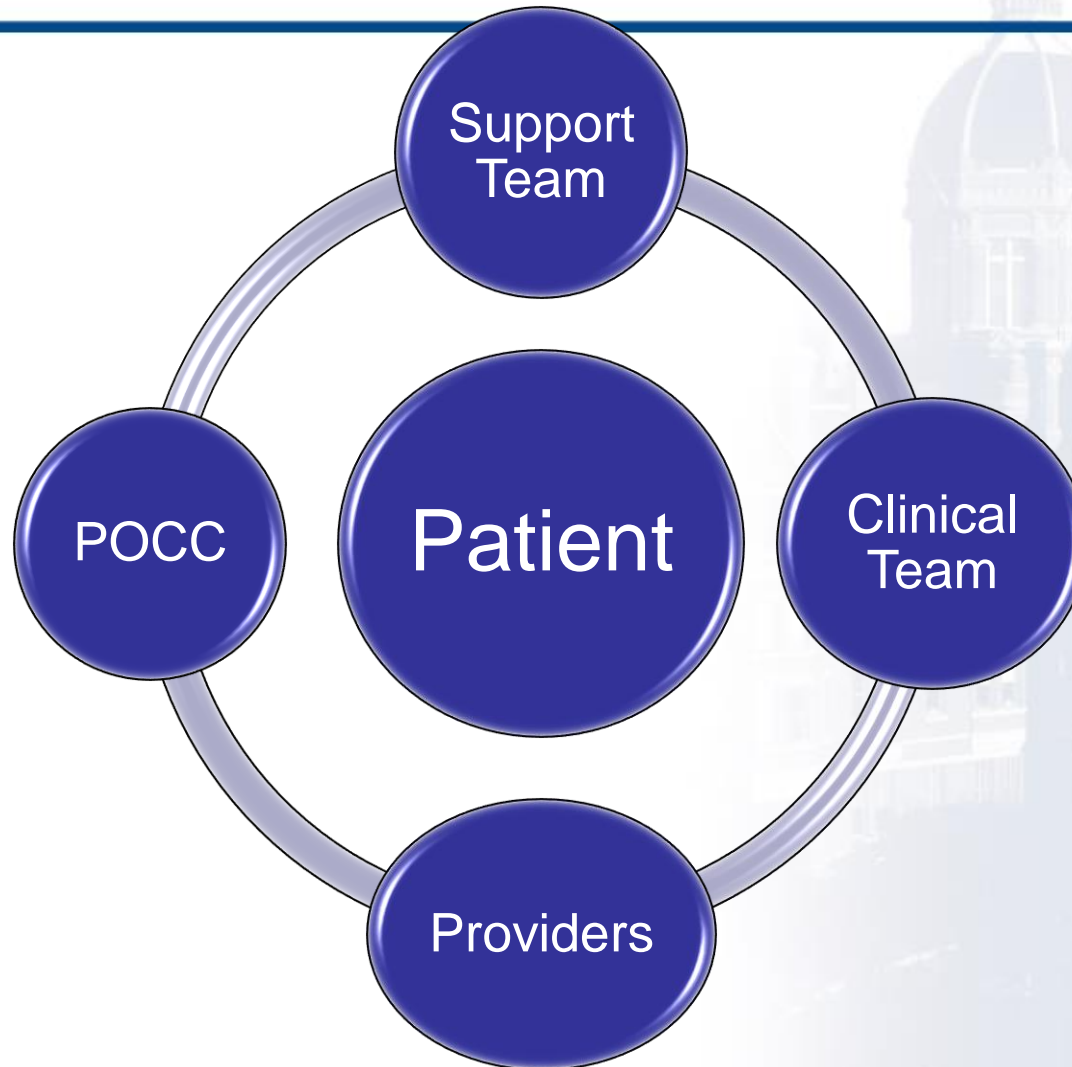
Point of Care Testing Breakdown

Hospital	Beds	Glucose Operators	POCT TYPES	# of POCC's
Johns Hospital	1,059	4,313	26	4
Bayview	545	1,300	19	1
All Children's	259	900	12	3
Howard County	267	1,466	3	1
Sibley	318	800	9	1
Suburban	229	1,343	9	1
JHCP Sites	40+ Sites	1,600	15	2

Why Standardize?

- What does it matter?
- Is it worth the effort, money, or time?
- What benefits gained?
- Does it increase quality and safety?

What is Your Role?



Your Role in ECMO



<http://www.peytonmanningch.org/critical-care/ecmo/>



<https://www.hopkinsmedicine.org/news/articles/an-ecmo-record>

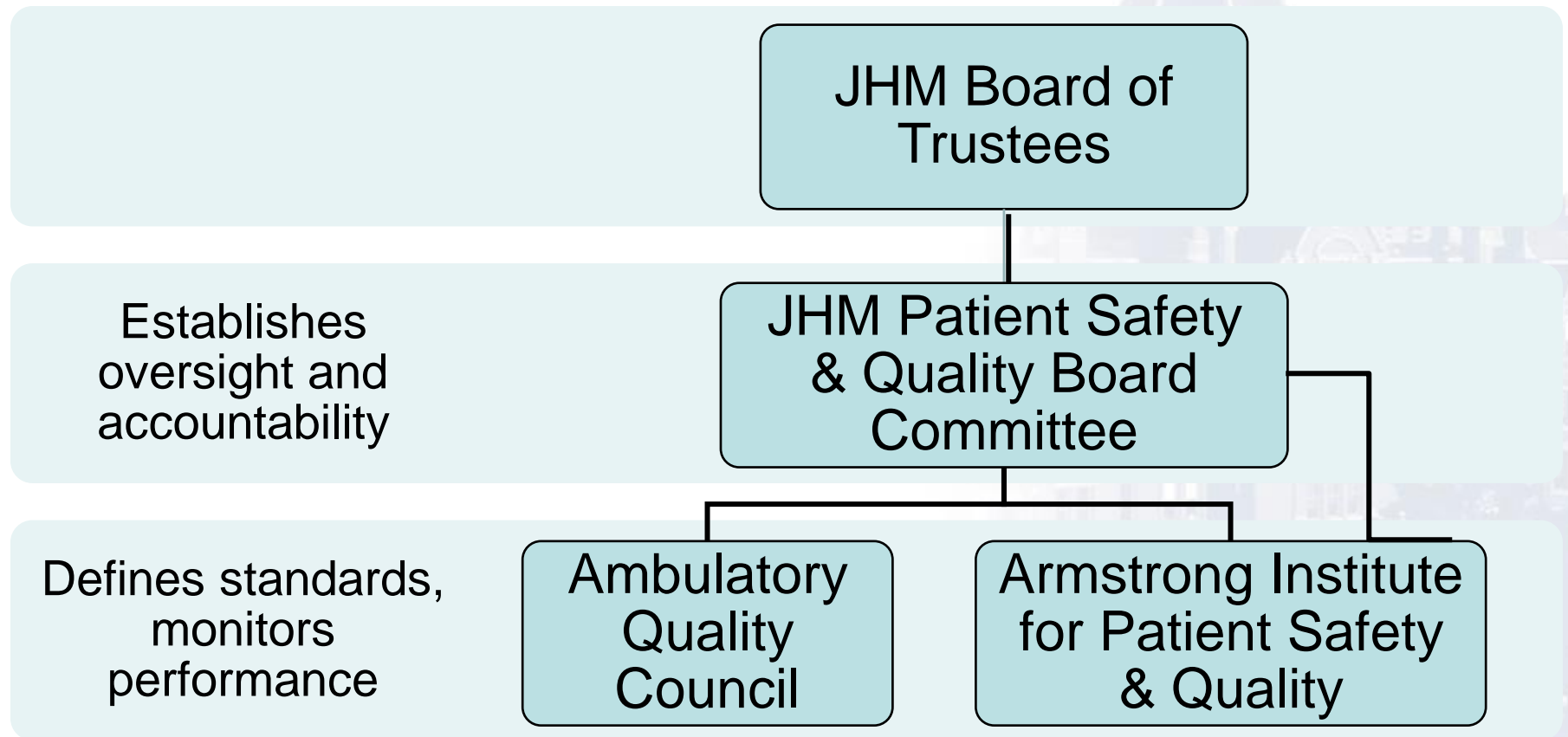
ACT in ECMO



POCT Structure

- Single Medical Director of JHM POCT
- JHM Manager
- Local Lab Directors and POCC at each Hospital
- JHCP: Single Medical Director and Two POCC's

Quality Structure Across JHM

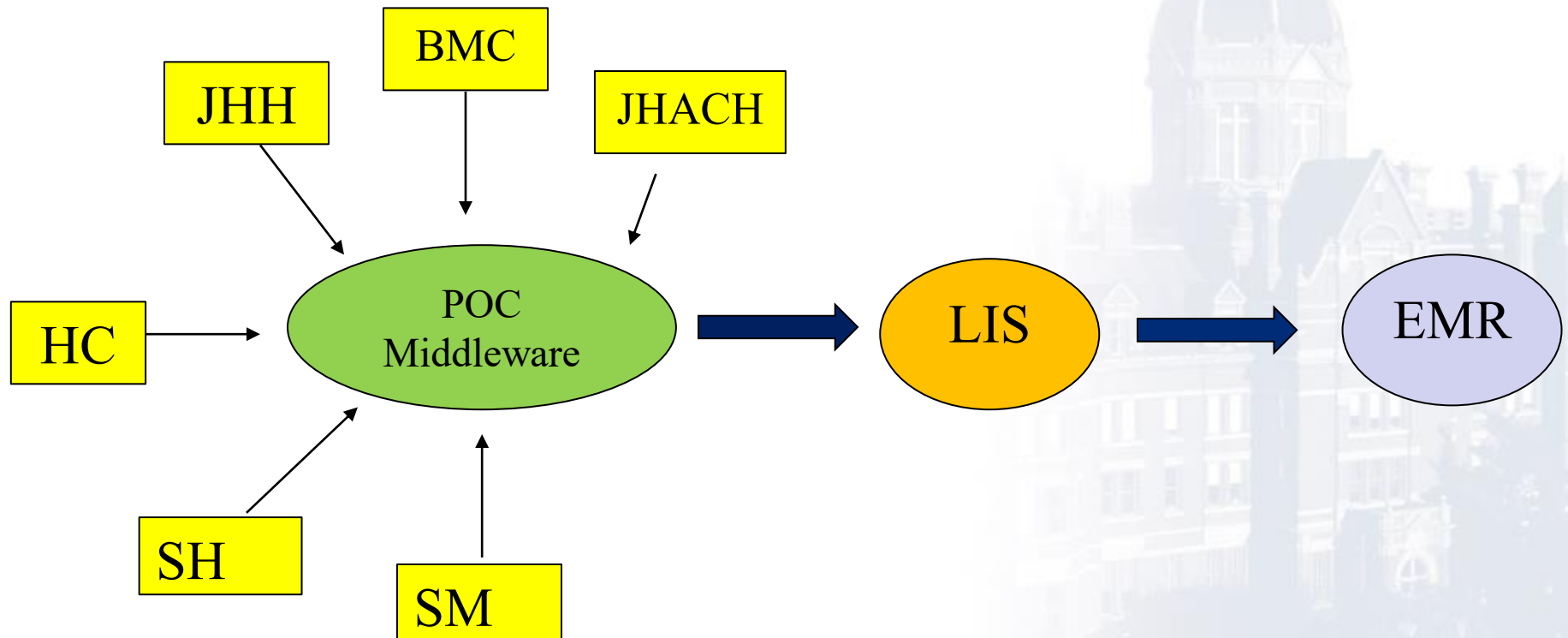


Integrating the System

- Which POCT devices?
- Where do we start?
- Single POCT Policy for all of JHM - 2021



Enterprise Interface Infrastructure



Slide credit: Leandra Soto, MT(ASCP)

POCT Devices

- Single device and single analyte
- Single device with multiple analytes
- There is no such thing as one size fits all for POCT
- Purchasing power, single contract, better pricing

Challenges to standardizing

- Global manufacturing limits
 - Global shipping challenges
 - Supply allocation
 - Limited internal resources across enterprise
- *Likely related to pandemic, but, what if?

Workflows

- Testing personnel and use of EMR/EHR
- How does the POCT get entered into the EMR/EHR?
- i.e., Tear Osmolality
- Single IT platforms = harmonize POCC duties and responsibilities

Best Practices

- Steps to standardizing and harmonizing procedures, workflows and processes
- Now what? How to keep in touch and how to run this as one big complex system?

POCT Meetings

- Monthly First Friday – all JHM POCT
 - CLIA LD and local lab admin teams present
 - Master Project List
 - Software/Firmware Upgrades
 - Server Patches
 - New technologies/Field Studies
 - COVID POCT: monthly breakdown of use and QA issues
- *System wide communication

POCT Meetings

- Monthly Third Friday – POCCs only
 - Master Project List
 - Software/Firmware Upgrades
 - Inspection Preparedness
 - Opportunity for group support/ideas
 - COVID POCT: monthly supply concerns and resource sharing. Updates on new sites and expansion of testing
- *System wide communication

Master Project List - Enterprise

JHH CAP inspection March 16-17
 EPIC/QML Upgrade March 17
 EPIC FREEZE March 10th

Location or DEP/MPI ID	Interface Needed	Status	NOTES/JIRA/Updates	Address:	Need JACK Installed	Current Jack is Active	Next Step/Responsible Party	Submitted for PO	Submitted for CQI Reimbursements	Priority
JHM - Correction for after EPIC software upgrade issue	n/a	completed	JIRA EPICPROJ-34147 - POC- the result component POC QC Performed? no longer has hard stop	n/a	n/a		1/6/22: Patrice will reach out to her IS and Nicole to find out what options we have for a correction of the issue created by an EPIC upgrade 1/13/22: EPIC currently has the fix under development - from SLG 1/20/22: need a downtime for deployment - looking at the one in March to deploy			
JHM Temp corrected Result display	n/a	in progress	After the addition of measured and temp corrected panels for standardization, results are not displaying in the correct order on the Result review tree	n/a	n/a	n/a	2/24/22: Patrice trying to get in a meeting to resolve this 3/3/22: Patrice has a scheduled meeting for 3/9 to present to joint design to move temp corrected analytes to the top of the			
Suburban	Hemochron	in progress	Suburban is adding Hemochron instruments	Suburban hospital	?	?	1/7/21; Julia's update- EPOC troubleshooting is priority at this time. We will try for July go live. More details to follow in coming weeks. 1/28/21: no further updates.	no		2

Other Team Meetings

- Vendor calls for JHM POCT
 - Blood gases once a month
 - Connectivity vendor twice a month
- IT/EMR calls several times a week
 - All POCC's invited
 - All IT tickets reviewed and clinical teams invited adhoc
 - Master Project List

*System wide communication

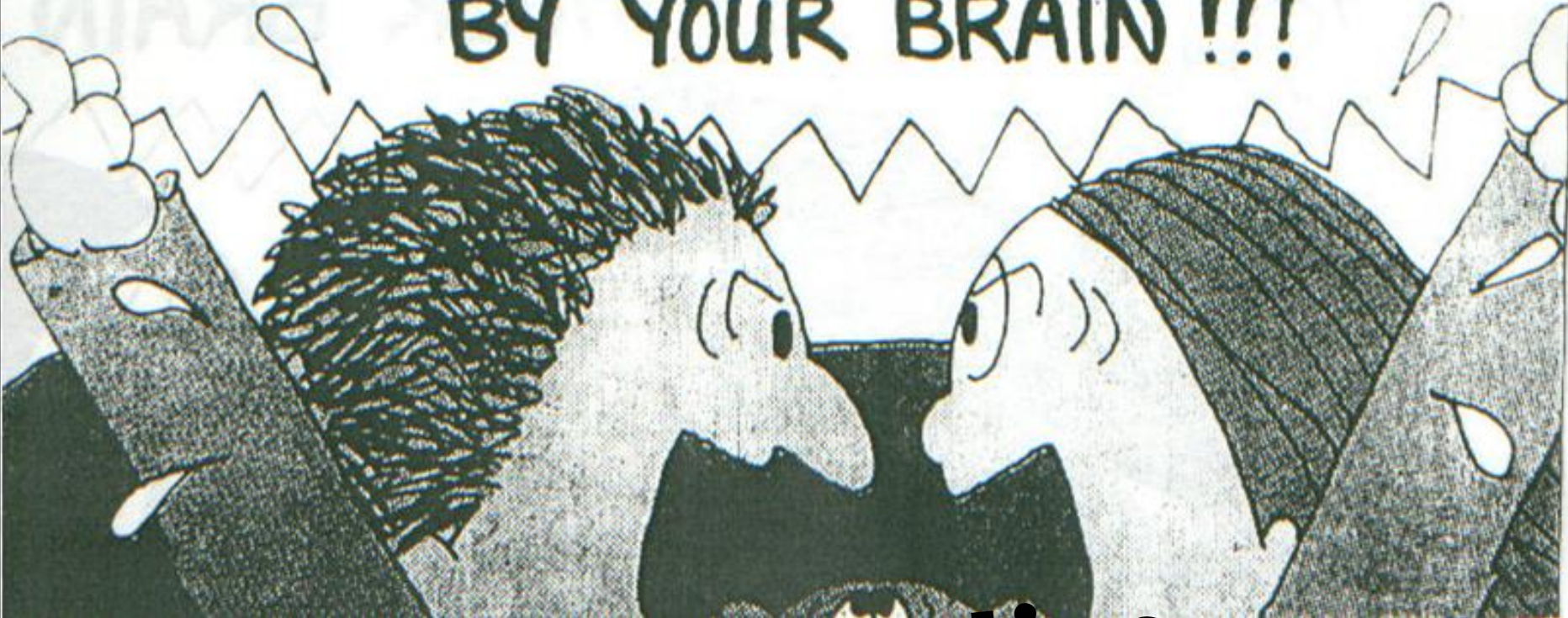
Have You Considered?

- A QA Plan for Waived Testing
- A QA Plan for Non-Waived Testing
- A QA Plan for Imaging Sites who perform Creatinine Testing
 - Single source for ambulatory sites
 - Easier for CLIA LD to understand
 - Inspector Loved It!!

Develop a QA Plan

- Quality Controls
- Proficiency Testing
- Audits/Rounds
- Troubleshooting
- Documentation
- Follow Up
- Training and Competency
- Annual Review
- Risk Analysis

MY WORDS CAME OUT FINE!
THEY WERE PROCESSED INCORRECTLY
BY YOUR BRAIN !!!

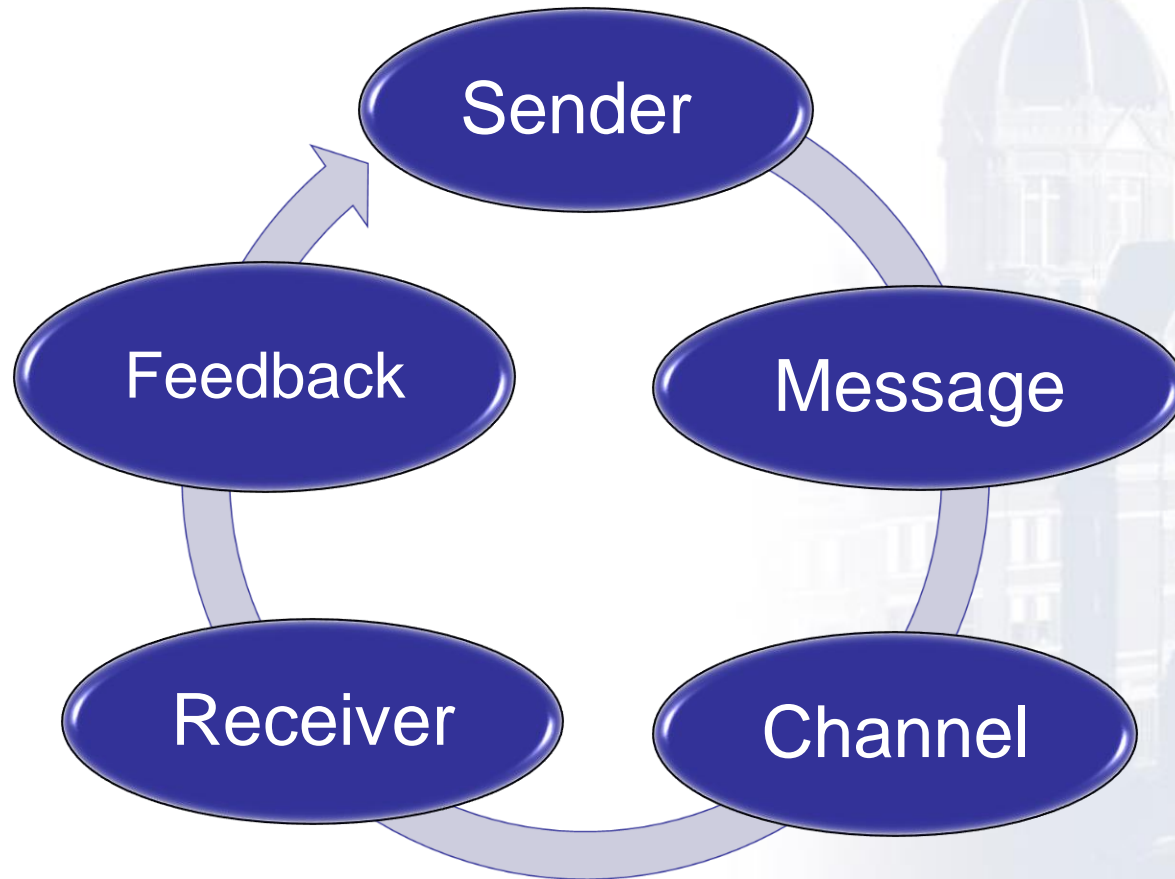


Communication

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Communication Cycle



Master Project List - Enterprise

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More Communication Options

- Quarterly Flyers Published by Nurse Educations
- Screen Savers on Computers Across Hospital Campus
- Attending Daily Team Huddles and Staff Meetings
- Monthly audit reports
- Safety and Quality Meetings

Lesson Learned

- Nurse Educators can help POCC's learn how to trim down their message in order to have meaningful exchange of information
 - Nurses and clinical care teams techniques
 - Balancing clinical demands with laboratory regulation demands

Patient Centered Medical Care

Supporting the clinical team helps them to better care for your patients and their support team

- Decrease unnecessary stress
- Decrease downtime
- Decrease user errors

Unit/Site Audits

- Some units are visited twice per week
 - Non-waived POCT; high volume (COVID)
 - Waived testing once per month
 - Opportunities for improvement easily identified and addressed with frequent site/unit visits
- **Use of electronic software in place

Have You Considered?

- Monthly meeting with lab vendors such as Quest, Lab Corp and Johns Hopkins Medical Lab
- Monthly/Quarterly meetings with testing personnel, unit managers and trainers
- Meeting with Nurse Administration for high level topics
- Daily huddles on units/floors

Vendor Support/Training

- Utilizing Vendor Reps for support in training
- Vendor reps are brought into sites to perform on site training with our competency checklist
- Vendor reps have a great report with sites and reach out several times a year for support

Challenges

- Hospital and University Ambulatory Sites
 - Quality oversight?
 - Policies and Procedures?
 - Billing?
- Mixed management modules
- JHCP? JHH?

Future Goals

- Standardized electronic Audit/Rounding Tool
- Networking Events for all POCC's
- No New POCT Devices Without Interface Capabilities
- Managing Non-laboratory Devices Through Middleware (i.e., transcutaneous bili)

Future Goals – Current Project

- Standardized POC test codes in EMR
- Standardized workflow for result entry
- Harmonized reference ranges and result formatting
 - Units of measure
 - Result format (UA Multistix ++ or 200)
 - Result flagging (normal and abnormal)

Questions

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