

You want me to do WHAT?

With THEM?

How SOON?

The Fun and Challenges of Point of Care Implementation

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Introduction

- Karen Jenkins
 - Point of Care Coordinator
 - Emory Healthcare, Atlanta, Georgia
 - Group of 6
 - Oversees hospitals, clinics, outpatient surgery, etc
 - Tests – glucose, ACT, ABG, H. pylori, Troponin, INR, etc, etc

Disclaimer

- Been a Point of Care Coordinator for way too long to have any sanity left
- Like to have fun
- Love my kitty cats

Sponsored by Pathfast



You want me to do WHAT? – tests implemented in the ER

With THEM? – Who’s going to do the test?

How SOON? – timing of implementation

WHAT happened? – the “oops”



You want me to do WHAT?

- Troponin – New to facility
- Request made by docs
- TAT required
- cutoffs / medical decision points for the test?
- required accuracy and precision needed to treat the patient correctly 95% of the time?
- How is the test currently being provided. List any problems.



You want me to do WHAT?

- Adequate space to perform the test
- Who will perform the test?
- Workload?
- Willing to abide by POC / regulatory oversight? Contract?

You want me to do WHAT?

- Argument for troponin is good enough to investigate further.
- Now what?



You want me to do WHAT?

- Look at all vendors
- Evaluate all instruments with samples from main lab – at least 50 samples – spanning all ranges with concentration at medical decision levels – Discrepancies, Bias, Accuracy, Precision
- Sample from “main” lab should read the “same” on chosen instrument

Early lesson learned


- Samples from the core lab tested for glucose should give the “same” result when tested in the ER, OR, doctors office or nursing unit.
- Continuum of Care

Instrument Comparison

Sample	Core Lab	Inst “A”	Inst “B”	Inst “C”	Comment
1	-/-	+/-	-/-	-/-	
2	-/-	-/-	-/-	-/-	
3	-/-	+/+	-/-	-/-	Unneeded trip to cath lab?
4	-/-	+/-	-/-	-/-	
5	-/-	+/-	-/-	+/-	
6	+/+	+/+	-/-	+/+	Sent home in error?
7	+/+	-/-	-/-	+/+	Sent home in error?
8	+/+	+/-	+/+	+/+	
9	+/+	+/+	-/-	+/+	
10	+/+	+/+	+/+	+/+	

They want this “cute” instrument

- Instrument presented to physicians
- It’s cute; doesn’t take much time; easy to use.



They want this “cute” instrument

Sample	Core Lab	CUTEST Inst “A”	CUTER Inst “B”	Inst “C”	Comment
1	-/-	+/-	-/-	-/-	
2	-/-	-/-	-/-	-/-	
3	-/-	+/+	-/-	-/-	Unneeded trip to cath lab?
4	-/-	+/-	-/-	-/-	
5	-/-	+/-	-/-	+/+	
6	+/+	+/+	-/-	+/+	Sent home in error?
7	+/+	-/-	-/-	+/+	Sent home in error?
8	+/+	+/-	+/+	+/+	
9	+/+	+/+	-/-	+/+	
10	+/+	+/+	+/+	+/+	

Instrument Chosen

- FINALLY – A decision has been made.
- Now What?

Instrument Chosen

- Instrument delivery
- Reagent delivery – storage
- Validation of instrument - Reassess accuracy and precision
- IQCP
- Training
- Monitor

STANDARD
OPERATING
PROCEDURE

Implementation Steps

- Where is the instrument going to be?



With THEM? You mean I have to work with THEM?

- Who will be performing the test?



Are there trade offs?

- I'll run your troponin's if you run my EKG's said the RT to the nurse!



Sidebar about Personalities

- DISC
- MBTI
- Regional



Implementation Steps

- How many will be performed?
 - Only first troponin on every patient that needs one?
 - Only first troponin on subset of patients?
 - All troponin's on subset of patients?

Decisions

- Troponin – in the ER only
- Performed on a “subset” of chest pain patients
- Performed by Respiratory Therapists

How SOON?

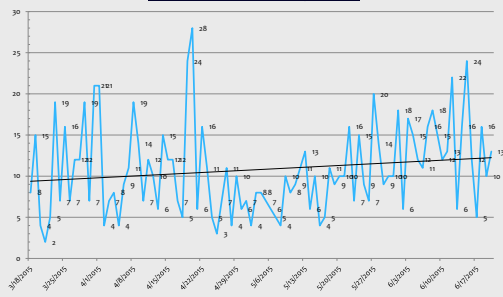
- Give enough time
- Under promise / Over deliver

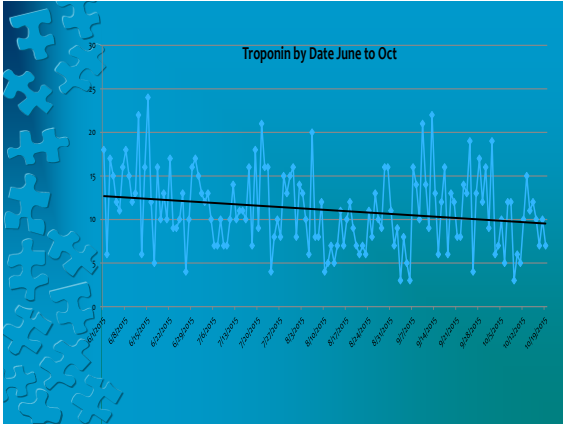


Monitoring

- Number of tests performed
 - Daily
 - By shift
 - By RT vs Nurses

Number of Troponin by Date





Month	# Tests	# Days	Average Usage
March 2015 (partial)	154	14	11.0
April 2015	314	30	10.5
May 2015	282	31	9.1
June 2015	392	30	13.1
July 2015	359	31	11.6
August 2015	296	31	9.5
September 2015	343	30	11.4
October 2015 (to 19 th)	176	19	9.3

Opportunities

- Labels not generated for troponin like other lab test request
- Hard to tell if there was an order / or if it had been collected

Possible Solution

- Order for POC Troponin triggers an icon in electronic medical record
- Icon indicates the sample needs to be collected
- Once sample is loaded onto analyzer, operator “completes” the icon indicating the test is running.

Barriers



- I don't trust that result.
- I want it bedside / I don't want it bedside
- I'm going to send a sample to the lab anyway
- Oh, wait, the lab value didn't match this one

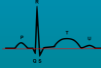
Correlations

- March 2015
 - 70 patients performed in ER and Core Lab
 - 9 “different” results (12.9%)
 - 2 repeated – correlated; no interferences
- April 2015
 - 49 patients
 - 4 “different” results (8.2%)
 - Repeated 12 samples of varying levels
 - Results correlated with previous results; no interferences; physicians were happy

Case Study # 2

- Male, 37 years presented with Chest Pain
 - POC troponin complete 11:12 result <0.019 ng/mL
 - Core lab drawn 10:45; complete 11:35 <0.01 ng/mL
 - POC repeat complete at 16:31; result 4.390 ng/mL; critical notification 16:52
 - Core repeat 16:38; complete 17:49; result 10.52 ng/mL

Case Study #3

- Male, 57 years presented with Chest Pain
 - POC troponin complete 15:17 results 1.21 ng/mL
 - EKG at 15:11 STEMI noted 
 - Call to order in Cath Lab at 15:26
 - Core drawn 15:07; complete 18:44 result 1.10 ng/mL

OOPS - The Case of the Disappearing IP Address



Information

The web interface utility is designed to help you configure the P...
 To access the Help pages choose the  symbol.

Below are the current system settings.

Model: PortServer
Type: TS 4
Firmware version: Version 82000716_1.2 04/11/2011
DHCP: Off
IP address: 163.246.128.131
MAC address: 00:40:94:28:e9:15
My name:
CPU Utilization: 0%
Up time: 8 days 11 minutes 3 seconds

The Case of the Disappearing IP Address



Other Obstacles

- The case of the disappearing patient result
- Data Management System powered down
- QC and Patient Tests performed but did not cross to DMS.

Point of Care Resources

- Pointofcare.net
- AACC Point of Care Listserv
- AACC CPOCT Division
- Trimark Conferences
- Whitehat Communications Webinars

Moral of the Story

Life is short – have fun!

Smile – it makes people wonder what's going on!

Point of Care can be fun!