

# PERFORMANCE ANALYTICS

Practical Application and Case Studies for Use in  
Daily Management and Test Utilization

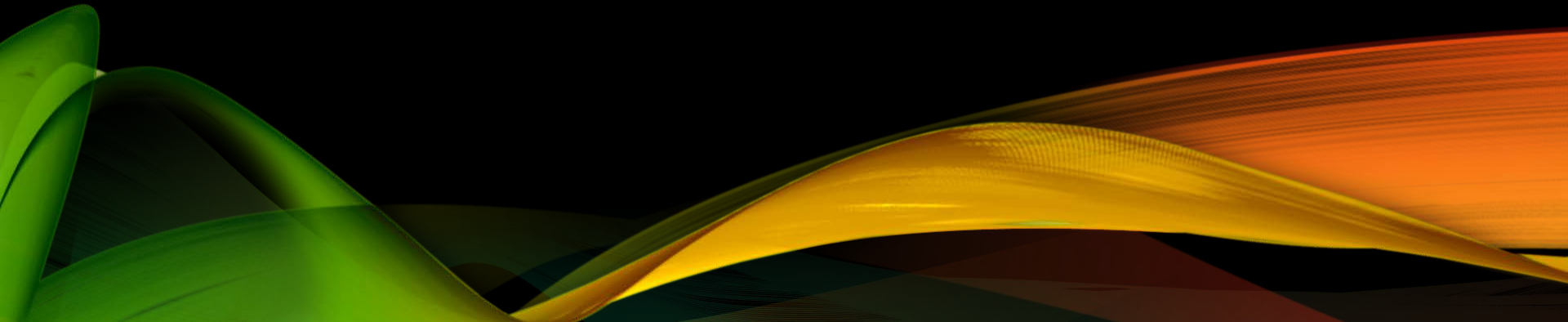
October 9, 2018

Part 1: Samantha Rousos

Part 2: Amanda Wright

# PERFORMANCE ANALYTICS IN DAILY MANAGEMENT

Samanthia Rousos



Should relate to  
a Strategic or  
Quality  
Objective!



# SMART METRICS



**Specific:** Clear and unambiguous. Exact.



**Measurable:** Counting or quantifying  
Quality – Good or bad, usually volume  
Cost – Value  
Time – seconds, minutes, etc.



**Attainable:** Realistic, achievable; not Pie-In-The-Sky, not Strategic



**Relevant:** Matters to your team



**Timely:** Are an INPUT to the process, not result from it. Leading indicators.

# DAILY HUDDLE

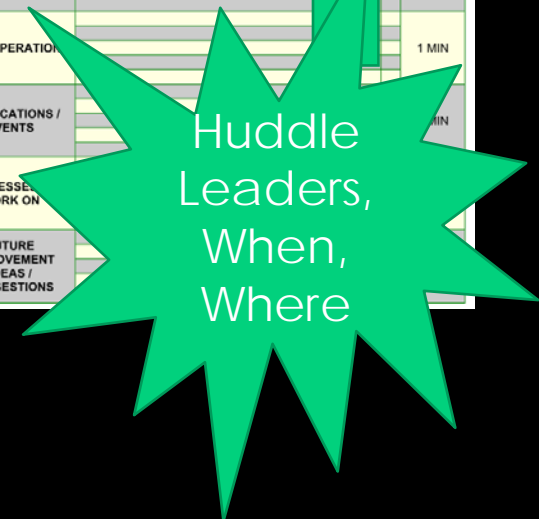
## 1. Communications Review:

- Safety
- Recognition
- Staff Related Info / Events
- Processes *needing attention*
- Improvement Ideas – staff owned and executed

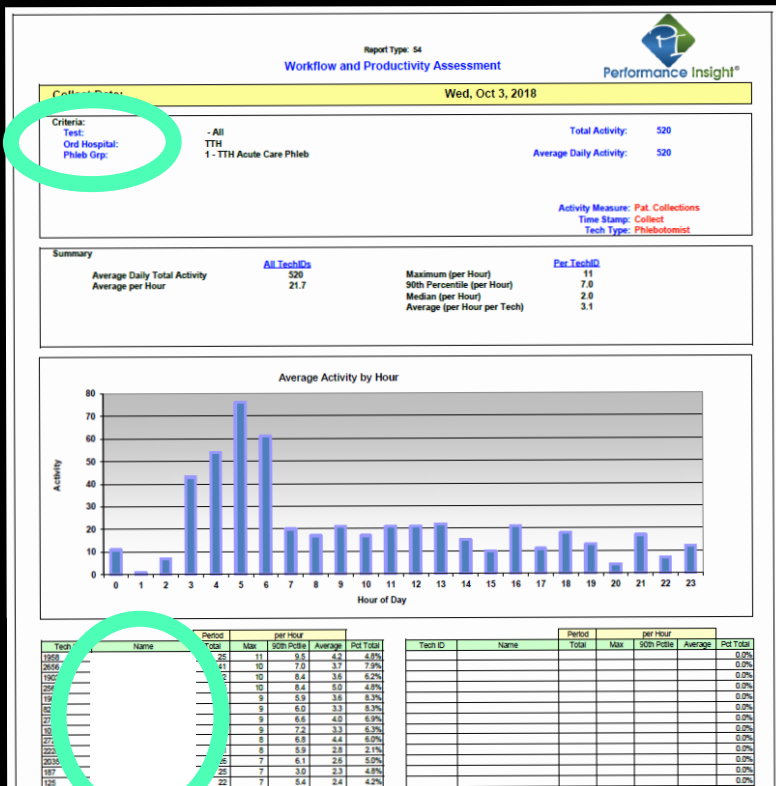
## 2. Daily Management

- Mark KPI metric: GREEN OR RED?
- Mark Trend –  
Monthly and Day of Month  
Update Pareto
- Document Countermeasure

DAILY HUDDLE STANDARD WORK DOCUMENT		Name of Activity:	Daily Management Huddle
		Who is Performing:	1215: 1915:
		Location:	NCL, CP, Daily Mgmt whiteboard
		Department:	Central Process
Summary: Daily Huddle is at designated times. Staff members 10 min max. 10 min			
AREA	DAILY DETAILS	✓	TIME
SAFETY			1 MIN
RECOGNITION			1 MIN
STAFF/EMPLOYEE RELATED (HR/PAYROLL)			1 MIN
DAILY OPERATION			1 MIN
NOTIFICATIONS / EVENTS			1 MIN
PROCESS WORK ON			
FUTURE IMPROVEMENT IDEAS / SUGGESTIONS			



# METRICS REPORTS FOR WORKFLOW AND PRODUCTIVITY



Productivity Metrics  
by Person  
by Hour of Day

Report Type: 56

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Productivity Matrix

September 2018

Test: - All  
Pat Loc Group: 86 -

Colldate: (All)

Sum of Pat. Collections

Phlebotomist	Pat. L	AHL	DCM	DLL	DUN	KAL	KPL	NOL	Grand Total
A			3						3
B			388	40		2			430
C		166		49		14	14	6	249
D				212		8	26		246
E				1	19			339	359
F				333			9		342
G				19			173		192
H						315			315
I						339			339
J					258				258
K			1						1
L						1			1
M				1					1
N			14	103			55		172
O				1	1	2			4
P				166	39		55		260
Q				32					32
R			37	34	29	57	15	14	192
S			42	4	4	7	5	6	70
T			2	157	171	124	59	58	572
U			11	16	63	29	51	8	179
Grand Total		258	617	1224	534	811	418	355	4217

Matching Productivity (float)  
with Demand by Location

# METRICS REPORTS FOR SPECIMEN DEFECTS

Report Type: 88  
Specimen Defects

Performance Insight®

Receive Date: September 2018

Filter Criteria:  
Test Group 36 - ER blood tests  
Pat Loc Gr: 1 - THER

Report Summary:  
Total Count: 6,861  
Total Defects Found: 162  
Pct Total: 2.4%  
Target: 2%  
Collection: None

Rule: Counting Activity which includes the text: [QNS,HR,SCR] but not the text: [thrombocytopenia]

Top Comments Matching Search Criteria

Count	% Ttl	Comment
8	0.1%	DEL; HR
6	0.1%	DEL; SCR
5	0.1%	DEL; QNS
3	0.0%	HR
3	0.0%	SCR-SPOKE TO AMY
2	0.0%	HR-SPOKE TO JESSICA
2	0.0%	HR-SPOKE TO KARA
2	0.0%	HR-SPOKE TO RN
2	0.0%	QNS-SPOKE TO BREE
2	0.0%	SCR-SPOKE TO MARKISHA

By Patient Location

(records without a patient location not included)

Pat Loc	Location Name	Defects	Total	Def Rate
ED	EMERGENCY DEPARTMENT	162	6,861	2.4%

By Phlebotomist

(records without a Phlebotomist not included)

ID	Phlebotomist Name	Defects	Total	Def Rate
300		139	3,603	3.9%
350		10	442	2.3%
1731		2	14	14.3%
2300		2	141	1.4%
670		2	47	4.3%
1092		1	2	50.0%
1906		1	18	5.6%
2043		1	14	7.1%
230		1	1	100.0%
271		1	7	14.3%
500		1	2	50.0%
613		1	13	7.7%

Defects for Redraw:

- QNS
- Hemolyzed (HR)
- Clotted (SCR)

- Formerly Daily Report
- Acute Care
- Phleb draw defects resulting in redraw
- Reduced by XX%

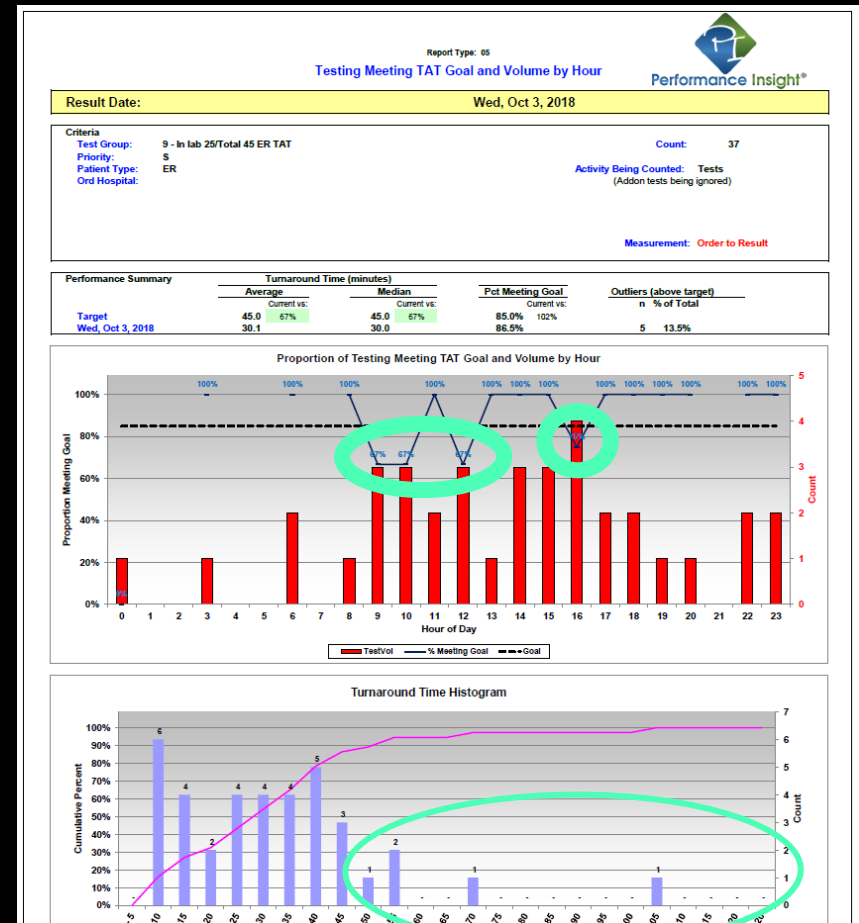
Now used by other department (ER)  
for 2<sup>nd</sup> level Pareto cause of defects

# METRICS REPORTS FOR TAT, SPECIFIC TEST TYPES

- Order to Result
- TAT: In-Lab and Total
- Easy to see when goal not met
- And how many did not meet cutoff time

## Possible Criteria:

- Test Group / Info
- Patient Type / Info
- Testing Locations
- Staff
- Day of Week, Hour of Day
- Physician Info



KPI  
Metric Owner  
Goal

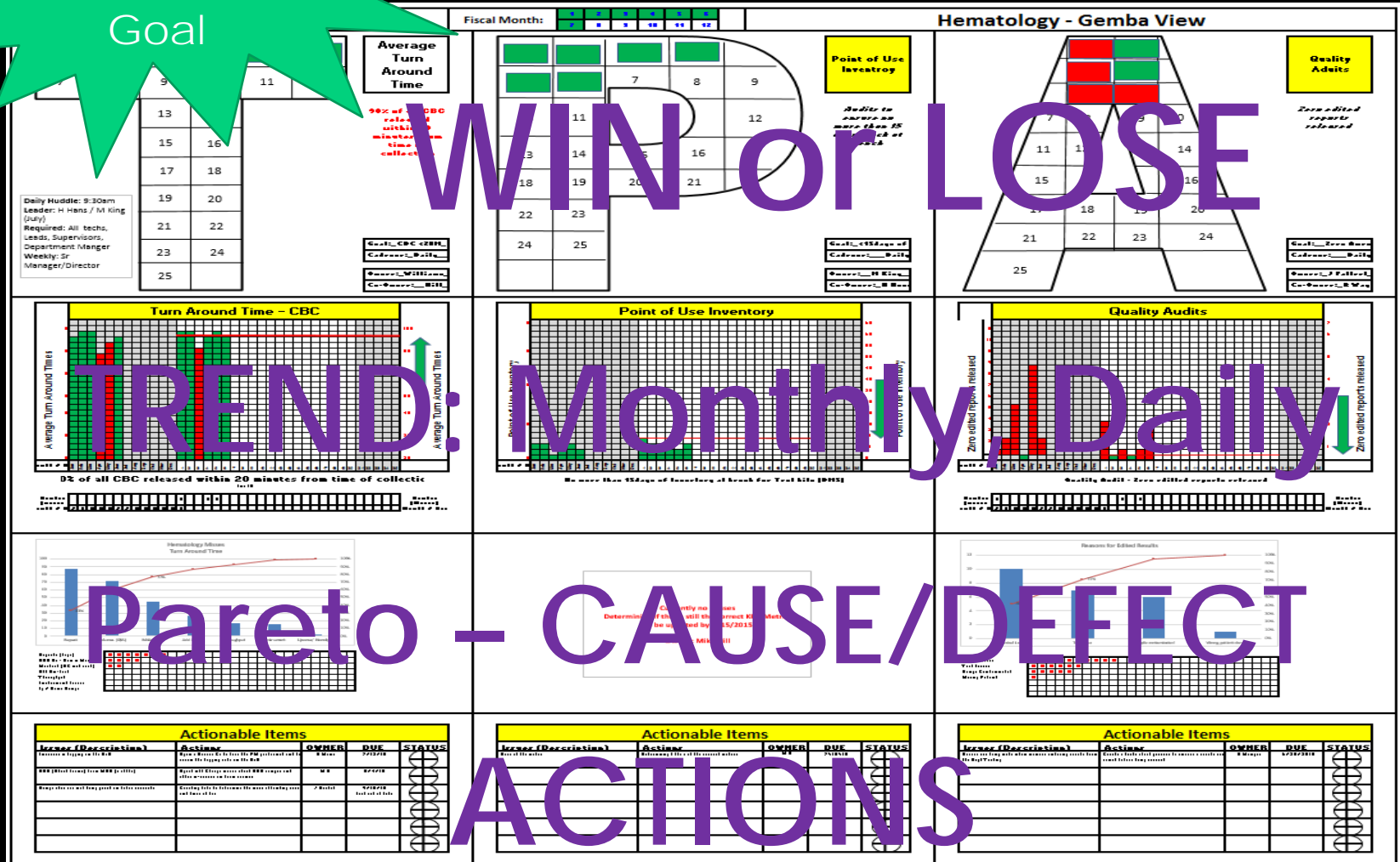
# DM BOARD EXAMPLE

WIN or LOSE

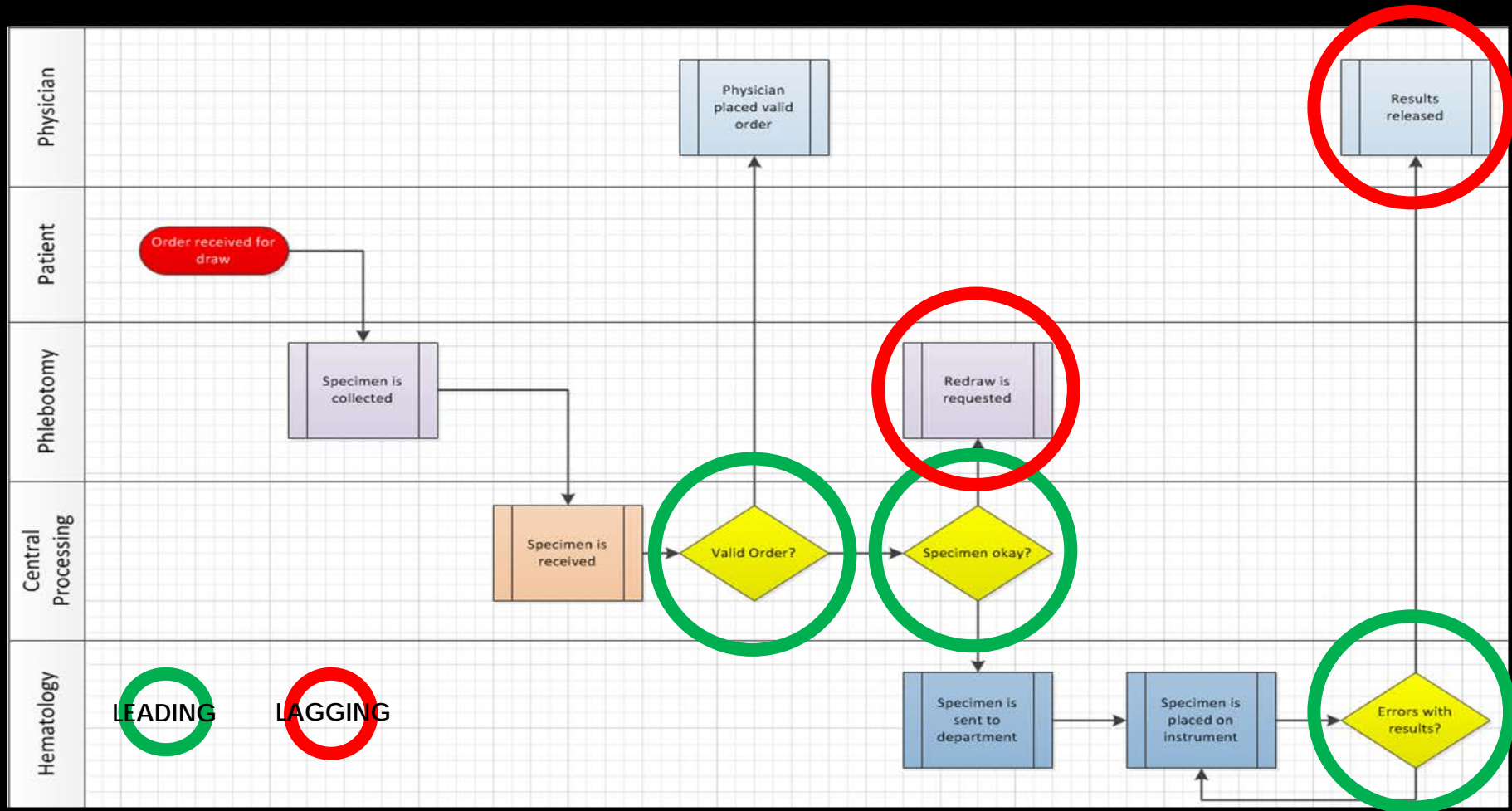
TREND: Monthly, Daily

Pareto - CAUSE/DEFECT

ACTIONS



# IDEAL: MEASURE LEADING INDICATORS





## CHECKLIST: IT'S WORKING WHEN...

- ☐ WIN OR LOSE? (3 seconds)
- ☐ What is Trend (Pareto)?
- ☐ What are Countermeasures?
  - ☐ To the problem at hand
  - ☐ Long term



# COUNTERMEASURE GUIDELINES

- New actions assigned to ATTENDING STAFF.
- Actions assigned to NAMES.
- Actions have DATES.
- Actions are owned by STAFF.

# DAILY MANAGEMENT METRIC TIPS

**Action** – Don't have a target/metric if you don't have an action plan showing the work you are doing to try and improve on it.

**Just Do It** – No right/wrong to getting started. If you wait until you are ready and have figured it all out, you will never get started.

**Continuous improvement** – Are you designing wallpaper or making it useful? Is it a seasonal or annual issue? Tweak and refocus as needed. Keep it relevant.

**Red is good** – Use it as an indicator on where to focus today's efforts to improve. Are targets SMART enough to move the red to green?

**Less is More** – Focus on a few key indicators that make a difference in your daily work. "If everything is a priority, nothing is a priority," Garr Reynolds.

**Focus on Safety** – Identify what is of concern to your area and safety risks. Particular attention for lab is hand hygiene, clean/dirty protocols, and use of PPE.

**"What's the Rock in Your Shoe?"** – WIIFM? What does the team care about most? What can the team change?

**One size fits NOBODY** – The metrics should make sense for your work (the department)

**Share the learning, learn by sharing** – Go visit other areas! Steal shamelessly – make it useful!



# 5 MINUTES OF KPI DEVELOPMENT


1. CHOOSE YOUR:
  - CAP DEFICIENCY
  - QUALITY INDICATOR MISS
  - PAINFUL PROBLEM
  - ISO DEFICIENCY
  
2. REVIEW YOUR PROCESS MAP
  - DECISION POINTS
  - WHAT SHOULD BE MEASURED
  
3. SHARE KPI

# PERFORMANCE ANALYTICS IN TEST UTILIZATION

Amanda Wright



# TEST UTILIZATION: CATEGORIES



**Choosing Wisely**  
An initiative of the ABIM Foundation

NEWS

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Advancing a national dialogue around avoiding unnecessary medical tests and treatments

[Home](#) > [Our Mission](#)

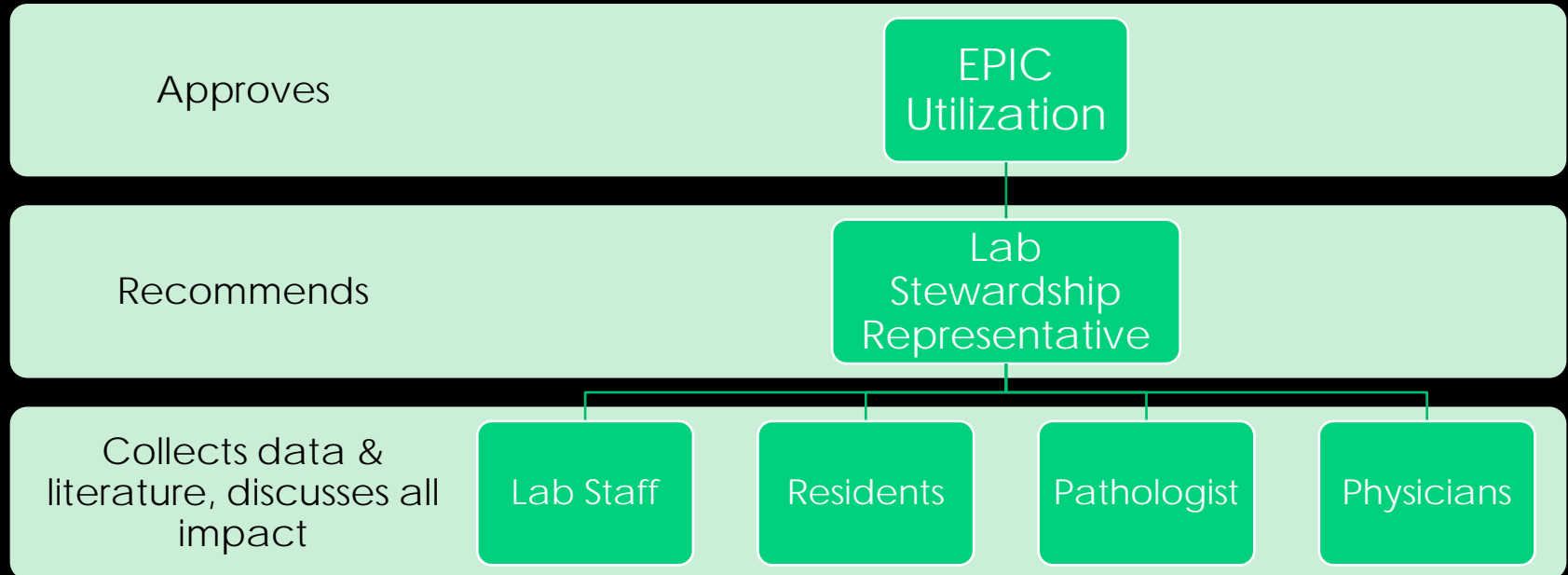
## Our Mission

The mission of *Choosing Wisely* is to promote conversations between clinicians and patients by helping patients choose care that is:

- Supported by evidence
- Not duplicative of other tests or procedures already received
- Free from harm
- Truly necessary

[SPECIALTY SOCIETY PARTNERS](#)[FACTS AND FIGURES](#)[HISTORY](#)[NEWS](#)

# TEST UTILIZATION: INFRASTRUCTURE



# TEST UTILIZATION: SHOW ME THE MONEY



# CASE STUDY #1 CBC W/ DIFF



*An initiative of the ABIM Foundation*

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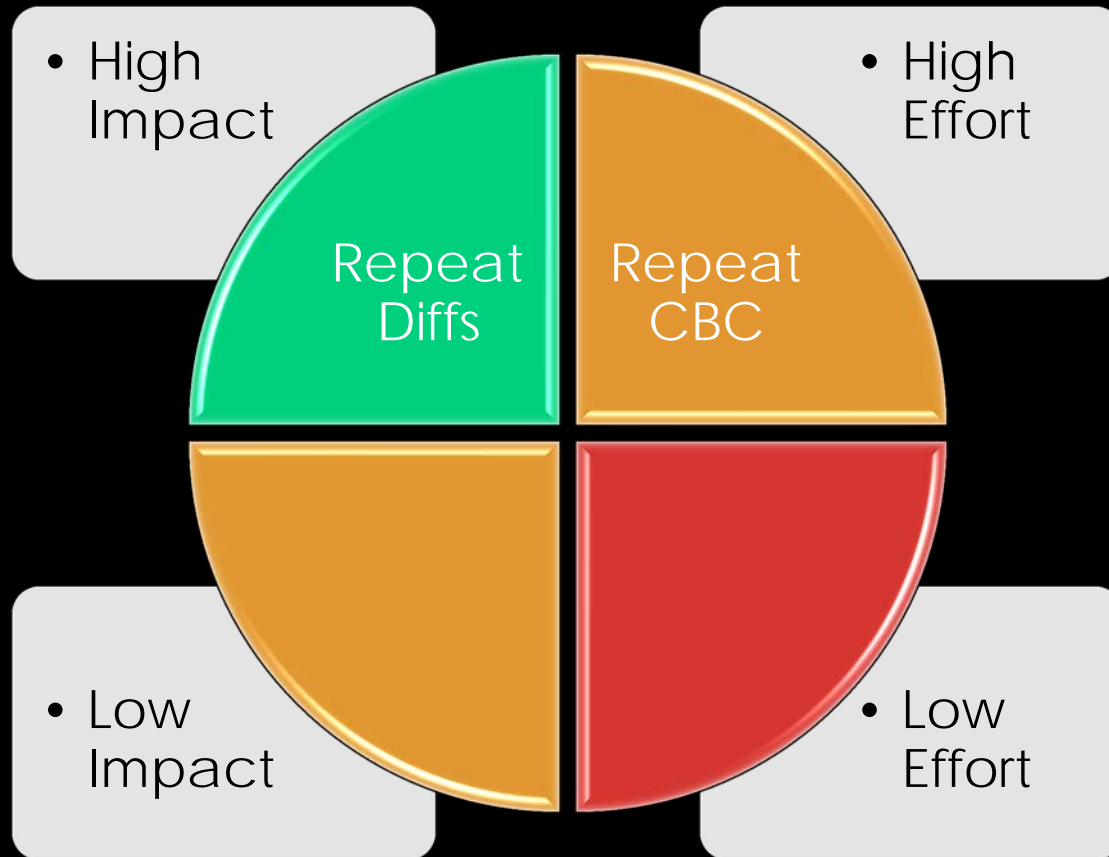
## **Society of Hospital Medicine – Adult Hospital Medicine**

[View all recommendations from this society](#)

Released February 21, 2013

**Don't perform repetitive CBC and chemistry testing in the face of clinical and lab stability.**

# CASE STUDY #1 CBC W/ DIFF



# CASE STUDY #1 CBC W/ DIFF

CBC Differentials REPEAT VOL\_Amanda\_Ran 18.9.19 - Excel

FileHomeInsertPage LayoutFormulasDataReviewViewTell me what you want to do...

Cut

Copy

Paste

Format Painter

Clipboard

Calibri

11

</

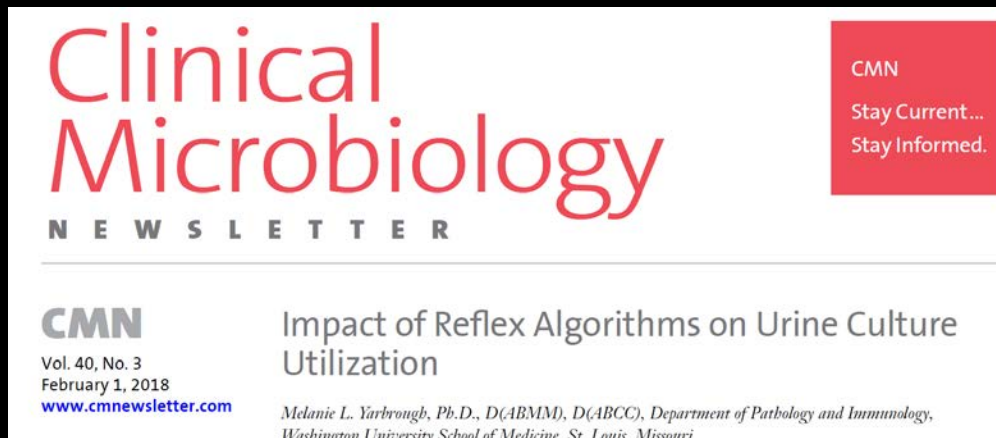
# CASE STUDY #1 CBC W/ DIFF

- 360 repeated differentials/month
- @ \$2.60 per differential
- **\$11,232 per year!**



# CASE STUDY #2: URINALYSIS REFLEX TO CULTURE

- Current reflex criteria
  - WBC > 10, +LE, +Nitrates, or bacteria > moderate
- Moving to **evidence based literature** criteria
  - WBC > 10 AND +LE or + Nitrates
  - Removed reporting of bacteria completely



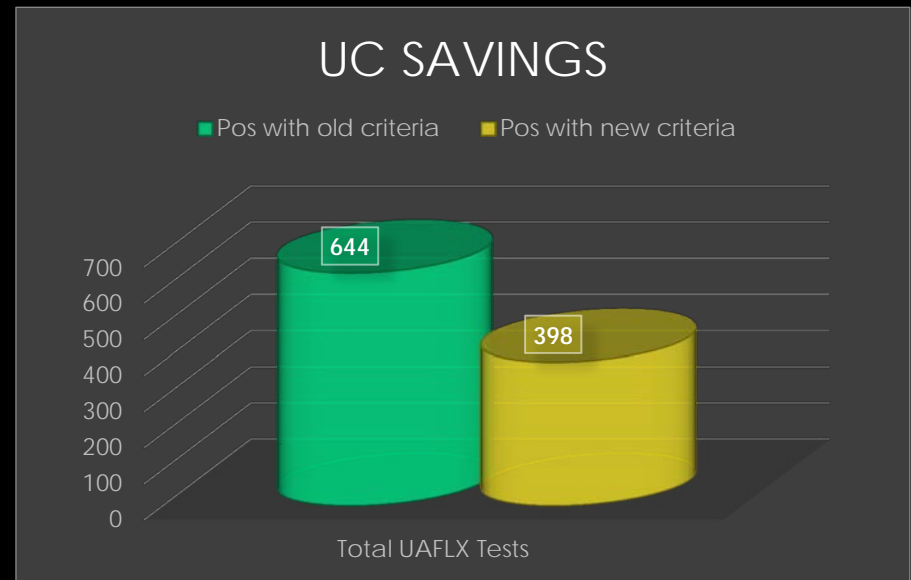
# CASE STUDY #2: URINALYSIS REFLEX TO CULTURE

- Result data
- Pivot Tables
- VLOOKUP

	TestID	ResultID	Result
11	UAFLX	BACU	MANY
12	UAFLX	BACU	MANY
13	UAFLX	BACU	RARE
14	UAFLX	BACU	MANY
15	UAFLX	BACU	RARE
16	UAFLX	BACU	MANY
17	UAFLX	BACU	RARE
18	UAFLX	BACU	RARE
19	UAFLX	BACU	RARE
20	UAFLX	BACU	FEW
21	UAFLX	BACU	MANY
22	UAFLX	BACU	FEW
23	UAFLX	BACU	RARE
24	UAFLX	BACU	RARE
25	UAFLX	BACU	FEW
26	UAFLX	BACU	RARE
27	UAFLX	BACU	FEW

# CASE STUDY #2: URINALYSIS REFLEX TO CULTURE

- Reduction of cultures by 38.2%
- Annually we perform ~20,000 UAFLX
- Potential savings is 7885 cultures!
- **\$19,335**



# CASE STUDY #2: URINALYSIS REFLEX TO CULTURE

- ANTIBIOTIC STEWARDSHIP
  - ↓ C Diff
  - \$ Antibiotics
- ↓ CAUTI Rates
  - ↑ Reimbursement





# THE END

Comments???