



COLLEGE of AMERICAN
PATHOLOGISTS

Root Cause Analysis (RCA)

From blame to gain

Rich Becker
Frank Schneider

Objectives

- Recognize key steps in an RCA and corrective action methodology that meets the requirements of international quality standards such as ISO 15189
- Recognize how RCA changes the quality culture of a laboratory
- Recognize tools available through the CAP to assist with RCA

Agenda

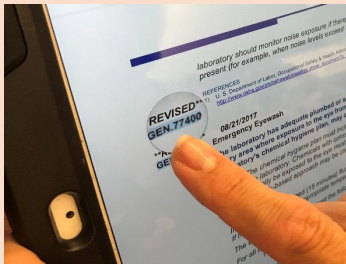
Scene 1 – What is RCA?



Scene 2 – Why we don't do RCA



Scene 3 – True stories



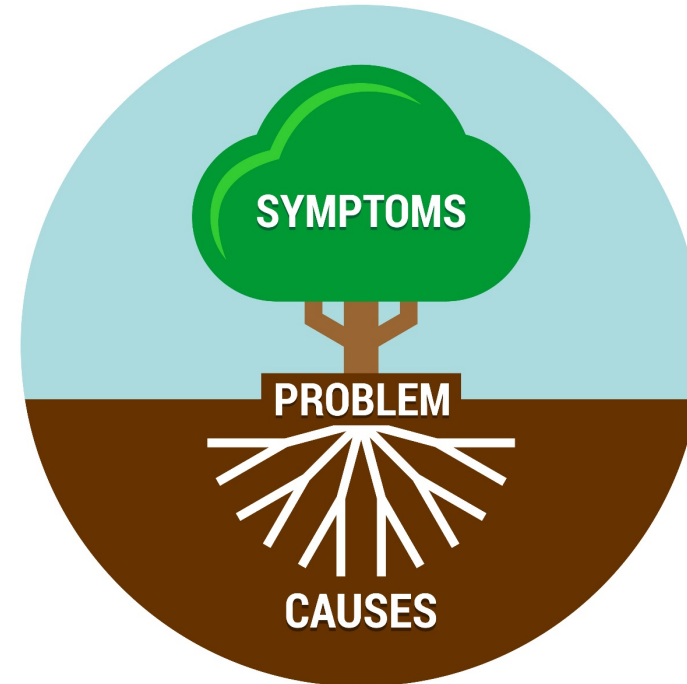
Scene 4 – RCA Toolkit

Project	Step					
	1	2	3	4	5	6
A	Yellow	Green	Yellow	Green	Green	Red
B	Red	Red	Red	Yellow	Green	Red
C	Green	Yellow	Yellow	Red	Yellow	Green
D	Green	Green	Yellow	Green	Red	Red
E	Yellow	Green	Yellow	Yellow	Green	Yellow

What is RCA?

What is root cause analysis?

- Looking deeply into problems to find out why they are happening
- Uncovering causes that are not obvious



Root Cause **Analysis**



**Methodology to
make sure we're
taking the right
corrective action**

Corrective Action



**Set of steps to
make the problem
go away**

What happens when we don't do root cause analysis?

- **Blaming individuals**
- **Telling people to “Pay closer attention”**
- **Requiring people to be retrained**



Four RCA Tools

- **Five why's**
- **Fault tree**
- **Detailed process map**
- **Fishbone diagram**

Five why's

Why?

Why?

Why?

Why?

Why?

Event/Problem:
Repeat blood
draws happen
frequently on the
5th floor.


1. Why?



Medical assistants are not available to help phlebotomists with difficult patients (eg, patient is delirious).

2. Why?



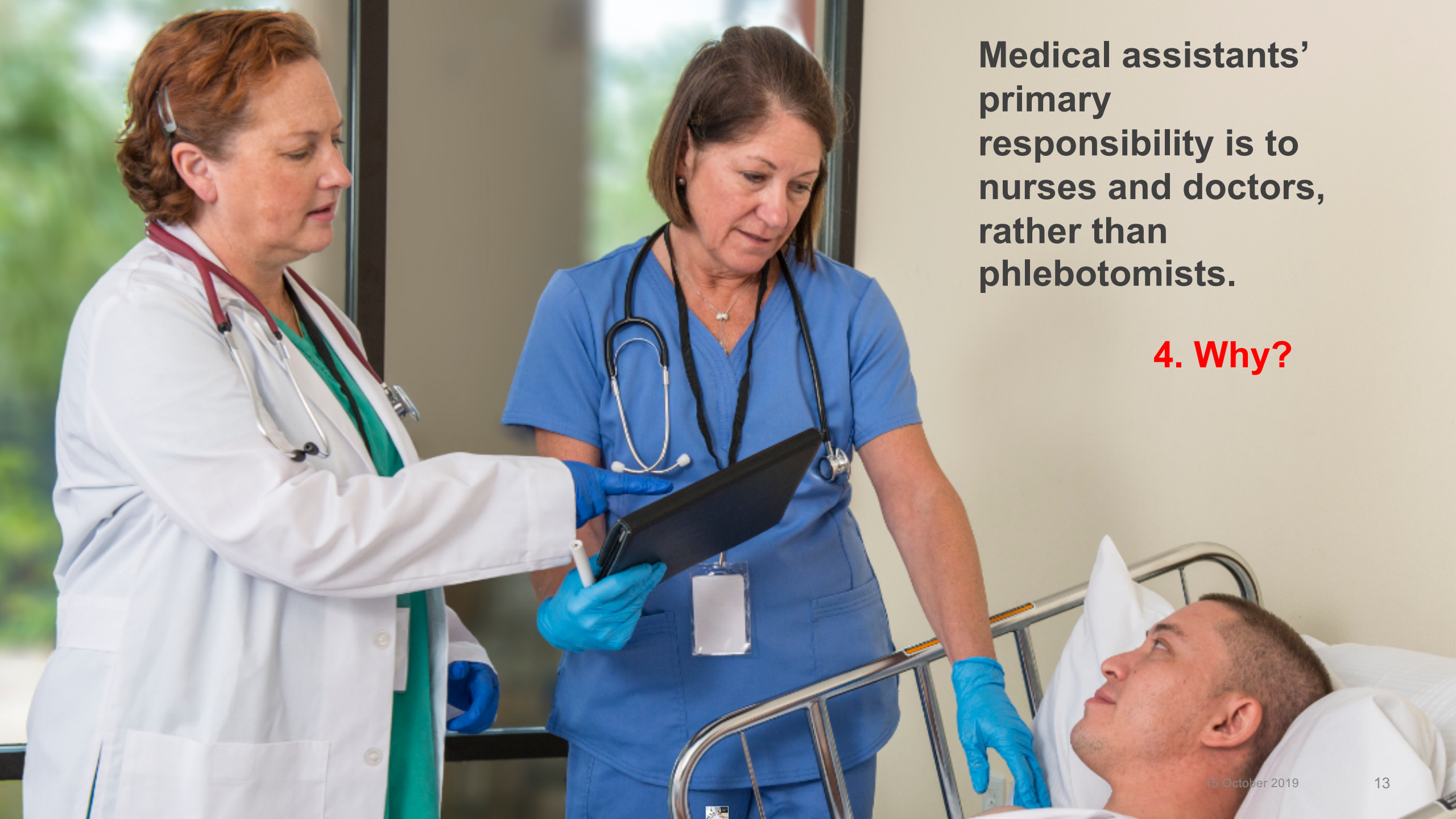
A close-up photograph of a person's hands holding a smartphone. The person is wearing light blue medical scrubs. In the background, a medical device with a yellow band and white tubing is visible, suggesting a clinical or hospital setting. The lighting is soft and focused on the hands and phone.


**Assistants have
many
responsibilities
and often respond
to other requests**

3. Why?

Medical assistants' primary responsibility is to nurses and doctors, rather than phlebotomists.

4. Why?



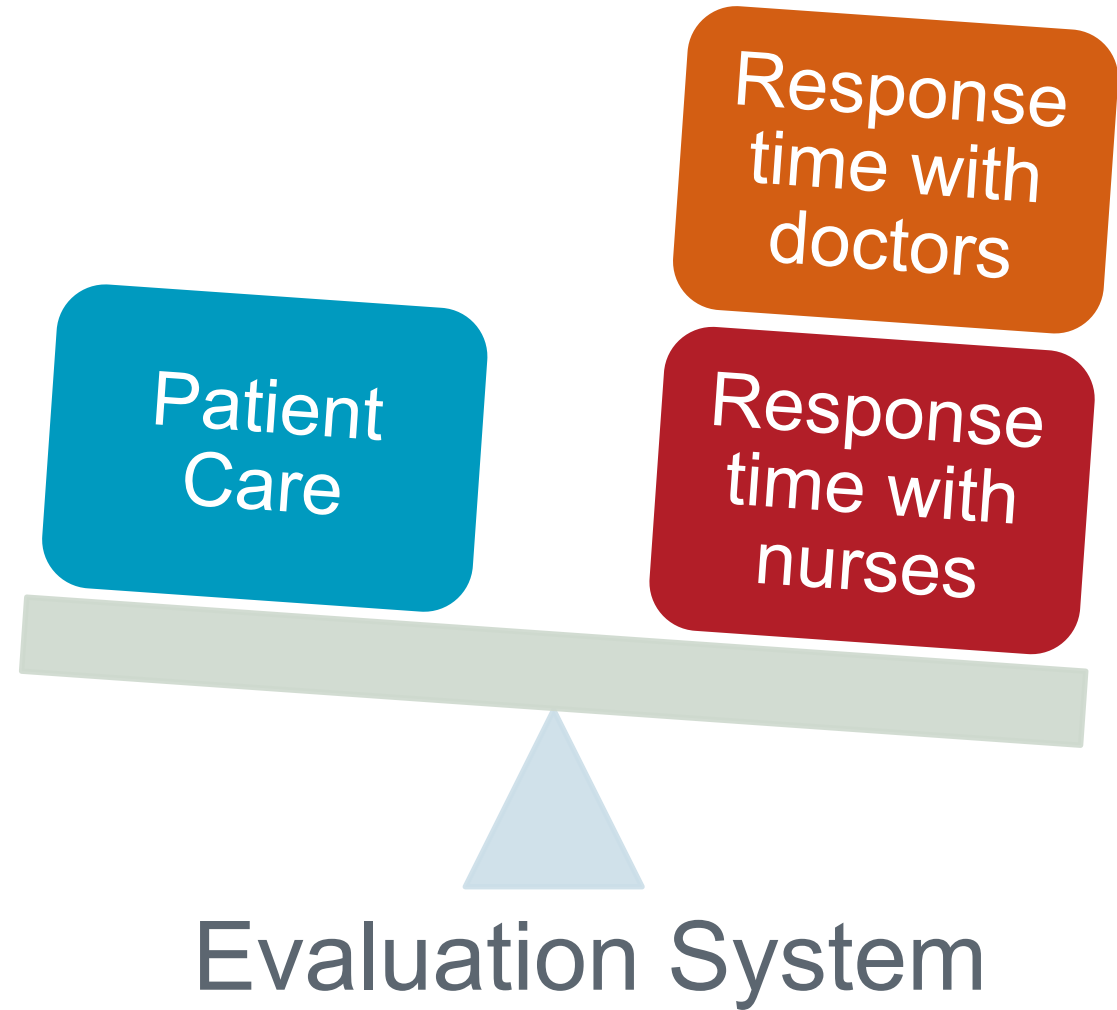
A person wearing a white long-sleeved shirt is sitting at a light-colored wooden desk. Their hands are clasped together on the desk. In the foreground, a hand is holding a silver pen and writing on a clipboard. The clipboard has a black clip and a white sheet of paper with a form. To the left of the clipboard is a white digital blood pressure monitor with a blue cuff. A pair of glasses is also visible on the desk.

**They are concerned
about their
performance
evaluations.**

5. Why?

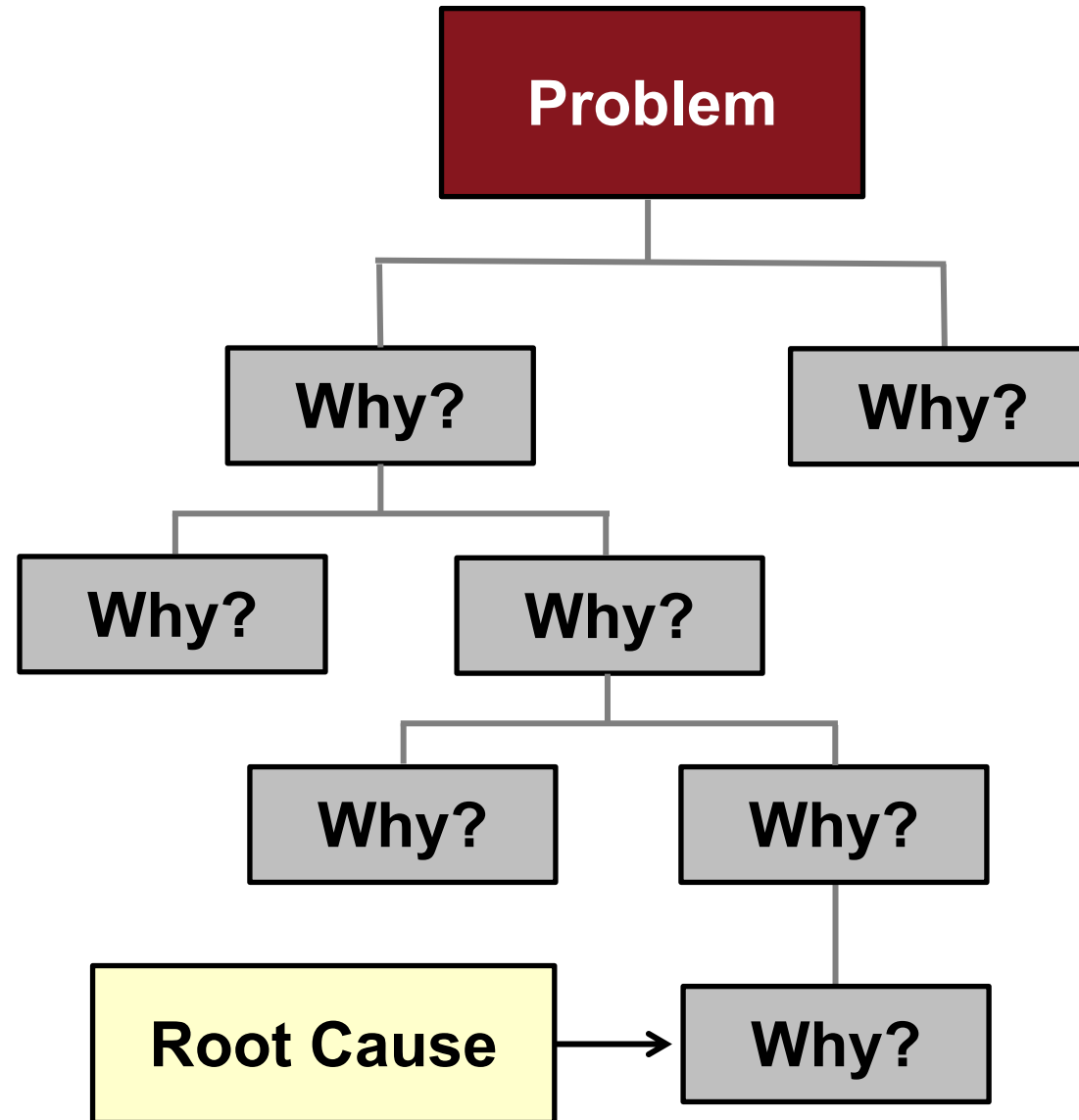
Possible Root Cause:

Performance evaluation system is flawed – does not promote good patient care.



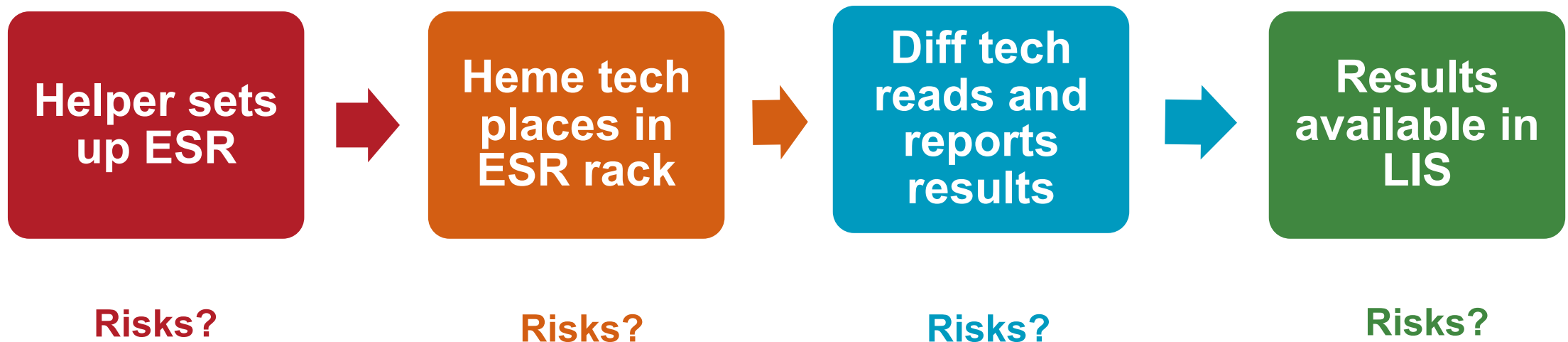
Fault Tree

- Like 5 why's, but go down multiple paths

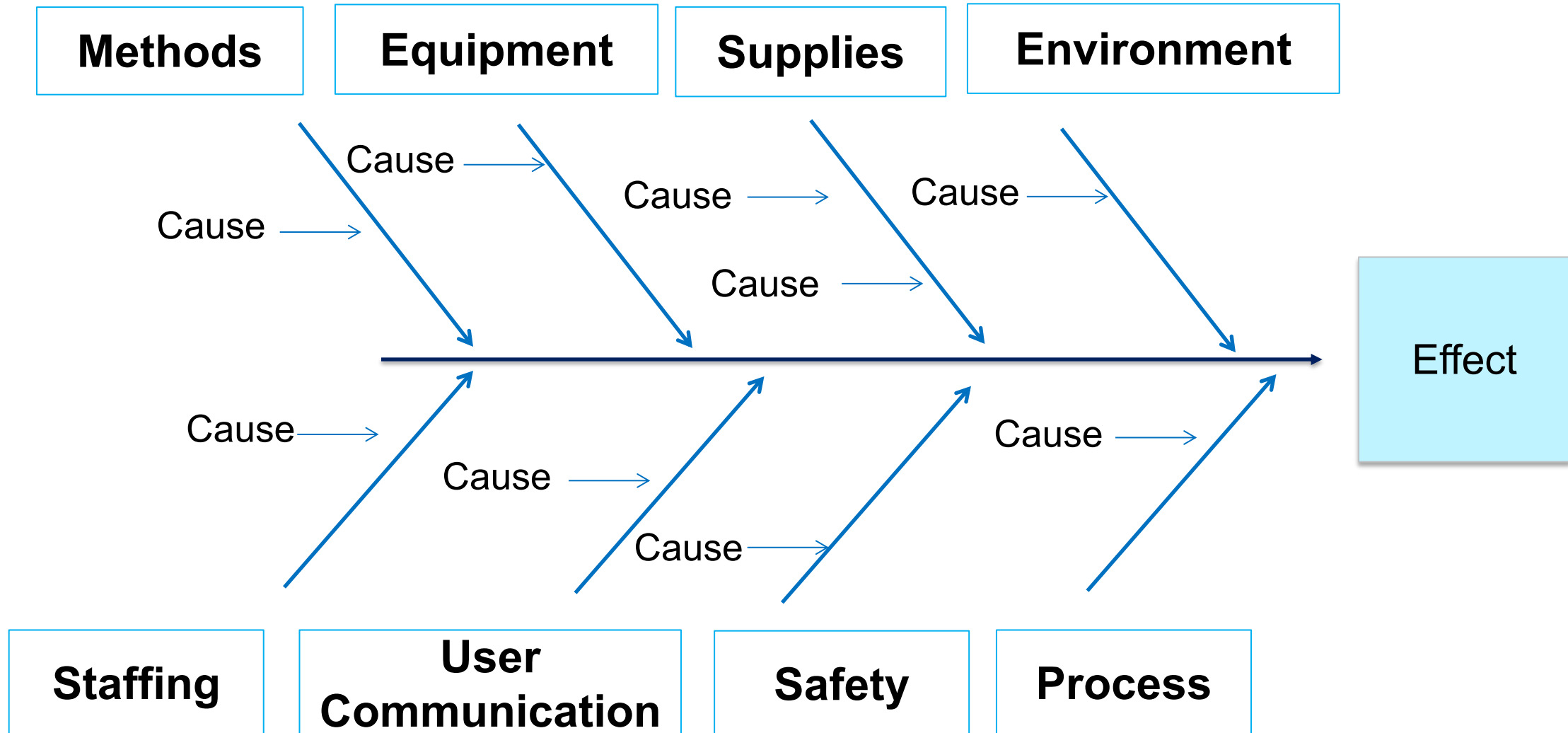


Detailed Process Map

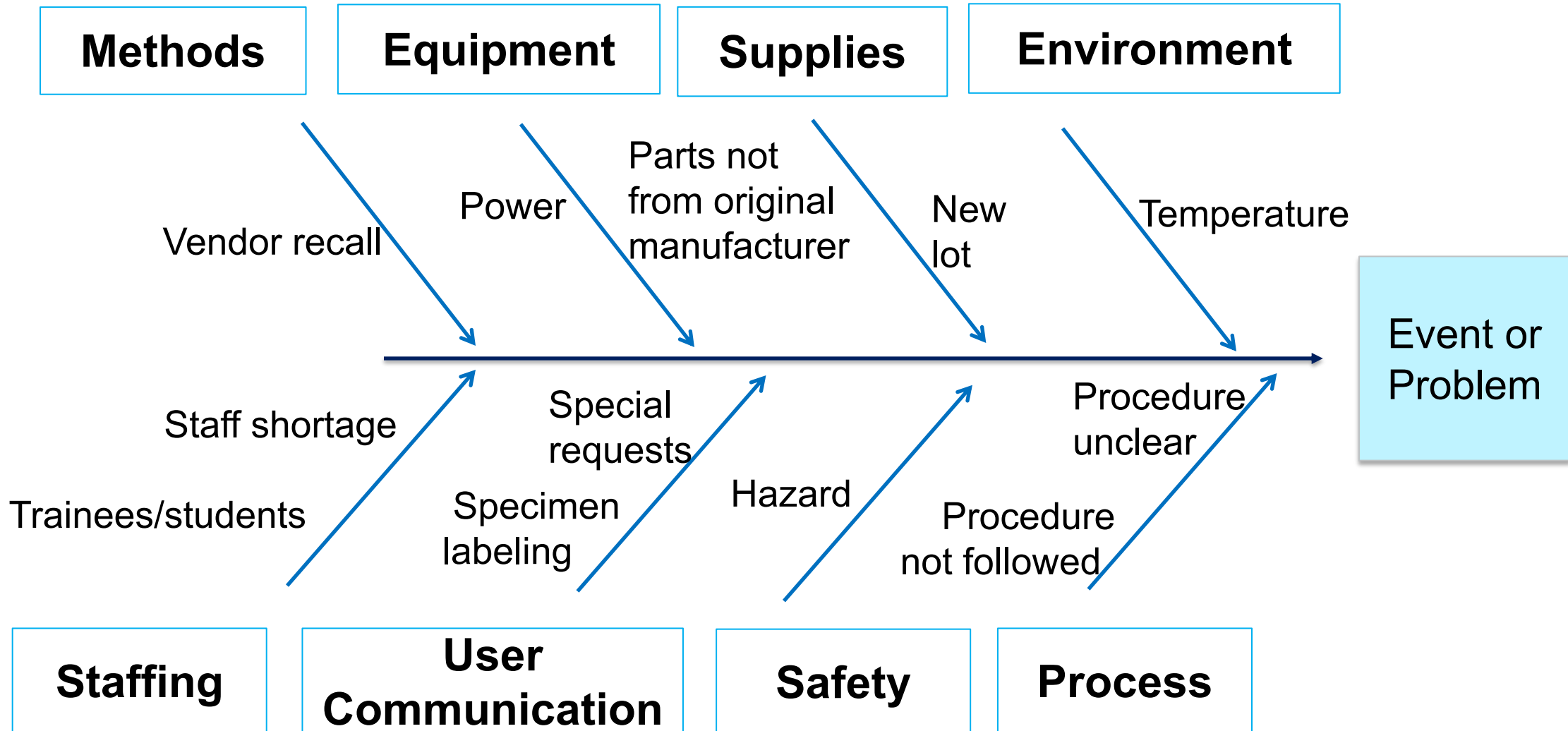
- Treat each step as a potential source of the problem.
- Ask, “What could go wrong at this step?”
- a.k.a. Failure Mode and Effects Analysis (FMEA)



Fishbone Diagram



Fishbone Diagram for Medical Laboratories

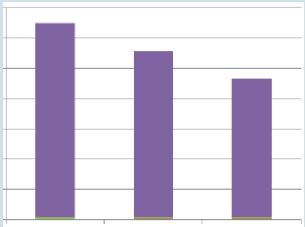


Choosing root cause analysis methods

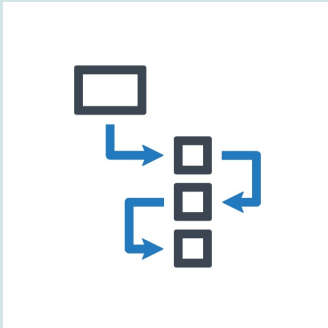
Tool	Good for...
Five Why's / Fault Tree	Analyzing a chain of underlying causes
Flowcharting	Finding error-prone steps in a complex sequence
Fishbone Diagram	Providing a systematic look at multiple factors, some of which might get overlooked

To be effective, RCA tools need to be embedded in problem solving steps...

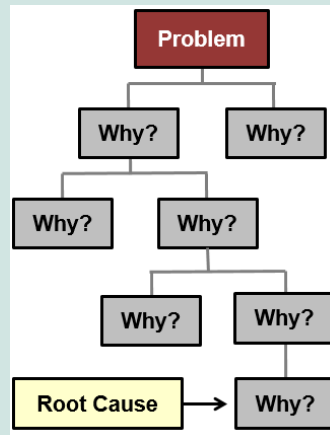
1. Define the Problem



2. Map the Process



3. Find Root Cause



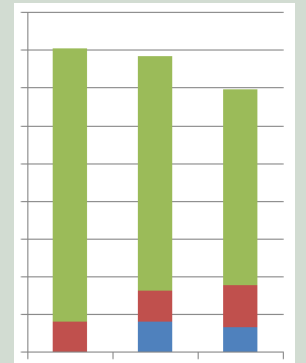
4. Develop Solution



5. Implement Solution



6. Assess Effectiveness



Pitfalls

1. Define the Problem

- Define the problem in terms of a solution
- Let one confident person make the decisions

2. Map the Process

- Trust the SOP
- Jump to conclusions about what the process is

3. Find Root Cause

- Use the same tool every time
- Jump to conclusions

4. Develop Solution

- Use a “weak” solution

5. Implement Solution

- Ignore stakeholders and possible sources of resistance

6. Assess Effectiveness

- Assume it will work
- Fail to set up an assessment approach

Why we don't do RCA

Top reasons for not doing RCA

1. The cause of the problem is typically clear
2. I don't have time
3. I don't know how to do RCA
4. Not sure it's worth the investment of time
5. Doesn't apply to the kind of problems I face
6. Not sure how to start the project and get the right people
7. It's easier to just retrain the people involved
8. What we discover may be awkward to report

1. The cause of the problem is clear

- Sometimes this is true – no need to create a big project



The cause of the problem is clear

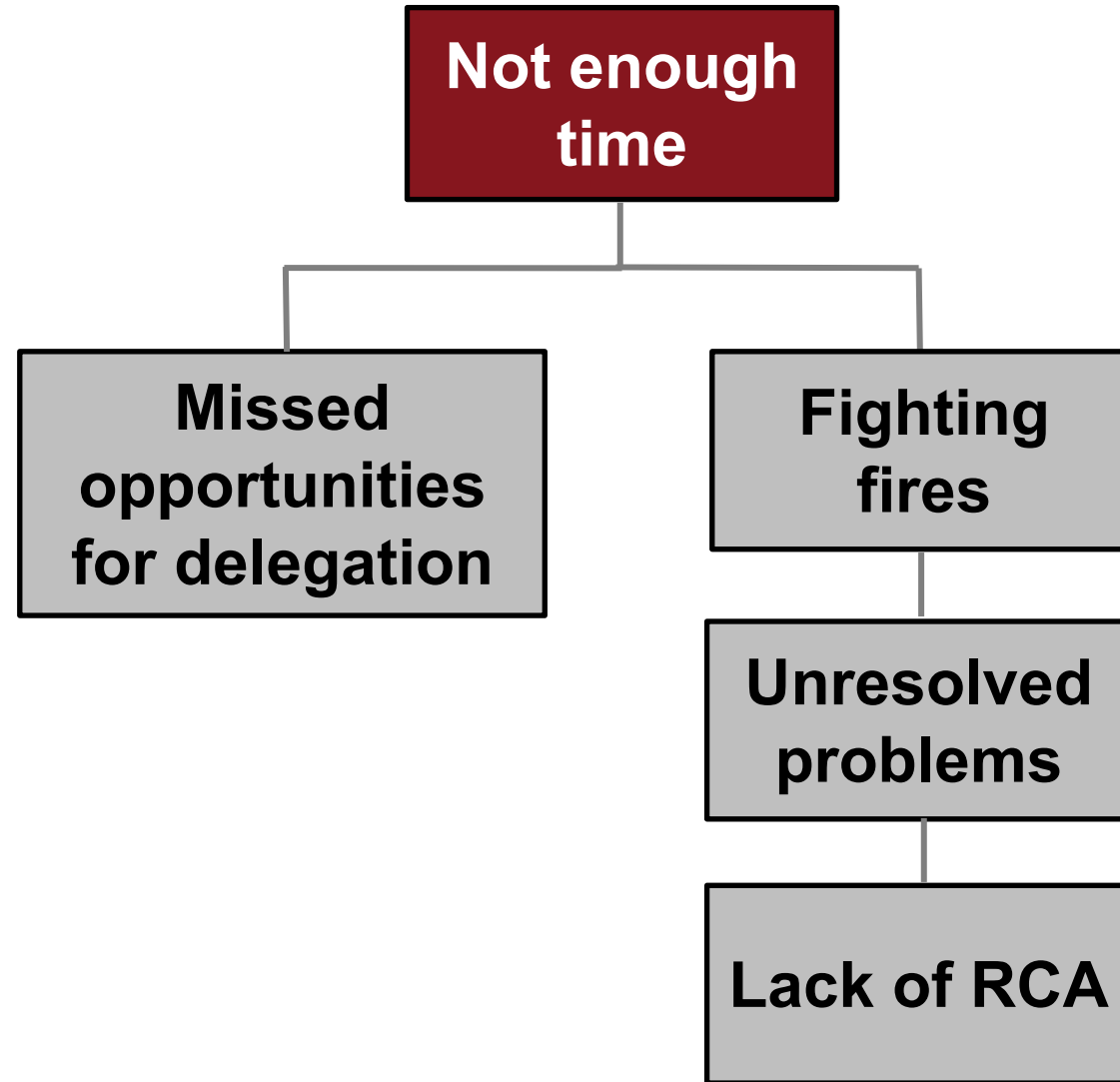
- Sometimes this represents blaming
- Unconscious inclination when something happens → Look to the “Who?”



“The cause of the problem is obvious – it’s Bob”

2. Not enough time

- I'm too busy
- My staff is too busy



3. I don't know how to do RCA

- I've heard the word, but I've never done this before
- Somebody else in quality department does this.



[PURCHASE OPTIONS](#)

Courses Available

15189 Walkthrough

Price: \$395

An overview of the intent and requirements of the ISO 15189 standard.

[More Info](#)

QMS Implementation Roadmap

Price: \$395

The key steps in planning and building a sustainable quality management system.

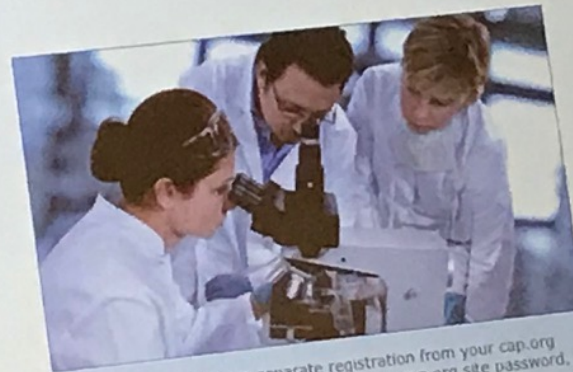
[More Info](#)

Root Cause Analysis

Price: \$695

Methodology and actual examples from medical laboratories.

[More Info](#)



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The key steps in a sustainable quality management system.

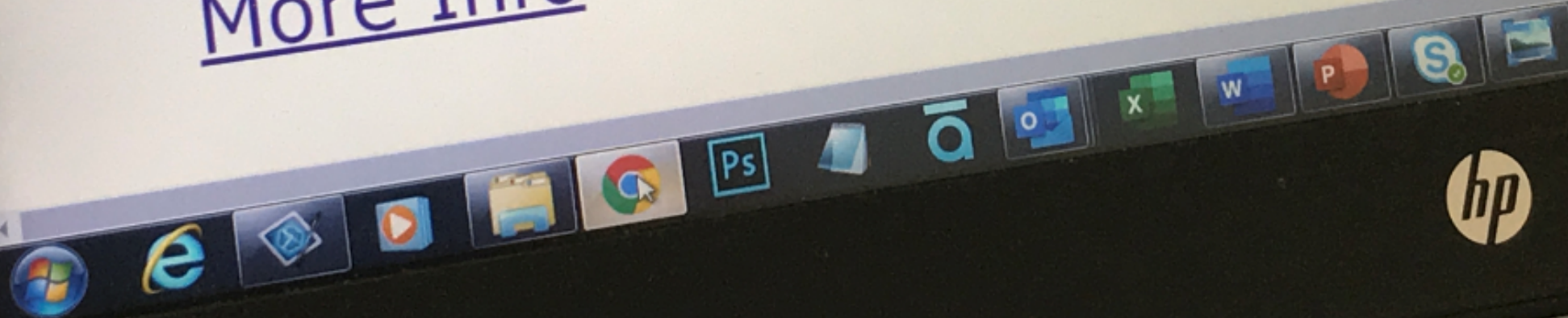
[More Info](#)

Root Cause Analysis

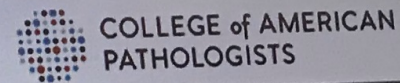
Price: \$695

Methodology and actual examples from medical laboratories.

[More Info](#)



Root Cause Analysis



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Course Map

Introduction

Step 1 – Define Problem

Step 2 – Map Current Process

Step 3 – Find Root Cause(s)

Step 4 – Develop Solution

Step 5 – Implement Solution

Step 6 – Assess Effectiveness

Tools

Example Project

Course Resources

Demonstration – ESR Results

This section provides a demonstration of Step 1 – Define Problem.

Wolfe-Christopher Hospital provides inpatient, outpatient, diagnostic, surgical, rehabilitative, behavioral, kidney dialysis, emergency, and outreach services.

Currently, the rheumatology department is participating in a study with Investigation Drug Services.



General Problem Description

The erythrocyte sedimentation rate (ESR) was chosen as a test variable for monitoring the response of a medication in patients undergoing a multi-centered study. Registered nurses (RNs) in rheumatology need the test results before they can order the medication from Investigation Drug Services. The director of the rheumatology department has expressed her dissatisfaction with the laboratory services, explaining that their patients often have to wait a long time for their medication because it takes too long to get ESR results.

Laboratory Data

TAT expectation is 95% ESR <80 minutes

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7/16/2019

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Root Cause Analysis course - Testimonial

“After going through the RCA course and studying the examples, I felt like I could perform at a professional level.

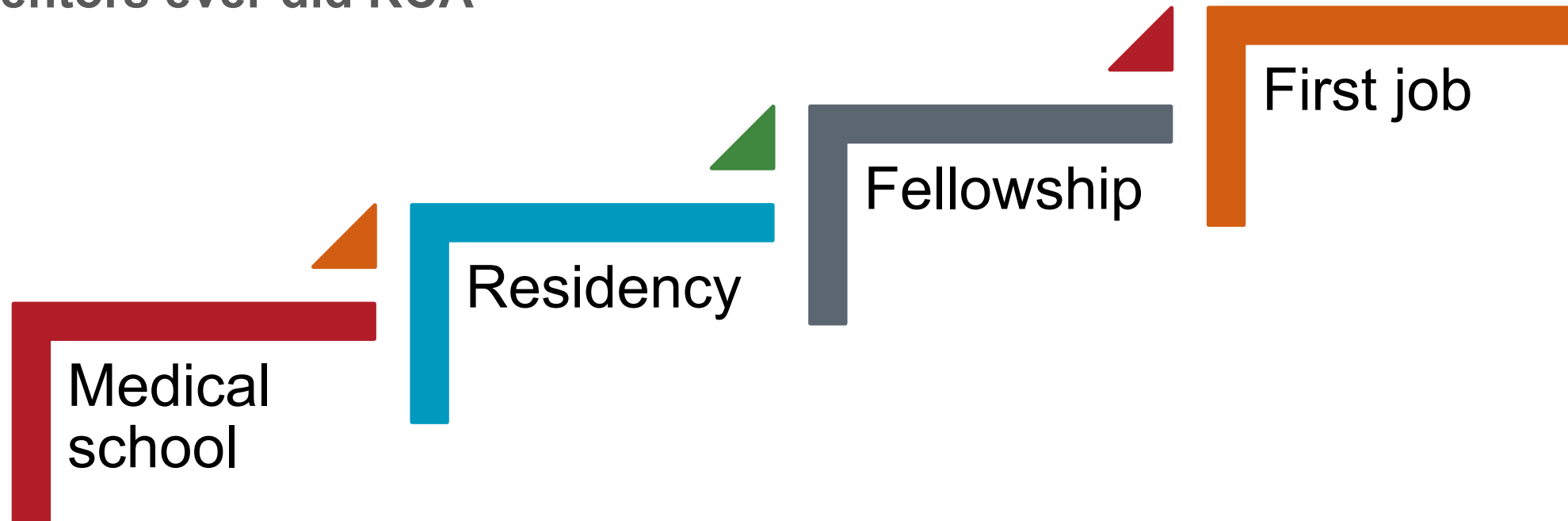
“I knew what I was doing.”



Justin Caron, MD, FCAP
UCLA Hospital Laboratories

4. Not sure it's worth investment of time

- None of my teachers or mentors ever did RCA



An RCA wasteland...



...No RCA projects or resulting benefits in sight

Jacqueline R. Copeland MT, John L. Carey MD, Ryan C. Varney MS
All Core Stat, Lab Support Service and Chemistry Personnel

ABSTRACT

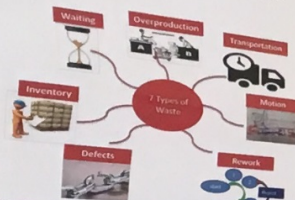
Henry Ford Laboratories are continuously looking to improve efficiency and quality, while reducing variability in all phases of testing. Automation from Fluidity can provide the efficiencies needed to improve their turnaround times. With faster turnaround, and reduce time to the line, we partnered with our supplier and embarked in 3D programming. With a goal of one touch to the line, we present, design and process, design your best-in-class, automated on the library. Following 30/90/2014, we present in world program meetings and 5 days of launch. This resulted in 14 actions, 150% of automation, 90% reduction in waste (2) and reduction in motion (25 m/day).

PLAN: PROBLEM

With over 12

PLAN: PROBLEM BACKGROUND

PROBLEM BACKGROUND



PLAN: AIM

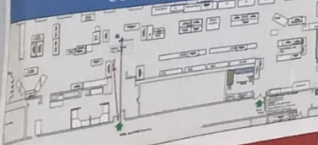
With a goal of one touch to the line:

If we implement an automation line then we will :

- Reduce specimen handling
- Reduce variation in the specimen delivery process
- Reduce human motion
- Remove the human touch
- Mistake proof the current condition
- Implement visual controls
- Identify defects to improve standard work

PLAN: CURRENT STATE

CURRENT LAYOUT



Motion	Before Automation
Daily Steps Traveled	72,405
Daily Miles Traveled	41.1 miles
Daily Time Spent in Motion	20.11 hours

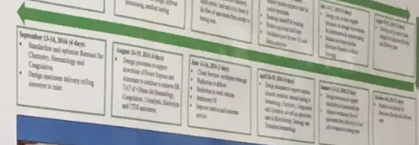
Specimen Handling	Barcode Specimen	W
Before Automation-Hematology	26	28
Before Automation-Basic Chemistry	17	19
Before Automation Basic Chemistry Shared between 2 analyzers	34	36

Line Laboratory

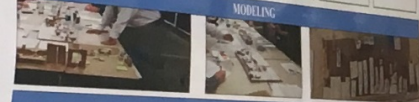
With a goal of one touch to the line, the transformation was kicked off with a 3P process (transport, preparation and use) off the bench, to model, tri-store and create our best in class lab automated data and chemistry testing in an automation line that spans 150 feet in length.

DO: CORRECTIVE ACTIONS INTERVENTION

<p>December 28-31, 2014 (4 days)</p> <ul style="list-style-type: none"> • IF remodeling and design of automation service, sample delivery, materials (current vs future process steps), load leveling strategies, offloading vs. in-house) 	<p>January 28-30, 2015 (3 days)</p> <ul style="list-style-type: none"> • Review automated material locations & routes (how vs. flow/flow) in a typical material location, new equipment 	<p>March 2-4, 2015 (3 days)</p> <ul style="list-style-type: none"> • Review process automation & equipment 	<p>April 6-May 1, 2015 (2 weeks)</p> <ul style="list-style-type: none"> • Review process automation & equipment
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MODELING



CHECK: RESULTS

SYSTEMS: 150 FT. OF AUTOMATION



Motion	Before Automation	After Automation	Daily Savings
Daily Steps Traveled	72,405	27,051	45,345 steps
Daily Miles Traveled	41.1 miles	14.4 miles	25.8 Miles
Spent	20.11 hours	7.5 hours	12.6 hours

Specimen handling	Barcode Ready Specimen	Non-barcode Ready Specimen
Before Automation-Hem	28	28
After Automation-Hematology	2 85% Inhibitor	6 39% Inhibitor
Before Automation-Basic Chemistry	17	23
After Automation-	2 88% Inhibitor	6 87% Inhibitor

Basic Chemistry	34	38
Before Automation basic Chemistry Shared between 3 analyses	2	6
After Automation-Basic Chemistry Shared	96% reduction	97% reduction

KEYS TO SUCCESS

- Working on a new team and including team lead staff resulted in incidents from the level of the work
- Using IP protection, preparation and process in a process for transforming our future state
- Tool such as making, measuring, managing, mapping, and

CONCLUSION

- The 30 Teams was useful in engaging team members and allowing them to own consequences for the job redesign.
- Monthly goal-to-learning ways help to determine the best approach and evaluate their approach.
- Strength mapping and process mapping were effective means of understanding variation in the current condition and measuring the future condition.
- Continuous improvement through multi-voice teams generated action items which were resolved weekly participating success.
- Continuous improvement is used to achieve our goal of the automation line.

WELCOME

System Pathology & Laboratory Medicine

Henry Ford

5. Doesn't apply to the kinds of problems I face

- RCA is only relevant to catastrophic events, and the documentation is onerous
 - Wrong blood type
 - False negative test result
 - Instrument malfunction – HIV in eye
 - Needle stick

Catastrophic

Voluminous documentation



Scrutiny

Sentinel event

Big deal

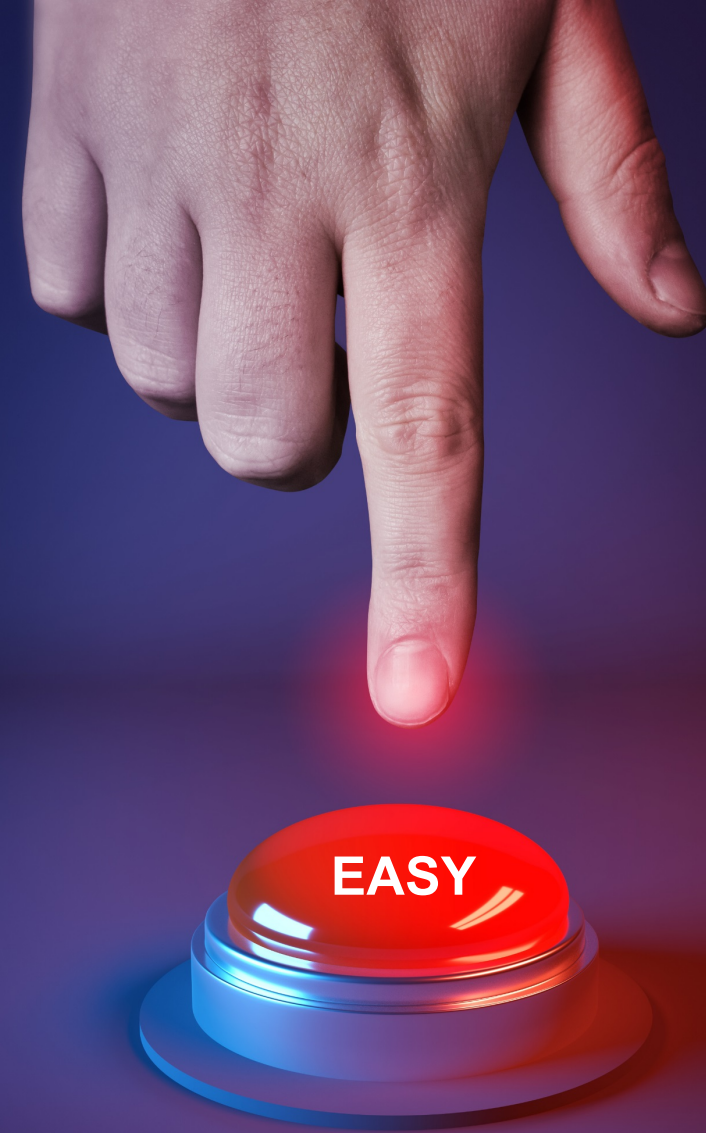
6. Not sure how to start the project and get the right people

- I'll never get the project approved
- When and how exactly is this going to happen?



7. It's easier just to retrain people

- “What harm could possibly come from retraining?”



8. What we discover may be awkward to report

- The RCA might single out a person or area with responsibility.



Beyond awkward...

- If we look into the problem – if we get into the detail – I may look bad.
- Might cause guilt – I may have caused patient issue.
- I'm only allowed to have three corrective actions – then it affects my bonus.
- The unspoken message I get at leadership staff meetings is, “Everything’s perfect.” I wouldn’t want to look out of place.

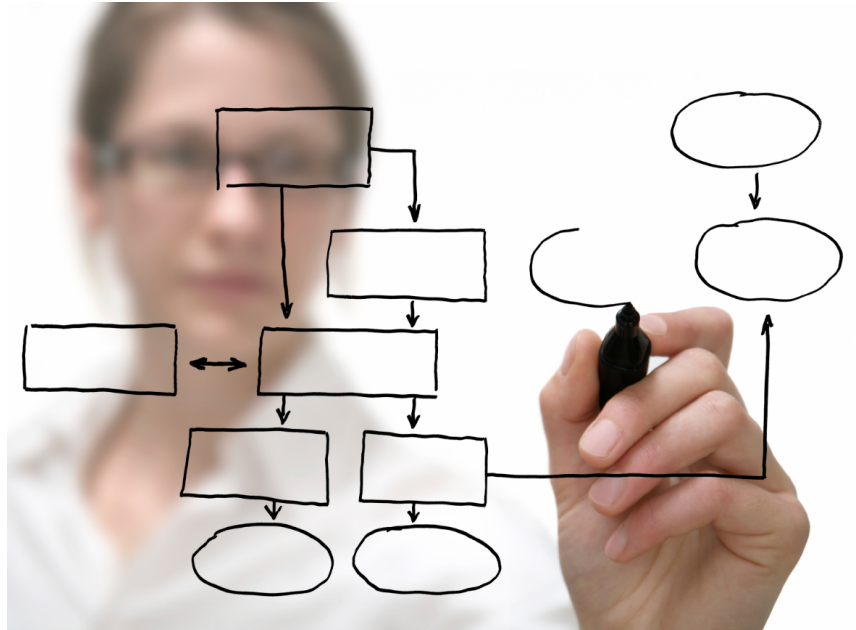
True stories of RCA and culture change

As laboratory matures...



Process Orientation

- **Ask, “How did it happen?” rather than “Who did it?”**
- **Respond to mistakes by looking for a system cause**



Transparency

- Report errors and near misses to supervisors and managers
- Support staff and encourage them to escalate errors



Teamwork and Involvement


- Include front line staff in problem solving and decision making



Inspector Summary Report (ISR) Project

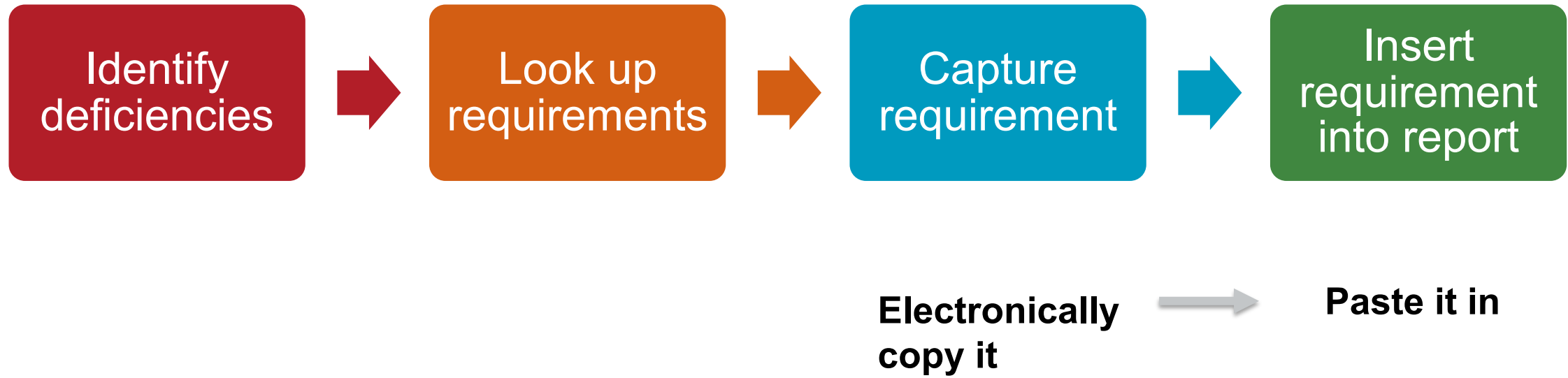
Situation

- Transcription errors in ISRs
- Errors cause problems for the technical LAP staff and require roughly 20 steps to fix.

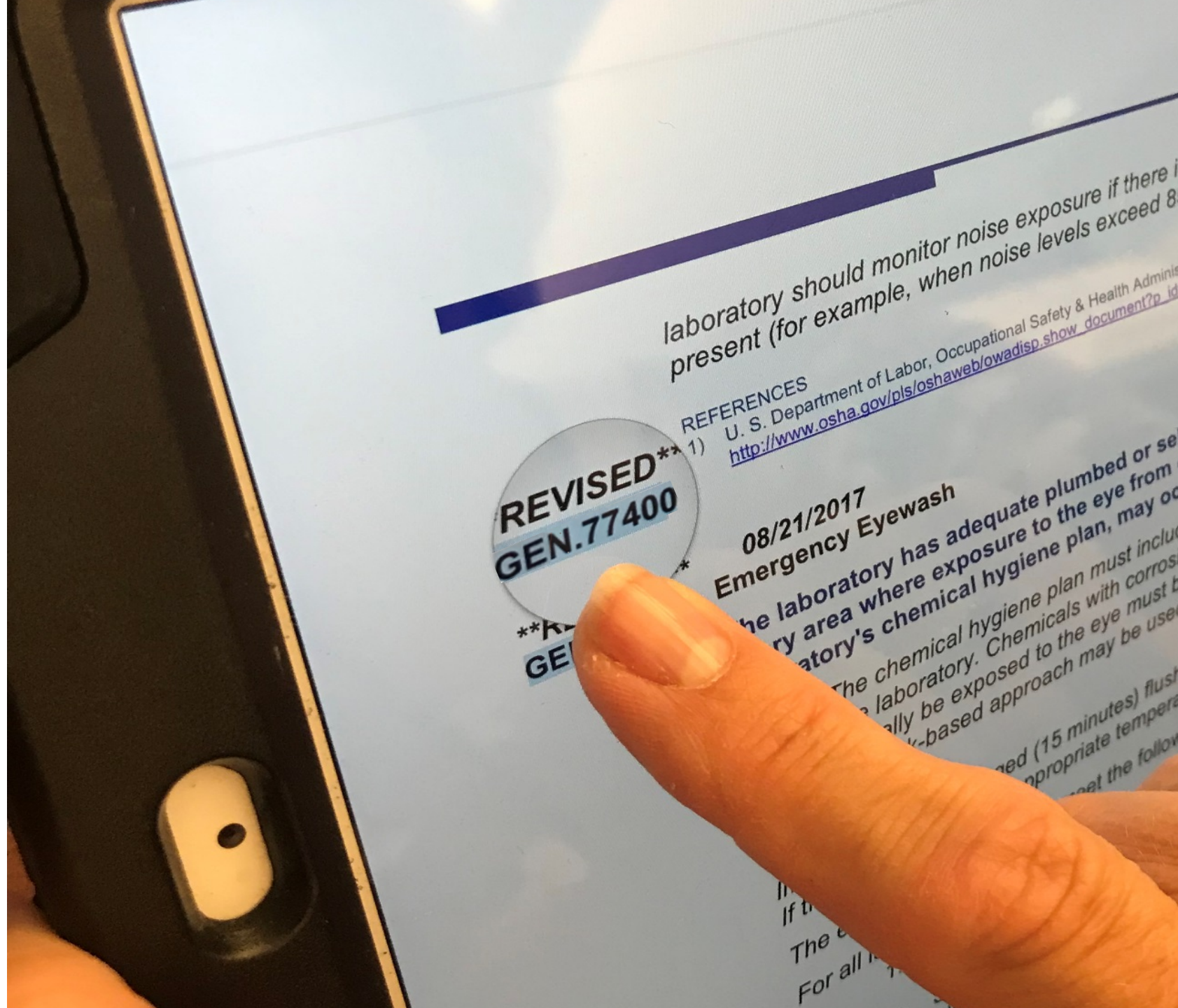
A portrait of Jean Ball, a woman with short, wavy, light brown hair and glasses, wearing a dark brown blazer. She is looking slightly to the left of the camera with a neutral expression. The background is a solid, dark purple color.

Jean Ball
Inspection
Services Manager

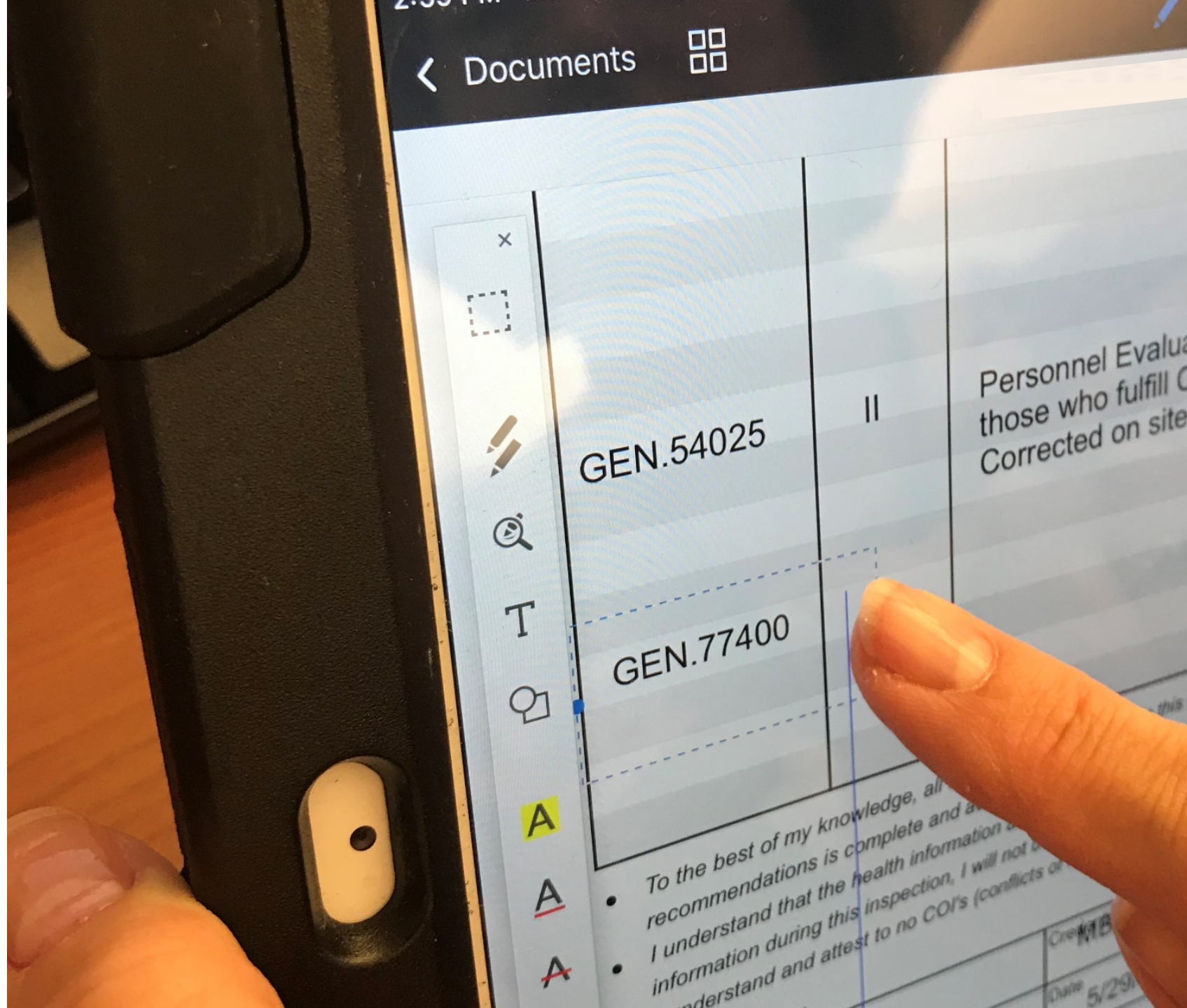
“Before” Process Map



Use fingers on
tablet surface
to copy...



Then paste ...
then reposition
... then try to
align with
table....

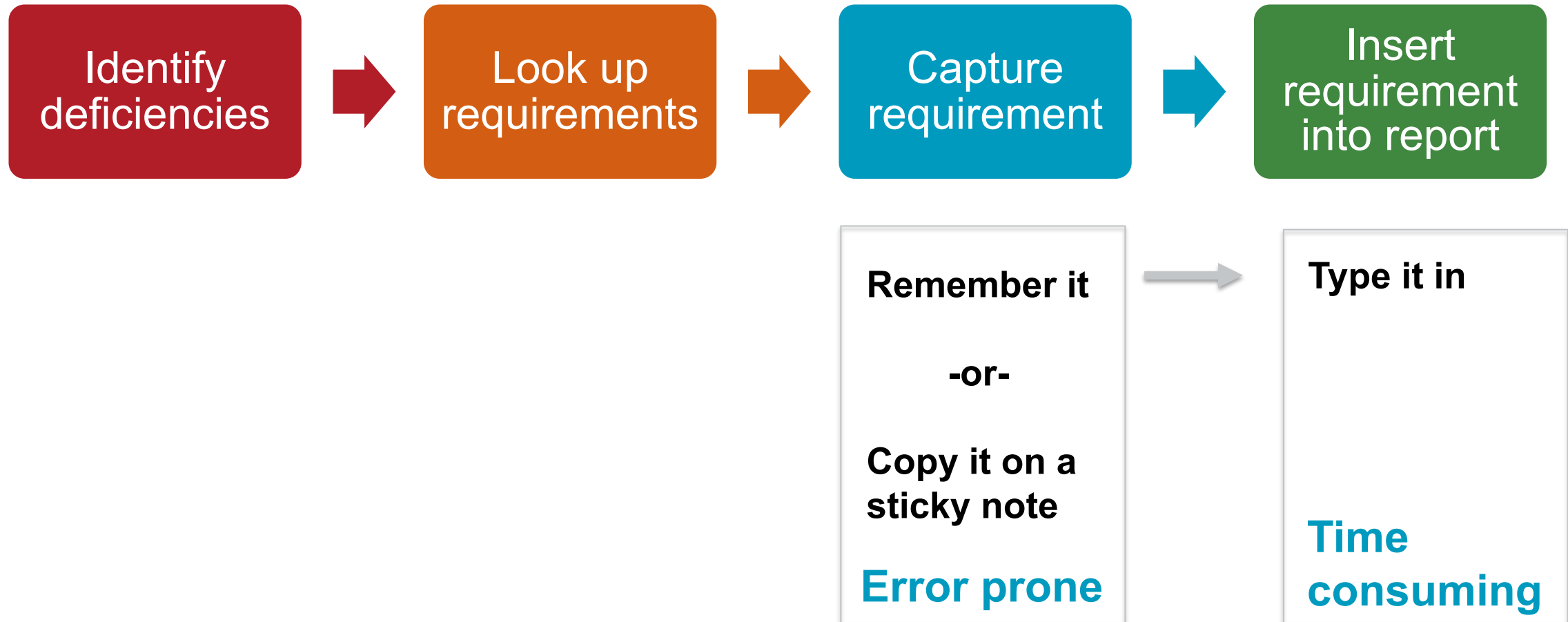


Problems

- **Process is...**
 - Mechanically difficult
 - Time-consuming
- **Resulting in...**
 - Fatigue, overtime, and frustration
 - Opportunity cost



“Before” Process Map – other options



New process: Create Excel tool

1. Search for phrase representing the requirement

	A	B	C
1			
2	Search ==>		comparability
3			

New process (continued)

2. Select the requirement and its associated number

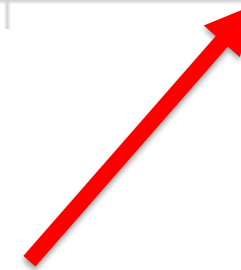
Req ID	Ph	Requirement, Note
COM.04250	2	If the laboratory uses more than one nonwaived instrument/method at least twice a year for comparability of results. NOTE: This requirement applies to tests performed on the same or different instruments/methods. The purpose of this requirement is to evaluate the relationship between test results using different instruments/methods accredited under a single CAP.

COM.04300	2	Acceptability criteria are defined for comparability of nonwaived instrument/methods. If the laboratory's acceptability criteria are not met. NOTE: Statistically defined acceptability limits should be used for comparability of nonwaived instrument/methods.
POC.03810	2	The POCT program follows manufacturer's instructions for all test systems. NOTE: Changes in the specimen type, collection device, or intended use of the test system are considered "changes in the instructions" in the Definition of Terms as found in the All Common Requirements.

New process (continued)

3. Type in notes and recommendations

A		B	C	
Deficiencies				
SU Name		Req ID	Ph	Comments
1327419 Chemistry & Special Chemistry		COM.04250	2	not being compared every 6 months



New process (continued)

4. When all deficiencies and notes are complete...Click a button.

- Sorted, aligned, correct, complete

Requirement ID	Phase	Inspector Comments
		<input type="checkbox"/> This laboratory section has no deficiencies
COM.04250	2	Beckman analyzers were not compared every 6 months in 2018. Only one comparison that year.
COM.01200	1	Activity menu does not include all testing at contiguous campuses.
COM.01400	2	Person signing PT attestation statement for high complexity is not qualified to sign.

Perspective of staff inspector

“Investigating the Inspector Summary Report (ISR) errors made a difference in our culture.

“Management was willing to listen to our concerns, get our perspective, and involve us in looking for process causes rather than just saying, ‘Pay closer attention.’

“This was significant to us.”



Nancy Sheffer
CAP Inspection Analyst

Time Comparison

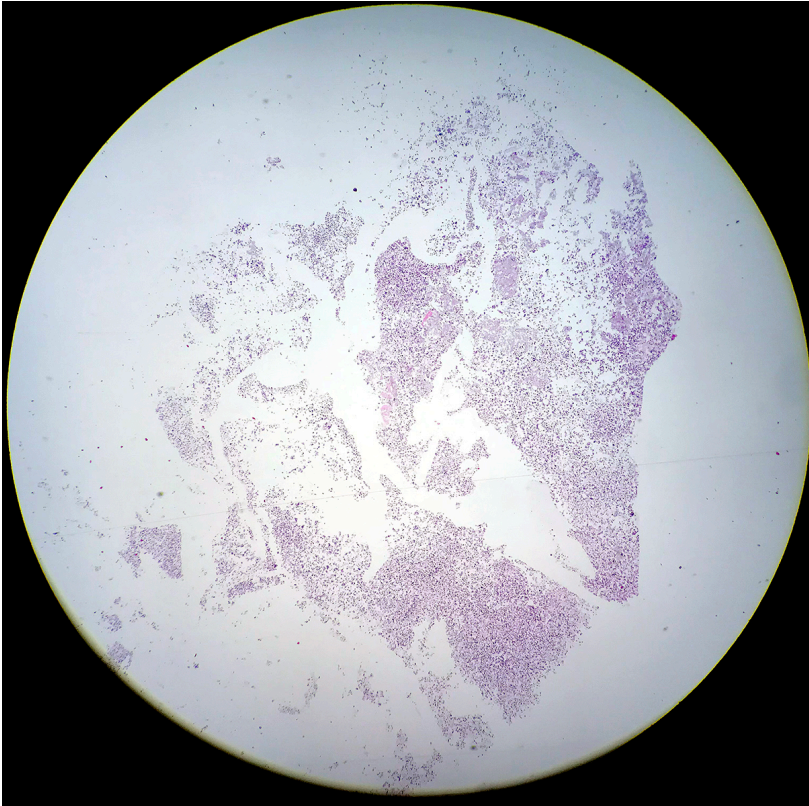
Scenario: 15-page ISR report with 5 deficiencies

Task	Old Method	New Method
Transfer requirement numbers, phases, and descriptions to ISR	20 minutes	5 minutes
Apply credentials and inspection date to each page of ISR report (5 stamps per page)	10 minutes	<1 minute
Sequence and sort requirements (so all GEN, CHEM, COM, etc. are together)	10 minutes	0 minutes
Recheck requirement numbers based on notes of deficiency		
Total	40 minutes	6 minutes

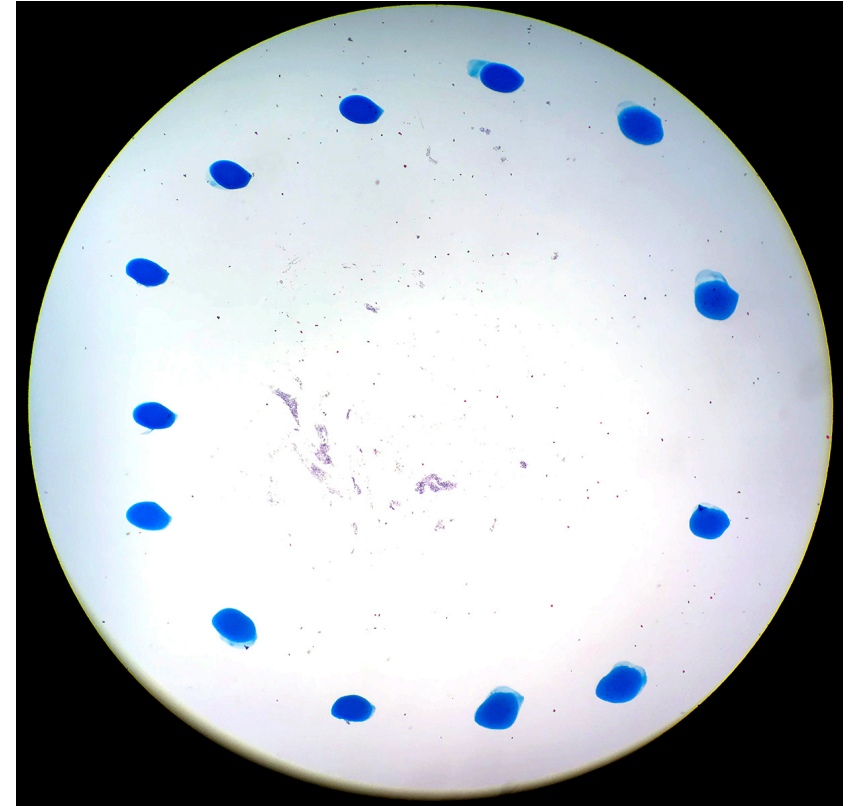
Other things staff inspectors could be doing in the evening, when on the road...



Example: Preventing unnecessary re-biopsy



**Have you been asked to run
molecular testing on a block**



**and this is all that
was left...?**

Problem: Unstained slides were not prepared at the same time as the initial H&E sections

1. Why?

**Sample not accessioned
under correct specimen class**

5. Why?

**Physician order entry does
not transfer to radiology**

2. Why?

**Accessioning staff did not
know it was a lung mass**

4. Why?

**Radiologist not aware that
oncologist needed testing**

3. Why?

**Clinical history field was not
completed on requisition**

Unstained slides not prepared in histology traced back to test ordering...

... this is a known and recurrent problem.

6. Why? Adverse event reporting cumbersome; oncologist does not have the time, change rarely happens

Possible root causes

Organizational
culture characterized
by inertia

IT group not
responsive enough
to user needs

Disconnect between
departments resulting
in lack of feedback
and learning

Example: Staff Turnover

Do you feel like you post too many of these flyers...?



Please

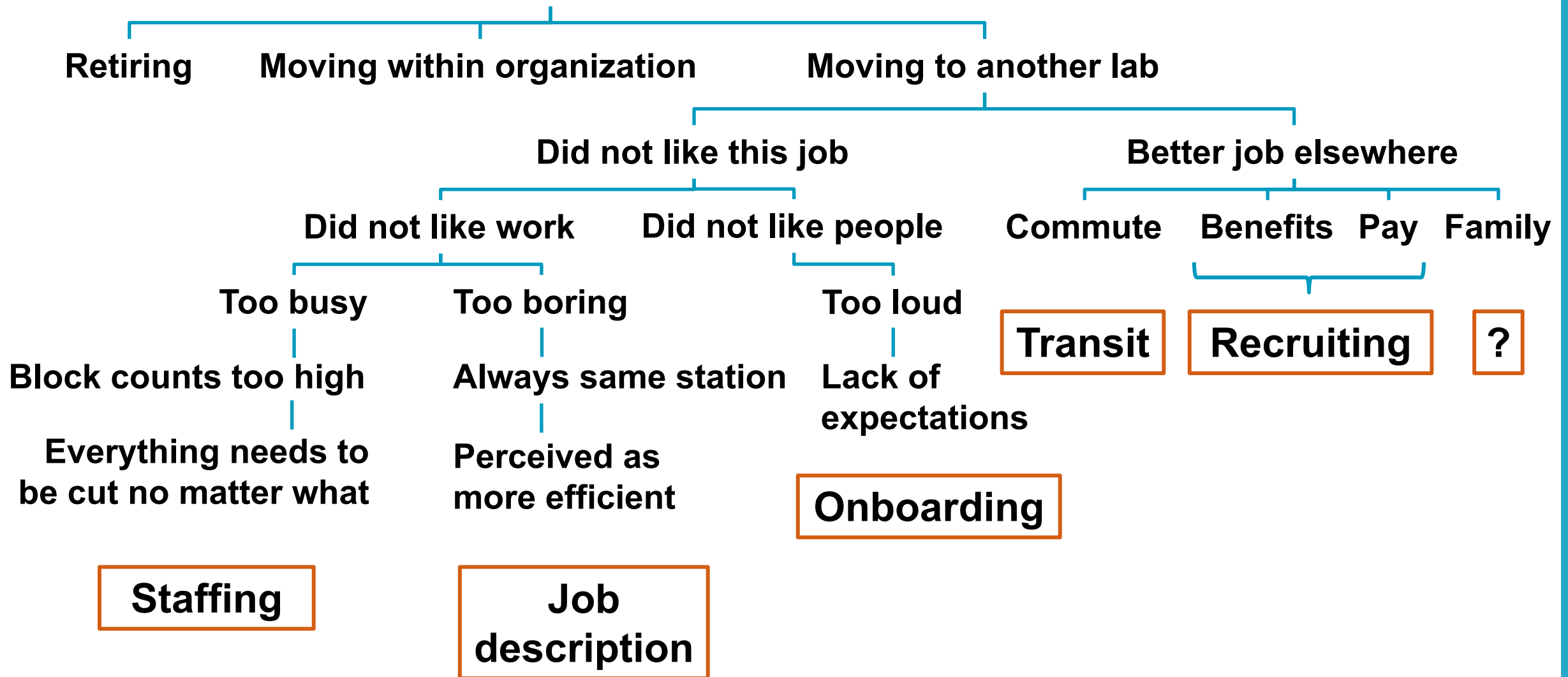
Join us in the Hallway
Outside Histology on
Wednesday, July 17th 1 pm

To say

“Fond Farewell and Best Wishes”

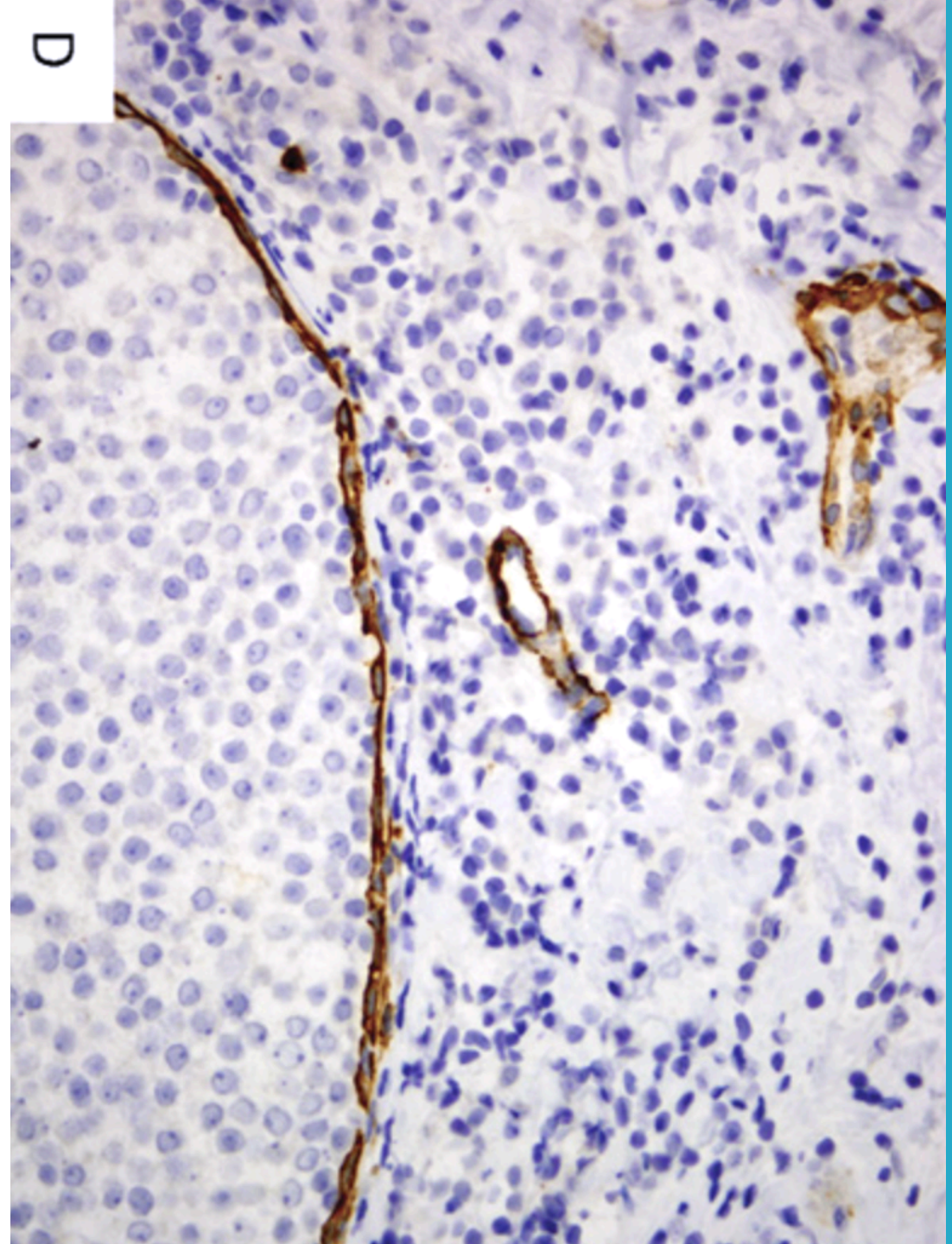
To

Problem: Histotechs are leaving



Example: Personal Diagnostic Errors

Have you reported a wrong diagnosis and later wondered what happened...?



Microinvasive breast cancer missed

Did not appreciate cancer cells on calponin stain

Eyes concentrate more on the "brown" than the unstained elements

Situational awareness: "single vs double stain"

High case load leads to "auto-pilot behavior"

Possible Root Cause →

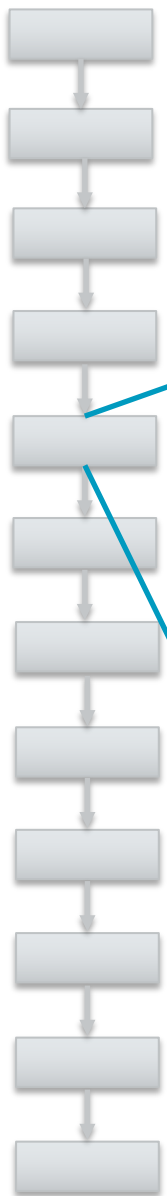
IHC becoming tool to confirm bias

Three slide reviews:
1. H&E 2. IHC brown 3. IHC not brown

← **Possible Solution**

Example: Erroneous tissue on slides





Function	Failure Mode	Effect	Severity	Cause	Frequency	Current Controls	Priority
Embedding	Tissue stuck to forceps	Another patient's tissue in block	8	Serrated tip forceps	2	Wiping forceps with tissue paper	high
	Incorrect orientation	Diagnosis difficult or impossible	5	Side of block not labeled with instruction	3	None	medium
	Cannot find a minute biopsy piece	Loss of biopsy	9	No lenspaper or tea bag used	1	None	high

Example: Use events to promote culture change

By Ben Sutherly,

Posted Jul 1, 2013 at 12:01 AM

Updated Jul 1, 2013 at 10:48 AM



Worker inexperience and a flawed clinical laboratory information system caused mishaps that cost ~~your hospital's name here~~ Medical Center nearly \$1 million. Those details were gleaned from a government-mandated analysis of 's mishandling of six proficiency-test samples that was conducted by ~~your PT provider name here~~ and obtained by ~~local or national newspaper name here~~.



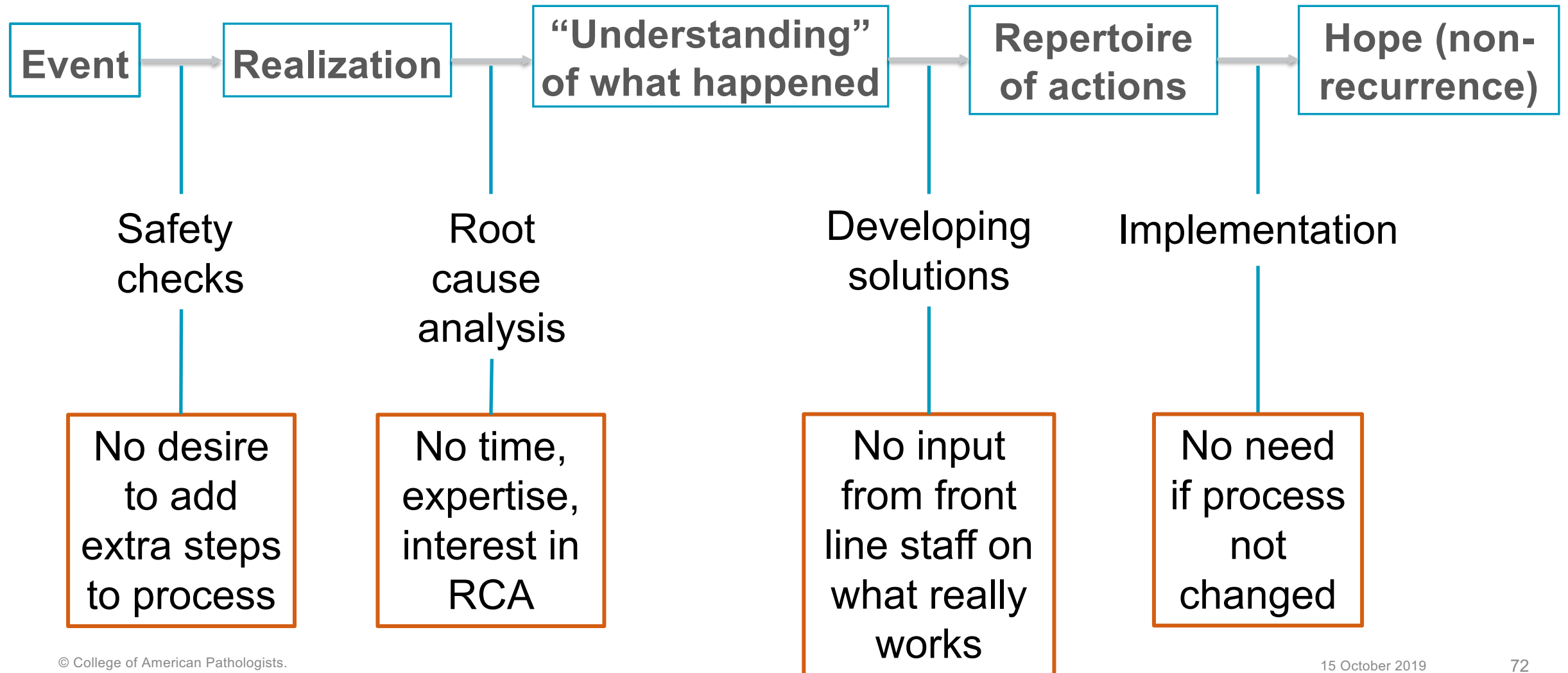
“Before” Behaviors

1. Someone brings the news that a mishap occurred
2. Everyone gets quiet and tries to think hard and fast whether “they did it”
3. Try to give impression that this is a minor random glitch that will not happen again
4. Generate feel-good atmosphere by reassuring everyone that no serious harm was done
5. Suggest that no further workup necessary because person “who did it” now fully aware of the problem
6. Everybody back at work ten minutes later as if nothing happened, except for person “who did it” who feels bad all week

Problems

- **Understanding handling of PT samples beyond “like patient samples”**
- **Not appreciating the opportunity for improvement**
- **Lack of time to work anything up beyond “try not to do that again”**
- **Not realizing that if it had not happened to that one person, it would have happened to another**
- **Unwillingness to celebrate mistakes openly**
- **Skewed perception: for every mishap, a 1000 things go right**

Root Causes



Solution

- Create an easy access event log and incentivize contributions
- First of all, congratulate those involved in a mistake/error/mishap, because they helped uncover a weakness in the system
- What I do as medical director: Look the one “who did it” in the eyes and tell them that if it had not happened to them, it would have happened to me (I usually follow up with something I screwed up that week...)
- Do ad-hoc five-why root cause analysis at the workbench, no scheduled meeting and no meeting room (my staff does not do well when removed from their home turf...)
- Empower staff and ask THEM for solutions (no rush, we want the best solution and not the quickest solution; but follow up on this)

“After” Behaviors

1. Someone brings the news that a mishap occurred
2. Someone says “Oh no, we should solve that”
3. Focus is on the steps of what we did, and not on who did it
4. We all realize that RCA is not as easy as presented at the CAP meeting
5. Staff translates ideas and solutions from one process to another

RCA Toolkit

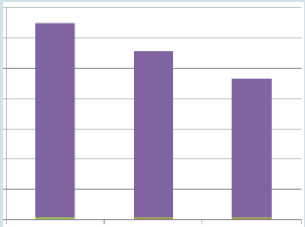
Performance Tool



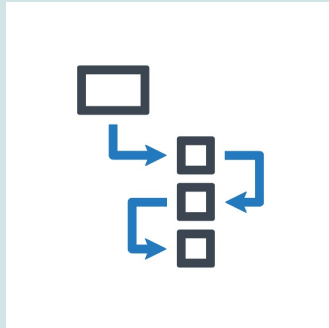
Microsoft Excel
Worksheet

- Provides prompts that guide users through the six steps
- Provides a place to document results of each step

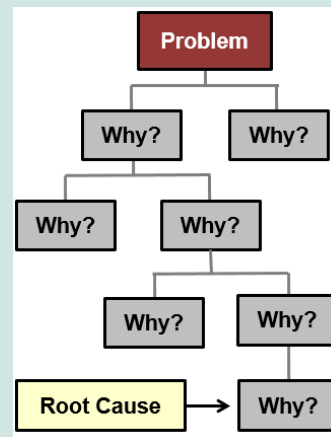
1. Define the Problem



2. Map the Process



3. Find Root Cause



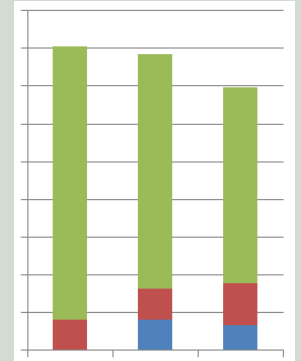
4. Develop Solution



5. Implement Solution



6. Assess Effectiveness



Performance Tool

A

B

Contents: Six Key Steps

1. Define the Problem

What to Do:

- * Assemble the team
- * Review the data
- * Develop problem definition

Team Composition / Individuals Consulted:

John Doe, Jane Doe

Problem Definition / Statement of Non-Conformity:

There are documents located throughout the laboratory that are not in Document Control/Master Control.

2. Map Current Process

What to Do:

- * Interview individuals doing the work
- * Review laboratory documents
- * Create and/or expand flowcharts (or simply list the steps)

Flowcharts / Steps:

1. A process is created or adjusted 2. Supervisor or assigned staff member creates documentation reviewing the process or process changes 3. Documentation is provided to staff which is then left within the department.



C:\Users\snydere\
Documents\
Interview

Feedback Tool, Projects Scorecard

- Makes it easy to evaluate the work and give feedback on each step
- Makes evaluation criteria transparent – no surprises



Feedback Tool - Evaluation

- 0,1, or 2 evaluation of each key step, plus space for comments

	C	D
11	Define Problem	
12		
13	Team Composition	
14	2. Problem owner created an appropriate team or accessed outside perspectives appropriately	
15		
16	0. No team used; no one else consulted other than the problem owner	
17	1. Problem owner brought in additional perspectives, but not sufficient	
18	2. Problem owner created an appropriate team or accessed outside perspectives appropriately	
19	N/A. Not applicable for this project	
20	Comments	
21		

Overview

Performance Tool

Feedback Tool_Input

Feedback Tool_Output

RCA Projects Scorecard

FAQs

+

⋮

◀

Feedback Tool – Output

- Scorecard ratings are familiar and easy to interpret

	A	B	C	D	E	F	G	H
5								
6		Project: ESR Results						
8		Step	Sub-Step	Assessment	Comments*	Raw Score (0-2)	Poi nts	
9		1. Define Problem	Team Composition	2. Problem owner created an appropriate team or accessed outside perspectives appropriately	The team used lab techs, supervisors and vendors. Good mix of perspectives	2	✓	10
10			Problem Definition	1. Problem defined inadequately, or in terms of a preconceived solution	The problem was defined, but framed in terms of a solution.	1	!	6.67
11		2. Map Current Process	Process Understanding	0. No attempt to understand the current state/process	Documentation is missing information about current processes (analytic process, shift hand-off process, purchasing process)	0	✗	0
12		3. Find Root Cause(s)	Use of Root Cause Tools	2. Use of root cause tools to address key aspects of the problem	Excellent fault-tree analysis	2	✓	5
13			Depth / Nature of Cause Identified	1. Analysis explores why the person or equipment failed, or why the condition was present	Analysis explored why the analytic procedure was failing (shallow volume of reagent because of wide reagent vial) but does not explore general issue, such as purchasing process.	1	!	3.33
14		4. Develop Solution	Solution Type / Nature of Solution	1. Intermediate - Provide info at the point of need; redesigning training to make it more effective	Team put permanent instruction on caroussel to check reagent depth, but did not redesign process.	1	!	6.67
		Overview	Performance Tool	Feedback Tool_Input	Feedback Tool_Output	RCA Projects Scorecard	FAQs	

Projects Scorecard

- Allows comparison of multiple projects; helps identify common weaknesses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
6				1. Define Problem		2. Map Current Process	3. Find Root Cause(s)		4. Develop Solution			5. Implement Solution	6. Assess Effectiveness	
7				Team Composition	Problem Definition	Process Understanding	Use of Root Cause Tools	Depth / Nature of Cause Identified	Solution Type / Nature of Solution	Mistake Proofing	Feasibility / Buy-In	Change Management	Effectiveness Check	Generalization of Results
8	Project Name	Project Leader												
9	ESR Results	John Doe												
10														
11	Creatinine TAT	Jane Doe												
12														
13														
14	Lost Specimens	Elaine Smith												
15														
16														
17	Turnover	Gene Lee												
18														

[Overview](#)
[Performance Tool](#)
[Feedback Tool_Input](#)
[Feedback Tool_Output](#)
[RCA Projects Scorecard](#)
[FAQs](#)

RCA Toolkit

“The RCA Toolkit has turned our corrective action up multiple levels.”

“I’m using it in meetings with other team members. I’m using it to push team members to do better – to challenge them.”

“I look forward to these meetings now.”

Nancy Levin

**Quality and regulatory manager for
Mayo Clinic Eau Claire Laboratory**



“We love it.”

**Vipul Trivedi, M.D., FCAP
Chair of Mayo Clinic Division
of Community Laboratory
Medicine and Pathology**



Where to find RCA Toolkit in eLab Solutions

1. Scroll down to Accreditation Resources
2. Click View All Resources

[Claim CME/CE Credit for Faxed AP Results](#)

[CAP Accreditation Certification Mark](#)

[View Lab Order History](#)

Accreditation Resources

[View All Resources→](#)

Application/Reapplication Process

Review accreditation timeline, accreditation process, personnel requirements, and calculating test volumes

Accreditation Manuals/Retention Guidelines

Stay on top of retention guidelines, learn how long to save documents, samples, etc. Review Laboratory Accreditation Manual and Standards

Laboratory Webinars

Library of complimentary CAP webinars that focus on compliance. Prepare for your inspection using short video modules

Proficiency Testing (PT)/External Quality Assurance (EQA) Toolbox

Quick access to PT escalation process, guidance documents, and troubleshooting guides

PT Compliance Notice (PTCN)

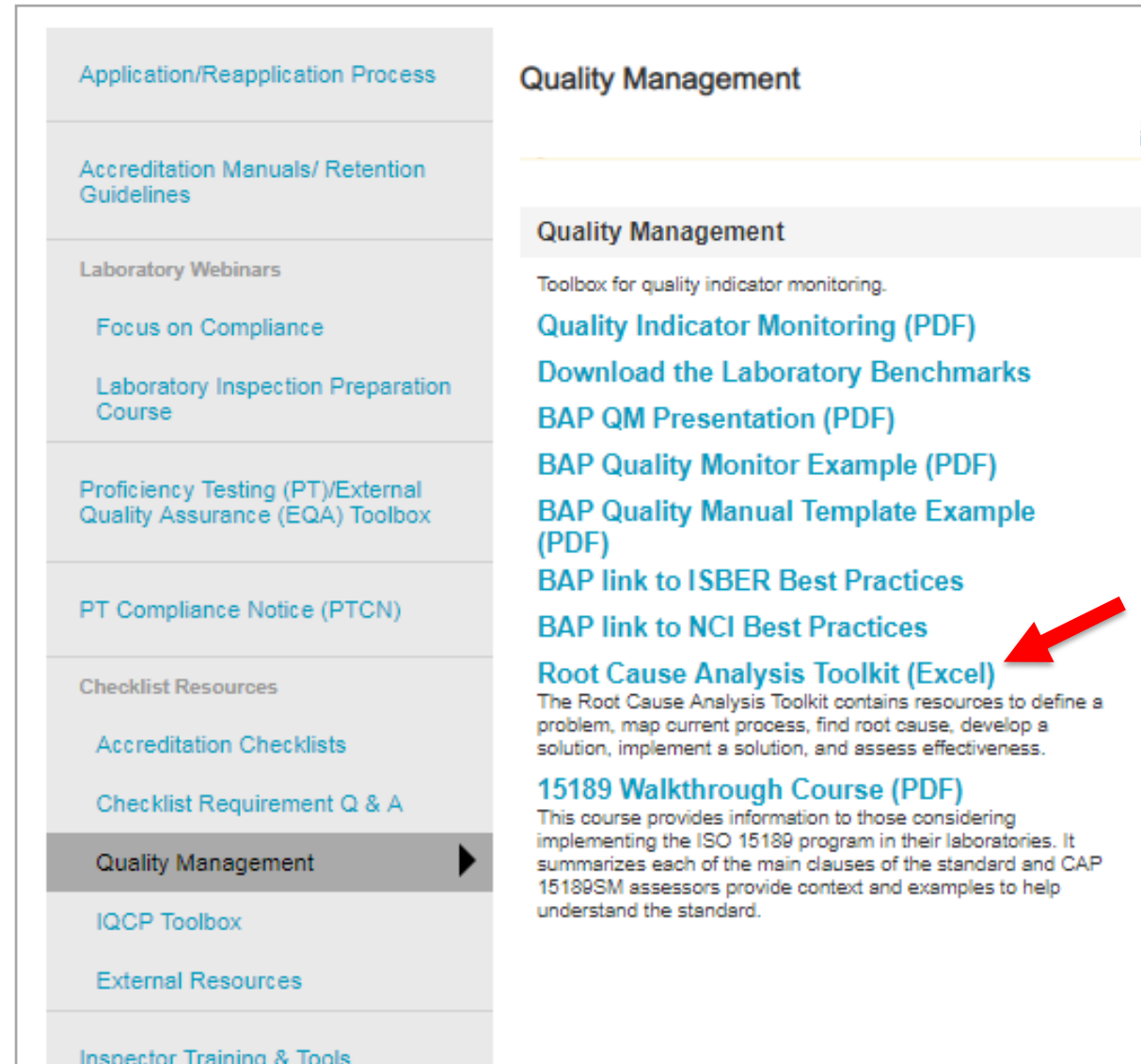
View PT definitions and types of PT compliance notices

Checklist Resources

Review frequent requirement questions and answers. Access checklist references, IQCP, benchmarks, and quality management

Where to find RCA Toolkit in eLab Solutions

3. Click Quality Management
4. Select Root Cause Analysis Toolkit



The screenshot shows the eLab Solutions website interface. On the left is a navigation menu with the following items: Application/Reapplication Process, Accreditation Manuals/ Retention Guidelines, Laboratory Webinars (with sub-items Focus on Compliance and Laboratory Inspection Preparation Course), Proficiency Testing (PT)/External Quality Assurance (EQA) Toolbox, PT Compliance Notice (PTCN), Checklist Resources (with sub-items Accreditation Checklists and Checklist Requirement Q & A), Quality Management (highlighted with a right-pointing arrow), IQCP Toolbox, External Resources, and Inspector Training & Tools. The main content area is titled 'Quality Management' and contains a sub-header 'Quality Management' followed by a description: 'Toolbox for quality indicator monitoring.' Below this are several links: 'Quality Indicator Monitoring (PDF)', 'Download the Laboratory Benchmarks', 'BAP QM Presentation (PDF)', 'BAP Quality Monitor Example (PDF)', 'BAP Quality Manual Template Example (PDF)', 'BAP link to ISBER Best Practices', 'BAP link to NCI Best Practices', and 'Root Cause Analysis Toolkit (Excel)' (which is pointed to by a red arrow). Below these links is a description of the toolkit: 'The Root Cause Analysis Toolkit contains resources to define a problem, map current process, find root cause, develop a solution, implement a solution, and assess effectiveness.' At the bottom of the main content area are two more links: '15189 Walkthrough Course (PDF)' and '15189SM assessors provide context and examples to help understand the standard.'



COLLEGE of AMERICAN
PATHOLOGISTS

Resources for Further Study

- College of American Pathologists. CAP Quality Management Education Resources. *Root Cause Analysis* [online course]. 2010.
<http://www.cap.enspire.com>
- Okes, Duke. *Root Cause Analysis: The Core of Problem Solving and Corrective Action*. Milwaukee, WI: Quality Press; 2009.
- Schneider, Frank, MD. “ISO 15189.” In *Quality Management in Anatomic Pathology*, edited by Qihui ‘Jim’ Ahai and Gene P. Siegal, 185-194. Northfield, IL: CAP Press, 2017.