


**HIGHLY RELIABLE OUTCOMES:  
CLINICAL EXAMPLES**



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15<sup>th</sup> Annual Rocky Mountain Hospital Medicine Symposium

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**DISCLOSURE**

I have nothing to disclose.

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**LEARNING OBJECTIVES**

Upon completion of this program, the participant will:

- Understand how healthcare institutions have been able to use the concepts of three dice to create reliable outcomes.
- Understand how facilitating the right behavioral choices is key to producing reliable outcomes.

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## A DESIGN STRATEGY

1. Acknowledge that perfection is not possible
2. Set expectations (THREE DICE)
3. Design to reduce to rate of human error
4. Design to tolerate human error
5. Design to avoid common cause failure
6. Design to mitigate harm
7. Design to avoid upstream drift
8. Design to avoid downstream drift
9. Design to avoid self-interested behavior
10. Be proactive

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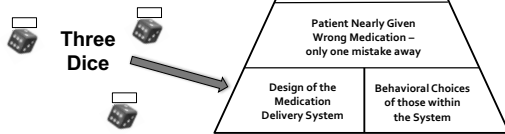
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## BE PROACTIVE

- Monitor it all
- But actively manage:
  - System Design
  - Safety Culture



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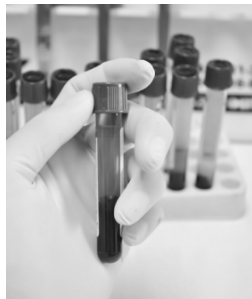
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## THE MIS-LABELED SPECIMEN



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## THE MISLABELED SPECIMEN

A College of American Pathologists Q-Probe study estimates a mislabeling rate of about 1 in 1000 extrapolated to more than 160,000 adverse events caused by labeling errors annually.



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## THE MISLABELED SPECIMEN

Palmetto Health Richland experienced 50 mislabeled specimens per month.

An unacceptable rate?  
Can they reduce the rate?



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## THEIR FIRST STRATEGY

Palmetto Health Richland implements a Red Rule

- A highly proceduralized rule (all four items)
  - Name, DOB, MR #, Acct #
- A disciplinary threat – termination if rule not followed

Rate drops from 50 to 14 per month.

Still an unacceptable rate?

What to do now?

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## WHAT WE FOUND

- Compliance rate remained very low
- Nurses and phlebotomists found their own means to balance flow (the mission) and safety (mis-labeled specimens)
- Those who received disciplinary action were those who had actually mis-labeled specimens

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## THE CHALLENGE THE PROPOSITION

**With a different philosophy,  
we'll obtain a 90% reduction  
in mislabeled specimens  
in 90 days.**

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## WHERE JUST CULTURE LEADS WHAT WE DID US?

- Eliminated the current disciplinary threat
- Eliminated steps where there was no reasonable expectation that employees would comply
- Added one step: "The Final Check"
- Hold employees accountable for the final check following the tenets of a Just Culture
- Asked employees to "raise their hand" and report when mistakes are caught during the final check



**Achieved 93% Reduction**

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## THE RETAINED FOREIGN OBJECT



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## RETAINED FOREIGN OBJECTS IN SURGERY

- National RFO rate around 1 in 18,000 surgeries
- A look at three items:
  - RFID Sponges
  - Cut Sponges
  - Instruments
  - Peanuts

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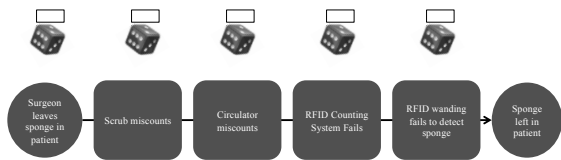
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## SPONGES



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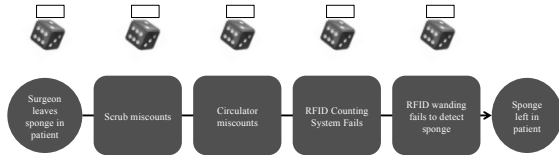
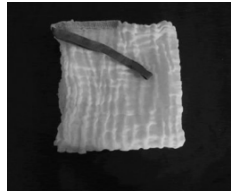
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## A CUT SPONGE?



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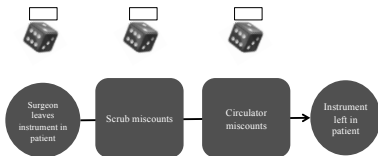
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## INSTRUMENTS



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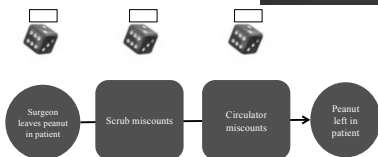
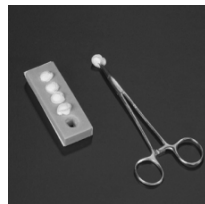
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## A PEANUT



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## GETTING TO HIGHLY RELIABLE OUTCOMES

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## UNDERSTAND WHAT WE CAN CONTROL

Systems + Choices = Outcomes

Reliable Systems + Good Choices = Good Outcomes

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## HIGHLY RELIABLE OUTCOMES

### Highly reliable outcomes require:

- An investment in time to determine an appropriate system design
- An investment in the cost of the system design (**the three dice**)
- An investment in time to shape the right behavioral choices within the system (**keeping the dice in play**)
- An investment in time to monitor system performance, adjust system and as needed (**knowing what's happening**)

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**THANK YOU**

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