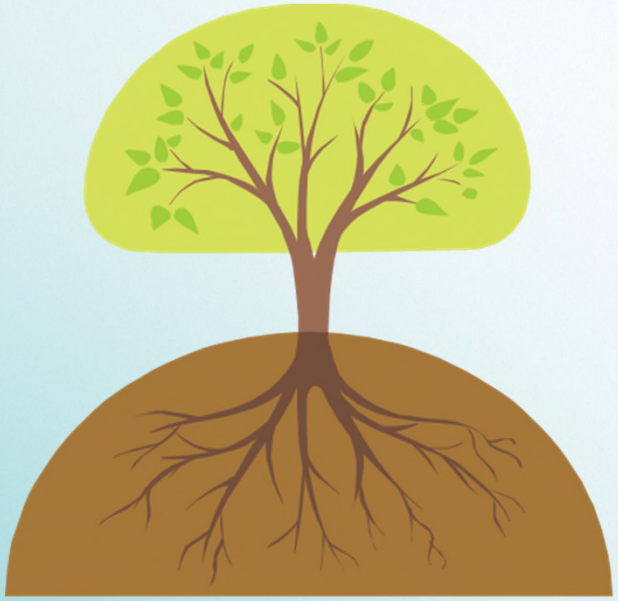
MedPro Group
a Berkshire Hathaway company

PEACE OF MIND | EXPERTISE | CHOICE | THE MEDPRO GROUP DIFFERENCE

Healthcare Quality & Risk Root Cause Analysis

A Workshop to Improve the Effectiveness in Reducing Harm to Patients



Today's program

Today's speaker is Brenda Wehrle, BS, LHRM, CPHRM, Senior Patient Safety & Risk Consultant, MedPro Group (Brenda.Wehrle@medpro.com)

Brenda is an industry-recognized patient safety and risk management professional with more than 25 years of experience. Most recently, Brenda served as a corporate leader in clinical risk management. Her professional background also includes broad experience in community healthcare facilities, including acute care, long-term care, ambulatory surgery, behavioral health, and physician practices. These opportunities have afforded Brenda valuable insight into the challenges of providing healthcare in today's world and have provided her with extensive experience conducting site surveys, leading root cause analysis teams, developing innovative loss-prevention programs, and providing consultative risk management guidance.

Brenda also has been an instructor at the Florida Risk Management Institute , an adjunct professor and has presented training and educational sessions to introduce best practices at the national level. She has experience in infection control, patient and employee safety, quality, accreditation, and credentialing. As a TeamSTEPPS master trainer, Brenda helps healthcare leaders, providers, and staff use communication and teamwork strategies to improve working relationships, enhance patient safety, and reduce the risk of error.

Brenda earned a bachelor of science degree in medical microbiology from the University of Wisconsin. She is licensed as a healthcare risk manager in Florida, is a member of the American Society for Healthcare Risk Management (ASHRM), and has had her American Hospital Association certification as a professional risk manager (CPHRM) since 2004.

Program Objectives

At the end of this session you will be able to:

- Identify fundamental principles and definitions associated with the RCA process
- Enhance your skills in the effective use of an RCA
- Discuss steps in the RCA process specific to causation, risk reduction strategies, and monitoring implementation and outcomes
- Utilize newly introduced tools to evaluate process performance
- Better understand common pitfalls in the process

What this is!

A workshop to provide insight and tools to assist in generating more meaningful use of the RCA in order to identify actual causation and effective risk reduction strategies

What this is not!

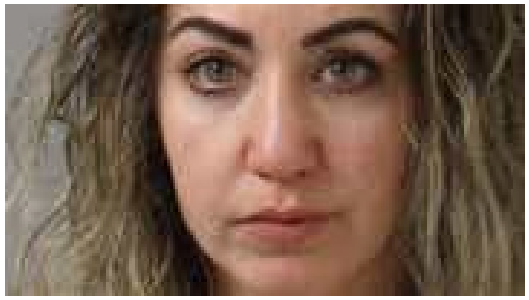
Not a session to help meet regulatory or statutory compliance

DNV·GL

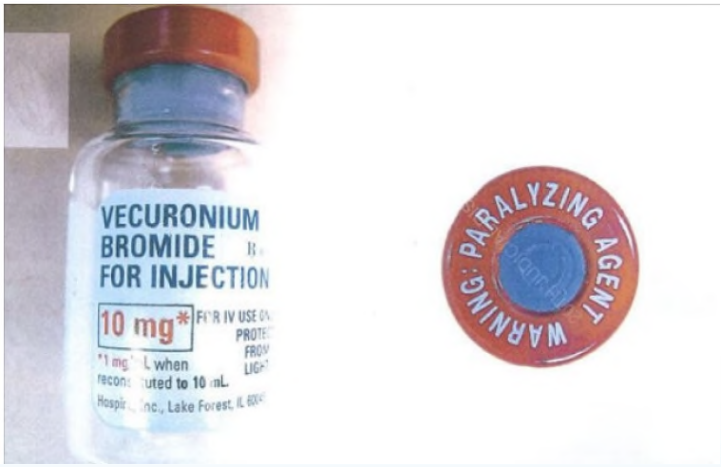
April 2019

- **RaDonda Vaught made at least 10 mistakes in fatal Vanderbilt medication error, prosecutors say**

Vanderbilt ex-nurse indicted on reckless homicide charge after deadly medication swap



Vanderbilt nurse: Safeguards were ‘overridden’ in medication error, prosecutors say



EDITORIAL: Good Nurse–Bad Nurse Is it an error or a crime?

The headlines

THE CAPITAL TIMES
Madison, WI

-Nurse Charged With Felony in Fatal Medical Error

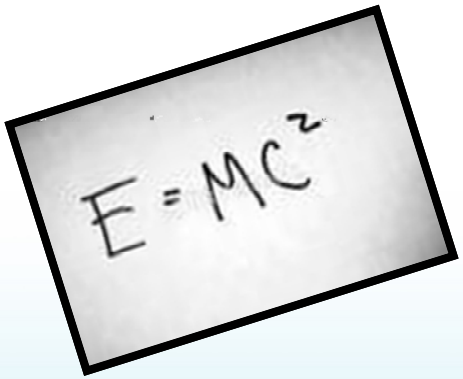
-STATE: NURSE ERROR CAUSED DEATH ST. MARY'S HOSPITAL COULD LOSE CONTRACT WITH MEDICARE DAVID WAHLBERG wahlberg@madison.com

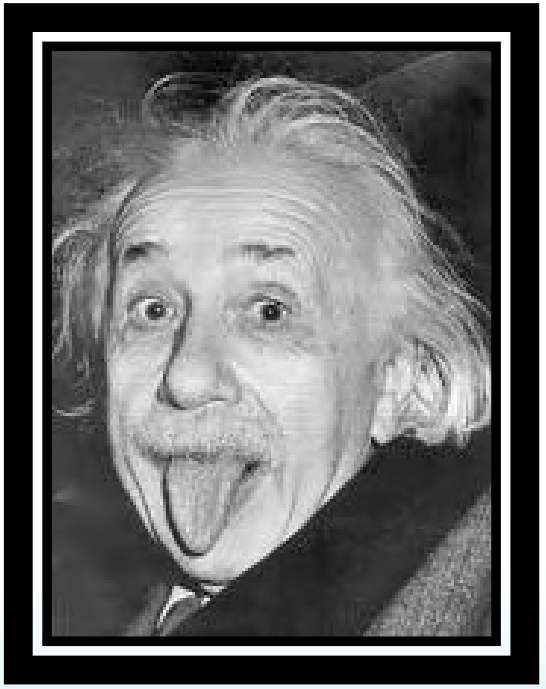
-Report: Systemic problems at St. Mary's set stage for nurse's fatal drug error

-St. Mary's nurse is charged with neglect: medication error led to teen's death.

The Capital Times. Madison, WI

“Insanity: doing the same thing over and over again and expecting different results.”





Current state of RCA's

"We often see lack of a:

- deep enough evaluation
- focus on discipline or re-education of an individual without evaluation of the system issues
- focus on one solution when a group or bundle of solutions may be most effective
- choosing the easiest solution even if it will not be adequate to prevent the reoccurrence."

Barbara Rebold, Director, Operations,
ECRI Institute Patient Safety Organization, 3.16.2018

Prioritizing the Process

“The ability to focus attention on important things is a defining characteristic of intelligence.”

-

Robert J. Shiller

Risk based prioritization vs. Adverse event

- Why?
- How? Severity vs Likelihood (Probability)
- Importance of Close Calls
- Actual vs Potential

Appropriate vs. Blameworthy

- Develop trust to encourage reporting
- Clearly define what a blameworthy event is
- Communicate with transparency
- A perception of punitive consequences results in failure
- Commit to using safety activities for system improvement
- Blame may result in missed causation and result in repeated occurrences
- Avoid “spin” to appease short term interests

- Blameworthy: Events that are the result of criminal acts, patient abuse, alcohol or substance abuse by a provider or acts which are defined as intentionally or deliberately unsafe

Severity Definitions

Catastrophic **Patients with Actual or Potential:** Death or major permanent loss of function not related to the normal course of the patient's illness or underlying condition	**Major** **Patients with Actual or Potential:** **Permanent lessening of boily functioning** not related to the normal course of the patient's illness or underlying condition or Disfigurement, surgical intervention required, increased length of stay for 3 or more patients, increased level of care for three or more patients
Moderate **Patients with Actual or Potential:** Increased length of stay **or** increased level of care for one or two patients	**Minor** **Patients with Actual or Potential:** No injury, nor increased length of stay nor increased level of care

VA Safety Assessment Codes

		SEVERITY			
		Catastrophic	**Major**	**Moderate**	**Minor**
PROBABILITY					
	Frequent	3	3	2	1
	Occasional	3	2	1	1
	Uncommon	3	2	1	1
	Remote	3	2	1	1

When you pair a severity category with a probability category for either an actual event or close call, you will get a ranked matrix score:

- highest risk = **3**
- intermediate risk = **2**
- lowest risk = **1**

These ranks, or *Safety Assessment Codes (SAC)*, can then be used for doing comparative analysis.

The Team

"Alone we can do so little, together we can do so much." *--Helen Keller*

RCA is a Team Effort

What Defines a Team?

- Two or more people
- Interact dynamically
- Interdependently, adaptively work toward a common & valued goal
- Have specific roles or functions
- Time-limited membership

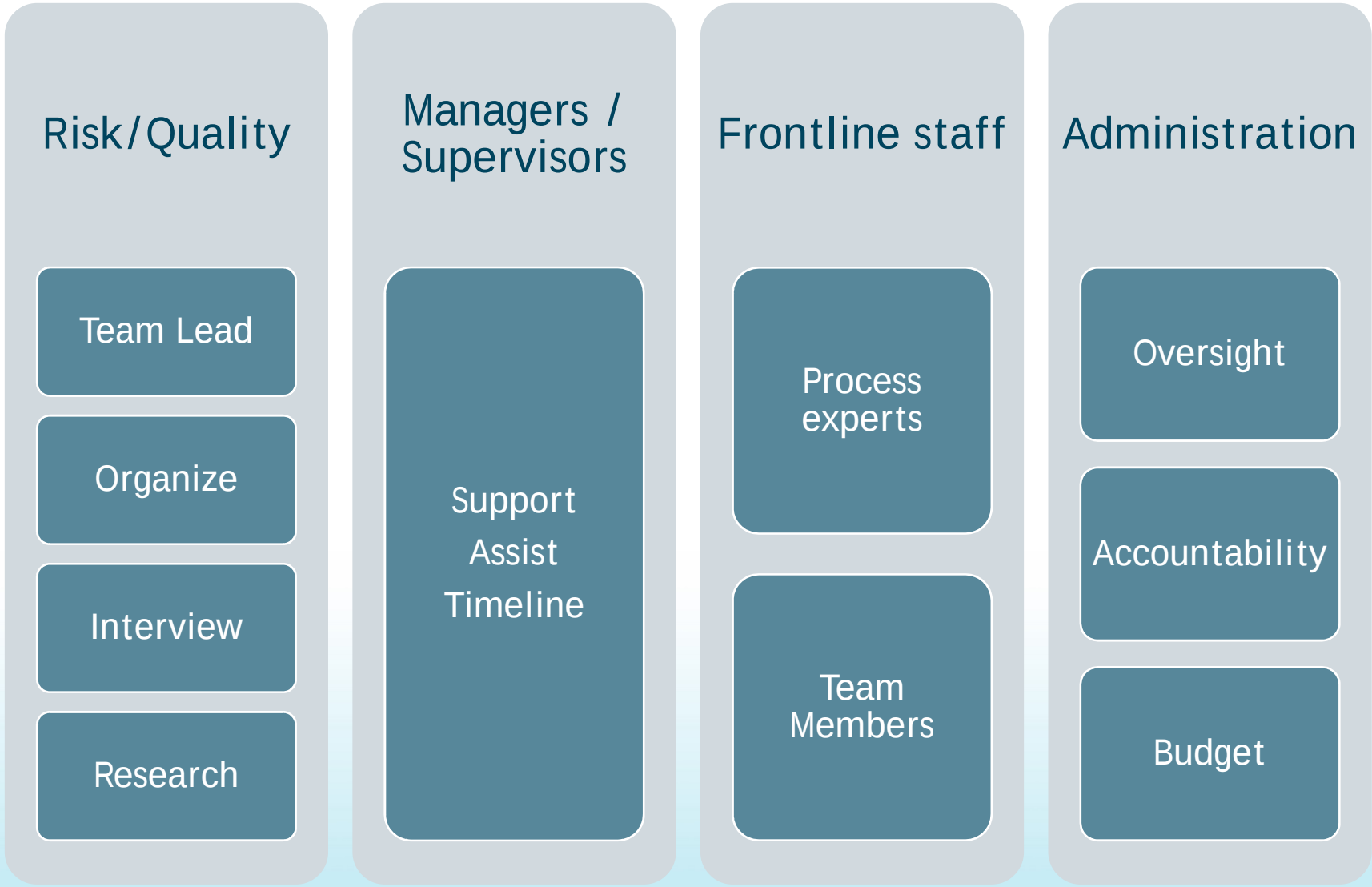
The ratio of We's to I's is the best indicator of the development of a team.

Lewis B. Ergen

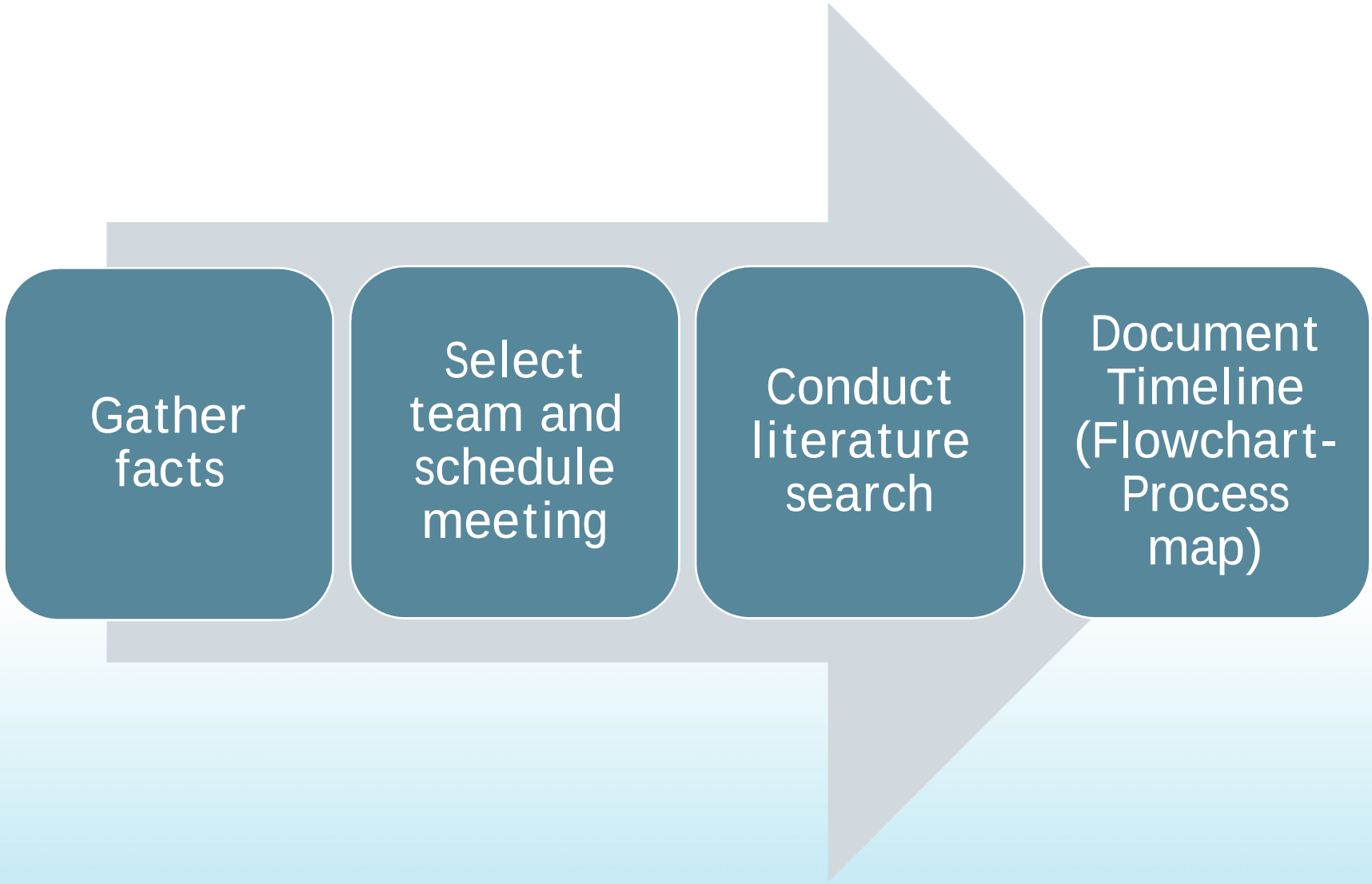
Barriers to team performance

- Lack of time
- Hierarchy
- Conventional thinking
- Conflict and follow-up
- Distractions
- Workload
- Lack of role clarity
- Lack of information sharing
- Defensiveness
- Varying communication styles
- Lack of coordination

Roles of the RCA Team



Organizing for the meeting



Getting started

- Needs to be appropriately resourced with commitment
- Review process should begin within 72 hours. Completed within 30-45 days.
- Scheduled meetings in place. 1½ to 2 hours for each meeting.
- RCA process takes more than 1 meeting.
- Requires team member work between meetings.

Fundamentals of RCA

Success is neither magical nor mysterious.
Success is the natural consequence of
consistently applying the basic fundamentals.

Jim Rohn

RCA Model

A rigorous, legally protected and confidential approach to answering:

- What happened? (event or close call)
  - What happened **that day?**
  - What **usually** happens?
  - What **should have** happened?
- Why did it happen?
- What are we going to do to prevent it from happening again?
- How will we know that our actions improved patient safety?

Why did it make sense?

To understand why people did what they did…

reconstruct the world in which they found themselves at the time

-- Sidney Dekker, Professor of Human Factors and System Safety
Centre for Human Factors in Aviation
Linkoping Institute of Technology, Sweden

Common terminology in RCAs

Hindsight Bias

- Tendency to believe, after hearing an outcome , that it could have been foreseen or prevented

Latent Failure

- Errors made by people who are removed in time and space. These errors often relate to design, organization or training for a system

Active Failure

- Error with immediate consequence, usually made by frontline staff

Performance shaping factors : Job vs. Individual

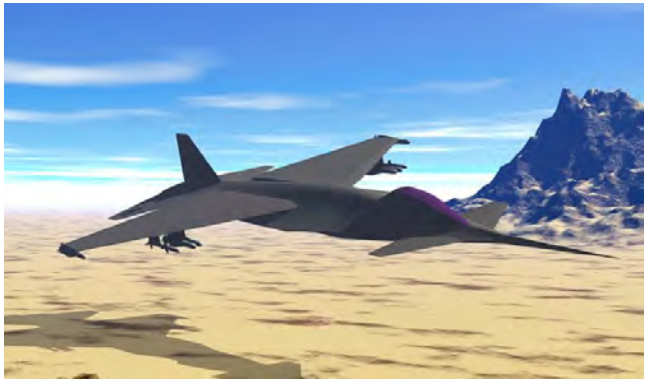
- Attributes in a system, technology, or environment and a person's internal characteristics that affect the likelihood of error or at risk behaviors

Unintentional blindness

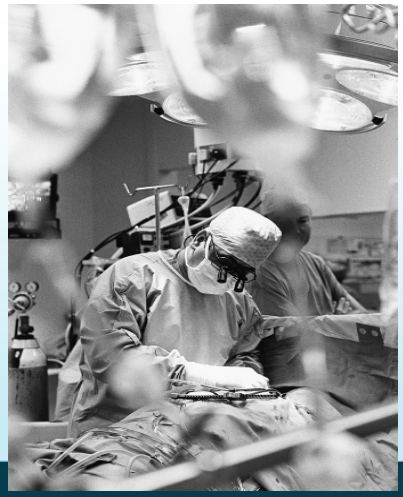
- Also known as perceptional blindness, this is the phenomenon of not being able to see things that are actually there, May be due to no internal frame of reference or the result of mental focus or inattention that causes a distraction.

Human factor as a cause of human error

- Stress
- Fatigue
- Time-Compression
- Distractions
- Hierarchy
- Autonomy in practice, resulting in variation in process
- Ineffective teamwork and communication
- Bias

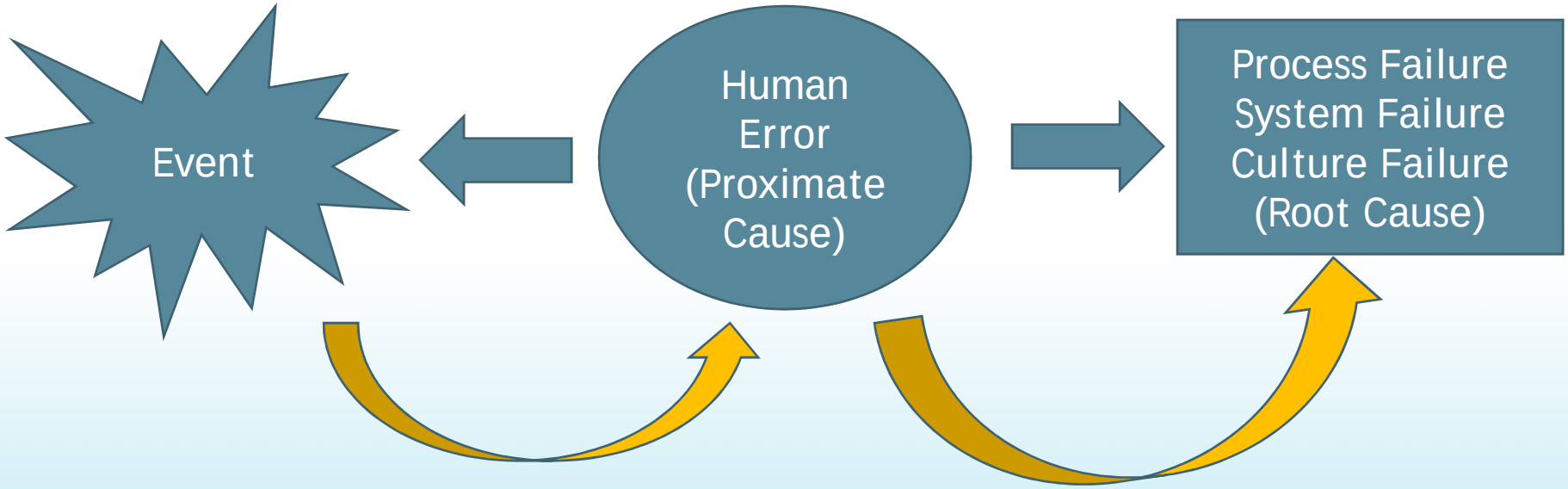


Could we have these factors present in our clinical teams and on our units?



Human error

- Human error is not the cause of failure, but a symptom of failure.
- Human error should be the starting point of our investigations, not the conclusion.



Investigation Flows Back from Event to the Root Cause(s)

RCA : Common problems & pitfalls

- Jump to premature conclusion; preconceived causation
- Not progressing from “what happened” to “why”
- Too much time on clinical details, the “medical” parts of the event
- Focus on shortcomings of people, not system re-design
- Defensive attitudes

Probing Questions……Beyond Why

- How
- Was
- To what degree
- Is
- Do
- Were
- Why Not

Examples of Probing Questions

Training

- Was there an assessment done to identify what staff training was actually needed?
- Was training provided prior to the start of the work process?
- Were the results of training monitored over time?
- Was the training adequate? If not, consider the following factors: supervisory responsibility, procedure omission, flawed training, and flawed rules/policy/procedure.
- Were training programs for staff designed up-front with the intent of helping staff perform their tasks without errors?
- Were all staff trained in the use of relevant barriers and controls?

Examples of Probing Questions

Communication:

- Was the patient correctly identified?
- Was information from various patient assessments shared and used by members of the treatment team on a timely basis?
- Did existing documentation provide a clear picture of the work-up, the treatment plan, and the patient's response to treatment? *(e.g., Assessments, consultations, orders, progress notes, medication administration record, x-ray, labs, etc.)*
- Was communication between management/supervisors and front line staff adequate? *(i.e., Accurate, complete, unambiguous, using standard vocabulary and no jargon)*
- Was communication between front line team members adequate?
- Were policies and procedures communicated adequately?
- Was the correct technical information adequately communicated 24 hours/day to the people who needed it?

Examples of Probing Questions

- Communication cont.
  - Were there methods for monitoring the adequacy of staff communications? *(e.g., Read back,repeat back, confirmation messages, debriefs)*
  - Was the communication of potential risk factors free from obstacles?
  - Was there a manufacturer's recall/alert/bulletin issued on the medication, equipment, or product involved with the event or close call? If yes, were relevant staff members made aware of this recall/alert/bulletin, and were the specified corrective actions implemented?
  - Were the patient and their family/significant others actively included in the assessment and treatment planning?
  - Did management establish adequate methods to provide information to employees who needed it in a timely manner that was easy to access and use?
  - Did the overall culture of the department/work area encourage or welcome observations, suggestions,or "early warnings" from staff about risky situations and risk reduction? *(Also, if this has happened before what was done to prevent it from happening again?)*
  - Did adequate communication across organizational boundaries occur?

Examples of Probing Questions

- Human Factors
  - Were the levels of vibration, noise, or other environmental conditions appropriate?
  - Were environmental stressors properly anticipated?
  - Did personnel have adequate sleep?
  - Was fatigue properly anticipated?
  - Was the environment free of distractions?
  - Was there sufficient staff on-hand for the workload at the time? *(i.e., Workload too high, too low,or wrong mix of staff.)*
  - Was the level of automation appropriate? *(i.e., Neither too much nor not enough.)*

Probing questions for medication event causes…oh, my!

Table 2. Probing Questions to Identify Proximate Causes of Medication Events*
Was critical information about the patient missing or unknown?
Examples: age, sex, measured weight (kg), height, allergies, vital signs, lab values, pregnancy status, patient location and identity, diagnosis, chronic conditions (e.g., renal/liver impairment), ability to pay for prescriptions
Was critical information about the drug missing or unknown?
Examples: maximum dose, typical dose, mg/kg dose, route, precautions, contraindications, special warnings, drug interactions, cross allergies, availability of drug references, computer screening, pharmacist not accessible to provide drug information, availability/use of protocols/order sets, medication reconciliation of home medications
Was written or verbal information miscommunicated or not communicated?
Examples: illegible, ambiguous, incomplete, misheard, or misunderstood orders or MAR/eMAR entries, nonstandard documentation/communication, intimidation, teamwork issues, unclear transmission of orders to pharmacy, failure to communicate, incomplete handoff communication, warnings bypassed, error-prone abbreviations or dose expressions
Was there a drug name, label, or packaging problem?
Examples: look-/sound-alike names, look-alike packaging, unclear/absent labeling, faulty drug identification, pharmacy labeling issue, label that obscures information, label not visible, warning labels missing/inconsistently applied
Was there a problem with how the drug was stored, dispensed, or delivered?
Examples: pharmacy turnaround time, automated dispensing cabinet override, borrowed medication, pharmacy delivery issue, dose missing or expired, multiple/nonstandard concentrations, bulk drug supplies, adult dosage forms for neonatal/pediatric patients, access to hazardous chemicals, nurse IV admixture, unauthorized access to drugs
Was there a drug delivery device problem?
Examples: device design flaw, unsafe default settings, availability of devices, maintenance of devices, failure to engage available technology (e.g., smart pumps), misprogramming, free-flow, line mix-ups/misconnections
Were there problems in the physical environment, staffing patterns, workflow, or supervision?
Examples: lighting, noise, clutter, organization of unit, physical barriers, foot traffic, interruptions, staffing levels and skills, work schedules, inadequate supervision, supervisory support issue, inadequate breaks, workload and shift patterns, inefficient workflow and bottlenecks, employee safety
Did lack of staff education play a role in the error? Was there a knowledge deficit?
Examples: inexperience, orientation, competency validation, new or unfamiliar drugs/devices, feedback about safety/hazards/errors/prevention, widespread knowledge deficit, low compliance with mandatory education, required certification, support for advanced certification and education
Did lack of patient education play a role in the error? Was there a knowledge deficit?
Examples: lack of information, non-adherence, not encouraged to ask questions, lack of investigating patient inquiries, incomplete discharge instructions, complex drug regimen, medication reconciliation problem, health literacy, language barrier or other communication problem, intimidated by staff, mental health issue
Were there issues related to quality control or independent verification systems?
Examples: equipment quality control checks, manual independent double-checks for selected high-alert drugs/high-risk patient populations, bar-code technology issues
Did elements of the culture contribute to the error?
Examples: fear of retribution for errors, management of behavioral choices, focus on productivity and volume, feedback about errors, regulatory conditions, financial resources/constraints, organizational structure/priorities
Other human factors issues (staff and patient)?
External examples: task and information complexity, ergonomics, time urgency, familiarity with task/product/equipment Internal examples: mental/physical health of staff/patient, fatigue, fitness for duty/self-administration, stress, motivation
Other technology issues?
Examples: technology workaround, technology malfunction, design flaw, misinterpretation, user error, technology and devices not meeting needs, information access and drug security issues

Exercise #1

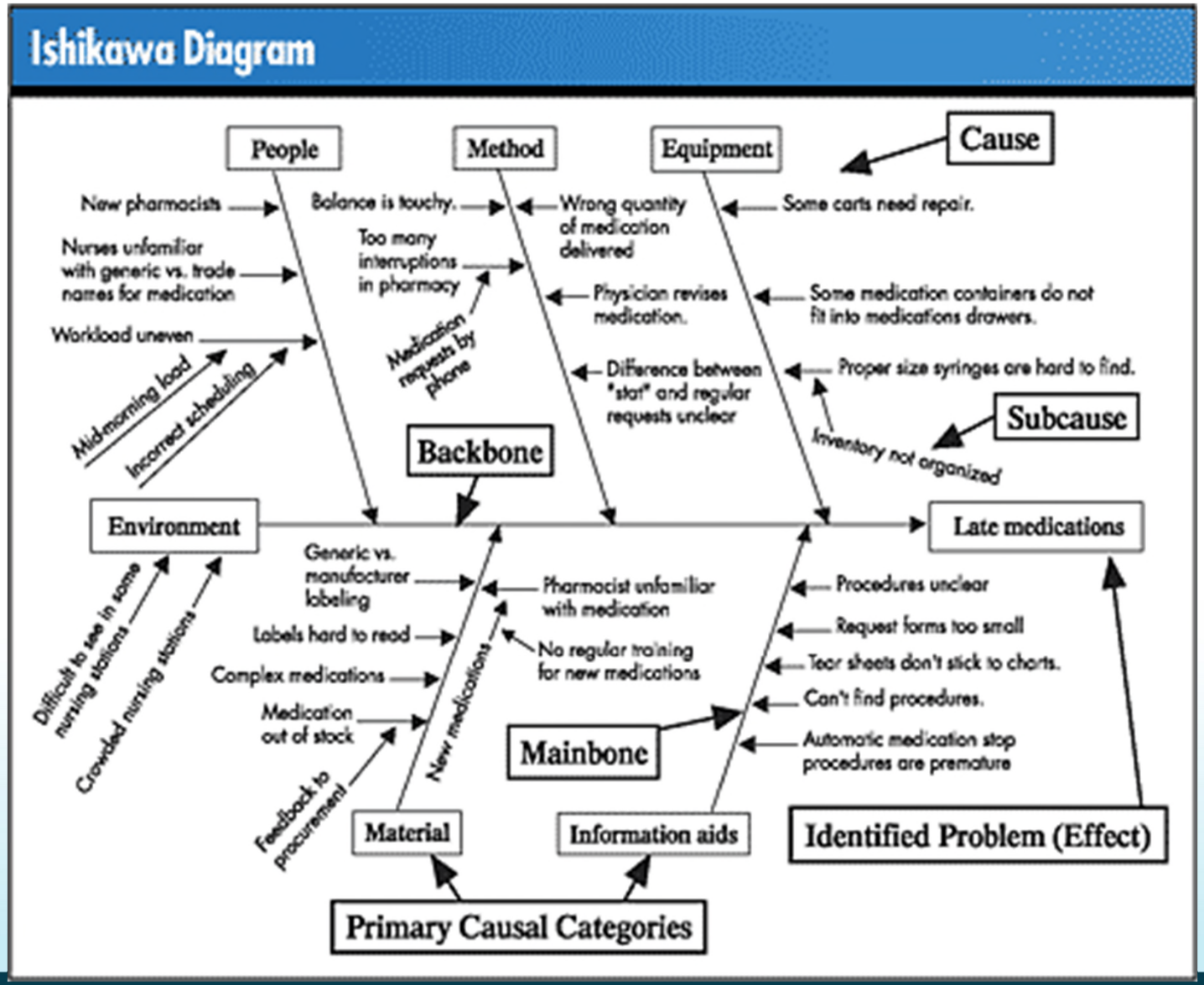
Getting Beyond “Why”

Causation

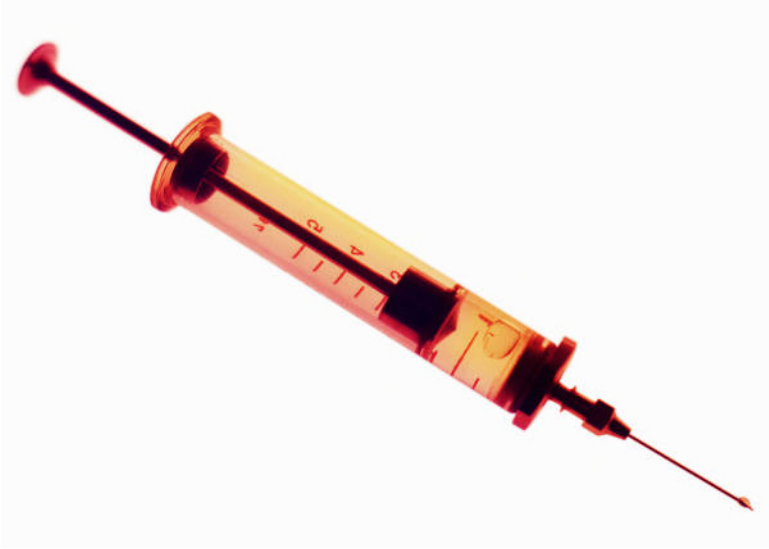
“There are no secrets to success. It is the result of preparation, hard work, and learning from failure.”

– Colin Powell

Documenting / Tools



Proximate cause vs. Root cause



Proximate: An act or omission that naturally and directly produces a consequence. It is the superficial or obvious cause for an occurrence. Treating only the "symptoms," or the proximate special cause, may lead to some short-term improvements, but will not prevent the variation from recurring. (TJC)

Root Cause : Any event in the chain of causes that, when acted upon by a solution, prevents the problem from recurring.

Latent Errors

Table. Factors That May Lead to Latent Errors	
Type of Factor	**Example**
Institutional/regulatory	A patient on anticoagulants received an intramuscular pneumococcal vaccination, resulting in a hematoma and prolonged hospitalization. The hospital was under regulatory pressure to improve its pneumococcal vaccination rates.
Organizational/management	A nurse detected a medication error, but the physician discouraged her from reporting it.
Work environment	Lacking the appropriate equipment to perform hysteroscopy, operating room staff improvised using equipment from other sets. During the procedure, the patient suffered an air embolism.
Team environment	A surgeon completed an operation despite being informed by a nurse and the anesthesiologist that the suction catheter tip was missing. The tip was subsequently found inside the patient, requiring reoperation.
Staffing	An overworked nurse mistakenly administered insulin instead of an antinausea medication, resulting in hypoglycemic coma.
Task-related	An intern incorrectly calculated the equivalent dose of long-acting MS Contin for a patient who had been receiving Vicodin. The patient experienced an opiate overdose and aspiration pneumonia, resulting in a prolonged ICU course.
Patient characteristics	The parents of a young boy misread the instructions on a bottle of acetaminophen, causing their child to experience liver damage.

Let's explore causation…

- Equipment
- Assessment
- Information Management
- Communication
- Environment
- Leadership
- Human Factors

- Causation Statements for your RCA template

Don't just identify; but explore?

Building a causation statement

The *__Root Cause (system , process or culture_)____*

increased the probability that *individual failure / proximate cause* **would happen ,**

and resulted in *__event_____*

Causation statement example #1

The ability to exceed maximum manufacturers dosing recommendation with no warning or alert __*Root Cause (system , process or culture)*____

increased the probability that a nurse would administer an excessive dose *individual failure / proximate cause*,

and resulted in an adverse drug reaction__*event*_____

Example #2

The on boarding competency evaluation that did not include demonstrating skills __*Root Cause (system , process or culture_)*____

increased the probability that a new nurse did not perform a TURP irrigation as expected *individual failure / proximate cause*,

and resulted in a urethral injury__*event*_____

The Five Rules of Causation

- **Rule 1 - Causal Statements must clearly show a "cause and effect" relationship -** show the link between your root cause and the bad outcome the statement **"resident was fatigued"** is deficient – does not tell how and why this led to a slip or mistake
- **Rule 2 - Negative descriptors are not used in causal statements and can be inflammatory, i.e. "maintenance manual was poorly written", which** does not show clear cause and effect. Words like " poorly, inadequate, carelessness" and "complacency" are broad, negative judgments that do little to describe the actual conditions or behaviors that led to the mishap
- **Rule 3 - Each human error must have a preceding cause.**
  Most mishaps involve at least one human error, which can be a **system-induced error** (e.g., step not included in medical procedure) or an **at-risk behavior** (doing task by memory, instead of a checklist). **Every human error in the causal chain must have a corresponding cause.** The cause of the error will lead to prevention strategies.
- **Rule 4 - Each procedural deviation must have a preceding cause.**
  Procedural violations are like errors in that they are not directly manageable. Instead, it is the cause of the procedural violation that we can manage. If a clinician is violating a procedure because it is the local norm, we will have to address the incentives that created the norm.
- **Rule 5 - Failure to act is only causal when there was a pre-existing duty to act.**
  How did this happen with the current systems and processes currently in place. *A doctor's failure to prescribe a medication can only be causal if he was required to prescribe the medication in the first place.*

**Adapted From David Marx*

Exercise #2

Developing a Causation Statement

Risk Reduction Strategies

“Don`t be afraid to take a big step when one is indicated. You can`t cross a chasm in two small steps.”

David Lloyd George

We found the problem, is this the answer?

- What was the sequence of events?
- What failed?
- Why did it fail? (what is/are the cause(s))
- What is the corrective action?
- How tightly coupled is the corrective action to the cause?
- What is the strength of the corrective action?
- How will you know a change is an improvement
- How easy will it be to sustain the solution over time?

Risk reduction strategies

- Understand the process & system breakdowns
- Look to process owners for solutions
- Share best practices from industry leaders
- Review professional organization position statements
- Discuss examples from current literature

Cause -> Effect -> Action

- Review and clarify causal statements for all identified contributing factors
- For each causal statement brainstorm actions that will mitigate , reduce or eliminate severity or injury
- Rank the strength of your actions
- Identify at least one “strong” or “intermediate” action for each cause
- Present actions to Senior leader “Champion” to discuss and gain approval / support
- Assign person responsible (may not be a team member) ; measure and monitor implementation

Action Plan

Frequent Weakness

- What, who, when, how effectiveness of actions taken will be evaluated and when?
- What measures of success are in place to assure that the actions recommended were fully implemented, and still effective?
- Other areas impacted -- Can this happen somewhere else in our organization?
- Weave MOS into ongoing dashboards to integrate into Q/R/PS structure

Action Hierarchy

- **Case Example 1:** The nursing staff was providing the patient with routine morning care. This consisted of showering the patient in the shower room on the ward. The patient was seated in a chair being washed when he slid off the chair and hit his face, hip, and shoulder. The doctor examined the patient at 7:55 AM and ordered x-rays and head imaging. No fractures or bleeding were noted. Checks of vital signs, neurological status, pain, and mobility were initiated as per policy and reported as normal. The patient was assisted with mobility in the day following the fall to ensure he was stable.
  - **Stronger Action:** Require and implement use of a shower chair with secure straps that prevent sliding.
  - **Intermediate Action:** Identify patients at risk for falling and have additional staff help with showering.
  - **Weaker Action:** Retrain nursing staff on the required procedure for showering patients.

IHI PATIENT SAFETY ESSENTIALS TOOLKIT: Action Hierarchy Tool (part of RCA2)

Case example #2

- An inpatient with pneumonia has an abnormal finding on chest x-ray with recommended repeat chest x-ray in three months. She is released home, and her primary care doctor is not aware of the chest x-ray result. She returns in one year with advanced lung cancer.
  - **Stronger Action:** Automatically include and flag test results that require follow-up in the discharge documentation that goes to the primary care doctor and require acknowledgment and follow-up.
  - **Intermediate Action:** Develop and implement standard communication with patients who receive a chest xray, including explaining the need for follow-up and providing written contact information if the patient has questions or is not reached within a defined timeframe.
  - **Weaker Action:** Update a policy on appropriate test result communication and follow-up.

IHI PATIENT SAFETY ESSENTIALS TOOLKIT: Action Hierarchy Tool (part of RCA2)

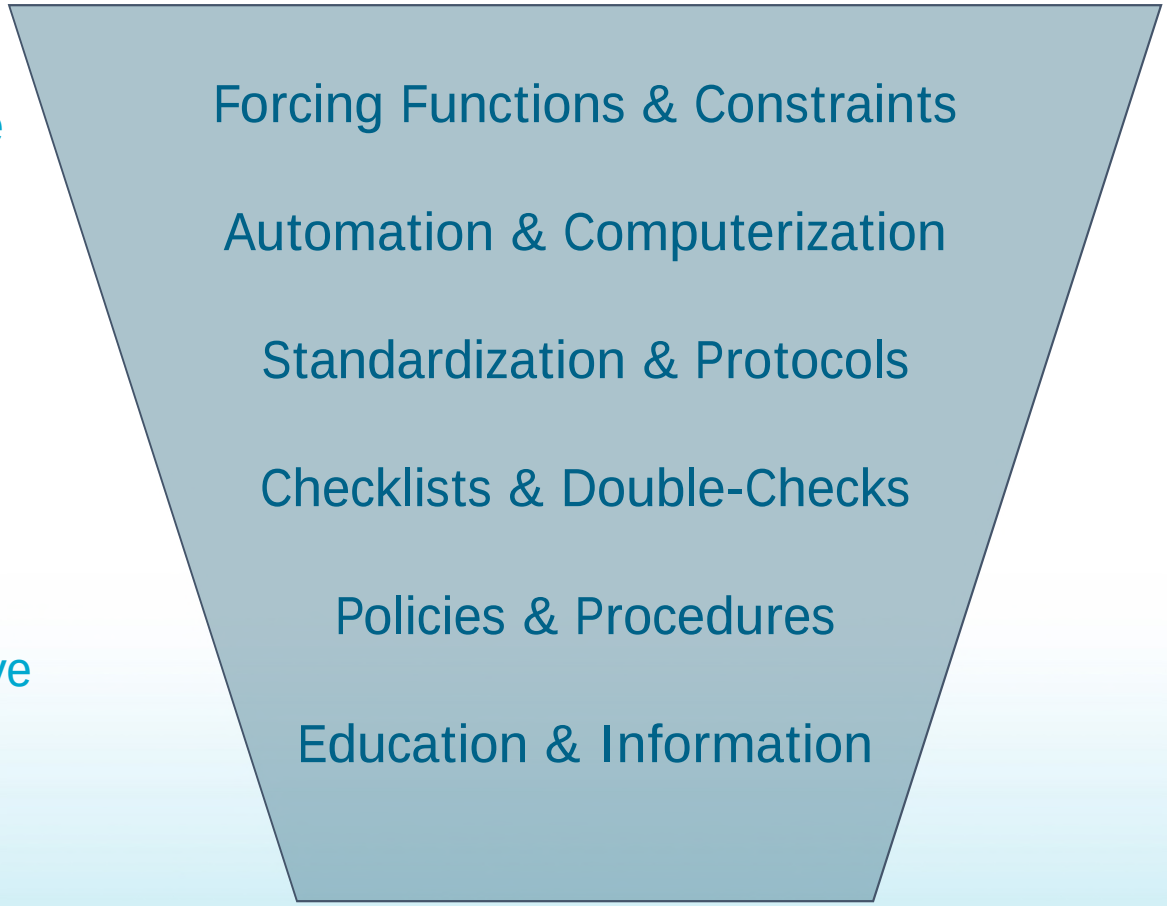
Are these tightly-coupled? Strong actions?

Cause	Action
1. Lack of critical thinking	Counseling from Manager
2. Interruptions and distractions	Training in human factors
3. Lack of adequate checks	Independent double checks
4. Breakdown in communication	Communication competency in SBAR

Rank Order of Error Reduction Strategies

Most Effective

Least Effective



Rank order of error reduction strategies

Strategy Level	Examples
Forced Function and Constraints (Strongest and ***Most Effective***)	• Removing concentrated electrolytes from floor stock • Connectors that won't fit unless correct (gas lines) • Removing medications from formulary • Remove ligature risks • Discontinue the service • Separate bins for medications (or separate refrigerators) • Segregate staff, provide "sterile cockpit"
Automation and Computerization	• eMAR/BCMA, eTAR • Drug-drug interaction hard stops in Meditech • Smart Pumps with safety software • PACS • "Indication" with medication or ordered procedure • Automatic transmission and alarms of electronic monitoring (telemetry, fetal heart monitoring, ventilator) • Automate prompts in documentation process
Standardization and Protocols	• Standardized communication models (huddles, SBAR, briefs, debriefs, teach-back) • Order sets • Medication substitution • Clinical decision algorithms • Standardized lady-out and content for surgical trays, or code carts • Standardized process linked to routine (link antibiotic start time with patient entry into OR)
Checklists and Double-Checks	• Checklists (WHO, time-out, SBAR, Surgical Count) • Read-back • Pharmacy review of MD order • Two samples for type and cross
Policies and Procedures	• Write or revise a policy/procedure to reflect change in practice
Education and Information (Weakest and ***Least Effective***)	• Educate, train or re-train staff • Audits, Inspection and feedback • Provide data, feedback and coaching on performance • Tracer rounds

Measuring Success

“It is no use saying “we are doing our best.” You have to succeed in doing what is necessary.”

Winston Churchill

How do we measure the effect?

- Measures of Implementation (MOI): Evidence that the action was implemented.

- Measures of Effectiveness (MOE): Evidence that the action reduced the risk of recurrence.

Measures

	Activity	Responses
1	100% of staff will “read and sign” the sponge count policy by April 15.	❑Action ❑MOI ❑MOE
2	Staff will conduct sponge count per new policy by Feb 9	❑Action ❑MOI ❑MOE
3	At least two observational audits of each staff member who are responsible for sponge counts will be done over the next 4 months. Staff are able to perform the counts per policy before being deemed competent.	❑Action ❑MOI ❑MOE
4	Educate all Hospitalists regarding change of shift “hand-off” by August 1.	❑Action ❑MOI ❑MOE

Actions and MOE

- Small tests of change
- Sample 3-5 cases or records. Involve clinical unit staff.
- Interview staff, patients, or physicians
  - What did you learn?
  - What trends did you see?
  - What, if anything, surprised you?
  - What do you think we should do next?
  - What assumptions about “X” that you held previously are now challenged?
- “Huddle” soon after observations to discuss findings

RCA Improvement Plans: ~~The good~~, the bad, & the ugly

- Participants “going through the motions”
- Meaningless without effective actions
- Actions are not tightly-coupled to the identified cause(s)
- Actions often low on effectiveness hierarchy ranking

Action Plans should address…

- Responsibility for oversight , implementation, pilot testing
- Timelines
- Strategies for measurement
- Plan for reporting of results

- **Communicate progress**

Provide Feedback on Results

- To Leadership
- To Staff
- To Patients and Families

Maintain the Gain

Your Checklist

- ❑ Leadership (e.g., CEO, board of directors) should be actively involved in the root cause analysis and action (RCA) process. This should be accomplished by supporting the process, approving and periodically reviewing the status of actions, understanding what a thorough RCA report should include, and acting when reviews do not meet minimum requirements.
- ❑ Leadership should review the RCA process at least annually for effectiveness.
- ❑ Blameworthy events that are not appropriate for RCA review should be defined.
- ❑ Facilities should use a transparent, formal, and explicit risk-based prioritization system to identify adverse events, close calls, and system vulnerabilities requiring RCA review.
- ❑ An RCA review should be started within 72 hours of recognizing that a review is needed and completed within 30-45 days.
- ❑ RCA teams should be composed of 4 to 6 people. The team should include process experts as well as other individuals drawn from all levels of the organization, and inclusion of a patient representative unrelated to the event should be considered.
- ❑ Team membership *should not* include individuals who were involved in the event or close call being reviewed, but those individuals should be interviewed for information.
- ❑ Time should be provided during the normal work shift for staff to serve on an RCA team, including attending meetings, researching, and conducting interviews.
- ❑ RCA tools (e.g., interviewing techniques, Flow Diagramming, Cause and Effect Diagramming, Five Rules of Causation, Action Hierarchy, Process/Outcome Measures) should be used by teams to assist in the investigation process and the identification of strong and intermediate strength corrective actions.
- ❑ Feedback should be provided to staff involved in the event as well as to patients and/or their family members regarding the findings of the RCA process.

Organizational Learning

- “As a result of this event, we also learned about resiliency and the importance of supporting one another- and that we don’t need a tragedy to call on that support.”
  - Frank D. Byrne M.D.

Resources and Links

- **AHRQ Patient Safety Primer: Root Cause Analysis**

https://psnet.ahrq.gov/primers/primer/10/root-cause-analysis

- **State of Minnesota : Root Cause Analysis Toolkit**

https://www.health.state.mn.us/facilities/patientsafety/adverseevents/toolkit/

- **Human Factors in Incident Investigations**

http://www.hse.gov.uk/humanfactors/topics/core2.pdf

- **RCA2: Improving Root Cause Analyses and Actions to Prevent Harm**

http://www.npsf.org/?page=RCA2

- **US Department of Veterans Affairs. VA National Center for Patient Safety: Root Cause Analysis. 2015.**
  http://www.patientsafety.va.gov/professionals/onthejob/rca.asp
- **VA National Center for Patient Safety : Safety Assessment Code**

http://www.patientsafety.va.gov/professionals/publications/matrix.asp

- **TJC Root Cause Analysis in Health Care: Tools and techniques**

https://www.jcrinc.com/assets/1/14/EBRCA15Sample.pdf

- **IHI Patient Safety 104: Root Cause and Systems Analysis**

http://app.ihi.org/LMS/Content/f99b4ea2-aeea-432d-a357-3ca88b6ae886/Upload/PS%20104%20SummaryFINAL.pdf

- **IHI A Human Factors Approach to Root Cause Analysis**

http://app.ihi.org/facultydocuments/events/event-2206/presentation-7683/document-5752/a6_b6__presentation.pdf

Questions

What questions do you have?

Thank You!