

Perinatal Quality Collaborative Vermont

presents

*Debriefs,
Multidisciplinary Reviews,
Root Cause Analyses,
Safety, & Adverse events*



Housekeeping

Zoom

- You all have been muted upon entry and we ask that you keep yourself muted while listening.

Questions

- You are welcome to ask questions throughout the presentation. Feel free to use the chat function, raise your hand, or unmute to ask your question directly.

Recording

- This presentation will be recorded and will be available for view. The recording will be emailed out to participants tomorrow along with a short satisfaction survey.

Disclosures

- We have no relevant financial relationships to disclose or conflicts of interest to resolve.

Debriefs, Multidisciplinary Reviews, Root Cause Analyses, Safety, and Adverse events

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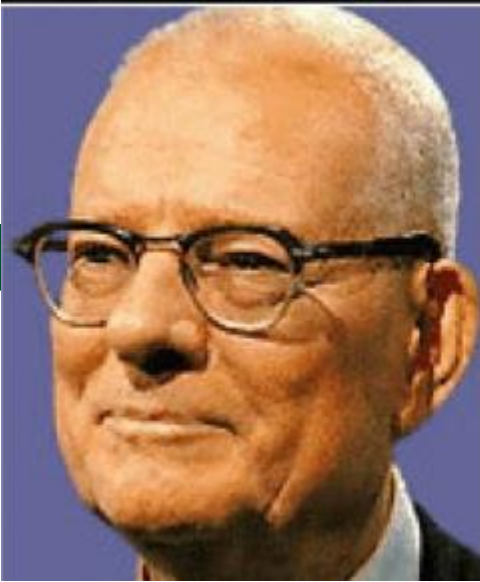
ACOG COMMITTEE OPINION

Number 447 • December 2009

(Replaces No. 286, October 2003)

Patient Safety in Obstetrics and Gynecology

- Healthcare Research and Quality (AHRQ), a safety culture refers to “a commitment to safety that permeates all levels of an organization, from frontline personnel to executive management
- Associated with a safety culture is the concept of a “just culture,” which recognizes that competent professionals make mistakes and acknowledges that even competent professionals may develop unhealthy norms, such as shortcuts or routine rule violations (has zero tolerance for reckless behavior)
- A just culture recognizes that some rate of human error is inevitable, especially in complex endeavors such as the delivery of health care.
- First step in the delivery of safe health care should be to identify and study the patterns and causes of error occurrence within delivery systems



Nobody goes to work to do a bad job.

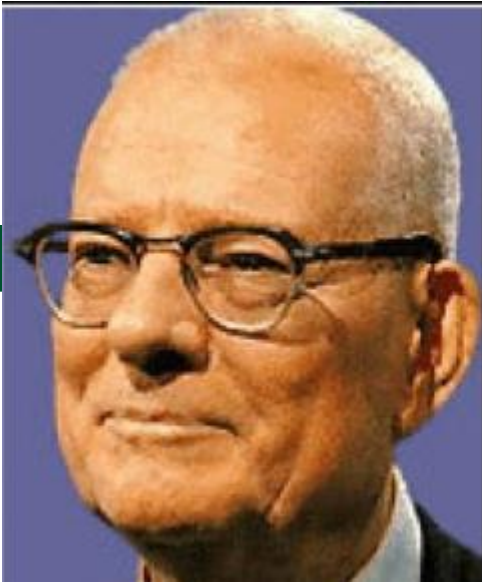
— W. Edwards Deming —

Engineer, statistician

- Consultant to Gen. Douglas MacArthur as a census consultant to the Japanese government,
- Taught a short seminar on statistical process control (SPC) methods to members of the Radio Corps
- During this visit, he was contacted by the Union of Japanese Scientists and Engineers (JUSE) to talk directly to Japanese business leaders, not about SPC, but about his theories of management, returning to Japan for many years to consult.

System of Profound Knowledge

1. Appreciating a system
2. Understanding variation
3. Psychology
4. Epistemology, the theory of knowledge (and limits of knowledge) (MM note: understanding people)



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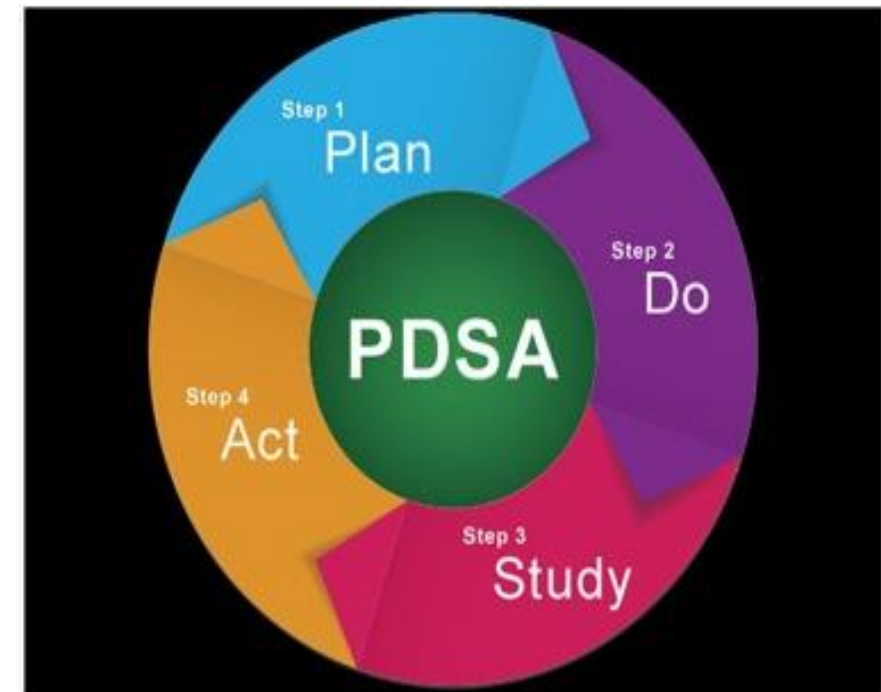
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Shewhart Cycle for Continuous Learning and Improvement.

Aka: PDSA cycle



Adverse event



U.S. Department of Health and Human Services
Office of Inspector General

- **Adverse Event** - An event in which care resulted in an undesirable clinical outcome-an outcome not caused by underlying disease-that prolonged the patient stay, caused permanent patient harm, required life-saving intervention, or contributed to death.
- **Patient Harm** - Harm to a patient as a result of medical care or in a health care setting, including the failure to provide needed care. Patient harm refers collectively to adverse events and temporary harm events.
- **Temporary Harm Event** - An event in which care resulted in patient harm and required medical intervention but did not prolong the patient stay, cause lasting harm, or require life-sustaining intervention.

[Adverse Events | HHS-OIG](#)

Sentinel Event

A sentinel event is a patient safety event that results in death, permanent harm, or severe temporary harm. Sentinel events are debilitating to both patients and health care providers involved in the event. The Joint Commission works closely with its organizations to address sentinel events and to prevent these types of events from occurring in the first place.

[CAMH_24_SE \(jointcommission.org\)](https://www.jointcommission.org/CAMH_24_SE)
[Sentinel Event | The Joint Commission](#)

The revised definition of sentinel event is *any patient safety event (not primarily related to the natural course of the patient's illness or underlying condition) that reaches a patient and results in death, permanent harm, or severe temporary harm.*

The Joint Commission considers "severe temporary harm" to be any "critical, potentially life-threatening harm lasting for a limited time with no permanent residual, but requires transfer to a higher level of care/monitoring for a prolonged period of time, transfer to a higher level of care for a life-threatening condition, or additional major surgery, procedure, or treatment to resolve the condition."

- Severe maternal morbidity (leading to permanent harm or severe harm)
- Surgery or other invasive procedure performed at the wrong site, on the wrong patient, or that is the wrong (unintended) procedure for a patient regardless of the type of procedure or the magnitude of the outcome
- Discharge of an infant to the wrong family
- Unintended retention of a foreign object in a patient after an invasive procedure, including surgery
- Severe neonatal hyperbilirubinemia (bilirubin >30 milligrams/deciliter)

Severe Maternal Morbidity (CDC defined by ICD-10 code)

The Most Common SMM Indicators after Delivery Discharge



Blood transfusion



Air and thrombotic embolism



Pulmonary edema / Acute heart failure



Eclampsia



Sepsis



Puerperal cerebrovascular disorders



Adult respiratory distress syndrome



Acute Renal Failure

21 Severe Maternal Morbidity indicators (above most common)

Acute MI

Cardiac arrest/V-fib

Conversion of cardiac rhythm

Heart Failure/arrest

Aneurysm

Amniotic Fluid Embolism

DIC

Severe anesthesia complications

Shock

Sickle cell with crisis

Hysterectomy

Temporary tracheostomy

Ventilation

The Burden

A significant number of women have severe complications that start after they leave the hospital. One in seven SMM cases among commercially-insured women, and almost one in six SMM cases among Medicaid-insured women first developed after delivery discharge.



Commercially-insured



Medicaid-insured

Labor and Delivery

Obstetrics: complex cooperation between different professional groups, necessarily uncontrollable aspects of every birth, and the active involvement of the woman giving birth during treatment.

Triage



Low risk birthing unit



Intensive care unit/
Recovery room



Operating room



Case review \neq Adverse event

Adverse event \neq Error

Good outcome \neq no need for case review

Good outcome \neq no error

In an ideal system, every delivery or procedure should have some type of review

Review of how things go well is as important as review of how things go less smoothly than planned

Identification of “common” workarounds

Less Bad + More Good = Better

Fig. 1: All Clinical Events



Fig. 1 Safety-I vs. Safety-II study of clinical events

Safety-I: Safety science in healthcare has historically focused primarily on reducing risk and minimizing harm by learning everything possible from when things go wrong.

Safety-II: encourages the study of all events, including the routine and mundane, not only bad outcomes.

Every problem needs a home for it to be solved/improved and a clear process for improvement

Every institution should have a process by which systems are improved:

- Standard mechanism to identify a system improvement
- A multidisciplinary group identified to discuss the issues and decide what systems need improvement and how systems need to change
- A multidisciplinary group to implement the proposed changes (must have the authority to enact change)
- An educational process re: a system change or new process (can range from email information to need for full educational programming and simulation/drills)

Types of Review

- Debrief
- Multidisciplinary case reviews
- Root cause analysis
- Case finding
- Support for staff involved in an adverse event (aka: Second victim)

Types of review: many cases may have all 3 types, all overlap

	Debrief-all cases	Multidisciplinary Review-cases in which systems need to be discussed	Root Cause Analysis-formal, facilitated review of all systems
People	Attended event	QAI forum: hospital or departmental with specific invites to the other groups (OB+peds; OB+Anesthesiology)	People involved, leaders of QAI and each of the multidisciplinary groups (may include EMR, Environmental, lab, blood bank, etc): any process that is on the table for discussion
Proximate to event	ASAP	Often with QAI meeting (including hospital if appropriate)	Usually within 2 weeks if Sentinel event (timing mandated)
Structure	Less structured, open communication	More structured	Very structured and facilitated by institutional QAI
Focus	Interpersonal communication, immediate systems issues, opportunities for drills/sims identified	Systematically how teams communicate and coordinate and improve care	Focus on system improvement across the hospital and disciplines; every area that touches the pt that was in the system
Place	In L&D or OR at the time if possible; usually on the unit if later	QAI meeting or M&M, invite all parties to discussion	Formal QAI conference
End product/result/follow-up	System issue identified: notify unit leadership, use process for change	QAI chair, QAI hospital infrastructure to develop next steps and coordinate but use same process for change	Structured follow-up plan with 3, 6, 12 month fu of actions decided at the end of the discussion

Debriefing after EVERY event is great practice
Communication is our strongest link to culture of safety
Reduces stigma associated with debriefs

ACOG: Patient Safety:
Improve communication with health providers
Communication between all members of the health care team is a crucial element in patient safety. In its analysis of sentinel events, the Joint Commission found that almost two thirds of the events involved communication failure as a root cause.



Drills-in situ
Sims
Debriefs

A brief history of the debrief

- Initiated in the military: Army Brigadier General and chief historian, Samuel Lynn Atwood Marshall was charged with documenting WWII events as they unfolded. Started to conduct interviews after combat to get better information than trying to reconstruct with documents
- He recognized that going through notes after the fact was very limiting and started interviewing men immediately after a battle to review and assess the conduct and results of the mission and inform future strategies.
- He transformed a largely punitive, blame based approach into a process based on objective performance indicators and guided group discussions in a non-punitive atmosphere fostering self-reflection and learning.

The far object of a training system is to prepare the combat officer mentally so that he can cope with the unusual and unexpected as if it were the altogether normal and give him poise in a situation where all else is in disequilibrium.

Samuel Lyman Atwood Marshall



Also remember that in any man's dark hour, a pat on the back and an earnest handclasp may work a small miracle.

Samuel Lyman Atwood Marshall

Debriefing

- Debriefing is a lynchpin in the process of learning: debriefing as a post-experience analytic process.
- Debriefing is a discussion and analysis of an experience, evaluating and integrating lessons learned into one's cognition and consciousness
- Debriefing provides opportunities for exploring and making sense of what happened during an event or experience, discussing what went well and identifying what could be done to change, improve and do differently or better next time

Debrief: How to

- Decide to debrief after every event if possible
- Get buy in from all involved: OB, anesthesia, RNs
- Commit to 5 minutes (can do in OR or delivery room)
- Decide who will lead (ideally OB provider, can be scrub or circulator)
- Start with what went well
- Ask about challenges or work arounds
- Make this a habit/check in

Debrief: difficult situation

- Staying in the room may not work
- People may be busy
- People may be upset and need some space
- ANY team member should feel comfortable to ask for a more formal debrief (develop a mechanism to this request if one does not exist)
- Do as soon as is reasonable (might be few days, ideally no more)

A form may help start debriefs: in Drill Binder p83 Resource Binder: can be specific to type of even if common (PPH):

Postpartum Hemorrhage Debrief Form (all patients)

Criteria for multidisciplinary debrief:

1. Request of any team member
2. For any PPH EBL > 1L
3. Severe Maternal Morbidity: received >4u PRBC (unanticipated; excludes uncomplicated planned cesarean hysterectomy); unplanned cesarean hysterectomy, patient admission to ICU
4. Maternal Death

When: As soon after event as possible

Who: As many people as possible that were part of event. Ideally debrief is done together but by separate interviews can occur as needed. At a minimum: Obstetric provider, Charge RN, and anesthesiology provider should be included.

How: The attending provider and/or Charge RN should call the team together and initiate the debrief session as well as collaborate to fill out the debrief form. Either the McClure 7 or Baird 7 Nurse Managers and/or the Medical Director for the Birthing Center and Antepartum/Postpartum

Date: _____

Team Members Present for debrief: _____

	Yes	No	N/A	Comment
1. Was the hemorrhage recognized in a timely fashion?				
2. Were signs of hypovolemia recognized in a timely fashion?				
3. Were transfusions administered in a timely fashion?				
4. Were appropriate interventions (e.g. medications, balloons, sutures, etc.) used?				
5. Were modifiable risk factors (e.g., Pitocin, induction, chorioamnionitis, delay in delivery) managed appropriately?				
6. Was sufficient assistance (e.g. additional doctors, nurses, or others) requested and received?				

Generic form p 84 Drill Resource Book

Date: _____

University of Vermont Medical Center – Labor & Delivery/Baird 7 Debriefing Form

MRN: _____

Confidential and Privileged Information Pursuant to 26VSA Section 141-1143

This debriefing tool can be used by any member of the healthcare team for any potential high risk situation to improve teamwork and to help identify systems issues, communication concerns, or education needs. Leave this form in management's office mailbox to communicate any findings or need for follow-up.

Event type: Spontaneous Vaginal Delivery (circle one) Scheduled Cesarean Newborn Resuscitation Obstetric Hemorrhage	Operative Vaginal Delivery STAT or Urgent Cesarean Maternal Stabilization Uterine Rupture	Precipitous Delivery Shoulder Dystocia Retained Placenta Hypertensive Crisis	<input type="checkbox"/> Leadership Team notified <input type="checkbox"/> Team desires formal debrief <input type="checkbox"/> Team desires peer to peer support <input type="checkbox"/> Social Work consult initiated <input type="checkbox"/> Team member desires EFAP support
Pre-delivery/event • Was there a team meeting prior to event? • Was the room/equipment set up? • Were the appropriate people notified?			
Communication/teamwork • Was communication clear and timely? • How did the team work together? • Did everyone know their roles and fill them?			
Kudos • What went well? • Positive feedback?			
Opportunities • What could have gone better? • What could be improved for the future? • Any equipment, supplies or systems issues?			
Documentation • Was the event thoroughly documented? • Is charting by all team members aligned? (timing, sequence of events, apgars, EBL, etc.)			
Follow-up with patient and family • Does the patient need an opportunity to discuss the events? If so, who should follow-up and when?			

Completed by _____ Was a Safe Report completed? _____ Did a formal Debrief occur? _____ Does a formal Debrief need to be scheduled? _____

If debriefing not common:

- Use form for structure
- Encourage use of form even if debrief not done: fill out, request formal debrief
- Assign Rn to fill out
- Place in the RN manager office for fu

Date: _____

University of Vermont Medical Center – Labor & Delivery/Baird 7 Debriefing Form

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Pre-delivery/event • Was there a team meeting prior to event? • Was the room/equipment set up? • Were the appropriate people notified?	<div style="border: 1px solid black; padding: 20px; text-align: center;"> <h2>Debriefing is the backbone of system improvement and improved communication for the unit</h2> </div>		
Communication/teamwork • Was communication clear and timely? • How did the team work together? • Did everyone know their roles and fill them?			
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Multidisciplinary Reviews

- No Obstetric unit acts without Anesthesiology, Pediatrics, and the blood bank/lab
- No system improvement will be effective without them
- Not everyone has to be at every meeting (we are pretty much OB and anesthesiology, invite Peds and others when needed)
- Minimum: RN leader, RN educator, OB leader, Anesth leader, ideally someone from QAI in the hospital to help with minutes, action plans, etc.
- **No action plan=no action**

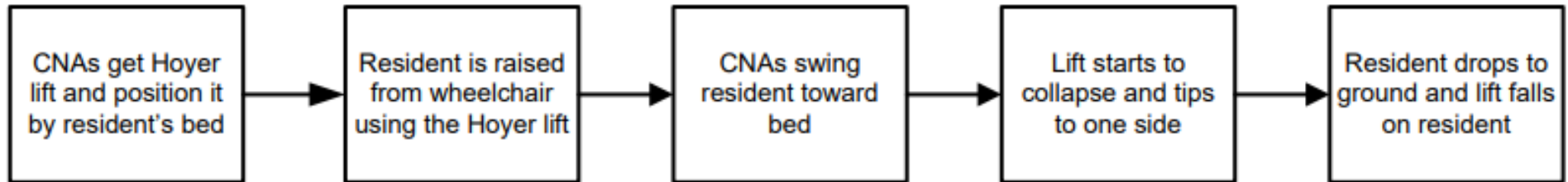
Root Cause Analysis (RCA)

- Key method for investigating critical incidents and developing recommendations for preventing future events
- Structured through hospital QAI
- Facilitated
- Leadership driven (usually hospital QAI lead)
- Start with the problem (not the solution)

[Guidance for Performing Root Cause Analysis \(RCA\) with PIPs \(cms.gov\)](https://www.cms.gov/Regulatory-and-Inspection/Inspectional/Root-Cause-Analysis)

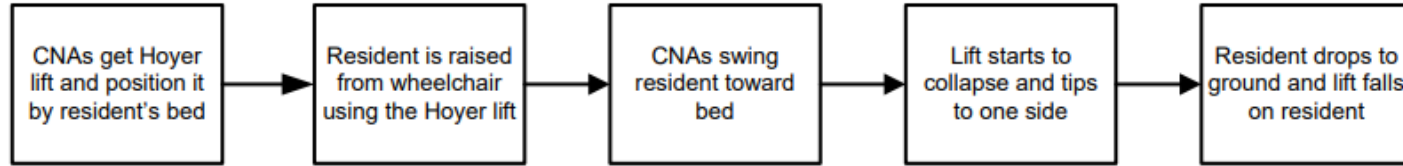
Steps	Explanation
1. Identify the event to be investigated and gather preliminary information	Events and issues can come from many sources (e.g., incident report, risk management referral, resident or family complaint, health department citation). The facility should have a process for selecting events that will undergo an RCA.
2. Charter and select team facilitator and team members	Leadership should provide a project charter to launch the team. The facilitator is appointed by leadership. Team members are people with personal knowledge of the processes and systems involved in the event to be investigated.
3. Describe what happened	Collect and organize the facts surrounding the event to understand what happened.
4. Identify the contributing factors	The situations, circumstances or conditions that increased the likelihood of the event are identified.
5. Identify the root causes	A thorough analysis of contributing factors leads to identification of the underlying process and system issues (root causes) of the event.
6. Design and implement changes to eliminate the root causes	The team determines how best to change processes and systems to reduce the likelihood of another similar event.
7. Measure the success of changes	Like all improvement projects, the success of improvement actions is evaluated.

TIME LINE:



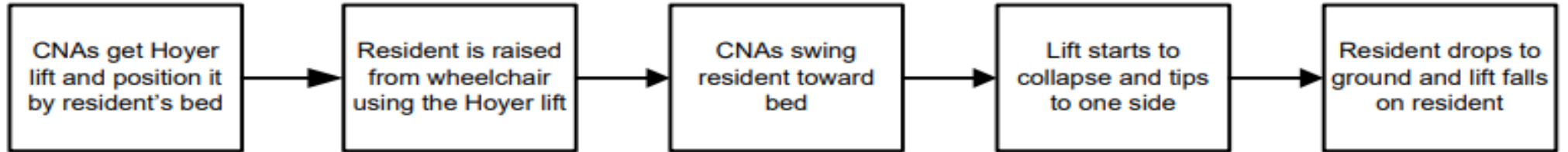
EVENT

TIME LINE:



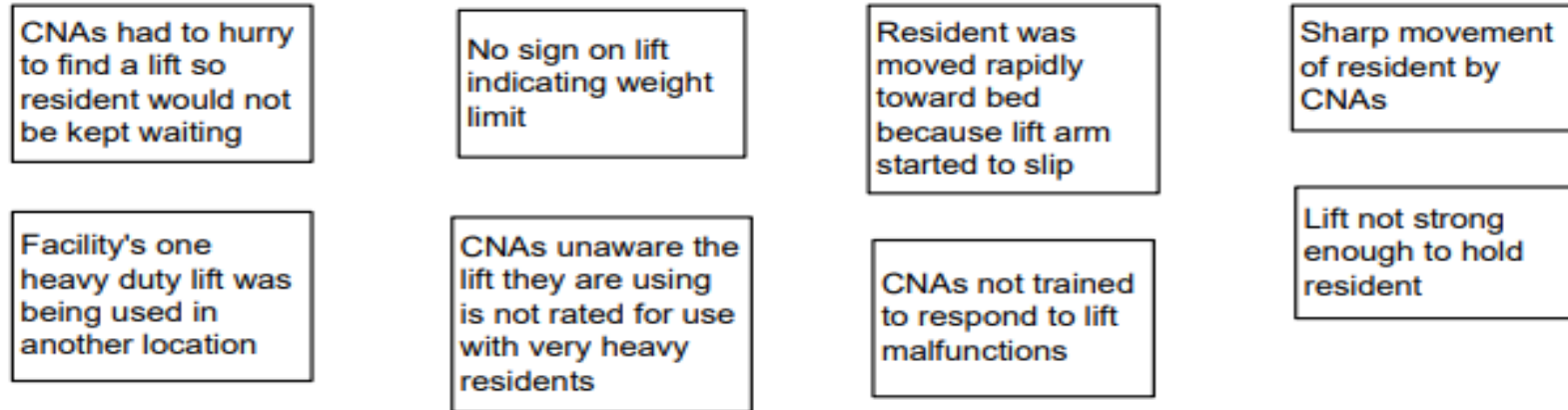
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TIME LINE:

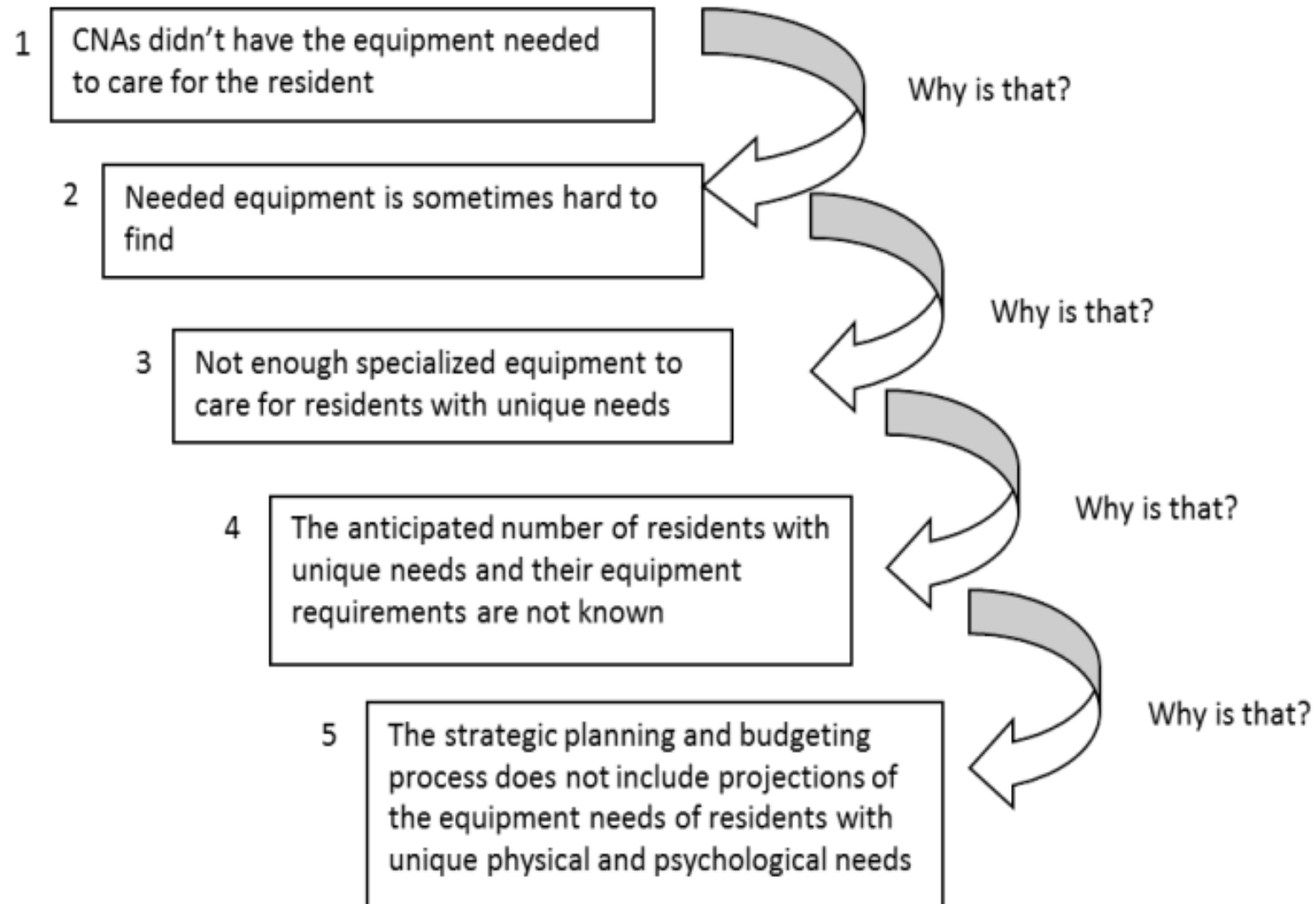


EVENT

CONTRIBUTING FACTORS:



Contributing factors are not root causes. The team needs to examine the contributing factors to find the root causes. This can be done by digging deeper – asking repeated “why” questions of the contributing factors. This is called the “five why’s” technique, which is illustrated below.



When developing corrective actions consider questions such as:

- What safeguards are needed to prevent this root cause from happening again?
- What contributing factors might trigger this root cause to reoccur? How can we prevent this from happening?
- How could we change the way we do things to make sure that this root cause never happens?
- If an event like this happened again, how could we stop the accident trajectory (quickly catch and correct the problem) before a resident was harmed?
- If a resident were harmed by this root cause, how could we minimize the effect of the failure on the resident?

Stronger Actions

- Change physical surroundings
- Usability testing of devices before purchasing
- Engineering controls into system (forcing functions which force the user to complete an action)
- Simplify process and remove unnecessary steps
- Standardize equipment or process Disclaimer: Use of this tool is not mandated by CMS, nor does its completion ensure regulatory compliance.
- Tangible involvement and action by leadership in support of resident safety; i.e., leaders are seen and heard making or supporting the change

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Intermediate Actions

- Increase staffing/decrease in workload
- Software enhancements/modifications
- Eliminate/reduce distractions
- Checklist/cognitive aid
- Eliminate look alike and sound alike terms
- “Read back” to assure clear communication
- Enhanced documentation/communication

Weaker Actions

- Double checks
- Warnings and labels
- New procedure/memorandum/policy
- Training
- Additional study/analysis

Root-cause analysis: swatting at mosquitoes versus draining the swamp

Patricia Trbovich,^{1,2} Kaveh G Shojania^{1,3,4}

- RCAs vary widely in terms of their conduct and the utility of the recommendations they produce
- Most common solution types as training, process change and policy reinforcement. Serious events (eg, retained surgical sponges) recurred repeatedly despite conducting RCAs
- Do not want to spend time and expend resources swatting at the mosquitoes of 'not double checking'.

James Reason (of the Swiss Cheese Model fame) once characterized the goal of error investigations as draining the swamp not swatting mosquitoes

Look for these (harder, more impact):

Stronger Actions

- Change physical surroundings
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Instead of these (easier, less impact):

Weaker Actions

- Double checks
- Warnings and labels
- New procedure/memorandum/policy
- Training
- Additional study/analysis

Debrief, Multidisciplinary review or RCA at small hospitals

Unique challenges of case review in low volume settings:

Relatively few OB providers

Relatively few RNs

May be difficult to have very detailed, difficult discussions

Consider:

- Plan your multidisciplinary review and request a review from a different hospitals
- QAI committee can get temporary QAI status
- Perform all under the auspices of QAI (not discoverable)
- Can have multidisciplinary help



Medical error: the second victim

The doctor who makes the mistake needs help too

BMJ VOLUME 320 18 MARCH 2000 www.bmj.com

“When I was a house officer another resident failed to identify the electrocardiographic signs of the pericardial tamponade that would rush the patient to the operating room late that night. The news spread rapidly, the case tried repeatedly before an incredulous jury of peers, who returned a summary judgment of incompetence. I was dismayed by the lack of sympathy and wondered secretly if I could have made the same mistake—and, like the hapless resident, become the second victim of the error.”

- What should we do when a colleague makes a mistake?
- How would we like others to react to our mistakes?
- How can we make it feel safe to talk about mistakes?
- In the case of an individual colleague it is important to encourage a description of what happened, and to begin by accepting this assessment and not minimizing the importance of the mistake.
- Disclosing one's own experience of mistakes can reduce the colleague's sense of isolation.
- It is helpful to ask about and acknowledge the emotional impact of the mistake and ask how the colleague is coping

AIM: Multidisciplinary reviews and trauma informed support for patients AND STAFF



Severe Hypertension in Pregnancy Patient Safety Bundle

Response — Every Event

Utilize a standardized protocol with checklists and escalation policies including a standard response to maternal early warning signs, listening and investigating patient-reported and observed symptoms, and assessment of standard labs for the management of patients with severe hypertension or related symptoms.

Initiate postpartum follow-up visit to occur within 3 days of birth hospitalization discharge date for individuals whose pregnancy was complicated by hypertensive disorders.

Provide trauma-informed support for patients, identified support network, and staff for serious complications of severe hypertension, including discussions regarding birth events, follow-up care, resources, and appointments.

Reporting and Systems Learning — Every Unit

Establish a culture of multidisciplinary planning, huddles, and post-event debriefs for every case of severe hypertension, which identifies successes, opportunities for improvement, and action planning for future events.

Perform multidisciplinary reviews of all severe hypertension/eclampsia cases per established facility criteria to identify systems issues.

Monitor outcomes and process data related to severe hypertension, with disaggregation by race and ethnicity due to known disparities in rates of severe hypertension.

Conclusion:

Do whatever you can for communication
Know your system to implement change

Debriefing after EVERY event is great practice
Communication is our strongest link to culture of safety
Reduces stigma associated with debriefs

ACOG: Patient Safety:

Improve communication with health providers

Communication between all members of the health care team is a crucial element in patient safety. In its analysis of sentinel events, the Joint Commission found that almost two thirds of the events involved communication failure as a root cause.

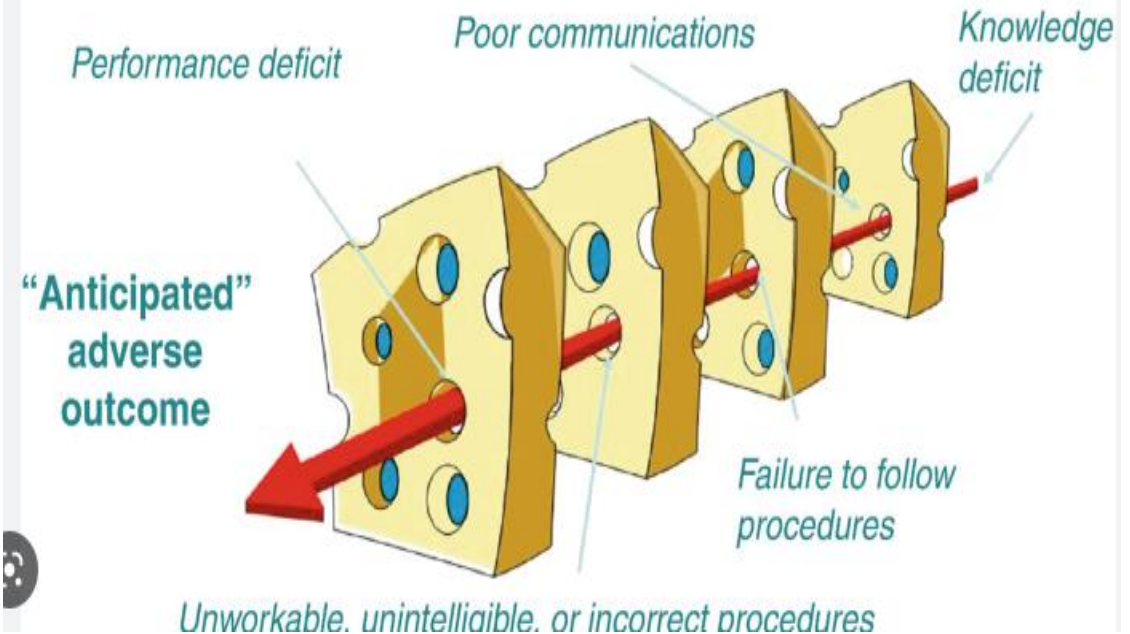


Drills-in situ
Sims
Debriefs

Action steps:

- (1) Develop a mechanism for debriefs after as many events as possible, ideally all: this will help with communication in general which is by far the most impactful intervention re: patient safety
- (2) Develop mechanism for multidisciplinary reviews: include outside reviews if staff is small or additional expertise will help achieve goals of case understanding
- (3) Talk to QAI leaders about who would run an RCA if needed; again look to larger centers for assistance and expertise
- (4) Talk about second victim and discuss supports (UVMHC developing a curriculum)

The top 5 most commonly identified contributing factors of preventable adverse outcomes



Questions?

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PQC-VT listserv: PQC-VT@med.uvm.edu