Success Cause Analysis: Turning Success into System Learning

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11/06/25

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Objectives

Purpose: For everyone to have a complete understanding of Success Cause Analysis through our experience so that you can take it and implement in your facilities.

- What is an SCA
- Key Differences in RCA – SCA
- When & How to Implement
- Safety I to Safety II Culture
- SCA Case
- Lessons Learned
- Sharing and Reinforcing the Success
- Key Takeaways (Recap)
- Questions

What is a Success Cause Analysis (SCA)?

"Uses RCA methodology but uses it to understand the factors that contributed to a favorable outcomes instead of adverse events."

- SCAs are conducted to review a positive outcome and aims to identify specific actions that other units can use to improve their performance and outcomes during these unexpected situations.

- High-risk events that that allowed multiple units to come together during a high-risk situation.

"There are millions of things that go right every day" - Dr. Komal Bajaj (NYC Jacobi hospital)

SCA Purpose

- Strengthen a culture of safety and learning
- Encourage team collaboration
- Promote continuous improvements by celebrating and replicating success

SCA Positives

Success Cause Analysis is a useful strategy to mitigate "third victim syndrome" for quality and safety professionals who — by analyzing only errors — can experience stress and may end up viewing their own systems and teams as unsafe.

Because they are not error focused, SCA discussions may allow the inclusion of more people than the typical RCA and empower more individuals to share their perspectives without fear.

The engagement and involvement of RCA teams in SCAs may promote collaboration amongst risk, quality/safety professionals, leadership, and frontline staff.

Success Cause Analysis: Learning from What Works to Advance Safety | Institute for Healthcare Improvement

Safety-I to Safety-II Culture

"RCAs are typically based in Safety-I principles aimed at preventing failure; success analysis can be used on Safety-II principles aimed at achieving success and safe healthcare"

Table. Complementary Approaches to Understanding Patient Care Events

Safety-I	Safety-II
What goes wrong	What goes right
Defined by failure	Defined by success
Humans are a problem	Humans are a resource
Achieved by limits and constraints	Achieved by adaptability
Inquiry tone is critical	Inquiry tone is appreciative

Source: Adapted from Hollnagel E, Wears RL, Braithwaite J. From Safety-I to Safety-II: a white paper. University of Southern Denmark; University of Florida; 2015. 43 p.

Pennsylvania Patient Safety Advisory. | PSNet

Culture of Safety

EXPERIENCES - Staff participate in positive safety event reviews

Repeated positive experiences

BELIEFS – Safety practices makes a difference / Our team values patient safety

Beliefs drive behavior

ACTIONS – Staff speak up about potential hazards / Support peers in safe practices

Actions produce visible outcomes

RESULTS – Positive, proactice safety culture / Fewer errors / Safer patient care

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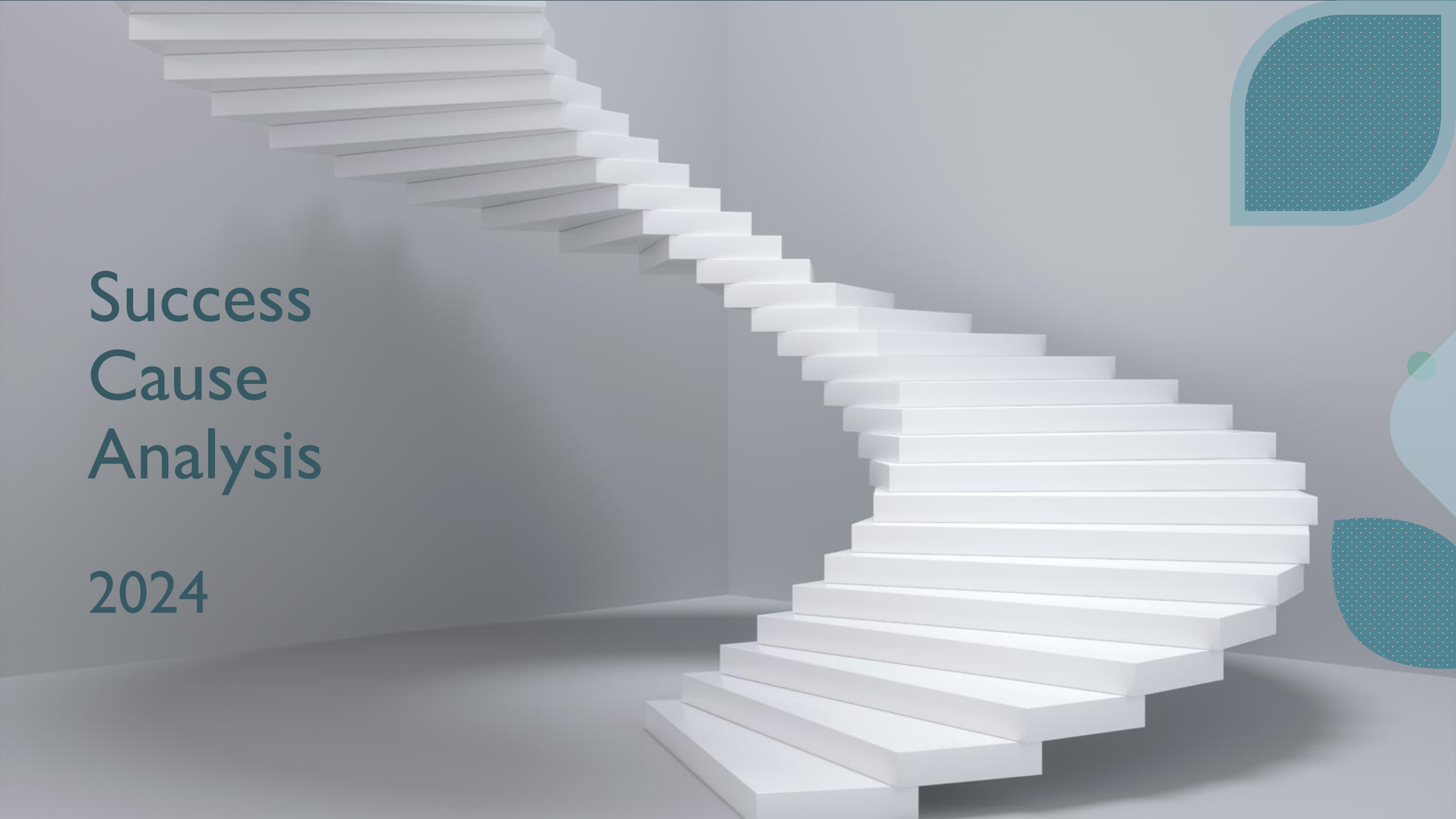


Success Cause Analysis

2024

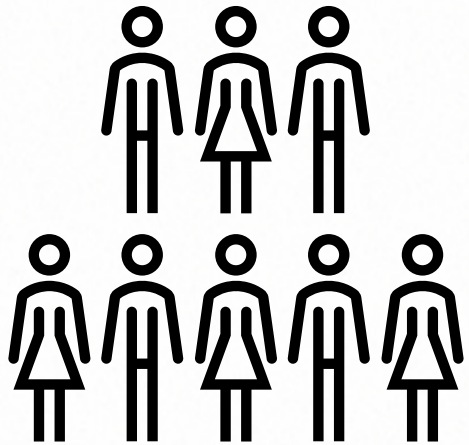
Event Brief

- Twin Pregnancy
- Preterm Labor
- Non-reassuring fetal heart tones of twin A and B

Consultation was done with OR staff/anesthesia, peds on-call and NICU. Decision to take to OR and hold until NICU team arrived/close as possible. After anesthesia, ultrasound demonstrated both with fetal heart tones in the 70s. Decision to proceed to c-section.

SCA Team Members

Quality/Safety	Executive Leadership	CMO
OB Manager	OB RNs (2)	ED Manager
Medical Acute Manager	Risk Management	



SAC Matrix

		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

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

What was this events SAC (Safety Assessment Code)?

Because this involved 3 patients, with the possibility of death or permanent loss:

3

Probability

(1) **Frequent** – Likely to occur immediately or within a short period (may happen several times in 1 year).

(2) **Occasional** – Probably will occur (may happen several times in 1 to 2 years).

(3) **Uncommon** – Possible to occur (may happen sometime in 2 to 5 years).

(4) **Remote** – Unlikely to occur (may happen sometime in 5 to 30 years).

Severity

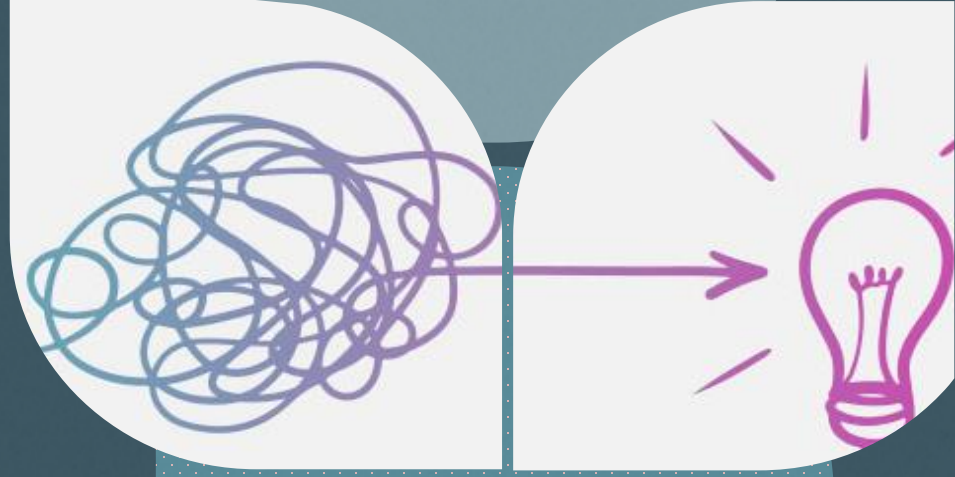
Catastrophic	Major
Patients with Actual or Potential: Death or major permanent loss of function (sensory, motor, physiologic, or intellectual) **not related to the natural course of the patient's illness or underlying condition** (i.e., acts of commission or omission). This includes outcomes that are a direct result of injuries sustained in a fall; or associated with an unauthorized departure from an around-the-clock treatment setting; or the result of an assault or other crime. Any of the adverse events defined by the Joint Commission as reviewable "Sentinel Events" should also be considered in this category (see App. A, subpar. 1b).	**Patients with Actual or Potential:** Permanent **lessening** of bodily functioning (sensory, motor, physiologic, or intellectual) **not related to the natural course of the patient's illness or underlying conditions** (i.e., acts of commission or omission) or any of the following: 1. Disfigurement 2. Surgical intervention required 3. Increased length of stay for three or more patients 4. Increased level of care for three or more patients

Moderate	Minor
Patients with Actual or Potential: Increased length of stay **or** increased level of care for one or two patients	**Patients with Actual or Potential:** No injury, nor increased length of stay nor increased level of care

Interviews Conducted

- Surgeon
- OB/LD Nurses
- OR Circulator
- Nurse Supervisor
- CRNA
- OB/LD Manager
- Respiratory Therapist

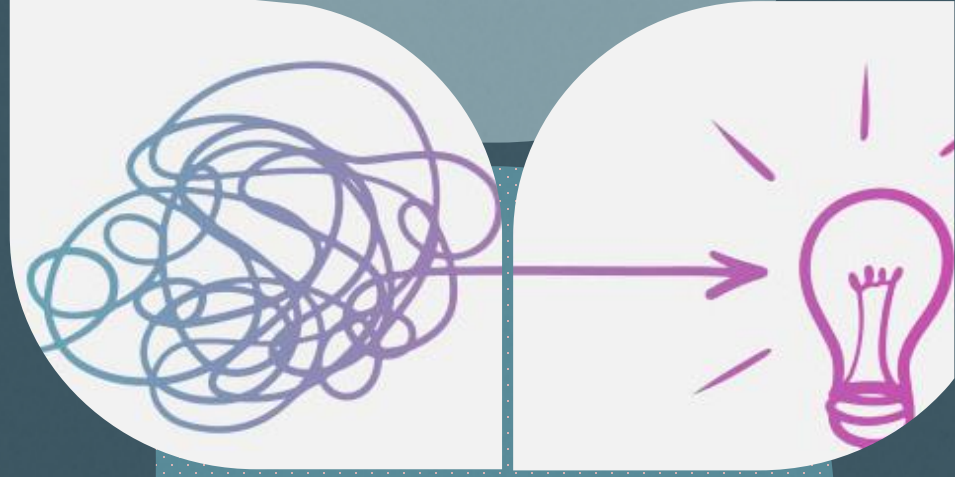
Interview Commonalities:



Communication:

- STAT section communicated
- Fully staffed- premature twin delivery must be run like two separate codes NRP.
  - ✓ 2 recorders were present (MA, ED).
  - ✓ 2 RT's present
  - ✓ Pediatric provider on call was on site at time of delivery
- All team members were in agreement with care.
  - Opportunity to ask questions
  - In-between game of waiting for NICU team to be closer and watching heart tones.
- Coordination of two NICU transportation was done well and quickly by Nursing Supervisor.

Interview Commonalities (positives):



Skills/Training:

- OR team was in OR ready for patient.
- CRNA stabilized mom and then intubated both babies (rockstar). CRNA was the most appropriate person to intubate neonates.
- Supervision was looking to SME's (subject matter experts) for what *THEY* needed.

Equipment:

- Emergency C-Section kit was easily accessible with the vital tools needed for delivery.
- OR was prepared for off-shift C-Section.

Positive Causal Statement

A causal statement is a written description of how an event, cause, and effect are related. Causal statements are often based on the results of a root cause analysis and are used to identify and document system vulnerabilities.

Standardized communication practices, access to emergency equipment, and targeted staff education were key factors that directly enhanced care coordination, optimized delivery processes, and improved clinical outcomes.

Identification of Actions that Contributed to a Favorable Outcome

Action	Success / Measurement
A universal language was developed that would be used between communicating team members.	OR staff as well as other needed team members (due to twin pregnancy) arrived to OR before patient was brought down for her STAT section. All members present and aware of urgency. ***Intermediate– Standardize Communication***
Emergency kits were standardized.	All items necessary for STAT delivery including Alexus retractor, Kiwi, sterile gloves, betadine, lidocaine, fetal pillow have been added to an Emergency C-Section box. This box has a monthly inventory checklist . ***Intermediate – Checklists/Monthly***
OB RNs trained to accomplish such OR tasks as placing a safety strap, placing a Bovie grounding pad, starting or even splashing abdominal prep for STAT sections.	Training competency checklist was created by OR and OB managers. This checklist has all items necessary to get the patient safely ready for an emergency section (this could be splash and crash or OR team running in to help) **75% OB RNs trained in OR tasks** ***Stronger – Tangible involvement by leadership***
Emergency cesarean meds (uterine relaxants, possibly the vials of the rapid sequence induction medications) be available in the OR.	All necessary medications added to the OR pyxis (Nitro, terbutaline). Lidocaine added to the STAT section box as well as betadine. ***Stronger- Standardize equipment***
Common understanding of current situation.	Team awareness of unstable fetal heart tones. Introduced pulse ox on mom as well as babies to determine fetal heart tones vs. mom (level of urgency). ***Stronger- Standardize process (pulse ox on mom every section)***

Simple – 1 Page
What
Why
Who

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Huddle Note

Surgery Classification and Communication

What is the change?

Development of standard consistent nomenclature for surgeries taking place at SFH.

Why the change?

SFH did not have previously defined nomenclature for communicating surgery urgency. This was brought forward in an ACA (Apparent Cause Analysis) due to an emergency c-section.

Which Mission Partners are Impacted?

Those involved in direct patient care pertaining to surgery and/or surgery decision making.

What Do Mission Partners Need to Know?

Standard Nomenclature to be Used:

STAT- 30 mins or less
Urgent – 1 hr. or less
Routine- Scheduled

Consistent Communication when calling in staff:

1) Surgeon to call Nursing Supervisor and CRNA- Surgeon to let Nursing Supervisor know he or she has or will be calling CRNA.

2) Nursing Supervisor to call in all additional staff.

Who- Which surgeon?
What- What specific procedure to be performed
When- STAT vs. Urgent vs. Routine
Where- Where is the patient? (ER, 2S, L&D, driving to the hospital, etc..)
If the assist will or will not be called in.
PACU nurses needed right away for STAT.

OR to OB Competency Checklist

Skill	Method: V-Verbal D- Discussed O-Observed H- Hands On	Date	Initials of learner	Initials of Trainer
Location of Emergency C/S Tote- In L&D clean supply room **Contents:** Foley Catheter kit Betadine Splash bottle Lidocaine, syringe, needle Disposable blade Kiwi Alexis (size large) Fetal Pillow	V,D			
• Location of clips for drapes- on IV poles • Location of extra gloves- OR cabinet • Place to put emergency c-section tote- top of case cart • Location of OR pyxis • How to turn on anesthesia machine	V,D			
Surgical overhead lights- Review and perform	V,D,O,H			
Surgical table operation- Review and perform	V,D,O,H			
Safety belt application- Review Elsevier Procedure Demonstrate by simulation	V,D,O,H			

OB RN STAFF EMERGENT C SECTION IN OR COMPETENCY

Electrocautery operation and pad placement- Review Essevier Procedure Electrosurgery Unit (Perioperative) - CE/NCPD-. Demonstrate by simulation	V,D,O,H			

Print: _____ Date: _____

Signature: _____ Date: _____

Trainer Name: _____ Date: _____

Signature: _____ Date: _____

Each OB RN must open the OR with supervision and check off per the OR staff for two patients. Due date of 3/1/25 to complete two check off's.

Competency Skills Check Off:

Date:	MRN:	Signed off by OR staff

Stronger Actions → (These tasks require less reliance on humans to remember to perform the task correctly)	Architectural/physical plant changes
	New devices with usability testing
	Engineering control (forcing function)
	Simplify process
	Standardize on equipment or process
	Tangible involvement by leadership
Intermediate Actions →	Redundancy
	Increase in staffing/decrease in workload
	Software enhancements, modifications
	Eliminate/reduce distractions
	Education using simulation-based training, with periodic refresher sessions and observations
	Checklist/cognitive aids
	Eliminate look- and sound-alikes
	Standardized communication

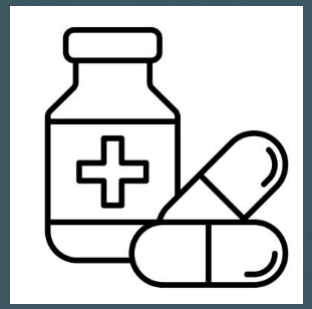
The stronger the action item, the more effective they will be.

Weaker Actions → (These tasks rely more on humans to remember to perform the task correctly)	Double checks
	Warnings
	New procedure/ memorandum/policy
	Training

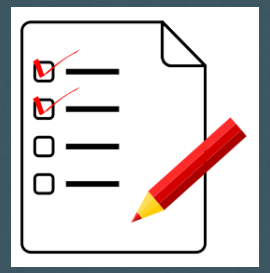
Recap: Safety-I to Safety-II Culture

Sustainable system-level solutions that lead to improvement on patient outcomes.

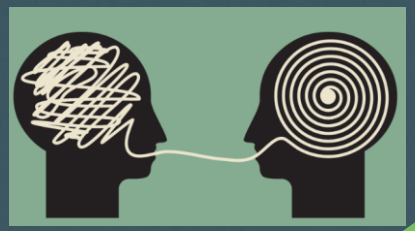
Standardize Equipment



Re-Evaluation of Medications



Competency Tools & Observations



Plain Language

Consistent Communication

Signal Detection

What are the other areas in the facility where this could happen?

Ministry Impact?

How can these steps to a Safety-II culture benefit other units?

Action Item Considerations	Examples
Clarification of terms	*Difference between STAT and URGENT*
Universal language was used to communicate between unit team members and other depts. Consistent communication.	*Escalation of declining patient*
Emergency equipment kits developed Monthly check/review	*i.e. Crash Carts – different individuals assigned*
Education Simple cross-training	*Drills – mass transfusion, maternal hemorrhage, infusion reaction management* *(Tracking % staff completion)*
Just Culture reinforced	*Safety culture survey results – Staff feel free to speak up with concerns or questions?*

Positives Outcomes

- Event: Nurses able to finish shift confident, at peace. Safe care = Safe staff
- SCA – Team members felt great to be a part of a positive event review
- Reinforces safety culture
- Shared with other quality/safety members in our organization

Lessons Learned

Improvement Opportunities

- One identified

Outcome of mom and babies

- Doing well

Make it a routine part of our learning system

- Continually improve culture of safety

RECAP

Event Review Components	Considerations	SFH
Event Selection	High-risk events that require multiple systems to come together for a favorable outcome – lessons for organization-wide implementation	Emergent C-Section – No OR crew, preterm twins
Team Involvement	RCA team + for SCA	Q/S, RM, exec. leadership, pt care managers, frontline staff
Fact Finding / Flow/Process Diagram	Interviews; existing EBP review	Care team involved. Communication process, equipment
Develop Causal Statements	Positive statements clearly identify contributing factors	Previous slide
Identify Actions that Contributed to Favorable Outcome	Solutions broadly applicable to a variety of areas	Standard language all surgical pts, emergency equip
Implementation	Transferable and generalizable solutions	Pt care managers challenged
Measurement	Actions monitored for safety measure improvement	% RNs trained in OR
Feedback	Share SCA broadly	Celebrate! Shared depts, medical staff, organization

Why Both Matter

- RCAs helps you avoid repeating errors
- SCAs help you repeat what works best

Together, they make sure you're constantly improving – by fixing problems and building on achievements.

SCA = Improved Culture

Culture is the invisible system that makes high reliability and quality improvement sustainable. When you make it visible in your SCA, you turn isolated success into organizational learning.

Resources

Success Cause Analysis: Learning from What Works to Advance Safety | Institute for Healthcare Improvement

Pennsylvania Patient Safety Advisory. | PSNet

Success Cause Analysis article.pdf

RCA2: Improving Root Cause Analyses and Actions to Prevent Harm | Institute for Healthcare Improvement

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