Patient Safety on the Perinatal Unit

MPSC
Perinatal Collaborative
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A Personal Error Story

Human factors:

• Task Fixation
• Multitask Overload
• Personalization
San Jose Mercury News, June 18, 2003:

• “In June a San Jose jury voted $38 million to a family in a case in which an earlier Cesarean section would allegedly have prevented a child's cerebral palsy.”

(Not a Kaiser-Permanente Case)

Medical Errors

No one comes to work planning to injure a baby.
Why We Commit Medical Errors

- Risk becomes acceptable because we get away with it.
- Most OB patients are healthy.
- In more than 50% of non-reassuring FHRIs, the fetus is *not acidemic*.

How We Commit Medical Errors

- Normalization of deviance: Unknowingly, professional and technical standards degrade over time.
5 Recurring Clinical Problems account for the majority of fetal and neonatal injury

- Inability to recognize and respond to both antepartum and intrapartum fetal distress.
- Inability to effect a timely C/S when indicated by maternal or fetal conditions.
- Inability to appropriately resuscitate a depressed infant.
- Inappropriate use of oxytocin leading to uterine hyperstimulation, uterine rupture, and fetal distress and/or death.
- Inappropriate use of forceps/vacuum leading to fetal trauma and/or preventable shoulder dystocia.

(Knox, Garite, Rice-Simpson 1999)

1999 Institute of Medicine Report
“To Err is Human”

- Between 44,000 and 98,000 Americans die each year as a result of medical errors. (8th leading cause of death.)
- Breast cancer 42,000 deaths/year
- AIDS 16,000 deaths/year
How can we prevent or capture medical errors?

• Other industries have already reduced their error rate to very, very low levels.
• Examples: military aviation, nuclear power industry.
Aircraft Carrier

- Every 20 seconds a plane lands on deck.
- A relatively small tail-hook must connect to a cable to ensure safe landing.

What’s more hierarchical than the U.S. military?

- Yet, at the point of service, hierarchy is flat.
- Nothing is taken for granted.
- Every sailor has the **authority** and **obligation** to call it off.
Inaugural Flight of Air France A320 Airbus

United Airlines Flight 173
Portland, OR 1978
The Commercial Aviation Experience

- Safety initiative (Crew Resource Management) began in 1979 after a series of “crew error” accidents--70% of accidents due to “flight crew error” = human factors.

- Majority of accidents - occurred when the captain flying.

- Today - captain manages problem, first officer flies.

Mortality risk: Commercial jet vs. Hospitalization

- Mortality risk advanced-world domestic jet flight: 1/8,000,000.

- Mortality risk (from medical error) per hospitalization in American Hospital: 1/1000.
How did they do it?

- Human factors awareness and improvements: communication, assertion, etc.
- Systems design: simple changes like checklists and briefings.

Let’s Fix it!

How to employ human factors tools to avoid medical errors and design safe systems.
Why haven't we been talking about communication and medical errors?

Why Aren’t We Talking?

- **We expect:** Well-trained individuals to deliver an error-free performance if they are paying attention and trying hard.
- **Individual agency:** Fix the person and the problem goes away.
- “Never happens here” phenomenon
- “We have always done it that way”
Why Aren’t We Talking?

- What you have to say is not important to me.
- What I have to say is not important to you.
- Technology will fix the problem.
Why Should We Be Talking?

The overwhelming majority of untoward events involve communication failure.
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Why Should We Be Talking?

- Somebody usually knows there is a problem
- The clinical environment has evolved beyond the limitations of individual human performance
Why Should We Be Talking?

MD – RN:
Different Communication Styles

- Nurses are trained to be narrative and descriptive
- Physicians are trained to be problem solvers
  - “What do you want me to do?”
  - “Just give me the headlines”

Human Limitations/Human Factors

- Limited memory capacity & limited mental processing capacity
- Limits imposed by stressors (e.g., emergencies)
- Limits imposed by fatigue & other physiological factors
Human Limitations/Human Factors

- Compounded by:
  - Poor group dynamics
  - Unrealistic attitudes
  - Staffing challenges
  - Cultural differences
  - Environmental factors
  - Individual personality/family of origin

ERROR TYPES

- Latent errors: System-derived account for 80%

- Active errors: Slips Lapses account for 20%
Count the basketball passes

Getting the Conversation Started:
Our Approach to Human Factors

- Human factors awareness
- Effective communication
- Situational awareness
- Teamwork and Leadership
The Tools: Our Approach to Human Factors

Human factors awareness and:
- Structured communication tools
  - Briefings, assertion, debriefings
- Situational awareness
- Teamwork and Leadership

I’m Safe Checklist
- I = Illness
- M = Medication
- S = Stress
- A = Alcohol and Drugs
- F = Fatigue
- E = Eating and Elimination
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Briefings

Definition
A briefing is a dialogue between two or more people using concise and relevant information.

Briefings help us to:
1. Facilitate clear, effective communication.
2. Foster an environment where team members can and do speak up if they see a problem.

Japp Energy

• Featuring a team that definitely needed a briefing!
Setting the Stage

• Briefing helps get everyone on the same page and sets the tone for the team
• It is much easier to monitor the plan and speak up if you actually know what the plan is, what the desired outcome is, and that your input will be welcomed
• Helps avoid surprises

What Normally Goes Wrong When Briefings Fail

• CONCERN was expressed but
• PROBLEM was not stated clearly enough, or
• DECISION was not reached, or
• PROPOSED ACTION didn’t happen
SBAR: Live Scenarios

Creating perinatal units that deliver care safely and reliably with zero preventable adverse outcomes

Situational Brief

S-B-A-R:
- **Situation** (the problem)
- **Background** (brief, related to the point)
- **Assessment** (what you found/think)
- **Recommendation** (what you want)

✔ Followed by respectful response, discussion and plan.
SBAR: Post-Partum
RN to Ob On-call

- **S:** Ms. Harris in room 413 has urine output of 100 cc’s in 8 hours.
- **B:** She’s 23, healthy and had a c/s for breech yesterday. She’s not drinking yet, she’s afebrile & VSS. Her hct is 33. Her IV rate is TKO.
- **A:** I think she is behind on her fluids.
- **R:** May I give her a fluid bolus and increase her IV rate?

SBAR: Gynecologist-to-HBS

- **S:** I’m calling about Mrs. Smith in 534
- **B:** She’s 39 and 3 days s/p hysterectomy. She’s complaining of right-sided chest pain, and dyspnea. Her lungs are clear but her R/A O2 sat is only 88%. She is tachycardic but cardiac exam is normal. I’ve ordered a stat ECG, CXR, and CBC.
- **A:** I’m worried that she’s having a pulmonary embolus.
- **R:** Could you please come and evaluate her?
SBAR: Communicating with Physicians and Other Team Members

Before calling physician, make sure the following are completed:

- Have I seen and assessed the patient myself before calling?
- Review the chart for appropriate physician to call
- Know the admitting diagnosis and date of admission
- Have I read the most recent MD progress notes and notes from the nurse who worked the shift ahead of me?

Have available the following when speaking with the physician:

- Patient’s chart
- List of current medications, allergies, IV fluids, and labs
- Most recent vital signs
- Reporting lab results: provide the date and time test was done and results of previous tests for comparison
- Code status
SBAR: Communicating with Physicians and Other Team Members (Cont)

(S) Situation: What is the situation you are calling about?
- Identify self, unit, patient, room number
- Briefly state the problem, what is it, when it happened or started, and how severe

(B) Background: Pertinent background information related to the situation that could include:
- The admitting diagnosis and date of admission
- List of current medications, allergies, IV fluids, and labs
- Most recent vital signs
- Lab results: provide the date and time test was done and results of previous tests for comparison
- Other clinical information
- Code status
SBAR: Communicating with Physicians and Other Team Members (Cont)

(A) Assessment: What is the nurse’s assessment of the situation?

(R) Recommendation: What is the nurse’s recommendation or what does he/she want? Examples:
- Order change
- Patient needs to be seen now
- Notification that patient has been admitted

Briefings: Key Elements Checksheet

- Secured the person’s attention
- Introduced self
- Made eye contact, faced the person
- Used person’s name - familiarity is key
- Asked knowable information
- Explicitly asked for input
- Provided information
- Talked about next steps
- Encouraged ongoing monitoring and cross checking
Assertion: What is it?

“Individuals speak up and state their information with appropriate persistence until there is a clear resolution.”

The Assertion Model

- Model to guide and improve assertion in the interest of patient safety

GET PERSON’S ATTENTION

REACH DECISION

EXPRESS CONCERN

PROPOSE ACTION

STATE PROBLEM
Why is Assertion So Hard?

- Hierarchy / power distance
- Lack of common mental model
- Don’t want to look stupid
- Not sure I’m right
- Other? e.g. culture, gender, family of origin, character traits

Assertion Requirements

Stay with it until:
- the problem,
- the proposed action, and
- the decision are understood by all parties

Escalate as necessary.
Stop the Line:

Healthcare Team

All providers and staff are empowered and have the responsibility to immediately intervene* to protect the safety of a patient and to prevent a medical accident. It is the expectation that all participants will immediately stop and respond to a request by reassessing the patient’s safety. In the event that the issue is not resolved through pre-established communication channels, the physician/staff may pursue a series of actions to obtain medical attention for patient care needs. Healthcare team members are responsible for pursuing the channels until they are confident that the patient care needs are being met or a healthcare team administrative team member or physician at a higher level has accepted responsibility for resolution of the problem.

Assertion + Situational Awareness:

Live scenario
Situational Awareness

Definition:

Knowing what’s going on around you.

Situational Awareness: What Does It Mean In Healthcare?

You have an understanding of:
– Your patient’s condition,
– The environment, and
– What could go wrong.
Mutual Situational Awareness

The entire team has the same mental model of the current situation

“We’re all on the same page.”

Red Flags:
Loss of Situational Awareness

- Ambiguity
- Reduced/poor communication
- Confusion
- Trying something new under pressure
- Deviating from established norms
- Verbal violence
- Doesn’t feel right
- Fixation
- Boredom
- Task saturation
- Being rushed / behind schedule
“405 Freeway”

A situational awareness video clip

**DEFINITION**

A team-based review of a shared experience in order to learn from what happened to achieve superior outcomes in the future.
Debriefings

- **Benefit:**
  - Promotes situational learning and teaching

- **Debriefs** can help us better:
  - Identify actions that will enhance patient safety
  - Reinforce what worked well for the team
  - Identify glitches that occurred during an event
  - Match individual perceptions with reality

“I’ll always remember Macho Grande.”

- A debriefing video clip.
Teamwork

Communication and situational awareness help turn a team of experts into an expert team.

• We recognize that the production of injury is a team event.
• Avoiding maternal and fetal injury is solved by functioning as a team.
Collaboration in Medicine:
Why we should work as a team

- “Collaboration between surgeons, anesthesiologists and nurses related to risk-adjusted morbidity and mortality”
  - Young et al. (1997). Health Care Management Review
- “Better coordination among clinical staff is associated with lower mortality in ICUs”
  - Knaus et al. (1986). Annals on Internal Medicine
- “Collaboration between physicians and nurses was related to better patient outcomes in ICUs”
  - Baggs et al. (1992). Heart and Lung
- “Teamwork reduces risk in perinatal units”

Herding Cats

- A teamwork video clip
In 2002, Orange County personnel report that briefings are more common (55% increase)

Teamwork Climate:
Anesthesiologists & CRNAs vs. Surgeons & OR Nurses

% Rating Teamwork Climate Positively

- Pre Briefings
- Post Briefings
Teamwork

Teamwork depends on the ability of each team member to:

– Anticipate the needs of others; monitor; and cross-check.
– Adjust to each other’s actions and to the changing environment.
– Have a shared understanding of how a procedure should happen in order to identify when errors are occurring and how to correct for those errors.
– Follow-up and close issues

A Word about High Reliability Organizations

• Operate highly complex and hazardous technological systems essentially without mistakes over long periods of time.
High Reliability Organizations

- Preoccupation with failure
- Commitment to resilience
- Sensitivity to operations
- A culture of safety
- Reluctance to simplify interpretations
- Willingness to organize around expertise
- Respectful interactions

Human Factors Summary

Human factors are involved in the causation of most medical errors. Human factors awareness and safe systems designs can prevent most medical errors.
Patient Safety Needs YOU!

- If you see a situation that could potentially put a patient at risk of harm, then give an SBAR, assert yourself, and escalate as necessary to prevent patient injury.
- As a leader of the healthcare team, promote teamwork.
Patient Safety Needs YOU!

- Conduct briefings & debriefings with staff and colleagues when appropriate to promote situational awareness and learning so that every mother and baby are safe from harm.