Avoiding the Swiss Cheese: The Human Factor

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Disclosures

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Objectives

- Identify how errors occur and lead to safety events

- Learn how to prevent human error

- Discuss how to utilize Universal Skills

Patient's Perspective

Don't harm

- Don't harm me

Heal

- Heal me

Be

- Be nice to me

Safety is Foundational

- An average of 4.8 million patients in U.S. hospitals suffer serious harm each year
- 440,000 Americans die from preventable hospital errors
- Hospital infections affect 10 out of every 100 patients admitted
- Harm is often preventable
- Is healthcare as safe as it could be?

Commit to ZERO Harm

01 Zero harm to patients

02 Zero harm to staff

03 Make harm visible, be transparent about safety events

04 Put a face on safety events, each event is person

Patient Harm

Emily Jerry
Medication Error

Jesica Santillan
Treatment error

Safety is Everyone's Business

Why Do Events Happen?
The Swiss Cheese Effect

Multiple Barriers - technology, processes, policies and people - designed to stop active errors (our "defense in depth")

EVENTS of HARM

Active Errors by individuals result in initiating action(s)

Latent Weaknesses in barriers

PREVENT The Errors

DETECT & CORRECT The System Weaknesses

Adapted from James Reason, *Managing the Risks of Organizational Accidents* (1997)

Safety Event Classification System

Serious Safety Event
- Reaches the patient
- Results in moderate to severe harm or death

Precursor Safety Event
- Reaches the patient
- Results in minimal harm or no detectable harm

Near Miss Safety Event
- Does not reach the patient
- Error is caught by a detection barrier or by chance

Serious Safety Events

Precursor Safety Events

Near Miss Safety Event

HPI | PRESS GANEY

Understand Risk at Your Institution

ASSESSMENT   COMMONALITIES   TRANSPARENCY

Josie King

What if….

⚠️ What if we could significantly reduce our errors?

⚒️ What if there were "more tools" and not "more rules"?

💡 What if we came to work knowing exactly what is expected of us?

⚠️ What if we felt empowered to fix a problem or voice a concern related to safety and reliability?

🩺 What if we could leave work feeling confident we delivered the best possible care and services to our patients and customers?

Culture Change

What-if's are possible through culture change

Culture Change

Understand WHY we make errors and how to PREVENT errors

Humans Work in Three Modes

Knowledge-Based Performance
"Figuring It Out Mode"

Rule-Based Performance
"If-Then Response Mode"

Skill-Based Performance
"Auto-Pilot Mode"

Based on the Skill/Rule/Knowledge classification of Jens Rasmussen and the Generic Error Modeling System of James Reason

Skills Based Performance

What You're Doing at the Time:

Routine, frequent tasks in a familiar environment that you can do without even thinking about it – like you're on auto-pilot

Errors We Experience	Error Prevention Strategy
Slip – *Without intending to*, you do the wrong thing **Lapse** – *Without intending to*, you fail to do what you meant to do **Fumble** – *Without intending to*, you mishandle or blunder an action or word	Stop and Think Before Acting

1 in 1,000 (0.1%) acts performed in error
(as good as it gets for a human working on their own!)

Rule Based Performance

What You're Doing at the Time:
Responding to situations by recalling and using rules learned
either through education or experience

Errors We Experience	Error Prevention Strategy
Used the wrong rule – You were taught or learned the wrong response for the situation	Educate about the right rule
Misapplied a rule – You knew the right response but picked another response instead	Think a second time
Non-compliance – Chose not to follow the rule (usually, thinking that not following the rule was the better option at the time)	Reduce burden, increase risk awareness, improve coaching

1 in 100 (1%) choices made in error

Knowledge Based Performance

What You're Doing at the Time:

Problem solving in a new, unfamiliar situation. You come up with the answer by:

Using what you know (parts of different Rules)

Taking a guess

Figuring it out by trial-and-error

Errors We Experience	Error Prevention Strategy
Came up with the wrong answer (a mistake)	Stop and find an expert who knows the correct answer

30-60 of 100 decisions – that's **30% to 60%** – made in error

Develop Tools/Skills

- **Relationship Skills**
  1. Smile and greet
  2. Introduce and explain roles
  3. Listen with empathy
  4. Explain positive intent
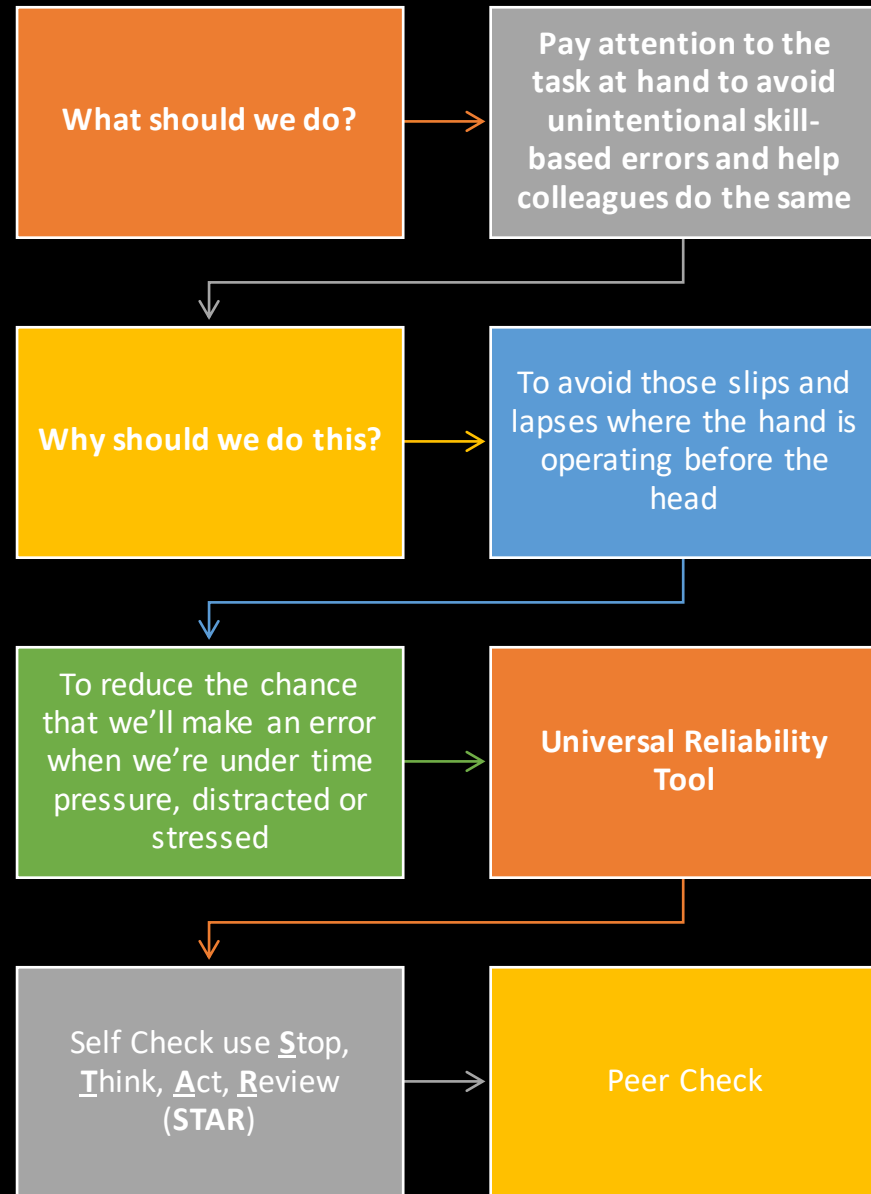 5. Provide opportunities for questions

- **Reliability Skills**
  1. Attention to detail
  2. Communicate clearly
  3. Questioning attitude
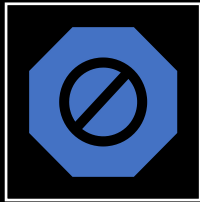 4. Know Why and Comply
  5. Speak-up for safety

Power Distance

- Some things cannot change (title, role, professional group, etc.)
- We CAN change how much power distance we display
- Power distance is neither good nor bad
- Degree of power distance is needed for leading teams
- Less power distance helps promote team approaches

The *perceived* difference – not necessarily the real difference – as seen by the *subordinate*

NAME
Department
Special Title

EXCELLENCE 25 YEARS IN SERVICE

RESERVED FOR DOCTORS

Attention to Detail

What should we do? → **Pay attention to the task at hand to avoid unintentional skill-based errors and help colleagues do the same**

Why should we do this? → To avoid those slips and lapses where the hand is operating before the head

To reduce the chance that we'll make an error when we're under time pressure, distracted or stressed → **Universal Reliability Tool**

Self Check use **S**top, **T**hink, **A**ct, **R**eview (**STAR**) → Peer Check
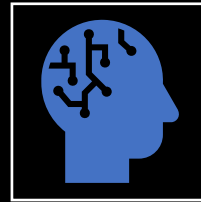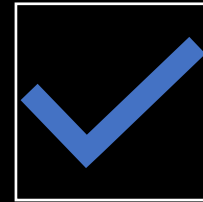
STAR

Stop   Think   Act   Review

STAR in Real Life

Top: Edward Hynes grieves by the car seat of his 3½-month-old daughter McKenzie. He left her in a car in a parking lot in Inverness, Fla., Friday. Authorities said he forgot to drop her off at day care and accidentally left her in the car. The infant was pronounced dead at the scene. Left: Mother Melanie Hynes, sitting, weeps in the arms of an unidentified woman.

Peer Check

- ## Take advantage of working together
  - Check the accuracy of each other's work
  - Identify slips and lapses
  - Point out unusual situations or hazards
  - Impromptu consultation

Key to Successful Peer Checking
Be willing to check others AND
be willing to have others check us

Unfortunate Peer Check

Clear Communication

What Should We Do?

Ensure that we <u>hear things</u> correctly and <u>understand things</u> accurately

Why should we do this?

- To prevent wrong assumptions and misunderstandings that could cause us to make wrong decisions

Universal Reliability Tools

- 3-Way Repeat Back and Read Back
- Phonetic & Numeric Clarifications
- Use <u>S</u>ituation, <u>B</u>ackground, <u>A</u>ssessment, <u>R</u>ecommendation (**SBAR**) and **(AIDET)**
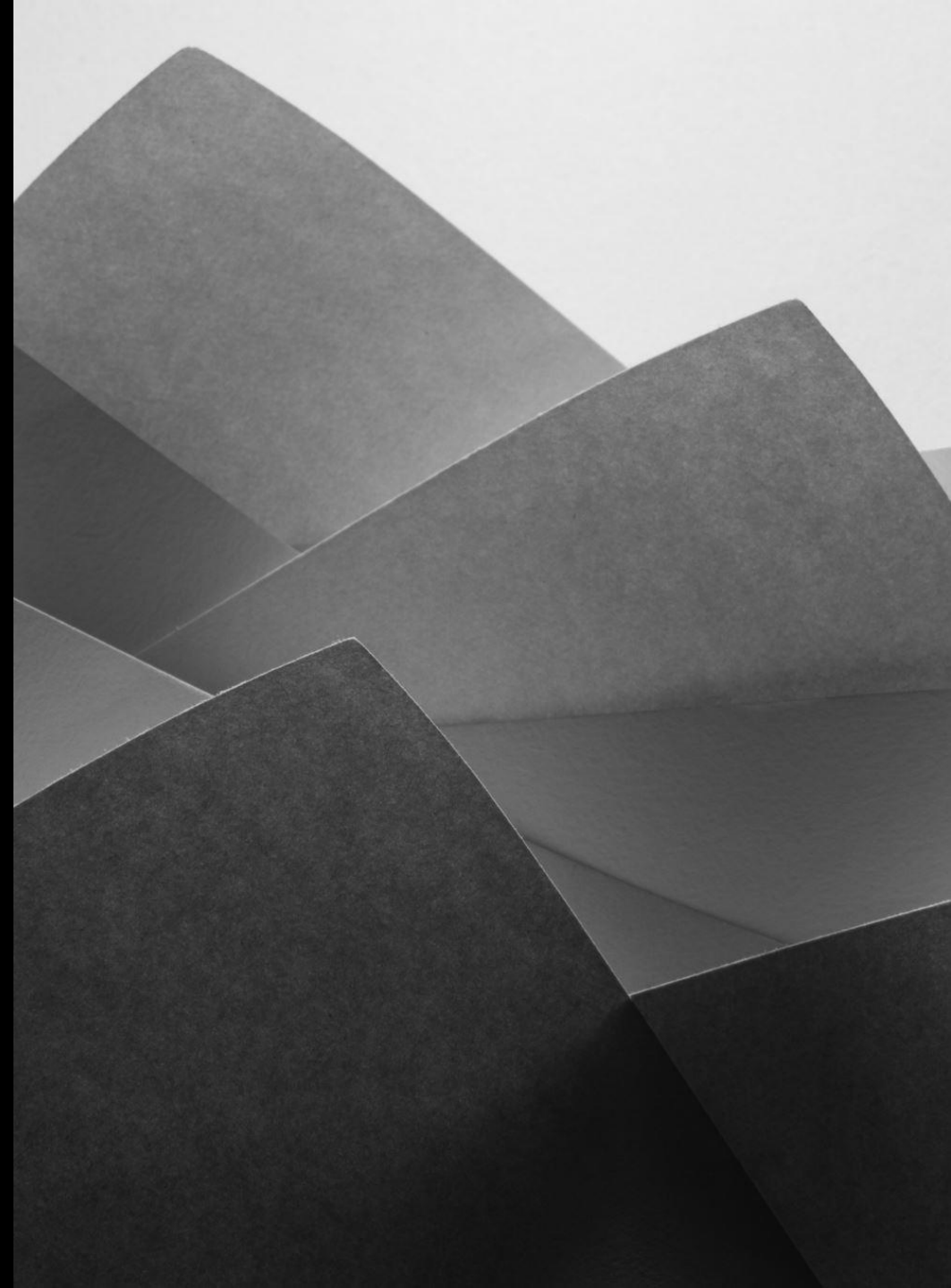
3 Way Repeat Back and Read Back

When information is transferred... **Use 3-Way Communication!**

1 → **Sender initiates** communication using Receivers Name. Sender provides an order, request, or information to Receiver in a clear and concise format.

2 ← **Receiver acknowledges** receipt by a repeat-back of the order, request, or information.
Phone orders or critical lab values or other important detailed information must be written down and READ back to the Sender.

3 → **Sender acknowledges the accuracy** of the repeat-back by saying, **That's correct!** If not correct, Sender repeats the communication.

Repeat Back Failure

- Tech states "27"
- RN hears "527"
- Tech rechecks FSBS at 29
- RN hears the recheck as "the same"

Phonetic Clarifications

For *sound alike words and letters*, say the letter followed by a word that begins with the letter...

A	Alfa	J	Juliett	S	Sierra
B	Bravo	K	Kilo	T	Tango
C	Charlie	L	Lima	U	Uniform
D	Delta	M	Mike	V	Victor
E	Echo	N	November	W	Whiskey
F	Foxtrot	O	Oscar	X	X-Ray
G	Golf	P	Papa	Y	Yankee
H	Hotel	Q	Quebec	Z	Zulu
I	India	R	Romeo		

Adopted by NATO, International Civil Aviation Organization, Federal Aviation Administration, International Telecommunication Union, and US Nuclear Power Industry

Numeric Clarification

For **sound alike** numbers,
say the number and then the digits

15...that's one-five

50...that's five-zero

45...that's four-five

425...that's four-two-five

4 to 5...that's the range four dash five

...and **always** use leading zeros – as in 0.9

Structured Communication: SBAR

Situation
- Who or what you're calling about, the immediate problem, your concerns

Background
- Review of pertinent information: procedures, patient condition

Assessment
- Your view of the situation: *"I think the problem is…"* or *"I'm not sure what the problem is"*
- Urgency of action: *"the patient is deteriorating rapidly – we need to do something"*

Recommendation
- Your suggestion to or request of the other person

Adhere to Standard Work

- Know why and comply—avoid reliance on memory to perform tasks safely, reliably, & correctly
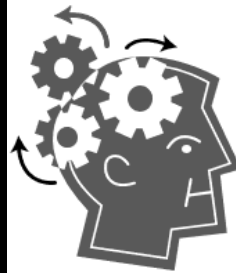 - Protocols
  - Checklists

Have a Questioning Attitude

- Think critically by questioning information we hear if it doesn't fit with what we know

- Validate and Verify

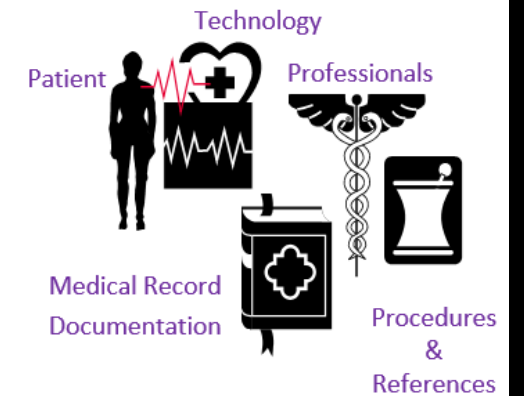It's not about asking questions - it's about questioning the answers!

Validate and Verify

Validate:
- Does it make sense to me?
- Is this what I expected?
- Does this information "fit-in" with my past experience?

Verify:
- Check it with an independent, expert source

Technology
Patient
Professionals
Medical Record Documentation
Procedures & References

Ask Clarifying Questions

Ask 1 to 2 clarifying questions….

When in *high risk* situations

When information is *incomplete*

When information is *ambiguous*

WHY: To reduce the probability of making a wrong assumption. Asking clarifying questions reduces the risk by 2.5 times!!

HOW: Phrase your clarifying questions in a positive way and in a manner that will get an answer that improves your understanding of the information

A responsibility we each have to protect in a manner of mutual respect – an assertion and escalation technique

Use the lightest touch possible...

Ask a question

Make a **R**equest

Voice a **C**oncern

If no success...

Use **C**hain of Command

- If you observe a situation you believe may compromise the safety of a patient or employee, you have a responsibility to raise that concern.
- ARCC gives you permission to escalate the safety concern if it is not adequately addressed.

Speak up for Safety

Peer Coaching

Tips

- *Be willing to give feedback to others...and be willing to have others give feedback to you!*

- *Provide feedback based on observations and facts*

- *Use the "lightest touch" possible*

Affirm safe and productive behaviors

5 times as often as you...

Correct an unsafe or unproductive behavior

What Does Success Look Like?

- Leaders, staff, and medical staff know our Universal Skills
- We observe and hear people using our Universal Skills
- We learn about Safety Success Stories – real life examples of people using our Universal Skills
- The number of events of harm goes down, and the number of safe days goes up.
- Each leader, physician and employee knows what they can do to create safe day.

Questions/Comments

References

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- Clapper C., Merlino J., Stockmeier, C. (2019) "Zero harm: how to achieve patient and workforce safety in healthcare", New York: McGraw-Hill