Quality and Safety Academy

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

Fellow Series | Session 1: Foundations of Patient Safety

SCHOOL OF MEDICINE

Graduate Medical Education

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

IHQSE

Fellow Series

Foundations of Patient Safety

Quality Improvement and Change Management

Quality in Academics


zoom

Foundations in Patient Safety

How to Develop an M&M Review

Core Faculty

- Anna Neumeier, Pulmonary
- Andy Levy, Cardiology
- Emily Gottenborg, Hospital Medicine
- Tyler Anstett, Hospital Medicine

A Case

HPI:

88 y/o man with h/o atrial fibrillation, DM, CHF presents with right facial droop, aphasia and right-sided weakness (last nl 13:00).

Imaging:

CT head without hemorrhage. CTA with occlusion of left M1 (MCA)

Management:

- Systemic TPA administered at 17:26, pt admitted to the ICU
- 24 hours later, after discussion with neurology, ASA initiated as well as heparin gtt (Afib and high CHADS2VASC)

A Case

HD 3 at 0300 (+36 hours):

- The patient was unresponsive
- Head CT→ large right frontotemporal intraparenchymal hemorrhage with midline shift
- Neurosurgery was consulted and drainage not assessed to be an option.

HD 4:

Patient developed progressive coma due to cerebral herniation. Family elected comfort care and the patient died.

Reflection

Has anyone been involved in a bad outcome for a patient?

Guilt

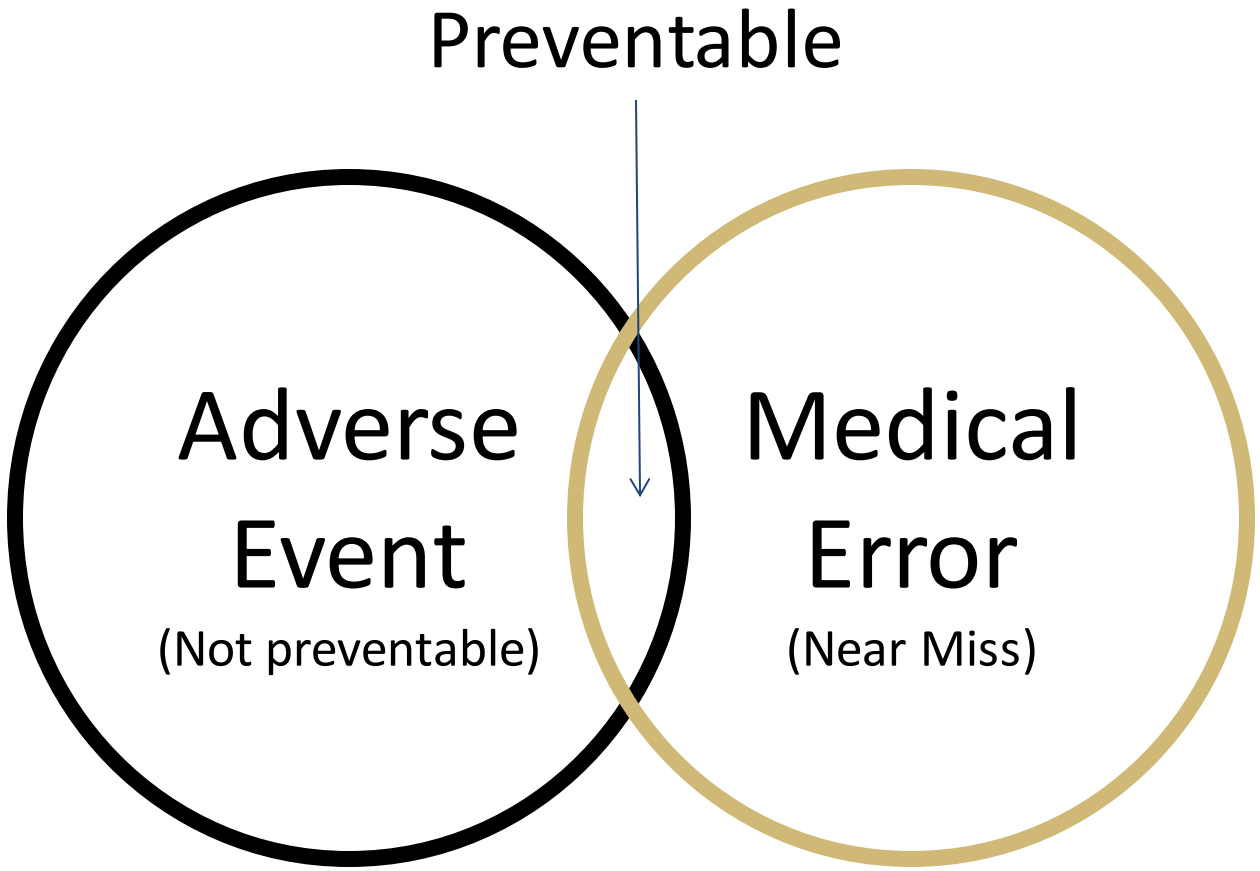
Incompetence

Sense of Failure

Second guessing

What do you do next?

Definitions



Level of Patient Harm

NO HARM

- Circumstances that have capacity to cause error
- Error that did not reach the patient
- Error that reached the patient but NO harm
- Error that reached the patient and required monitoring or intervention to confirm that it resulted in NO harm to the patient

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HARM

- Temporary harm to the patient and required intervention
- Temporary harm to the patient, required initial or prolonged hospitalization
- Permanent patient harm
- Intervention required to sustain life
- Patient Death

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Step 1: Case Selection

HARM = (Level of harm) x (Frequency of Event)

Focus on high frequency events, or events that cause an unacceptable level of harm

Common Themes

- Communication
- Handoffs
- Medication
- Inefficiencies
- Cognitive Errors

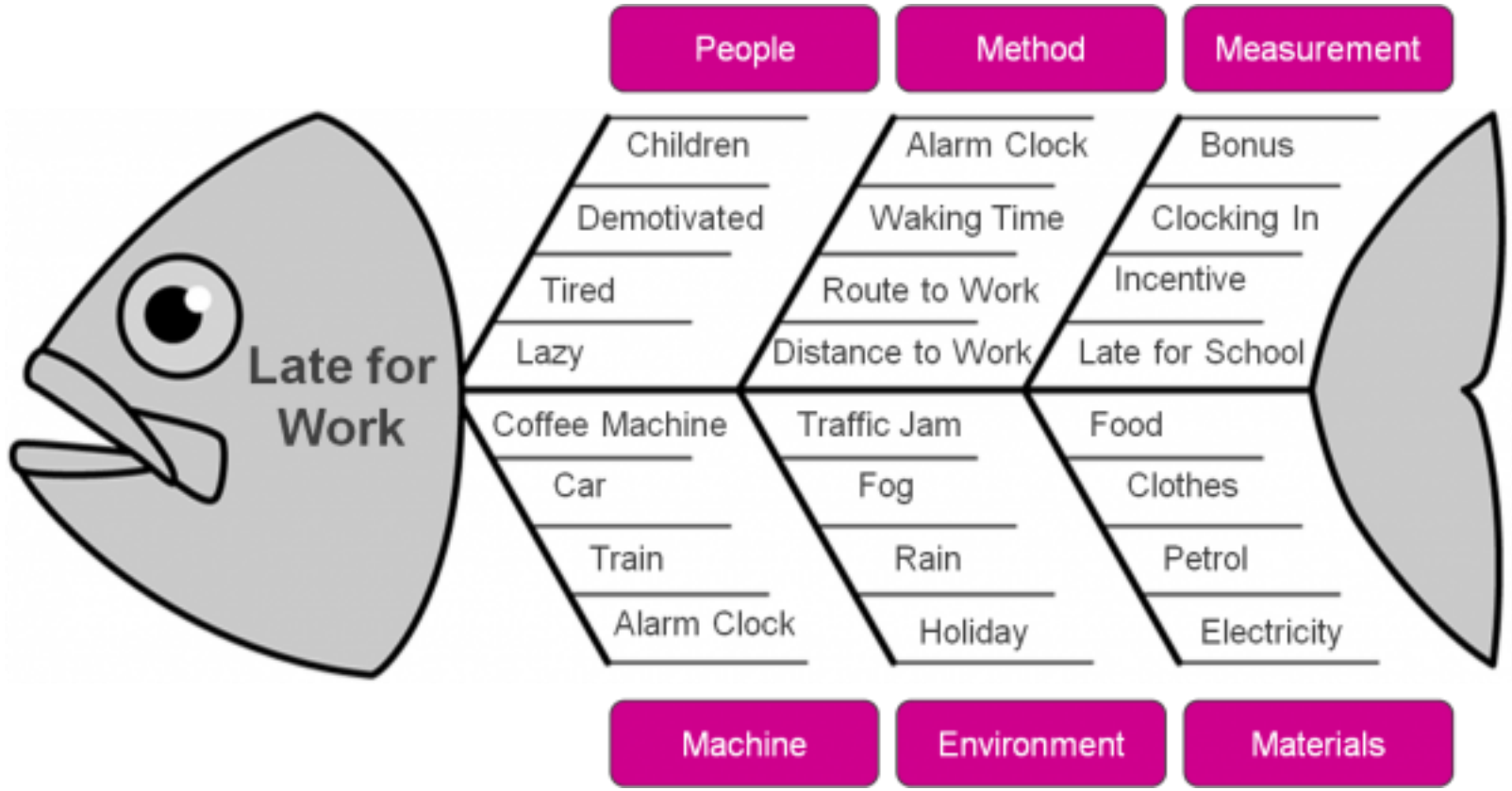
Breakout 1:

For your case, please identify:

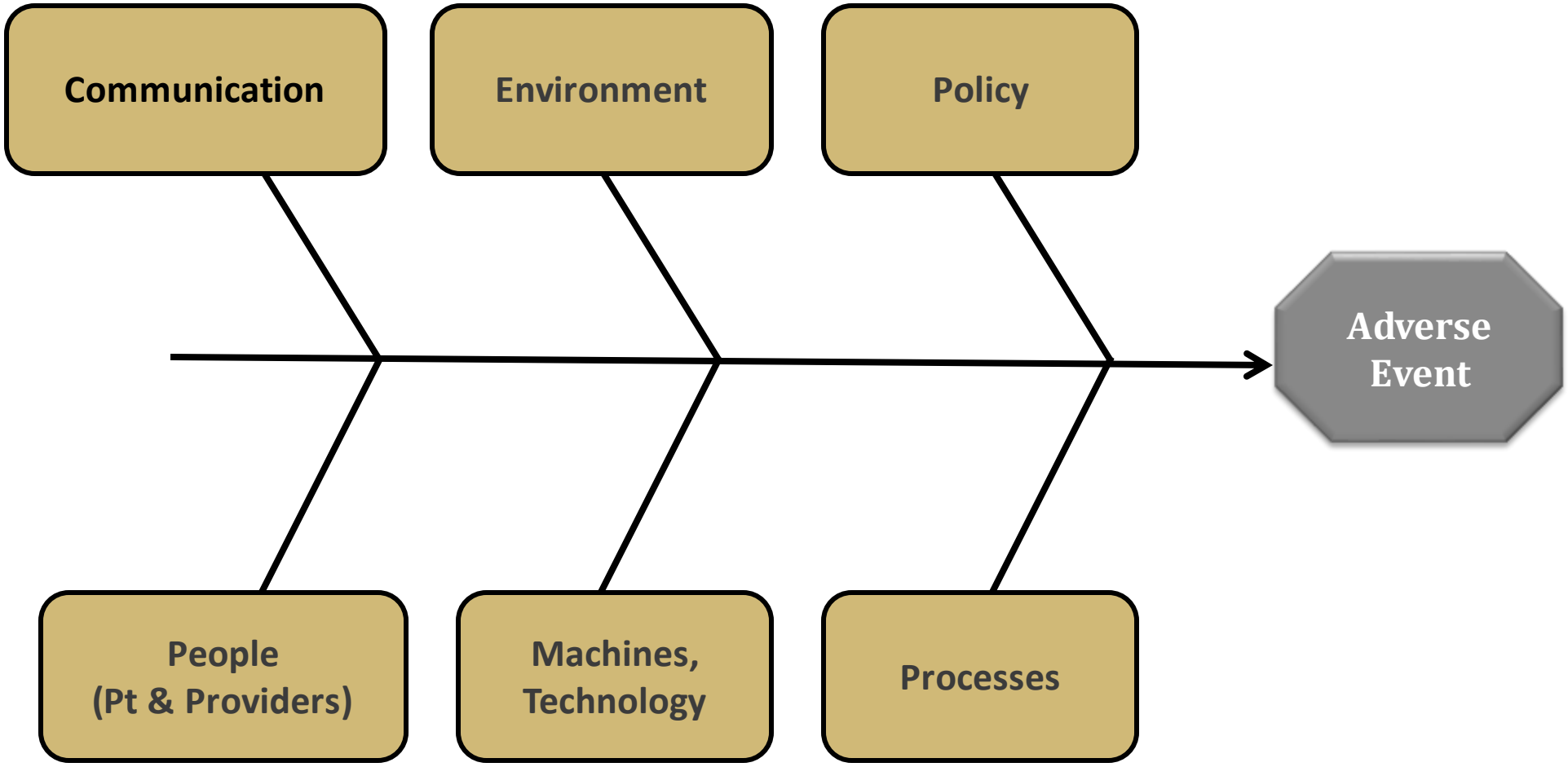
- What was the adverse event?
- Were there any medical errors?
- If so, what common themes contributed?
- What was the level of patient harm?

Step 2: Analyze the Adverse Event

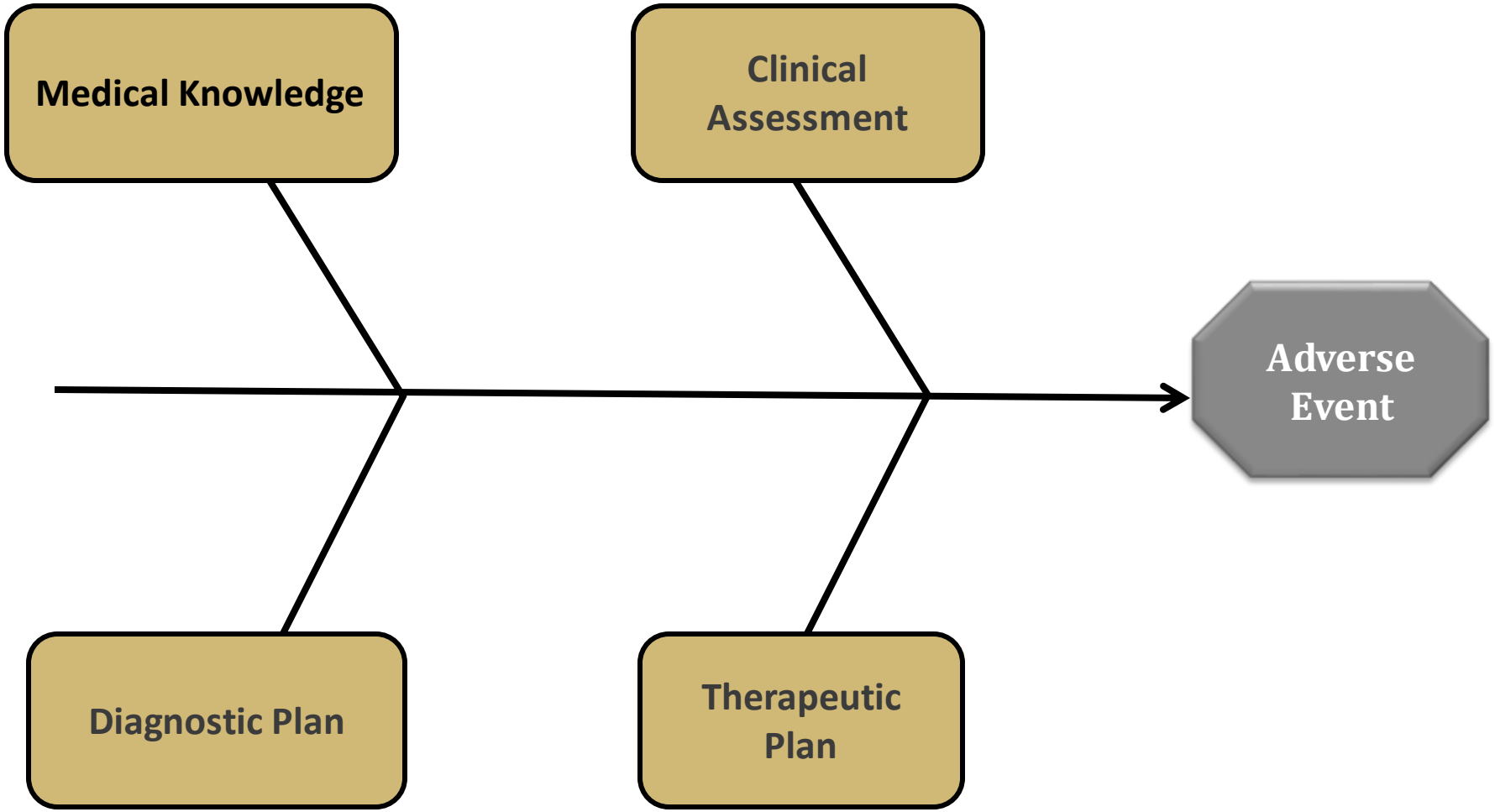
Tool: Cause and Effect Diagram



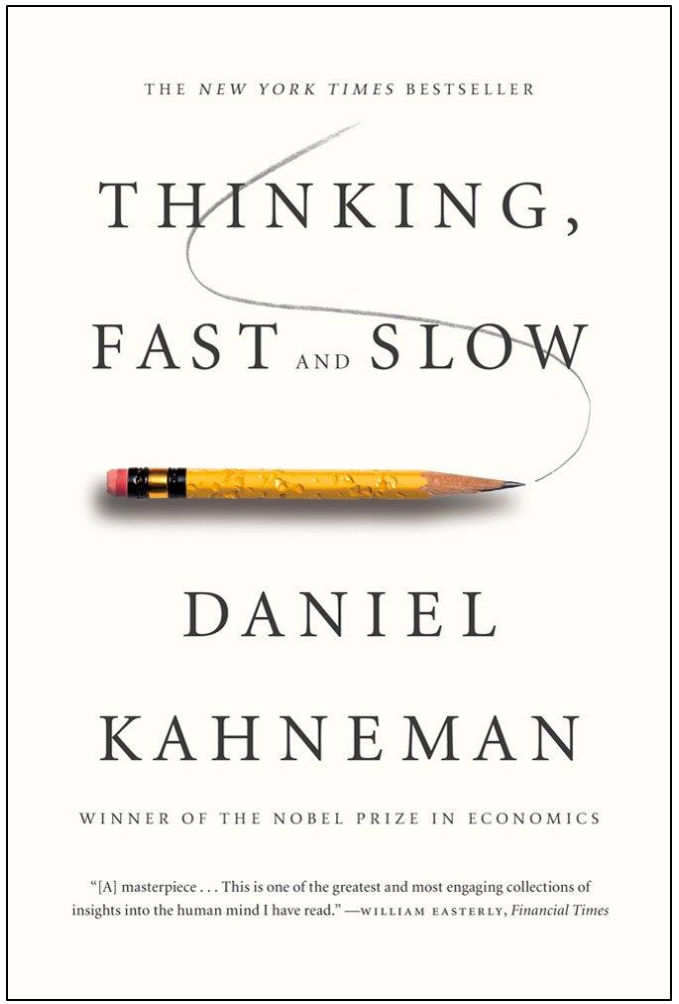
What System Complexities Contributed?



What Cognitive Biases Contributed?



Medical Heuristics



System 1

post-op patient with tachycardia, unilateral leg swelling

→ ***pulmonary embolism***

System 2

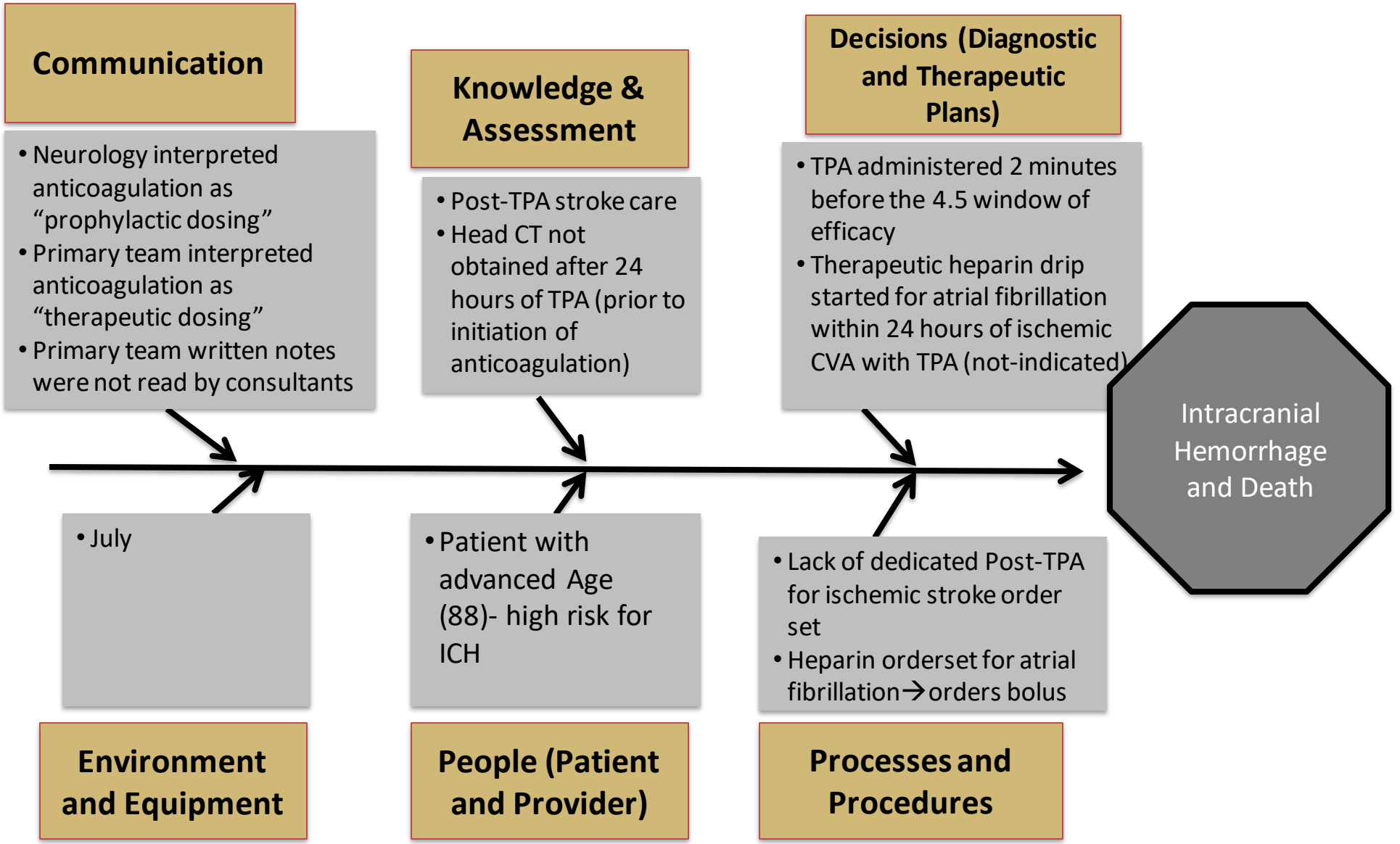
HIV patient with CD4 50, fevers, myalgias, recent travel

→ ***need to active System 2 given broad differential, complexity***

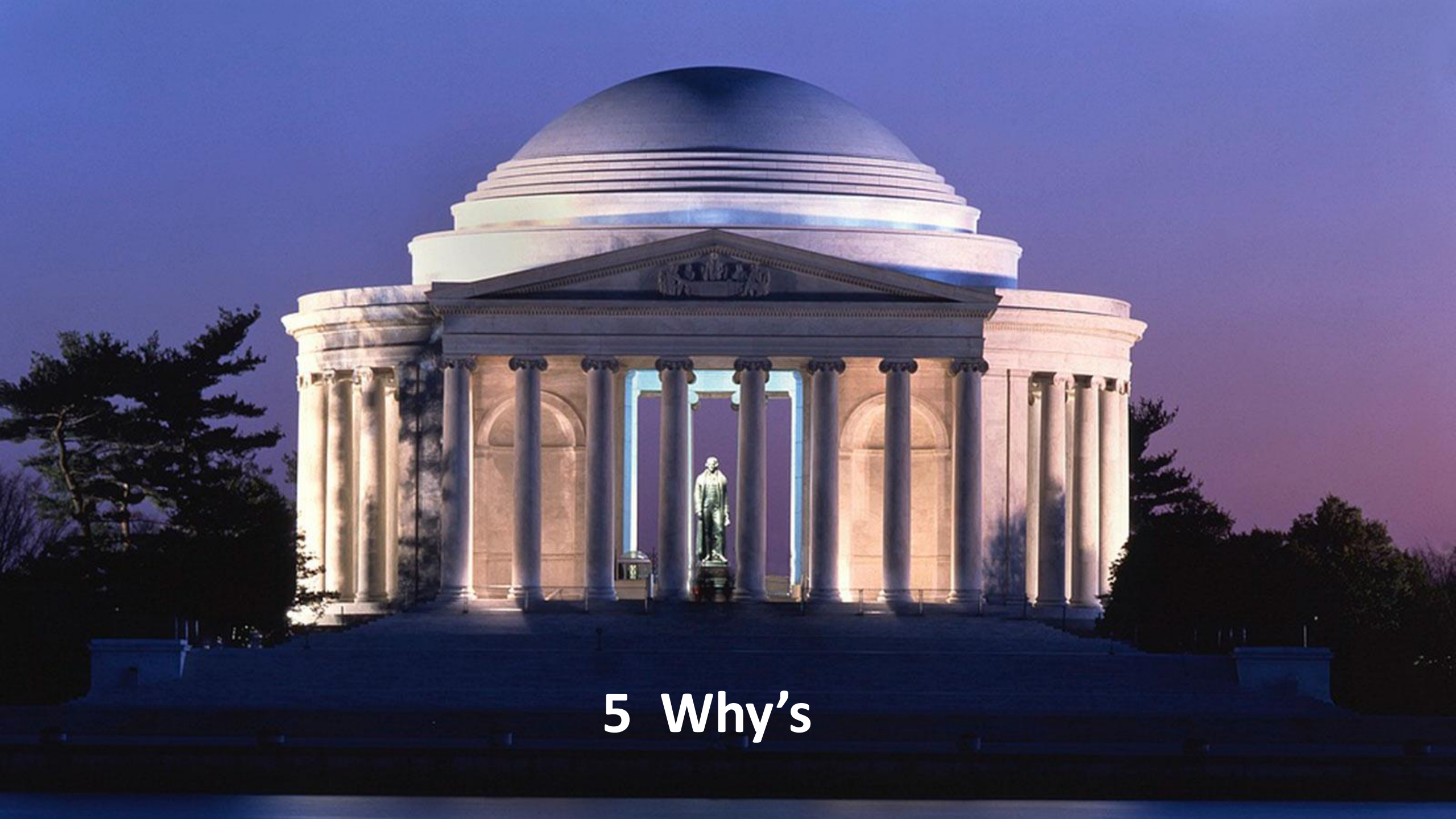
Name the Bias

- **Availability**
  - *The tendency to weigh likelihood of a diagnosis by how easily it is recalled*
- **Framing**
  - *Reacting to information based on how it is framed*
- **Premature Closure**
  - *Tendency to accept a diagnosis before it is fully verified*
- **Confirmation**
  - *Tendency to focus on evidence that supports a working diagnosis, rather than to look for evidence that refutes it or supports an alternate diagnosis*

Cognitive Biases that Contributed



System Complexities that contributed


5 Why’s

Breakout 2

For your case, create a cause & effect diagram (fishbone), including both system and cognitive errors.

Step 3: Prepare the Conference

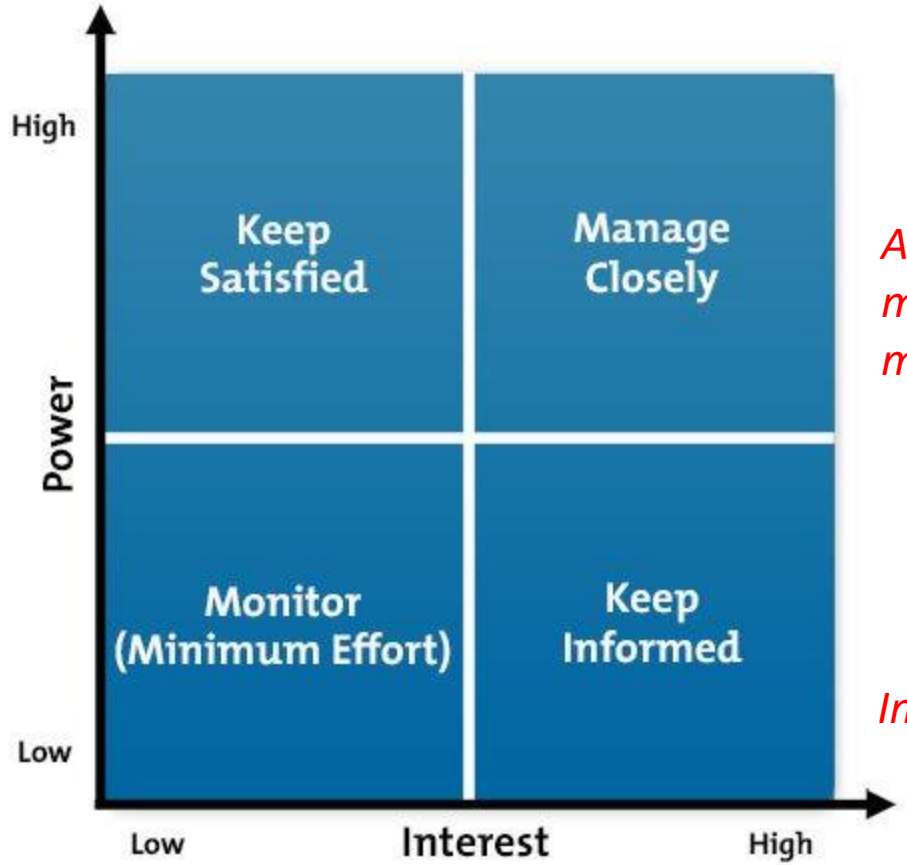
- Who should be involved in the case conference?
- What are your teaching objectives?

Tool: Stakeholder Map

- What providers were involved?
- Consider ALL professions
  - RN, CM, SW, PT, OT, Pharmacy
- Consider other specialties involved

Tool: Stakeholder Map

Department Chair
CQO



Attending, nurse manager, risk management

Co-fellows

Intern, bedside nurse

Identify Teaching Objectives

Medical Learning Objectives

- Enhances engagement
- Normalizes knowledge gaps (and addresses them)
- Opportunity to highlight guidelines

Example:

Table 2. Alteplase Prescribing Guidelines

Dosage	Contraindications
0.9 mg/kg IV; max 90 mg; 10% given as bolus, 90% given over 60 min	• Hypersensitivity to alteplase or any component of product • Evidence of IH on pretreatment evaluation • Suspicion of SH on pretreatment evaluation • Recent (<3 mo) intracranial or intraspinal surgery, serious head trauma, or previous stroke • History of IH • Uncontrolled hypertension at time of treatment • Seizure at onset of stroke • Active internal bleeding • Intracranial neoplasm, arteriovenous malformation, or aneurysm • Known bleeding diathesis, including but not limited to: Current use of oral anticoagulants (e.g., warfarin sodium) or INR >1.7 or PT >15 sec Heparin administration <48 h preceding stroke onset and elevated aPTT at presentation Platelet count <100,000/mm^3

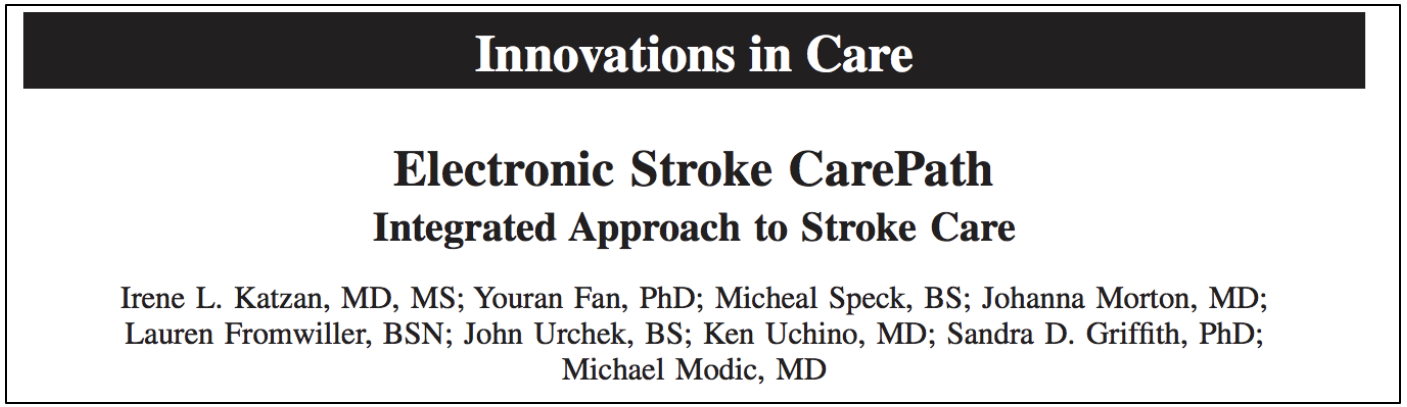
aPTT: activated partial thromboplastin time; IH: intracranial hemorrhage; INR: international normalized ratio; max: maximum; min: minute; PT: prothrombin time; sec: second; SH: subarachnoid hemorrhage.
Source: Reference 11.

Identify Teaching Objectives

Patient Safety Learning Objectives

- Highlight a common system failure
- Discuss how other systems have addressed

Example: Highlight the benefit of EMR-based pathway in reducing variability and improving efficiency/efficacy of Stroke Care



Innovations in Care

Electronic Stroke CarePath

Integrated Approach to Stroke Care

Irene L. Katzan, MD, MS; Youran Fan, PhD; Micheal Speck, BS; Johanna Morton, MD; Lauren Fromwiller, BSN; John Urchek, BS; Ken Uchino, MD; Sandra D. Griffith, PhD; Michael Modic, MD

CircCardiovascQualOutcomes.2015

Breakout 3 (CHAT)

For your case, identify stakeholders.

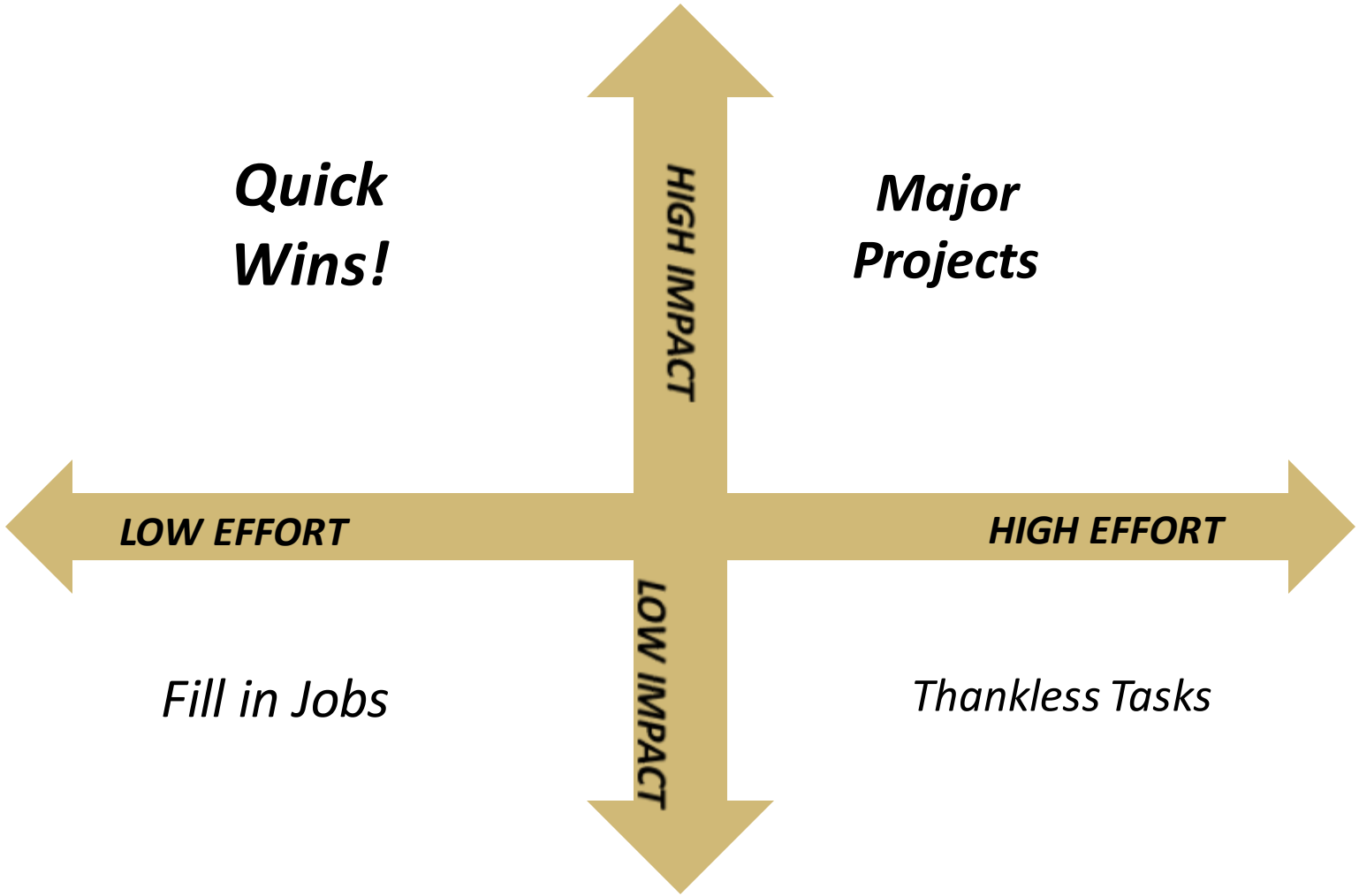
Identify learning objectives:

- Medical
- System or Patient Safety

Step 4: Identify Action Items

- Which patient safety concerns are actionable?
- Who is your support team?
- What are the organizational priorities?

Tool 6: Impact/Effort Matrix



Why do your action items matter?

Tie back your action items to system priorities.

uchealth

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est. 1860
FOR LIFE'S JOURNEY

VA | U.S. Department of Veterans Affairs

Children's Hospital Colorado

Breakout 4

- What is one actionable issue from your case?
- Whose help do you need?
- Does it align with your division's priorities?

BREAK TIME!

Meet back at 1045

Step 5: Creating a Just Culture

- Focus on learning & improving
- Identify & notify Second Victim(s)
- Avoid assigning blame
- Know & engage your audience

“The paradox is that the single greatest impediment to error prevention is that we punish people for making them.”

- Dr. Lucian Leape

Professor, Harvard School of Public Health

U.S. Congressional Testimony

U.S. Committee on Veterans' Affairs, Subcommittee on Health, October 1997

The Second Victim

"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."

Wu AW. Medical error: the second victim. BMJ 2000

The Second Victim

Talk to this person!

"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."

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Psychological Safety and Communication

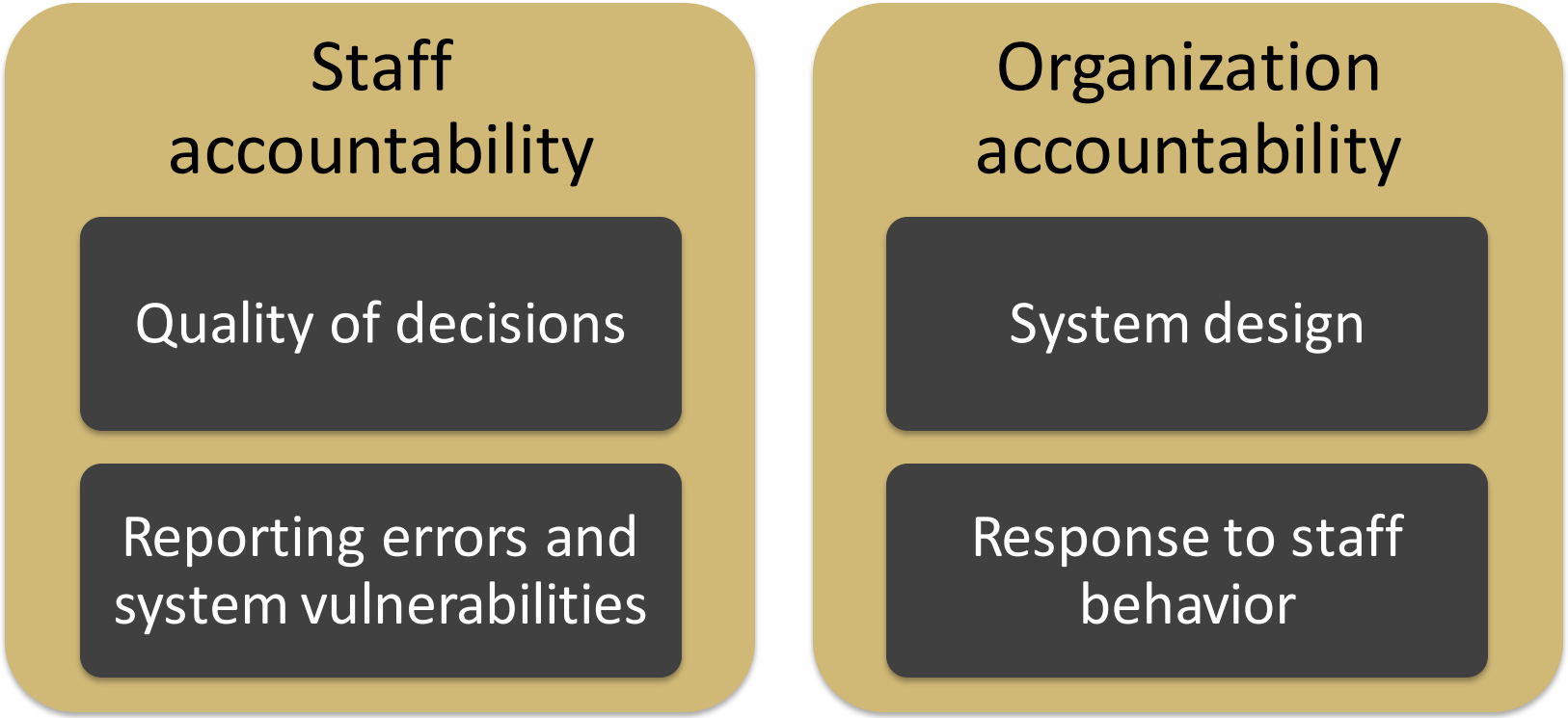
- Health care teams where the physician leaders are perceived as welcoming input have higher psychological safety.

- They also have **fewer errors**.

Nembhard et al. *Journal of Organizational Behavior*. 2006

Just Culture

Many errors represent **predictable** interactions between **human operators** and **the system** in which they work.



Just Culture & Individual Accountability

Human Error

Inadvertent action

- **slip, lapse, mistake**
- **system + behavior**

Manage via changes in:

- **Available choices**
- **Processes & Procedures**
- **Environment**
- **Training**

CONSOLE

At Risk

A choice

- **Risk not recognized or believed to be justified.**

Manage through:

- **Removing incentives for at-risk behavior**
- **Creating incentives for healthy behaviors**
- **Increasing situational awareness**

COACH

Reckless

Conscious disregard

- **substantial risk**
- **unreasonable risk**

Manage through:

- **Remedial action**
- **Punitive action**

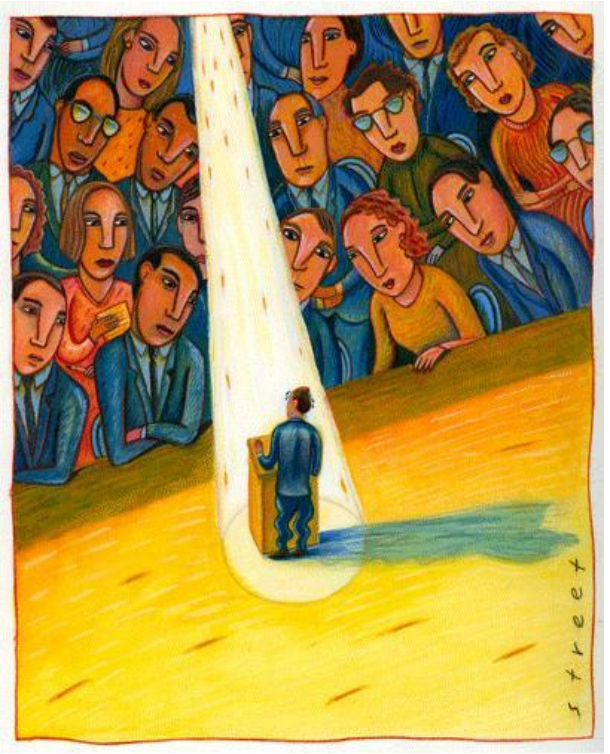
DISCIPLINE

Adapted from Meyer GS. Just Culture. 2010.

Morbidity and Mortality Conference

Learn & Understand | Avoid Blame

- Fairness
- Consistency
- Transparency
- Psychological safety
- Shared accountability



Morbidity and Mortality Conference

BEFORE the Conference

1. Comb through the chart and make sure to notify ANYBODY involved who might attend your conference.

   Identify your potential 2nd victims!

2. Choose the case wisely – peer review issues should be run through risk management first.

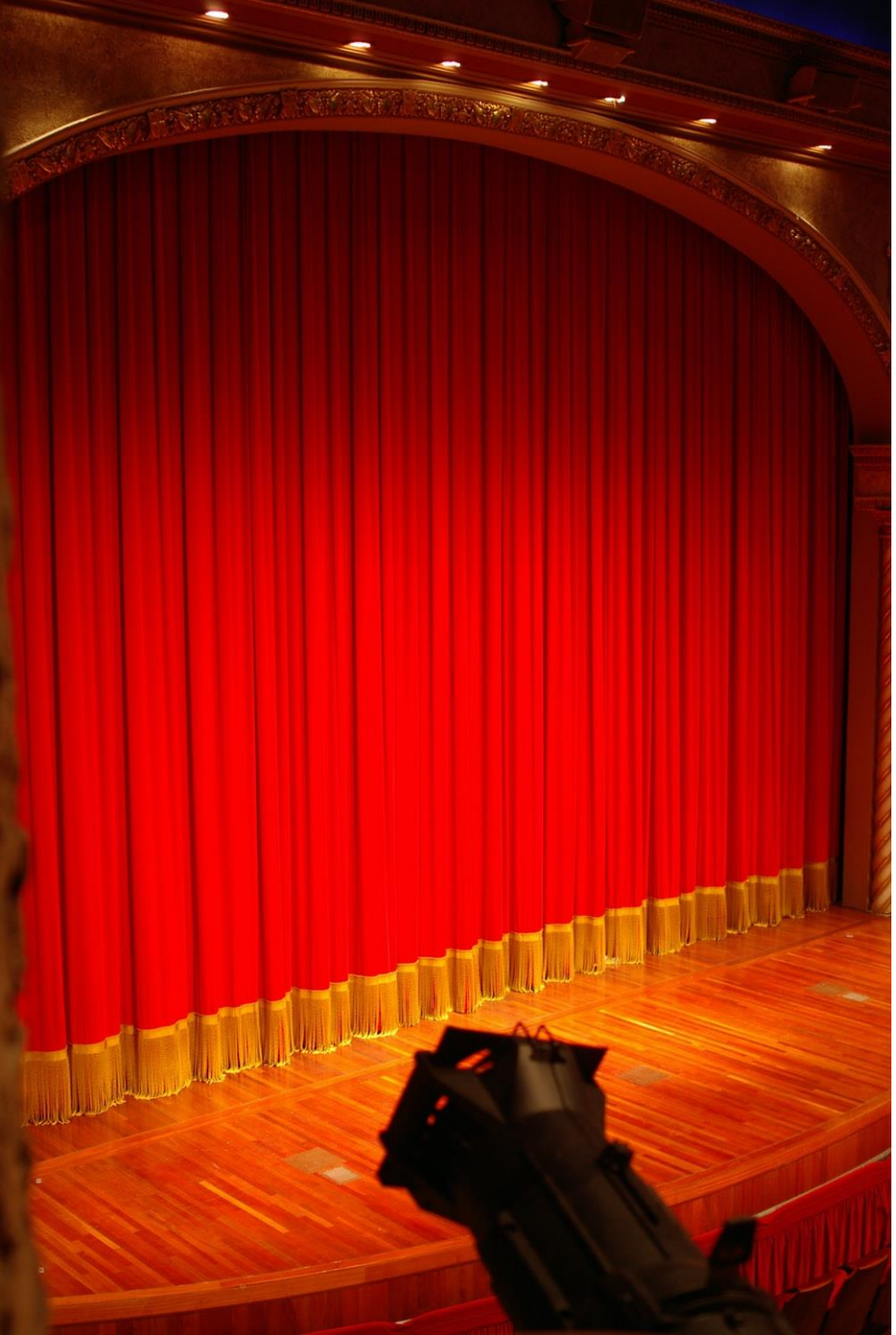
e.g. resident missed Code Blue pages…
during 3rd consecutive moonlighting shift

Cognitive biases ok to discuss.
Risky/unethical/reckless behavior…probably not.


Just culture does NOT mean NO accountability

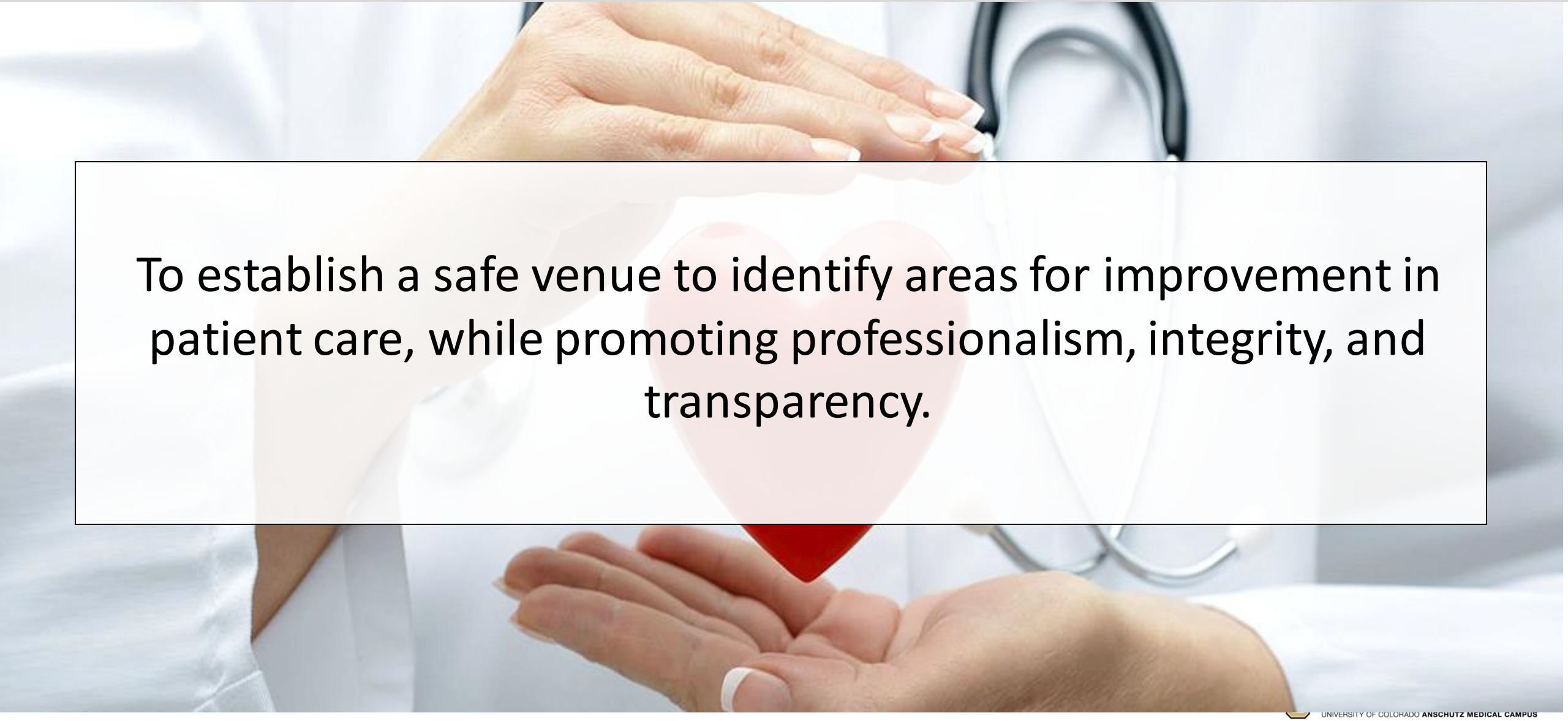
DURING the Conference

Facilitation: Tips and Tricks



Tip 1: Set the Stage

M&M Mission



To establish a safe venue to identify areas for improvement in patient care, while promoting professionalism, integrity, and transparency.

This meeting is privileged and confidential; subject to peer and medical review protections at UCH and the State of Colorado

"The records, reports, and other information (discussed in this meeting) shall not be subject to subpoena or discoverable or admissible as evidence in any civil or administrative proceeding. No person who participates in the reporting, collection, evaluation, or use of such quality management information with regard to a specific circumstance shall testify thereon in any civil or administrative"

2017 Colorado Revised Statutes, Title 25, section 25-3-109

Tip 2: Redirect Comments

e.g. Patient has large groin hematoma

If fellows actually knew how to stick the femoral artery, this never would have happened.

That's fair, fellows use more radial access now and get less experience with femoral access, but…

- Acknowledge
- Highlight new system/complexity
- Move on

ACT then **Move On…**

In case of nuclear comments…

- **A**cknowledge their perspective
- **C**ontextualize the comment
  - e.g. Teaching hospital
- "**T**hank you" for sharing

<u>Move on</u> to another comment

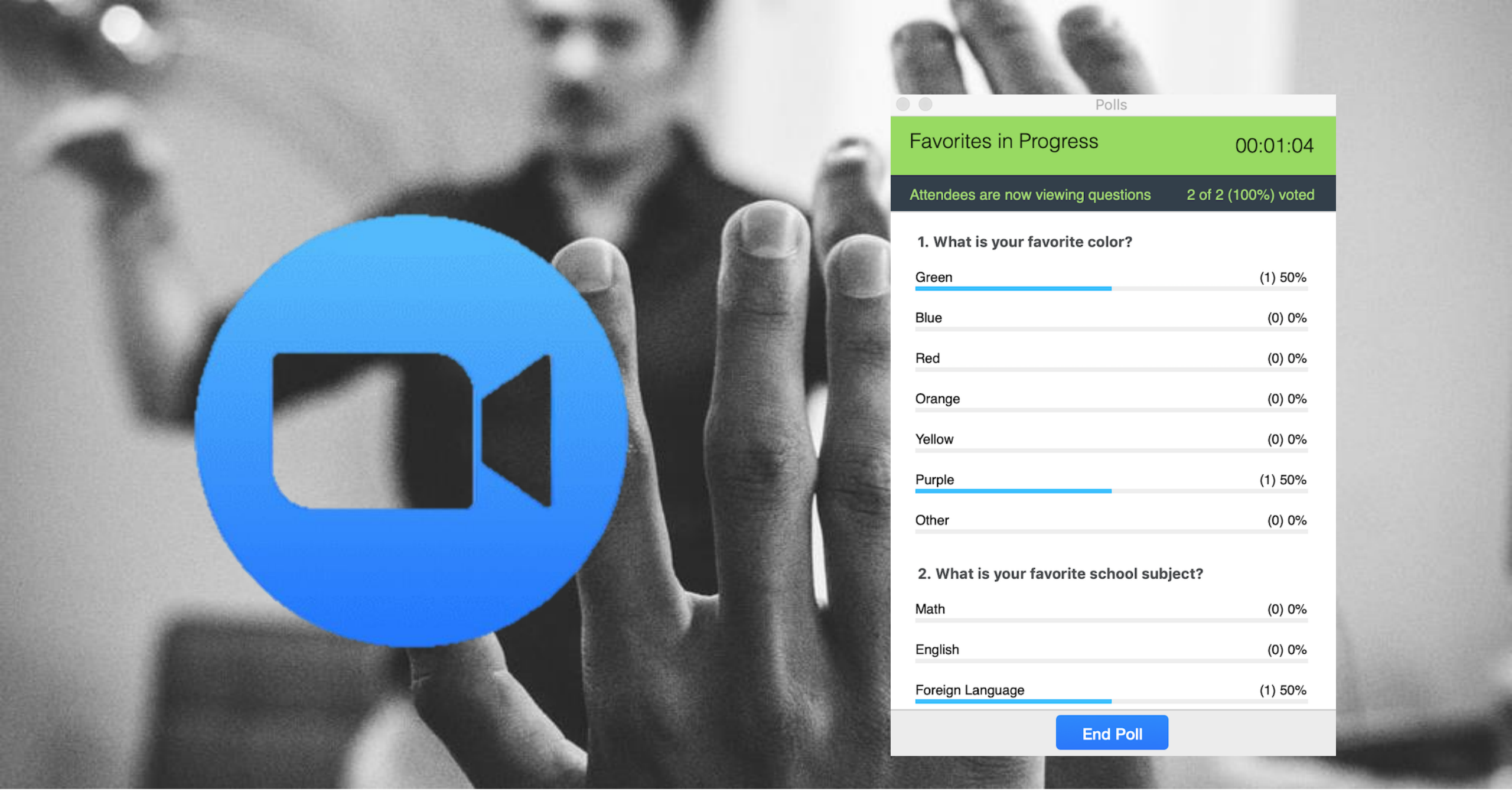
Tip 3: Keep it interesting

e.g. You ask audience for system errors…

Zzzzzzzz

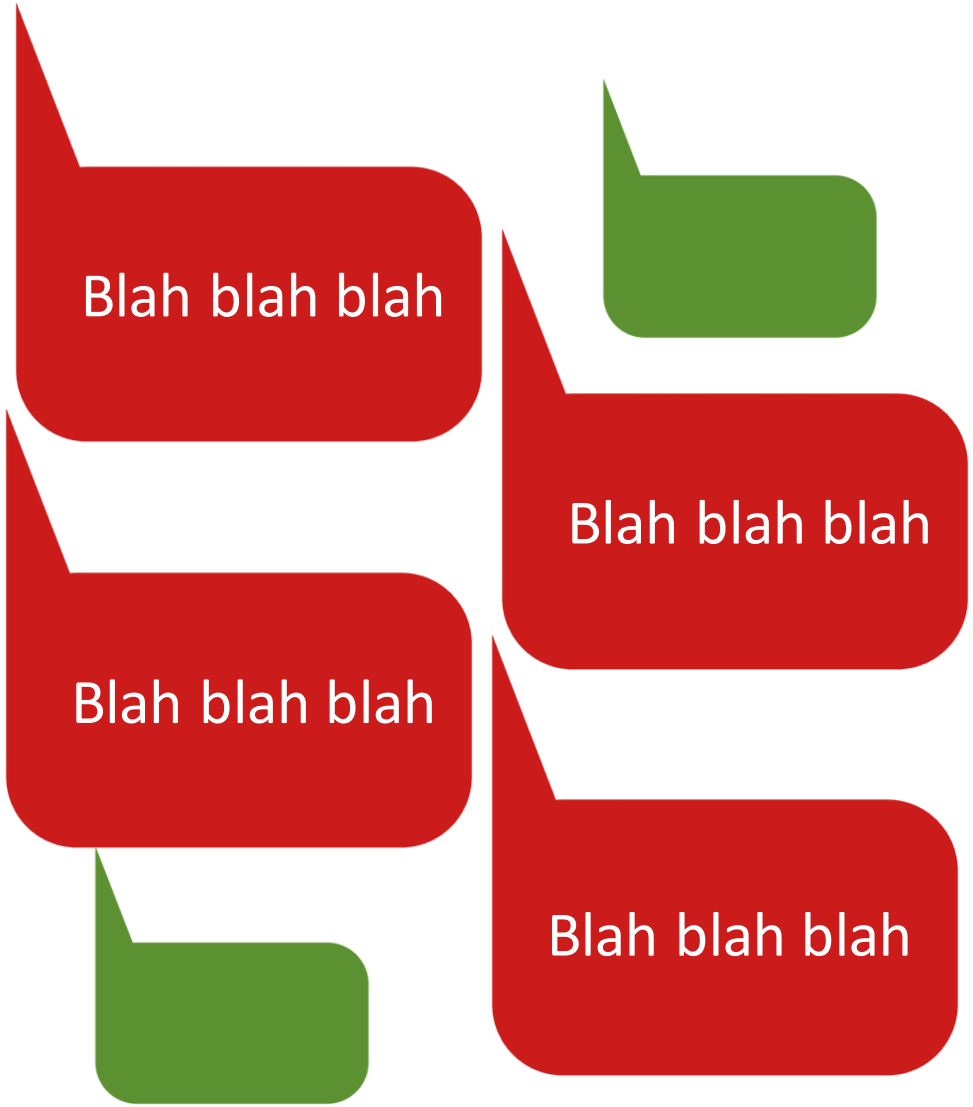
You sir (that I've planted and prepared in the audience) what do you think about…

- Target questions or easy questions
- Poll your audience
- Plant someone!


Polls
Favorites in Progress
00:01:04
Attendees are now viewing questions
2 of 2 (100%) voted
1. What is your favorite color?
Green (1) 50%
Blue (0) 0%
Red (0) 0%
Orange (0) 0%
Yellow (0) 0%
Purple (1) 50%
Other (0) 0%
2. What is your favorite school subject?
Math (0) 0%
English (0) 0%
Foreign Language (1) 50%
End Poll

Tip 4: Manage the Room

e.g. Argument over medical issue…



We've heard a lot from the red people, maybe the green people have a perspective to share?

- Prep experts: "we need 1 minute on…"
- We have time for one more comment…
- Great insight from faculty, what about…

e.g. Patient discharged without essential Rx

The intern should have known to prescribe Plavix 75 daily.

Sure, we should add "must knows" to the intern orientation. And what if we linked orders in Epic…

- Acknowledge
- Highlight educational opportunity
- Pivot to system

BEFORE the Conference

1. Comb through the chart and make sure to notify ANYBODY involved who might attend your conference.

   Identify your potential 2nd victims!

2. Choose the case wisely – peer review issues should be run through risk management first.

AFTER the Conference

1. Immediately after…run a debrief

   Discuss the conference itself – what worked well

   Identify your most important and feasible action items

   Consider inviting engaged (IE: emotional) stakeholders/providers

2. Loop closure and check-in with the 2nd victims

Summary

Today we learned how to:

- Identify an appropriate case for an M&M forum
- Analyze the case using patient safety principles
- Identify stakeholders
- Create actionable follow-up items
- Facilitate through a lens of Just Culture

Event Reporting

port about a patient safety event,

oncern:

urce (https://thesource.uchealth.org/

cians

olutions

Select the type of event you would like to report

Enter as much information as possible - including patient information

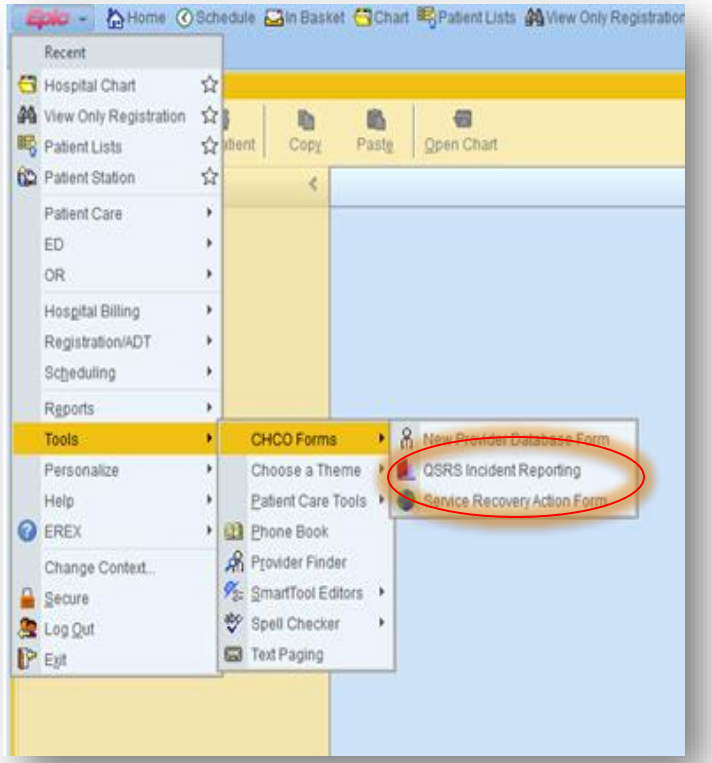
Sign in with your "UCDenver" credentials

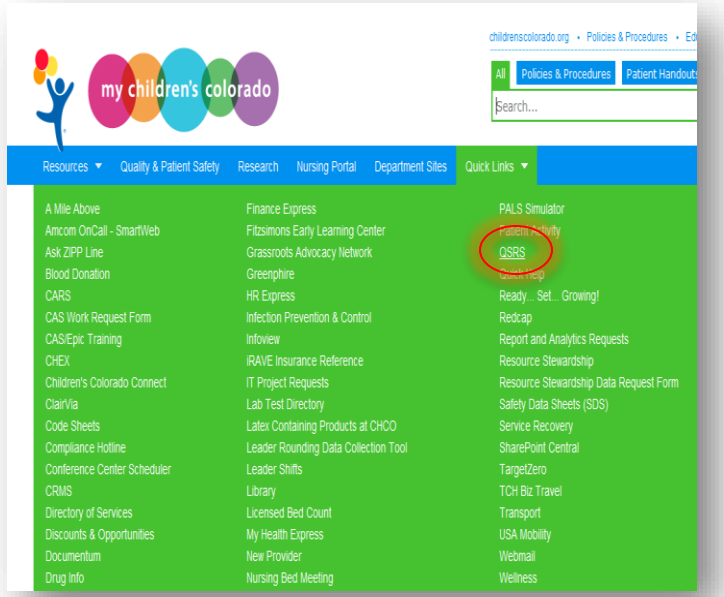
Update: Event Reporting in RL Solutions

- Designating Your Role as a Resident or Fellow:
  - Must add “Role”, select “Reporter” and choose “Resident/Fellow”
- Who sees it?
  - Unit/Clinic Managers, QI Specialists, Risk Managers, and other managers (if consulted)
- Is reporting anonymous?
  - Yes and No. The reviewers need your/your patient’s info to gather more info and ensure proper follow up.
- Are there repercussions for reporting?
  - There are **no** repercussions for errors (Just Culture). Please maintain professionalism while reporting.

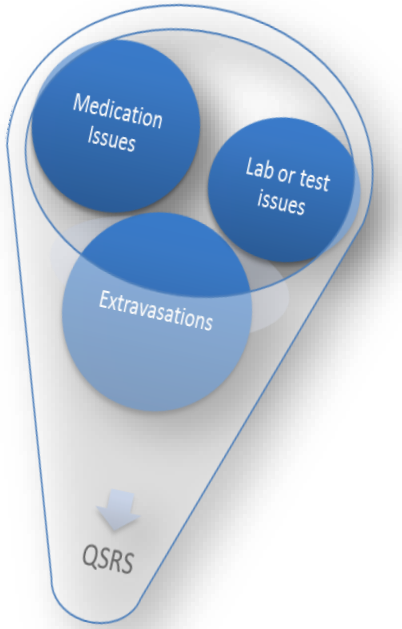
Where Can I Access QSRS?

- Access QSRS from the MyChildrensColorado intranet site, or directly from within Epic.



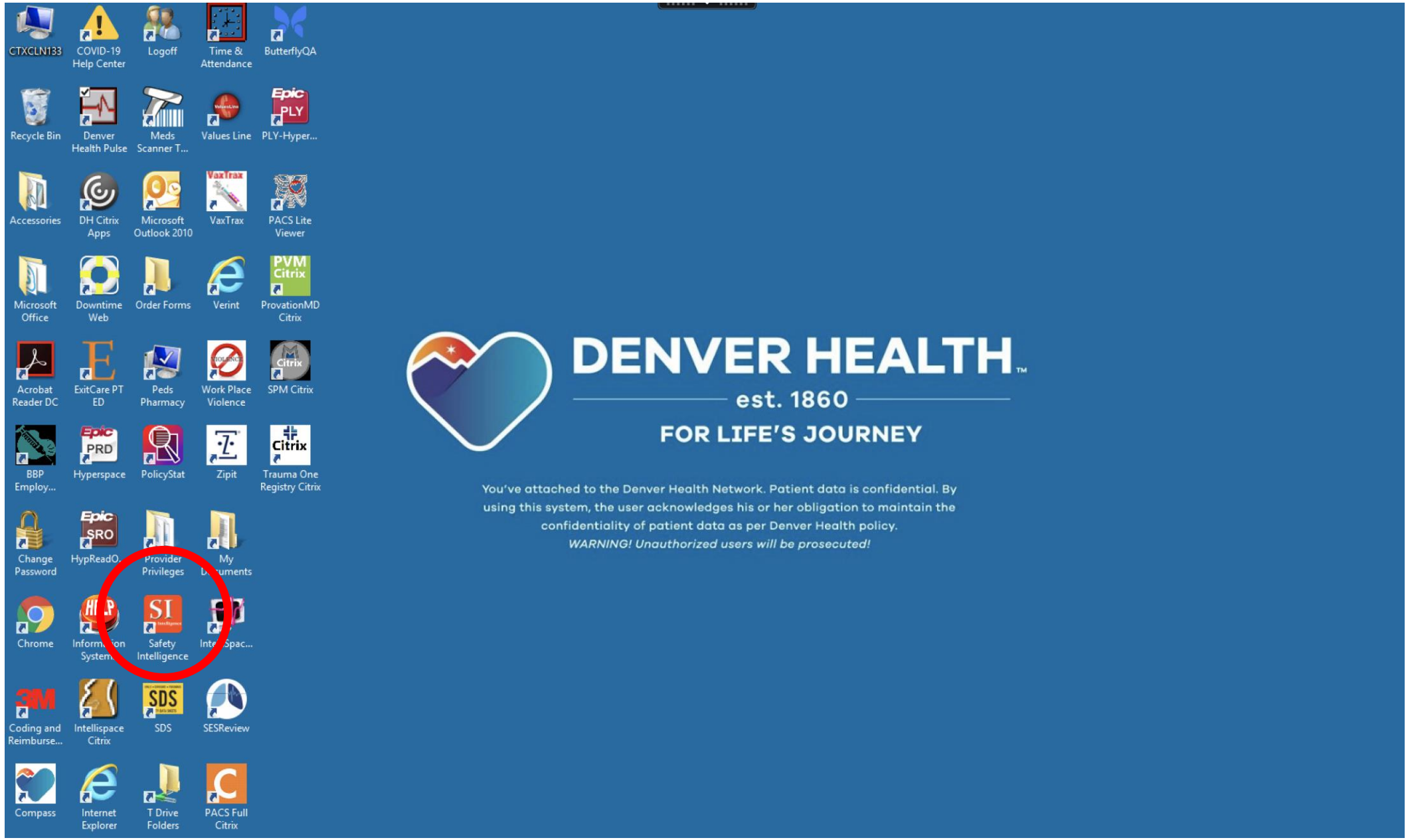


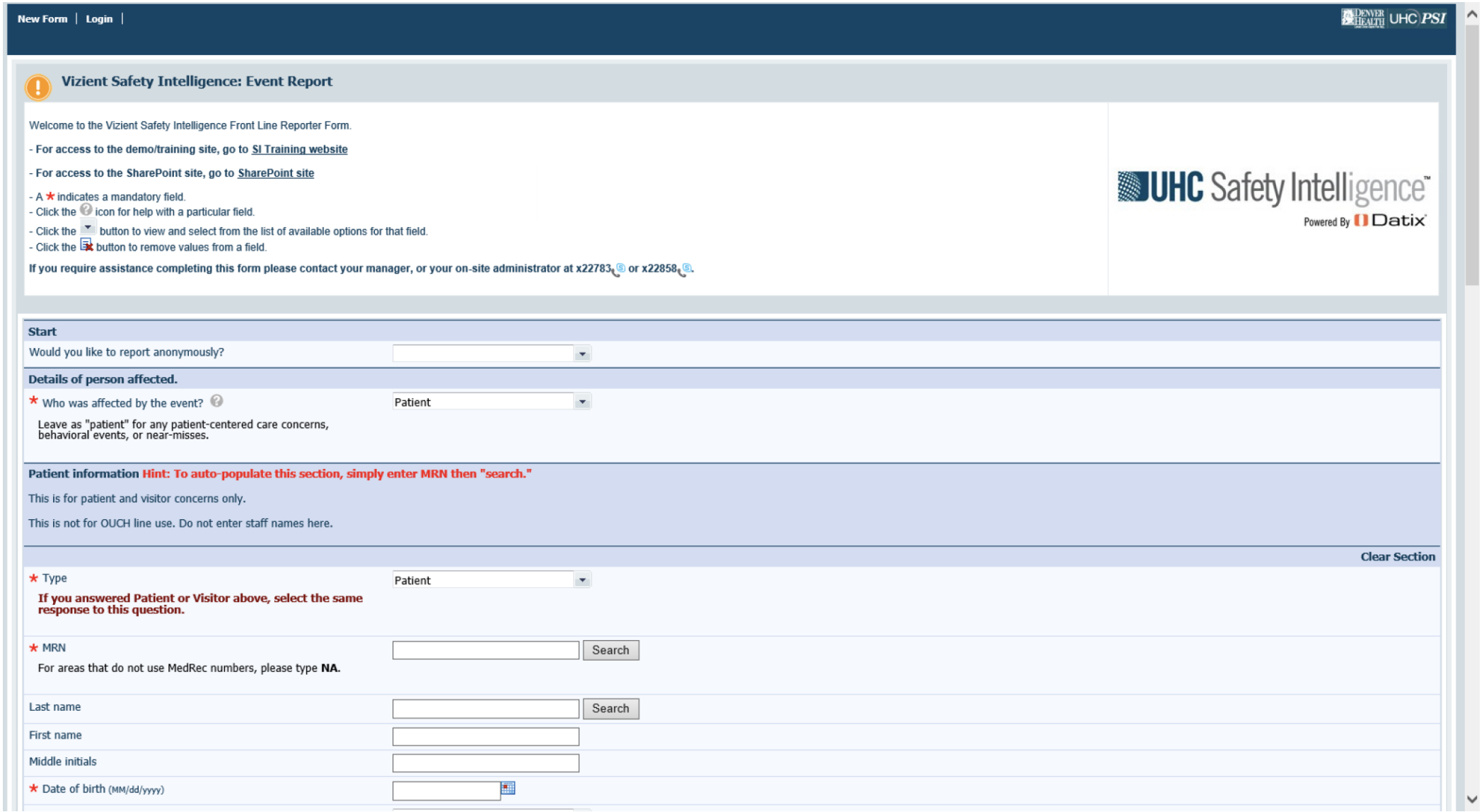
What Should I Enter in QSRS?



- Anything that happened that **should not have happened**
- Anything that **should have happened but did not**
- **Any risks you identify** that have the potential to lead to an error
- Great catches, near misses, and events that reached the patient or family with and without harm
- Examples include…

- Miscommunication
- Security issues
- Coordination of care issues
- Issues with supplies/equipment
- IV extravasations
- Infection control issues
- Issues with labs, tests, or other procedures


CTXCLN133
COVID-19 Help Center
Logoff
Time & Attendance
ButterflyQA
Recycle Bin
Denver Health Pulse
Meds Scanner T...
Values Line
PLY-Hyper...
Accessories
DH Citrix Apps
Microsoft Outlook 2010
VaxTrax
PACS Lite Viewer
Microsoft Office
Downtime Web
Order Forms
Verint
ProvationMD Citrix
Acrobat Reader DC
ExitCare PT ED
Peds Pharmacy
Work Place Violence
SPM Citrix
BBP Employ...
Hyperspace
PolicyStat
Zipit
Trauma One Registry Citrix
Change Password
HypReadO...
Provider Privileges
My Documents
Chrome
Safety Intelligence
Coding and Reimburse...
Intellispace Citrix
SDS
SESReview
Compass
Internet Explorer
T Drive Folders
PACS Full Citrix
DENVER HEALTH
est. 1860
FOR LIFE'S JOURNEY
You've attached to the Denver Health Network. Patient data is confidential. By using this system, the user acknowledges his or her obligation to maintain the confidentiality of patient data as per Denver Health policy.
WARNING! Unauthorized users will be prosecuted!


New Form | Login |
Vizient Safety Intelligence: Event Report
Welcome to the Vizient Safety Intelligence Front Line Reporter Form.
- For access to the demo/training site, go to SI Training website
- For access to the SharePoint site, go to SharePoint site
- A * indicates a mandatory field.
- Click the icon for help with a particular field.
- Click the button to view and select from the list of available options for that field.
- Click the button to remove values from a field.
If you require assistance completing this form please contact your manager, or your on-site administrator at x22783 or x22858.
UHC Safety Intelligence
Powered By Datix
Start
Would you like to report anonymously?
Details of person affected.
* Who was affected by the event?
Patient
Leave as "patient" for any patient-centered care concerns, behavioral events, or near-misses.
Patient information Hint: To auto-populate this section, simply enter MRN then "search."
This is for patient and visitor concerns only.
This is not for OUCH line use. Do not enter staff names here.
Clear Section
* Type
Patient
If you answered Patient or Visitor above, select the same response to this question.
* MRN
Search
For areas that do not use MedRec numbers, please type NA.
Last name
Search
First name
Middle initials
* Date of birth (MM/dd/yyyy)

Ongoing Training

- IHQSE: Introductory Training Program
  - *If you'd like an introduction to QI tools*
  - Contact: som.ihqse@ucdenver.edu
- IHQSE: Certificate Training Program
  - *If you'd like a more robust training program, and want to incorporate QI into your future career*
  - Contact: som.ihqse@ucdenver.edu
- CEPS Grants
  - *Support for trainees participating in QI projects*
  - Contact: Anunta.Virapongse@cuanschutz.edu
- LInQS Fellowship (DOM only)
  - tyler.anstett@cuanschutz.edu or andrew.levy@cuanschutz.edu

Thank you!

Please complete your evaluations

Additional Feedback welcome!