HIM High-Reliability: Near Miss Events

Presented by:

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MD Anderson Cancer Center
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FY22 QUICK FACTS

PATIENT CARE

175,719 patients

1.6M outpatient visits

757 inpatient beds

20,314 surgeries

13.4M pathology/laboratory medicine procedures

599,308 diagnostic imaging procedures

$309M in uncompensated care provided to cancer patients

1,680 clinical trials*

10,074 patients in clinical trials*

116 patents awarded to MD Anderson

$1.1B spent on research

22 drugs tested here received FDA approval

More NCI-funded projects than any other U.S. institution in FY22

23,040 employees, including **1,870** faculty

286 on-site volunteers

1,392 myCancerConnection virtual, one-on-one support survivor volunteers

$249.4M donated to support our mission to end cancer

33,815 patient visits to the Lyda Hill Cancer Prevention Center

5,826 people received tobacco cessation support through the Tobacco Research and Treatment Program

382 cancer prevention education programs held in the community

National Recognition

MD Anderson HIM: Recipient of the 2022 AHIMA Grace Whiting Myers Award for Excellence in Health Information

Agenda

- Objective
- Background
- Learning Approach
- High-Reliability Organization: Definitions and Principles
- Safety Event and Near Miss Event Definitions and Practices
- Scenario
- Q&A

Objective

To share how MD Anderson Cancer Center (MDA) Health Information Management Department's experience in focusing on High-Reliability Organization (HRO) practices, specifically with Near Miss Events (NME) in an HIM Department.

Background

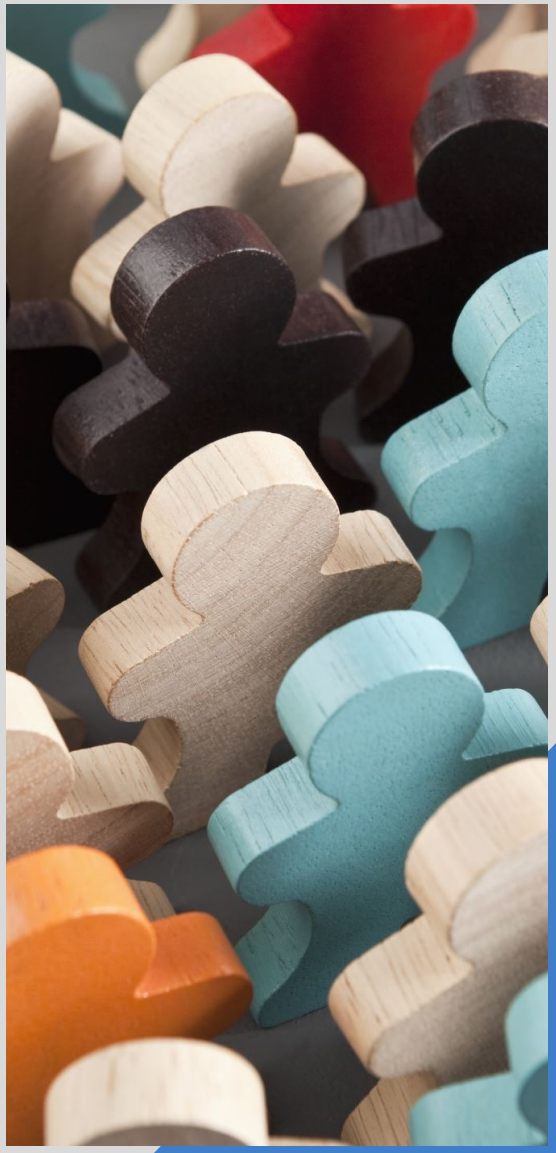
Connected to MD Anderson's initiative on "good catches."

Focus group was formed to:

- Start discussing "good catches"
- Develop workflows
- Define good catches
- Share with department
- Decide how to acknowledge good catches

Learning Group

- **Selecting a focus group**
  - Motivated team members
  - Multi-disciplinary
  - All Levels
- **Creating common forums**
  - For feedback and ideas
  - Forums can be live boards or virtual meetings
- **Define what the team likes/dislikes**
  - What works/doesn't in group settings
  - Common phrases and language
- **Commitments from team members**
- **Setting guidelines for the team**



High Reliability Organizations

MD Anderson is on a journey to be a High-Reliability Organization (HRO).

HROs work in complex, high-hazard environments without catastrophic failures over extended periods of time. Examples of HROs are commercial airlines, amusement parks, nuclear energy and military aircraft carrier-flight deck operations.

Cancer and cancer care are inherently dangerous and involve risks and complications. Becoming a high-reliability health care organization is a priority for MD Anderson and our leadership is committed to achieving HRO status over the next several years.

5 Traits of a High-Reliability Organization

Elements of Anticipation – Keeping systems running smoothly

1. **Preoccupation with failure** – to avoid failures, look for early signs.
2. **Reluctance to simplify interpretations** - Use critical thinking and look past easy explanations to provide situational awareness.
3. **Sensitivity to operations** – systems are dynamic and non-linear, so leaders provide direct oversight to adjust to unpredicted interactions.

Elements of Containment – Fix problems as soon as the system encounters trouble

1. **Commitment to resilience** – the organization maintains functions(s) during high demands.
2. **Deference to expertise** – Decision-making requires people with knowledge and experience regardless of rank or status

Characteristics of HROs

1. **Communication** – with high frequency and closed loops for vertical information flow and lateral integration.
2. **Organizational Attitudes** – that are based on respect, allowing leaders and staff to work together to fix systemic problems
3. **Health Safety Environmental (HSE)** - programs that are "owned" by staff, with a few safety professionals in advisory roles
4. **Organizational Behavior** – with safety considered to be as important as production; an emphasis on trust among leaders and staff; and frequent dialogue on the importance of working safely and improving work systems
5. **Working Behavior** – that allows staff to provide the safe environment in which leaders can share lessons learned.

High Reliability Processes

1. **Use of process auditing** – to find defects and process problems that leads to defects.
2. **Vigilant monitoring for quality degradation** – to detect declines in performance
3. **Reward systems** - to provide recognition aligned with organizational goals
4. **Heightened awareness of risk** - to ensure that latent (hidden) risks are identified, and action is taken to reduce risk
5. **Command and control** – for effective leadership and system operation

Five Characteristics of Safety Cultures and HROs

1. **Accepting limits** – on discretionary action, such as deference to expertise, adherence to protocol, and complying with safety limits

2. **Abandoning autonomy** – by being mindful of others and coordinating with various people, activities, processes, and systems

3. **Transitioning** – from the role of "craftsperson" to an equivalent actor through use of standard work based on evidence-based best practices

4. **Sharing risk** - vertically in the organization by communicating problems, both past and future, to leaders

5. **Managing the visibility of risk** – by using visual management techniques and information systems to predict failure and adjust operations to prevent failure

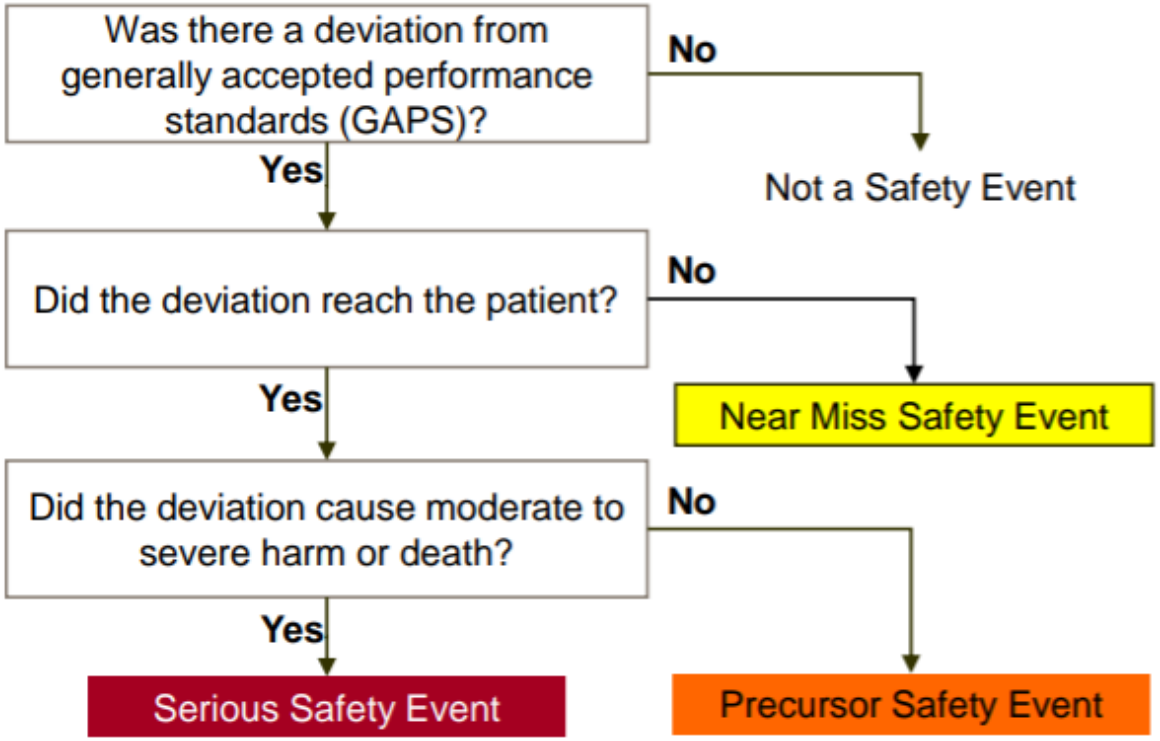
Safety and Near Miss Event Definitions and Practices

Safety Event Classification

- **A Serious Safety Event (SSE)** results in harm that ranges from moderate to severe patient harm or death.
- **A Precursor Safety Event (PSE)** results in minimal harm, no detectable harm, or no harm.
- In a **Near Miss Safety Event (NME)**, the initiating error is caught before it reaches the patient by either a detection barrier built into the process or, sometimes, by chance.

All require that there be a **deviation** from generally accepted performance standards (GAPS), determined by comparing actual performance to expected performance

Determining Safety Event Classifications



Near Miss Event

Error is caught before it reaches the patient by either a detection barrier built into the process or, sometimes, by chance.

3 classifications of NMEs:

- **NME 1: Unplanned Barrier Catch** – deviation in GAPS that passes through all detection barriers and does not reach the patient because it is caught by chance.
- **NME 2: Last Strong Barrier Catch** – deviation in GAPS that passes through early detection barriers and is caught by a last strong error detection barrier designed into the system.
- **NME 3: Early Barrier Catch** – deviation in GAPS that is caught by an early error detection barrier designed into the system's defense in depth.

Human Factors

- **Emphasizes the interactions between humans and the surrounding environment**
- **Goal is to reduce human error, increase productivity, and enhance safety and usability**
- **Classified into three types:**
  - **Skill based**
    - Familiar, routine acts that can be carried out smoothly in an automatic fashion (slips, lapses, fumbles)
  - **Rule Based**
    - Problem solving in a situation according to a set of stored “rules” or learned principles (wrong Rule, misapplication of rule, non-compliance with rule)
  - **Knowledge Based**
    - Problem solving in a new, unfamiliar situation for which the individual has no rules or plan of action (Formulation of incorrect response/decision)

MD Anderson Just Culture Performance Management Algorithm

Adapted from James Reason's Decision Tree

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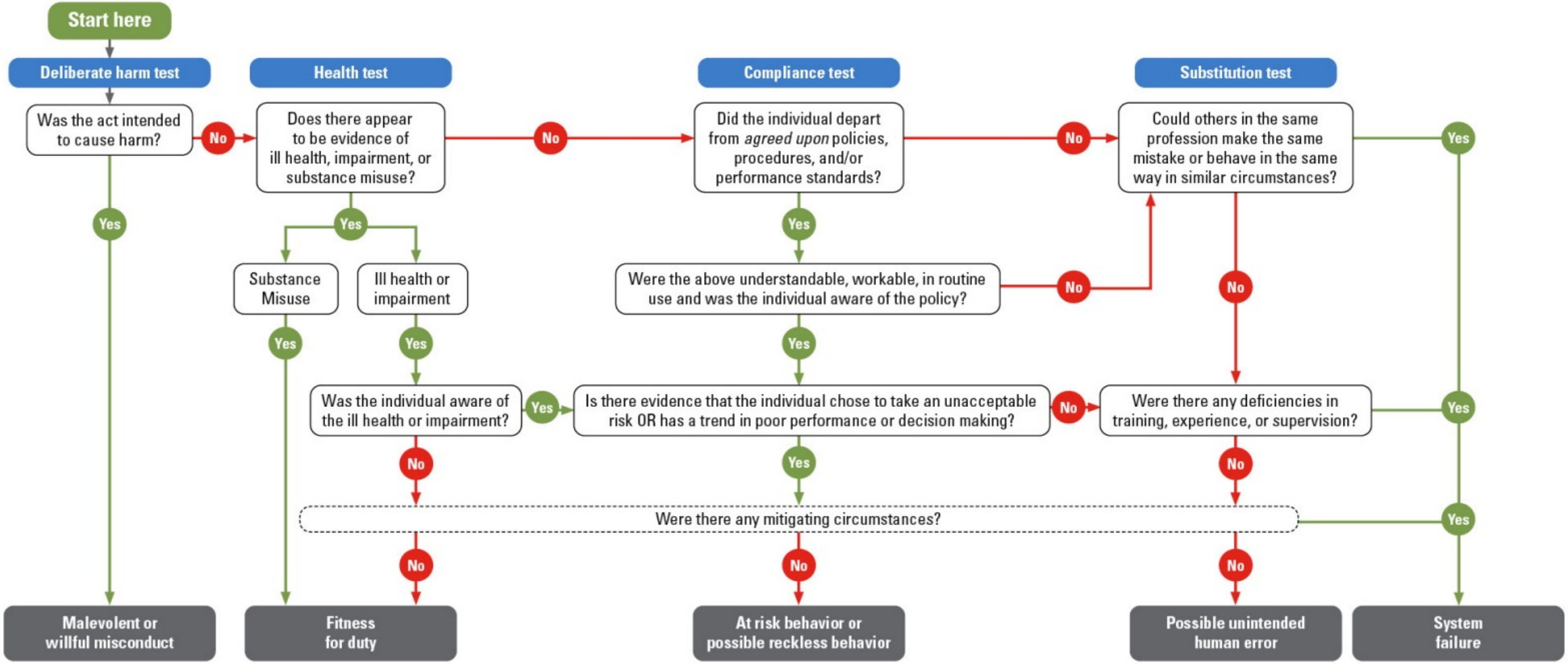
Ask step-by-step questions.

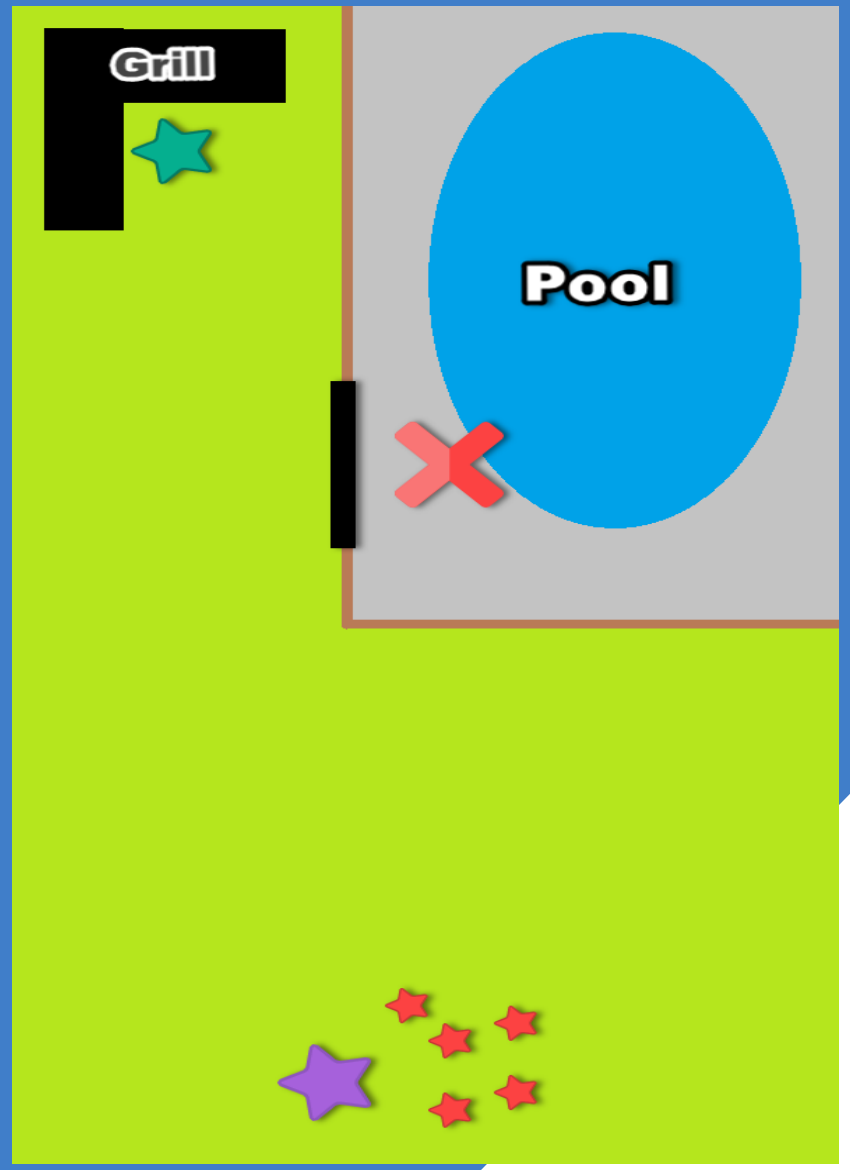


This is a tool to support our leaders' role in demonstrating the leadership characteristics with their employees and teams.

Type of Behavior	Behavioral Definition	Actions to Consider
Malevolent or Willful Misconduct	Act to cause harm was intentional.	• Refer to relevant corrective action policy • Report to professional group, regulatory body and/or law enforcement • Identify contributing system factors • Consult Human Resources Business Partner
Fitness for duty	Performance is impaired; cognitive or physical impairments; other health issues; and/or severe psychological stressors.	*If Substance Misuse is suspected* • Consult Employee Assistance Program (EAP) and Human Resources immediately • Refer to Fitness for Duty policy to access Employee Fitness for Duty Supervisor Initial Observation Report • EAP and HR Business Partner will work with leader to consider if adjustment of duties and leave of absence are appropriate • Identify contributing system factors
At Risk Behavior or Possible Reckless Behavior	Potentially unsafe choice was made. Rules are knowingly violated, and/or a dangerous/unsafe decision was made.	• Corrective action implementation • Coaching/teaching others • Job fit-considerations (for repetitive actions) • Adjustment of duties • Increase supervision • Performance improvement plan • Identify contributing system factors • Consult Human Resources Business Partner
Possible Unintended Human Error	Human error was made; no unsafe or harmful intentions.	• Console by providing support for the individual leaning on our leadership characteristic of Emotional Intelligence • Coaching and/or mentor assignment regarding standards, policies, and/or procedures • Increased supervision • Performance improvement plan • Adjustment of duties • Identify contributing system factors
System failure	System infrastructure increased chances of error.	• Console and/or coach individual and • Identify and address process and system factors. • Consider any policies or standards that need to be updated

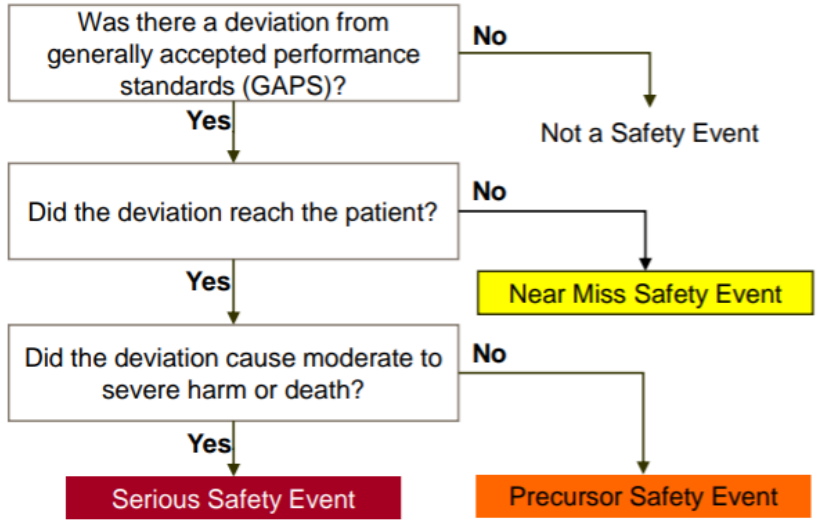
Scenario (Family Cook Out)

- Father is at the grill
- Children are by the pool, behind a fence
- Aunt Charlene is tasked with watching the children
- Father looks over just as a child is about to run into the pool
- Father grabs the child right before he falls in
- Father notices that Aunt Charlene has fallen asleep

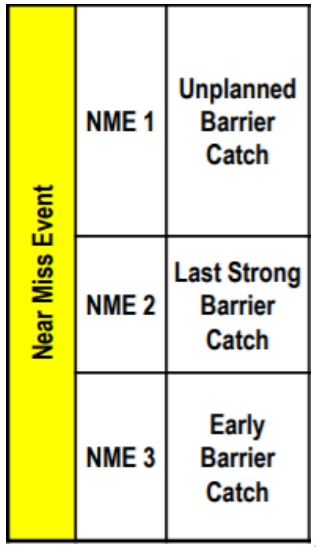


Working Through The Scenario

- Was there a deviation from generally accepted performance standards?
- Which NME (1,2,3) classification?
- Human Factors
- MDA Just Culture (Next Slide)



	Skill Based	Rule Based	Knowledge Based
Activity Type	Familiar, routine acts that can be carried out smoothly in an automatic fashion	Problem solving in a known situation according to a set of stored "rules," or learned principles	Problem solving in a new, unfamiliar situation for which the individual has no rules or plan of action
Error Types	• Slips • Lapses • Fumbles	• Wrong Rule • Misapplication of a rule • Non-compliance with rule	• Formulation of incorrect response / decision



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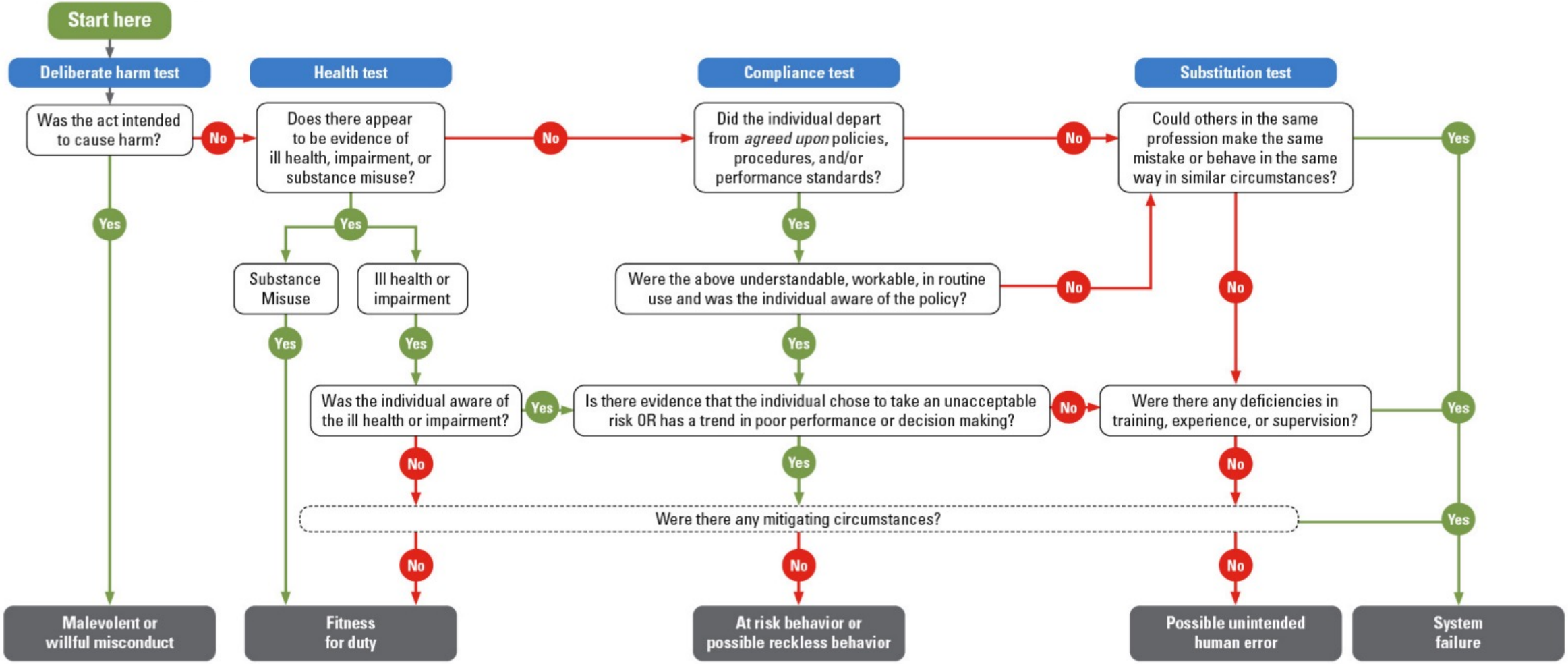

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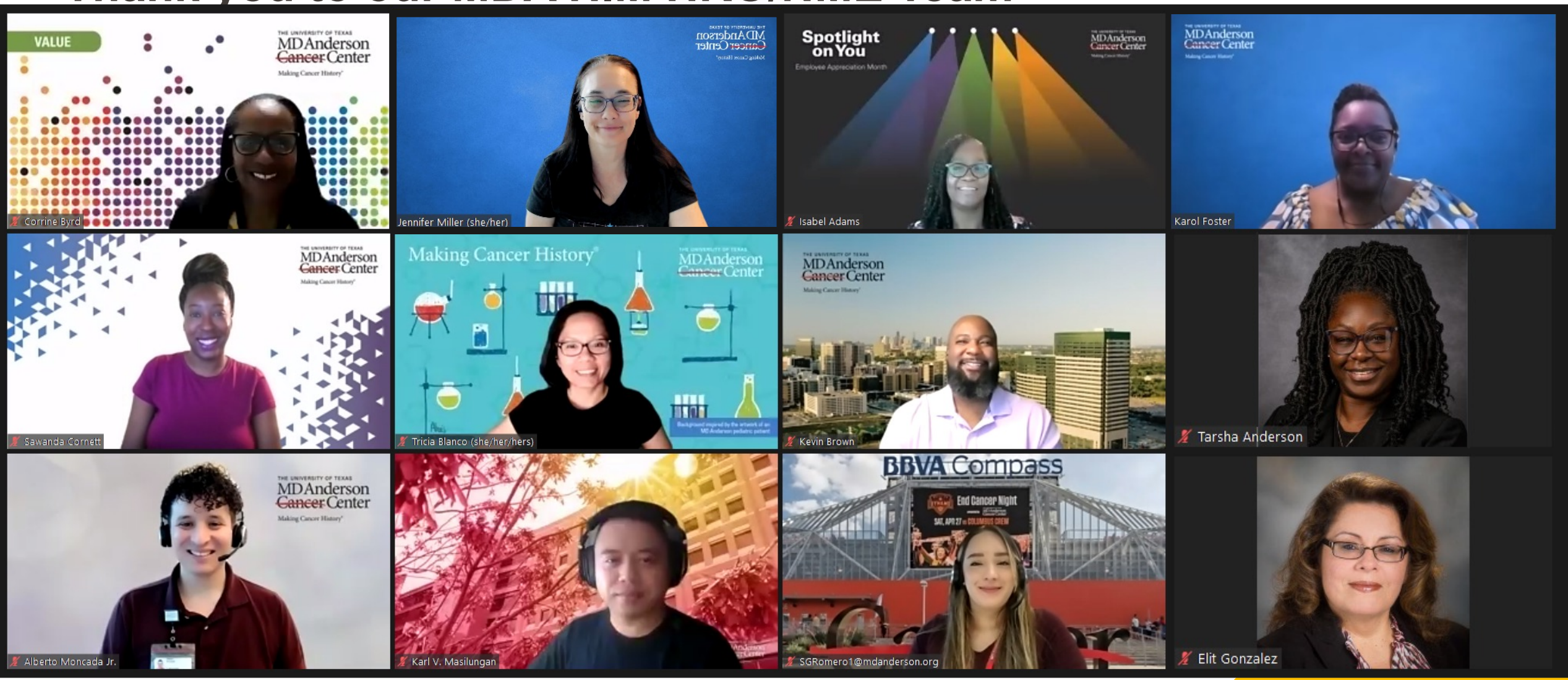
Next Steps

- **Consider future state and which data to collect**
- **Trend data for NMEs**
- **Debrief on NMEs**
  - Create a form that incorporates NME principles

Thank you to our MDA HIM HRO/NME Team



Questions?

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References

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