High Reliability Organization: A New Framework for Improving GME

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• Disclosure: Nothing to disclose

• Disclaimer: The views expressed herein are those of the authors and do not necessarily reflect the official policy or position of the Department of Defense, its Services, or the U.S. Government
Objectives

On conclusion of this session, the learner should be able to:

– Describe the 5 principles of a High Reliability Organization (HRO)

– Outline a framework to use HRO principles to improve GME administration and residency education

– Develop strategies to empower residents to identify changes to reduce patient safety errors
HRO is a Journey, Not a Destination

- High Reliability is a Journey, Not a Destination.
In their book, “Managing the Unexpected: Resilient performance in an Age of Uncertainty” Weick and Sutcliffe developed a framework for what they called a High Reliability Organization (HRO) based on five principles.
Expectations and Mindfullness

3 Principles of **Anticipation**

2 Principles of **Containment**
3 Principles of Anticipation

- Preoccupation with failure
- Reluctance to simplify
- Sensitivity to operations
Principles of Anticipation

After decades of struggle to climb to the top of the Herndon Monument, the Plebes discover a promising new tool.

Hey fellas... check this out!
Preoccupation with Failure
Preoccupation with Failure

• Continual scanning of environment
• Proactively plan for ways processes can go wrong
• “No news is bad news”
• Look for faint signals
  – Usually an indication of a larger problem or future problem
Preoccupation with Failure

OVERHAUL SCHEDULE

- Miserable Conditions
  - Chaos Phase
  - Dusty Dirty
  - Cables Everywhere
  - Grinding

- Noisy
  - Yard Workers Threaten to Strike
  - Sailors Ask for New Orders
  - Concern We Can't Finish in Time
  - Panic We Can't Finish

- Liberty Incidents
  - Things Don't Work

- Tools Get Stolen

- Sea Trials
  - Delivery
Preoccupation with Failure
GME Example

Issue: Annual Resident Survey review

• Non-HRO
  – Notes some fluctuations, but overall good results equals “auto-pilot”

• HRO
  – Examines unexpected outcomes
  – Actively solicits feedback on issues and concerns and seeks ways to improve
Reluctance to Simplify
Reluctance to Simplify

• Resist making assumptions when things don’t go according to plan

• Avoid simple explanations for complex systems

• Build an inclusive and diverse team
  – Unique perspectives will help challenge assumptions and simplification
(Absence of) Reluctance to Simplify
Reluctance to Simplify
GME Example

Issue: “Education (not) Compromised by Service Obligations” on two-year decline

- Non-HRO
  - Assumes residents misunderstand term “service”
  - Takes no action and surprised when decline continues

- HRO
  - Drills down with a diverse team and found residents were transporting patients due to low staffing
  - Adjusts staff schedules and rewarded when following survey reveals an uptrend
Sensitivity to Operations
Sensitivity to Operations

- Heightened “situational awareness”
- If sensitive to operations, can recognize small changes as a potential threat and investigate
- If error is found, can make small tweaks to avoid larger problems
- All healthcare team members feel empowered and obligated to speak up
(Absence of) Sensitivity to Operations

The Surface Navy conducts another successful anti-submarine warfare exercise. Oh, he's out there all right. He probably went deep to avoid our sonar.
Sensitivity to Operations
GME Example

Issue: Index numbers up yet percentile goes down when ranked against other programs

• Non-HRO
  – Over minimums and improving equals program “strength”

• HRO
  – Change in national practice standards?
  – Problem with case logs reporting?
  – Healthcare disparity?
2 Principles of Containment

 Commitment to resilience

 Deference to expertise
Principles of Containment

An awkward moment in the Navy/Marine Corps team-building effort
Commitment to Resilience
Commitment to Resilience

- When unanticipated problems occur, learn from mistakes and adapt
- Contain errors and develop alternative solutions to minimize damage
- If preoccupied with failure, mitigation strategies already planned and problems easier to handle
(Absence of) Commitment to Resilience
Commitment to Resilience
GME Example

Issue: Unanticipated accreditation decision/citation

• Non-HRO:
  – Places blame for bad outcomes
  – Has great difficulty bouncing back

• HRO:
  – Meets to investigate outcomes and contain damage, preventing further degradation to the program
  – Resists blaming; involves entire team in seeking solution
Deference to Expertise
Deference to Expertise

• When unanticipated problems happen, leaders defer to those with “boots on the ground”
• All team members are encouraged to share concerns and speak up
• Including all healthcare team members in feedback and decision making increases “buy-in” and helps ensure a robust perspective
(Absence of) Deference to Expertise

To the Captain’s delight, complaints from the crew suddenly and inexplicably slowed to a trickle.
Deference to Expertise
GME Example

Issue: Policy development and implementation

• Non-HRO:
  – Decisions are made “top-down” by program leadership, without involving residents and faculty
  – Feedback opportunities limited or not valued

• HRO:
  – Actively seeks out resident feedback and involves residents in committees
  – Encourages an environment of “Speaking up”
HRO Implementation

40,000 ft

Ideal Strategy

Sea level

Practical application
SSTG: A Sea Story
Safety Features of an SSTG

✓ Stop Button (Manual)
✓ Steam Relief Valve (Automatic)
✓ Back Pressure Trip (Automatic)
✓ Speed Trip (Automatic)
✓ And ...
Safety Features of an SSTG

- Voltage Adjuster
- Freq Adjuster
- Watt Meter
- Voltage Meter
- Frequency Meter
- Ammeter
- Pressure Gauge
- Temperature Gauge
- Speed Gauge
- Synchroscope
- Circuit Switch
- Dials, Gauges, Noises
Why isn’t GME an HRO?
Barriers to moving GME toward HRO

• Easier to simplify problems without investigating
• Reluctance of residents to speak up
• Resistance to resident feedback
• Inability of leaders to close the feedback loop
• Reluctance to include team in problem solving
HRO is in GME!

- Preoccupation with failure
- Reluctance to simplify
- Sensitivity to operations
- Commitment to resilience
- Deference to expertise

High Reliability Principles

Communication and Process Improvement
- Leadership engaged
- Culture of Professionalism and mutual respect
- Residents serve on numerous committees
- Errors recognized, reported, and addressed

High Reliability Organization

- Speaking up encouraged
- Frequent communication
- Residents and Faculty engaged in process improvement
- Closing feedback loop
HRO in GME

- Accreditation and Compliance
- Clinical Learning Environment
- Self Studies
Accreditation and Compliance

• Continuous review of programs
• Dashboard/Metrics/MMIs
Metrics, Measurements, and Indicators

- ACGME Letters of Notification
- ACGME and Institutional Surveys
- Resident Case Logs
- Resident Duty Hours
- Resident Scholarship
- Annual Program Evaluation and Action Plans
- Annual Program WebADS Update
MMI Notation

Current status (stoplight)

Trends (arrows)
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Clinical Learning Environment

• CLE Subcommittee Audits
  – Transitions of Care
  – Duty Hours

• Clinical Learning Environment Walks (CLEWs)
  – Informal rounds by GME leadership to observe team interactions and conduct small group/one-on-one discussions
  – Best opportunity to learn about growing concerns
(Absence of) CLEWS

Some of the troops think you spend too much time in your office and not enough time walking around and talking to people.

(Sigh)...I'll send them an email.
Self Studies

• Chance to make broad changes to make the program better
• Chance to experiment with innovative ideas
• Chance to introduce Best Practices which may lead to new specialty program requirements
Begin Your Journey

It Takes a Team
BROADSIDE cartoons were created by Jeff Bacon and appeared in the Navy Times, et al.
QUESTIONS?

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