2014 Ebola Events:
Texas Health Resources
Shares Lessons Learned, Action Plans and Improvements

Presented By:

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Abstract:

Barclay Berdan, CEO of Texas Health Resources, the Board of Trustees of Texas Health Resources and the Board of Trustees of Texas Health Presbyterian Hospital Dallas engaged an Expert Panel in November 2014 to review the fact pattern developed by Texas Health associated with events in October 2014, surrounding the care and ultimate death of Mr. Thomas Eric Duncan from Ebola Virus Disease (EVD) and the transmission of the virus to two nurses. The Expert Panel Report presented to Texas Health leadership outlined recommendations for improving the hospital’s and health system’s performance and preparation for similar unforeseen, novel and rare but significant future events. The recommendations also present an opportunity for other hospitals and health systems to review and learn so that they may prepare for unanticipated and potentially catastrophic events. One of the findings of the Expert Panel is that it is critically important that healthcare providers with the primary role of caring for patients work as a cohesive team. It is equally important, according to the Panel, that hospitals and health systems understand clearly how to plan and work with local, state, and federal government agencies as well as public health partners at all levels to ensure that each health facility across the U.S. healthcare system is prepared for novel events. This paper presents the corrective actions that Texas Health Resources implemented in response to the lessons learned from the event and the expert panel’s recommendations.

The actions plans can be summarized as follows, each of which is elaborated on the following pages, including a status report on the progress achieved with implementation since the event:

1. **Development and implementation of a plan for improving the collaborative interaction between ED nurses and physicians**

2. **Deployment of the Systemic Inflammatory Response Syndrome (SIRS) Score and sepsis order sets across all Texas Health entities**

3. **Implementation of a system-wide approach to emergency preparedness that incorporates best practices from High Reliability Organizations**

4. **Expanded current system work to improve standardized processes in human resources for furlough, critical incident stress management and employee assistance program**

5. **Development and implementation of a process for prioritizing, designing and validating patient safety and operational procedures to minimize variation in practice**

6. **Development of a standardized approach to ensure system-wide compliance with infectious disease risk mitigation policies and practices**

7. **Negotiation of new contract with the ED physician group serving Texas Health Dallas**
Development and implementation of a plan for improving the collaborative interaction between ED nurses and physicians:

- Re-implementation of the national best practices called TeamSTEPPS: Team Strategies and Tools to Enhance Performance and Patient Safety
- Structured use of SBAR (Situation/Background/Assessment/Recommendation) reports for direct communication of urgent and emergent information between RNs and MDs
- New pre-discharge clinical re-assessment processes in the ED
- Mandatory use of Vocera hands-free communications technology by all members of the ED team
- Re-organization of the ED into interprofessional team-based pods of care
- Establishment of an integrated MD/RN chain of command for problem resolution


Current Status:

- Redesigned clinical workflow to capture travel history and other screening questions for emerging infectious diseases at the point of entry
- Established rapid identification and isolation of at-risk patients with immediate use of appropriate Personal Protective Equipment
- Implemented assignment of physicians and other team members in pods for entire shifts to improve teamwork and communication among caregivers
- Identified ways to improve resolution of issues presented through the chain of command and trained physicians and ED staff on improved processes and tools
- Completed refresher training on Team STEPPS
- Implemented “team huddles” in pod assignment staffing model
- Developed a consistent communication tool and template for shift briefing that occurs for the entire ED at the beginning of each shift and includes physicians
- Implemented use of SBAR to relay urgent or emergent information between physicians and nurses to facilitate awareness
- Using scripts to align physician’s history taking to start of triage documentation and allow triaging nurse to input triage information without having to ask the patient to repeat information multiple times
- Implemented discharge procedures that include the following elements that are reviewed by the RN and physician prior to discharge: discharge vital signs, pain medication, scripts, follow-up with PMD or specialist, splint check, and any questions (active script)
- Implemented mandatory use of Vocera for all members of the ED team
Deployment of the Systemic Inflammatory Response Syndrome (SIRS) Score and sepsis order sets across all Texas Health entities:

- Sepsis is the single largest opportunity for many hospitals to improve observed versus expected inpatient mortality
- Mitigation begins with early diagnosis and intervention in the Emergency Department
- Texas Health’s systematic approach to Reliable Care Blueprinting has made Sepsis its first target for care redesign and standardization
- Development of a “Code Sepsis” rapid response practice
  - System-wide training on awareness of SIRS score and its import
  - Inclusion of SIRS in pre-discharge re-assessment
  - Pressure-testing variation from intended processes/outcomes

Cross-reference the Expert Panel Report at the sections captioned “Systemic Inflammatory Response Syndrome Score” and “Electronic Health Record System Challenges”

Current Status:

- Identified national best practices for using SIRS in the Emergency Department (ED)
- Designed, piloted and validated a decision tree for use of the SIRS Score in the ED prior to discharge
- Aligned the ED SIRS Score process with Sepsis Core Measure requirements
- Created a Best Practice Alert (BPA) to prompt physicians to trigger the sepsis order set if the nursing ED screen/rescreen is positive with a SIRS Score of greater than or equal to three
- Created a scorecard for the ED to monitor order set utilization and outcomes
- Built ED screen/rescreen reminders into the electronic health record to enact the sepsis order set if the first BPA did not trigger implementation within 30 minutes of triage
- Completed sepsis education for ED nurses and physicians
- Revised the Rapid Response Team policy to include sepsis and “Code Sepsis”.

Implementation of a system-wide approach to emergency preparedness that incorporates best practices from High Reliability Organizations:

- Establish clear definitions of command roles that flex with changing situations using the Hospital Incident Command System and the National Incident Management System
- Expand the scope of Emergency Preparedness to address clinical scenarios, public health emergencies and environmental exposures
- Develop team of HICS experts to deploy when events occur

Involvement of all levels of Texas Health Resources in a comprehensive drill twice a year with direct participation of system leaders:

- Conduct at least one drill annually that addresses a clinical disaster involving multiple entities and THPG
- Create structured stop/assess/plan huddles

Cross-reference the Expert Panel Report at the section captioned “Incident Command System”

Current Status:
- Used lessons learned to design and deploy “Active Shooter” training across Texas Health in Q1 2015
- The Crisis Communications Protocol maintained by the Texas Health Public Relations Department was reviewed, opportunities for improvement were identified, and the plan was revised to enhance its scalability and logistical thoroughness. This plan is now used in training drills at every entity.
- Implemented a THR System Emergency Management Program plan to provide organizational framework for supporting THR entities when resources are overwhelmed during emergencies/disasters
- Created guidelines for system leader and resource activation in emergency management drills or actual events
- Standardized Incident Command System (ICS) methodology across all entities as well as at the System level
Expanded current system work to improve standardized processes in human resources for furlough, critical incident stress management and employee assistance program:

- Creation and deployment of an HR incident response team
  - Includes Infection Prevention experts to manage exposure risks
  - Specialized training of selected staff to institute High-Level PPE
  - Drills (at least twice annually) and checklists to ensure proficiency
  - Cohorting of smallest group of caregivers necessary to mitigate exposures
- Establish new protocols for deployment of Critical Incident Stress Management (CISM)
  - Provide timely effective psychological support to staff involved in a critical incident
  - Mitigate and control the harmful effects of incident-related stress
  - Select new vendor(s) for CISM and Employee Assistance Program (EAP) services
- Standardized protocols for furloughing staff


Current Status:
- Developed Furlough Assessment Solution Team (FAST) including assigned people, protocols, processes and toolkit for use by entity human resources officers and chief nursing officers
- Integrated FAST process with Emergency Management Plan and processes
- Developed communication templates which will be available for all entities
- Combined basic and high level PPE training group for standardized implementation of training
- Deployed basic PPE training as part of required annual refresher training
- Deploying validation for “doffing and donning” competency
- Developing plan to expand high level PPE training requirements to all employees who work within the ED, Inpatient Care units, ICU and Labor and Delivery.
- Defined internal patient transfer process and continued working with state and CDC to define consistent transfer protocols in the region
- Implemented CISM process with distribution of central phone number for triaging requests
- Updated human resources leaders on new approaches to support staff and management during critical incidents
- Hired EAP manager and recruiting EAP staff
- Developing EAP website with resources for employees to access
- Implementing improvements to scheduling software and learning opportunities for staff.
Development and implementation of a process for prioritizing, designing and validating patient safety and operational procedures to minimize variation in practice:

- Adherence to best practices of high-reliability organizations
  - Leaders find and fix design and performance problems
  - Leaders build and reinforce accountability
  - “Attention is the currency of leadership”
  - Leaders make it safe to “speak up for safety”

Cross-reference the Expert Panel Report at the sections captioned “Key Learnings from the Initial Emergency Department Visit” and “Expert Findings from Review of the First ED Visit”

Current Status:
- Before the event, launched a systemwide initiative to deploy the best practices of High Reliability Organizations at Texas Health. High reliability training is ongoing in 2015.
- Implemented a standardized methodology for alert management
- Implemented process for assessing level of potential risk to patient, employee or operations
- Created format for clearly communicating urgent messages including required actions, impact and expectations for each level of the organization
- Implemented online tools to validate receipt and understanding of required actions
- Launched Daily Safety Briefings at all Texas Health entities
- Embedding habit forming methodology to ensure adherence to practice changes using HRO techniques including rounding to influence, daily check-ins, safety coaches, reliability partners
- Implementing system-wide communications for clarity of messaging and alignment with strategic initiatives.
**Development of a standardized approach to ensure system-wide compliance with infectious disease risk mitigation policies and practices:**

- Standardized isolation policies and procedures across the system and redeployment of PPE education to all applicable staff
  - Basic PPE
  - High-level PPR
  - Decontamination PPE

Cross-reference the Expert Panel Report at the sections captioned “Personal Protective Equipment (PPE) and Other Challenges”

**Current Status:**

- System-wide policies approved and signage standardized at all wholly-owned entities related to isolation practices, standard precautions, transmission-based precautions and high level Personal Protective Equipment (PPE).
- Developed system-wide inter-professional group (Infection Prevention Cabinet) to serve as primary forum for proactively evaluating threats related to emerging infectious diseases and establishing required system standards of care to address those threats deemed high risk.
- Standardized process for entity communication regarding preparation and care management of to emerging infectious diseases that includes expected entity actions, a process for confirming entities understand expectations and validation of compliance with expectations.
Negotiation of new contract with the ED physician group serving Texas Health Dallas:

- Focus on measuring clinical outcomes and continuous quality improvement
- Deployment of best practices stipulated by Texas Health
- Training and education on high reliability and patient safety

Cross-reference the Expert Panel Report at the section captioned “Alignment between the Emergency Department and Texas Health Presbyterian Hospital Dallas/Texas Health Resources”

Current Status:

- Texas Health Resources negotiated a new contract with the company that provides physicians to serve Emergency Department patients. This contract was signed on Aug. 1, 2015.
- The new contract emphasizes performance accountability for all ED physicians that is tied to specific quality and patient safety metrics, completion of high reliability training for all ED physicians, and implementation of high reliability best practices
CONCLUSION

Texas Health Resources is committed to continuous learning and process improvement. Prior to October 2014, we had already begun focused work toward becoming a high reliability organization (HRO), with an emphasis on patient safety. The events of October 2014 added urgency to this work. In addition, we have taken swift action to make improvements based on the expert panel report.

We have strengthened the care processes for our patients and implemented national best practices that embrace team strategies and added tools to enhance performance and safety. We are actively working to improve communication at all levels, including redesigning how caregivers and physicians communicate. High reliability training is being deployed across the organization, along with emergency preparedness drills and procedures designed to test our readiness for large-scale infectious disease scenarios.

A culture of safety is our priority. To foster this culture, we have developed enhanced rounding tools, promoted speaking up for safety and encouraged everyone to take action to improve the health of our patients and employees. Reliability and Safety Briefings have been implemented across the organization and systems put in place to enable swift action and follow-up.

Along with employees, we have also asked other key stakeholders to engage in these efforts. We have challenged our leaders to get to the root of why errors occur. We have asked physicians on the medical staffs to become even more engaged in our work, fostering an interprofessional team environment. Texas Health leaders across the organization are demonstrating their commitment to our goal of becoming an HRO – leading by example and encouraging teams to speak up for safety.

We are committed to taking information from these learnings and improving what we do. We are also committed to sharing what we learned with our colleagues across the country, so that they, too, can benefit from our experience. At Texas Health Resources, our Mission is to improve the health of the people in the communities we serve. This is a promise to our community and one that we take very seriously. We will continue to work diligently to provide safe, reliable quality care to those we are privileged to serve.