The Case for CANDOR: From Deny and Defend to Communication and Resolution

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MedStar Institute for Quality & Safety

Presenter: Kelly M. Smith, PhD
Director for Quality & Safety Research
Safety Moment: Common Ground

https://youtu.be/jKl7gsds82o
A lack of transparency results in distrust and a deep sense of insecurity. Honesty and transparency make you vulnerable. Be honest and transparent anyway. Trust, honesty, humility, transparency and accountability are the building blocks of a positive reputation.

Mother Teresa
Objectives

• Understand the importance of transparency and empathy in responding to patient safety events, maximizing learning and managing liability exposure

• Describe the elements of the CANDOR approach to responding and managing patient safety events

• Explore opportunities and challenges for health systems in adopting CANDOR

• Learn about one health system’s early results after embedding CANDOR within their comprehensive patient safety program
What is CANDOR?

CANDOR (Communication and Optimal Resolution) is the acronym associated with a dynamic new toolkit published in May 2016 by the Agency for Healthcare Research and Quality (AHRQ). developed to accelerate redesign of traditional “deny and defend” responses to patient safety events.

The Problem
Makary and Daniel BMJ 2016; 352:i2139

Researchers: Medical errors now third leading cause of death in United States
Making Matters Worse

“A call to arms for families who have had loved ones disabled or die in the pursuit of medical treatment.” — Former First Lady Rosalynn Carter

WALL OF SILENCE
The Untold Story of the Medical Mistakes That Kill and Injure Millions of Americans

ROSEMARY GIBSON AND JANARDAN PRASAD SINGH

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Culture eats strategy for breakfast
The Unkind Acts Cascade: Collateral Damage of The Wall of Silence
Cascade of CANDOR “Kindness”
Communication AND Optimal Resolution

1. Identification of CANDOR Event
2. CANDOR System Activation
3. Response and Communication
4. Investigation and Analysis – Event Review
5. Resolution
The Paradigm Shift

- Reporting: from delayed to immediate
- Communication: from delay, deny and defend to immediate and ongoing
- Event Review: from shame, blame, and train to human factors process redesign
- Care for the Caregiver: from suffering in isolation to immediate support
- Resolution: from having to “fight for it” to early offer
"We have seen at UIC that they are trying their very best to eliminate medical errors," he said. "I trust them to this day with my life."

Chicago Tribune, October 7, 2011
Catalyst for Change – Leading to the Seven Pillars

• 2003 Medical liability crisis erupts nationwide
• 2005 MEDiC Act
• 2005 explore alternative approaches to patient harm
• The Seven Pillars is implemented in April 2006
Seven Pillars Demonstration Project

Project Objective

• To determine the feasibility of implementing the “Seven Pillars” process at hospitals in the Chicago-land area and to evaluate its impact on patient safety and medical liability outcomes
Seven Pillars Guiding Principles

1. Provide effective and honest communication to patients and families following patient harm
2. Apologize and provide rapid compensation when inappropriate or unreasonable medical care causes harm
3. Learn from mistakes
4. Reckless behavior subject to corrective action
5. Provide support for providers involved in patient safety incidents
The Original “Seven Pillars” Approach to Responding to Patient Harm

1. Event Occurs
2. Harm? (Yes/No)
   - Yes: Event Investigation
   - No: Inappropriate care?
     - Yes: Apology with Remediation
     - No: Data Base
After patient, family, and clinician input – the Seven Pillars/CANDOR Approach

Data Base

Patient Communication Consult Service 24/7 Immediately Available

Patient Harm?

Consider “Second Patient” Error Investigation Hold bills

No

Inappropriate Care?

Full Disclosure with Rapid Apology and Remedy

Yes

Unexpected Event reported to Safety/Risk Management

“Near misses”

Process Improvement

Activation of Crisis Management Team

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Early Results – The First Two Years

• Doubling of Incident Reports within 2-years
  – 15-20% of reports indicated patient harm
  – 25% of reports were anonymous
  – 65% were from nurses
• 20 full disclosures with apology and remedy
• More than 200 system improvements
• 130 patient communication consultations
• More than 150 volunteers as part of the PCCS team
## Characteristics of Medical Malpractice Incidents 2000-2013

<table>
<thead>
<tr>
<th>Legal Type</th>
<th>Open (n=133)</th>
<th>Closed (n=504)</th>
<th>Total (n=637)</th>
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</thead>
<tbody>
<tr>
<td>Claim</td>
<td></td>
<td></td>
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<tr>
<td>Non-Lawsuit</td>
<td>57 (42.9)</td>
<td>200 (39.7)</td>
<td>257 (40.4)</td>
</tr>
<tr>
<td>Lawsuit</td>
<td>40 (30.1)</td>
<td>167 (33.1)</td>
<td>207 (32.5)</td>
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<tr>
<td>Potentially Compensable Event</td>
<td>36 (27.1)</td>
<td>120 (23.8)</td>
<td>156 (24.5)</td>
</tr>
<tr>
<td>Respondent in Discovery</td>
<td>0 (0)</td>
<td>17 (3.4)</td>
<td>17 (2.7)</td>
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</table>
Event Reporting

Regression analysis:
- Time: $b = -2.50, p = 0.01$, time is not significant (n.s.)
- Intervention: $b = -204.9, p < 0.001$
- Time After Intervention: $b = 52.9, p < 0.0001$

Quarterly Occurrence Reports Per 100K Encounters

- Pre-Intervention Mean: 394.8
- Post-Intervention Mean: 837.6

Graph showing quarterly occurrence reports per 100K encounters from 2000Q1 to 2014Q1 with intervention points indicated.
Communication Consults

Quarterly Communication Consults Per 100K Encounters

Post-Intervention Mean
Pre-Intervention Mean
Regression
Observed

Quarter

0
5
10
15
20

Quarterly Communication Consults Per 100K Encounters

Intervention

0.2
9.6

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Peer Reviews

Quarterly Peer Reviews Per 100K Encounters

Post-Intervention Mean
Pre-Intervention Mean
Regression
Observed

Quarter
0
10
20
30
40

2000Q1 2002Q1 2004Q1 2006Q1 2008Q1 2010Q1 2012Q1 2014Q1
Claims

Quarterly Claims Per 100K Encounters

- Post-Intervention Mean
- Pre-Intervention Mean
- Regression
- Observed

Quarter

2000Q1 2002Q1 2004Q1 2006Q1 2008Q1 2010Q1 2012Q1 2014Q1
Quarterly Lawsuits per 100,000 Encounters

April 17, 2018

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Quarterly Total Liability Costs

Quarterly Total Liability Per 100K Encounters (2013 dollars)

Post-Intervention Mean
Pre-Intervention Mean
Regression
Observed
## Mean Differences

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention (25 quarters)</th>
<th>Post-Intervention (31 quarters)</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Incident Reports</td>
<td>394.8 (52.9)</td>
<td>837.6 (338.7)</td>
<td>&lt;0.0001</td>
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<tr>
<td>Patient Consults</td>
<td>0.47 (0.9)</td>
<td>12 (7.0)</td>
<td>&lt;0.0001</td>
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<tr>
<td>Peer Reviews</td>
<td>1.4 (1.7)</td>
<td>16 (6.5)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Claims</td>
<td>8.8 (3.9)</td>
<td>5.1 (3.3)</td>
<td>0.0007</td>
</tr>
<tr>
<td>Lawsuits</td>
<td>4.5 (2.0)</td>
<td>2.4 (1.6)</td>
<td>0.0002</td>
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<tr>
<td>Total Liability Costs</td>
<td>$3.9M ($3.6M)</td>
<td>$1.8M ($4.0M)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

April 17, 2018

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The “Seven Pillars” Response to Patient Safety Incidents: Effects on Medical Liability Processes and Outcomes

Bruce L. Lambert, Nichola M. Centomani, Kelly M. Smith, Lorens A. Helmchen, Dulal K. Bhaumik, Yash J. Jalundhwala, and Timothy B. McDonald
Proof of concept

**Objective.** To determine whether a communication and resolution approach to patient harm is associated with changes in medical liability processes and outcomes.

**Data Sources/Study Setting.** Administrative, safety, and risk management data from the University of Illinois Hospital and Health Sciences System, from 2002 to 2014.

**Study Design.** Single health system, interrupted time series design. Using Mann–Whitney U tests and segmented regression models, we compared means and trends in incident reports, claims, event analyses, patient communication consults, legal fees, costs per claim, settlements, and self-insurance expenses before and after the implementation of the “Seven Pillars” communication and resolution intervention.

**Data Collection Methods.** Queried databases maintained by Department of Safety and Risk Management and the Department of Administrative Services at UIH. Extracted data from risk module of the Midas incident reporting system.

**Principal Findings.** The intervention nearly doubled the number of incident reports, halved the number of claims, and reduced legal fees and costs as well as total costs per claim, settlement amounts, and self-insurance costs.

**Conclusions.** A communication and optimal resolution (CANDOR) approach to adverse events was associated with long-lasting, clinically and financially significant changes in a large set of core medical liability process and outcome measures.

**Key Words.** Patient safety, medical liability, disclosure, communication, resolution
CANDOR

• Comprehensive, Principled, and Systematic Approach to the Prevention and Response to Patient Harm
• Immediate Response to Patient Harm (“Go Team”)
  • State of the Art Event Review Team
  • Care for the Caregiver Team
  • Patient/Family Communication Team
SSE Go Team

At the core of NTSB investigations is the "Go Team." The purpose of the Safety Board Go Team is simple and effective: Begin the investigation of a major accident at the accident scene, as quickly as possible, assembling the broad spectrum of technical expertise that is needed to solve complex transportation safety problems.
How we respond at the most difficult times defines who we are as a profession.
Burnout Among Health Professionals and Its Effect on Patient Safety

by Audrey Lyndon, PhD
<table>
<thead>
<tr>
<th>Psychological Symptoms</th>
<th>Physical Symptoms</th>
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</thead>
<tbody>
<tr>
<td>Frustration</td>
<td>Exhaustion/Fatigue</td>
</tr>
<tr>
<td>Anger</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Fear</td>
<td>Muscle tension</td>
</tr>
<tr>
<td>Anxious</td>
<td>Headache</td>
</tr>
<tr>
<td>Inability to feel happy</td>
<td>GI problems</td>
</tr>
<tr>
<td>Being unprofessional</td>
<td></td>
</tr>
<tr>
<td>Feeling overwhelmed</td>
<td></td>
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<tr>
<td>Disillusionment</td>
<td></td>
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<tr>
<td>Hopelessness</td>
<td></td>
</tr>
<tr>
<td>Lack of empathy</td>
<td></td>
</tr>
<tr>
<td>Feeling insufficient at work</td>
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</tbody>
</table>
MedStar Health

- Largest Healthcare System in Mid-Atlantic Region
- Ten hospitals
- 280 Outpatient sites of care
- 28,000 MSH Associates
- MedStar Institute for Quality and Safety (MIQS)
- National Center - Human Factors Engineering
- MedStar Health Research Institute (MHRI)
- Nationally Recognized Simulation Center (SITELE)
- MedStar Institute for Innovation (MI2)
- Over 1100 Residents
Optimized Outcomes

- Reliability
- Human Factors Integration
- Patient & Family Partnerships
- Transparency
- Process Design
- Reliability Culture

- Core Values & Vertical Integration
  - Hire for Fit
  - Behavior Expectations for all
  - Fair, Just and 200% Accountability
- Evidence-Based Best Practice
- Clinical Decision Support/IT
- Focus & Simplify
- Tactical Improvements (e.g. Bundles)

Including the Patient Voice in all we do
Intuitive design. Impossible to do the wrong thing. Obvious to do the right thing. Simulation/Innovation

Template credit to HPI
CANDOR

- AHRQ Funded Implementation Toolkit
- **Comprehensive Patient Safety Program**
- Immediate Response to Patient Harm (“Go Team”)
  - State of the Art Event Review “Go Team”
  - Immediate Patient/Family Communication “Go Team”
  - Care for the Caregiver “Go Team”
- **Results**
  - Reductions in SSE’s, patient harm events
  - Improved Culture of Safety
  - Reduced Costs Associated with Medical Liability
CANDOR IMPLEMENTATION

Communication and Optimal Resolution Program

CANDOR Implementation

- Engagement with Leadership
- Hospitals complete on-site gap analysis and change readiness assessment

- Hospital completes communication assessments

- Hospital completes regional communication, care for caregiver, and event review workshops

- System participates in one-day resolution workshop with insurers

- Hospital completes regional "putting it together workshop"

- CANDOR launches and faculty are available for follow-up calls as needed
Lifecycle of Medical Liability & Patient Safety Research

1999

To Err is Human
98,000 Deaths

2001

Liability Crisis

2003

PSQIA

2005

SP Go Live

2007

MLPS Grants

2009

Demonstration Grant

2011

2013

2015

2017

2018

CANDOR Toolkit Released

MD Policy

251,000 Deaths
May 1

Seven Pillars at UIMCC Apr 1 - Apr 10

Seven Pillars Demonstration Project Jul 1 - Jun 30

MLCR Toolkit Sep 12 - Sep 11

CANDOR May 23 - Sep 19

Policy Sep 20 - Mar 8

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CANDOR

- Training and Implementation of Patient Communication Consult Service “Go Team”
  - Real Cases
  - Standardized Patients and Role Plays
  - Communication Techniques
    - Be factual; Don’t speculate
    - Don’t throw anyone “under the bus”
    - If you don’t know, say you don’t know…but promise to get back to the patient and/or family
    - Follow-up Contact
System-Focused Event Review Process

• National Center for Human Factors in Healthcare, MedStar Safety and Aviation Industry Experts

• Reviewed Event Review processes from many other industries.
“The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes.”

—Lucian Leape
CANDOR

CANDOR implementation resulted in sustained improvements in adverse event reporting. Reports increased from a low of 968 reports per month in the year preceding implementation to 2,500 reports per month post-implementation.

CANDOR implementation resulted in a 44% reduction of serious safety events compared to pre-implementation.
These reductions occurred concurrent with an increase of over 30% in clinical activity and liability exposure across the MedStar Health system.

From 2014 to 2016, hospital safety culture improved, resulting in improvements in 11 of 12 domains of the AHRQ hospital survey on patient safety culture. Largest improvement came in “Non-punitive response to error”.

During the 3-years after CANDOR implementation, the health system has reported a growing reduction in medical liability costs, yielding a over $40M savings in FY2017.
QUESTIONS?

FEEDBACK?

THANK YOU!
References

2. Patient Safety and Quality Improvement Act of 2005 (Public Law 109-41)
9. The Seven Pillars: Crossing the Patient Safety-Medical Liability Chasm (R18 HS019565-01)
12. Makary MA, Daniel M. Medical error – the third leading cause of death in the US. BMJ 2016;353:i2139