Transformational Approach to Improving Quality and Patient Safety: Implementation of a Novel, Housestaff Quality Council©

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No relevant financial interest or other relationship with a commercial entity
Reality

- “Doctors are well prepared in the science base of medicine and the skills to care for individuals patients but FEW are qualified or trained with the skills to improve patient care and safety”

» David B. Nash
» Dean, Jefferson School of Population Health

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“Residents are often invisible doctors in quality improvement”

Ashton, 1993 Academic Medicine 68:823
Housestaff Predictably Make Errors

- Forgetting DVT Prophylaxis
- Improper insulin adjustment on an NPO patient
- Delay administration of antibiotics in sepsis
- Leaving the guidewire behind during CVC placement
- Ordering unnecessary labs
- Not seeking help
Residents Remain Disengaged In Quality Improvement

Only 28 published articles (1990-2008):

✓ Lack of Time, Low Attendance, Long Hours, Demanding Patients
✓ Crowded Curriculum
✓ Away Rotations
✓ Lack of Analytic Capabilities
✓ Presumed Lack of Interest
✓ Program Expense
✓ Lack of Credibility
✓ Fear of Speaking Up

“Residents’ Engagement in Quality Improvement: A Systematic Review of the Literature”
Patow et al, Academic Medicine Dec 2009
Including Residents in QPS
No Longer Optional

ACGME Core Competencies:
✓ “Practice Based Learning”
✓ “Systems-Based Practice”

Regulatory Agents:
✓ The Joint Commission
✓ Centers for Medicare & Medicaid Services

Hospital Initiatives:
✓ Hand Hygiene
✓ “Putting Patients First”
✓ “Patient Safety Fridays”
Swiss Cheese Model

The Swiss Cheese Model is a framework for understanding the causes of accidents and failures in complex systems, such as those found in healthcare. It is based on the idea that accidents occur when multiple layers of defense fail, with each layer representing a different level of defense against potential hazards. The model includes several layers, including the individual, technical, organizational, and institutional levels, each with its own set of potential failure points.

Key components of the model include:
- Triggers: Events that cause the system to deviate from its intended state.
- Goal Conflicts and Double Binds: Situations where goals are in conflict or where constraints lead to paradoxical situations.
- DEFENSES: Measures taken to prevent accidents.

The model is often represented visually, with layers stacked on top of each other, showing how different levels of defense can interact and fail simultaneously, leading to an accident.
“Improve patient care and safety at New York-Presbyterian Hospital by creating a culture that promotes greater housestaff participation.”
What We Proposed Dec 2007

✓ “Buy-In” through involvement in policy making
✓ Dissemination of knowledge to peers
✓ Enforcement of best practices and policies
✓ Development of relationships
✓ Communication of key changes
✓ Measurement of how we’re doing
Scope of Service: Start Small

Initial Meeting April 2008

Quality Focus Area

✓ Medication Reconciliation
✓ >99% Compliance
Resident Quality and Patient Safety Officer

- Housestaff Quality Council© Chair
- Attends Weekly QPS Officer Meeting
- Institutional Point Person for Engaging Housestaff
- Training Opportunity for Future QPS Leaders
HQC Scope of Service

NYP Quality Focus Areas

- Medication Safety
- Communication
- Infection Prevention & Control
- Efficiency & Patient Flow
- Surgical & Procedural Safety

- Medication Reconciliation
- Eclipsys Handoff
- Hand Hygiene
- Eclipsys Ordersets
- Central Line Improvements

NewYork-Presbyterian Quality & Patient Safety
MEDICATION RECONCILIATION

[Bar chart showing medication reconciliation rates for Sites 1 to 5 across different years (2009, 2010, 2011).]
Paperless Laboratory Project

MONTH in 2009

Number of Paper Test Orders

- CPOE Downtime
  - 75% Decrease from Baseline

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## Trigger Protocols

**Expected Communication Practices When There is a Critical Change in the Patient’s Condition Are That the Attending Will be Notified, Generally Within 1 Hour Following Evaluation.**

<table>
<thead>
<tr>
<th>Trigger Protocol</th>
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<tbody>
<tr>
<td>1. Unplanned transfer to the ICU or more monitored setting (e.g. SOU)</td>
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<tr>
<td>2. Unplanned intubation, or ventilatory support (e.g. BIPAP or CPAP)</td>
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<td>3. Unexpected cardiovascular support (e.g. addition of pressors)</td>
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<td>4. Cardiac arrest, Code, or Rapid Response Team called</td>
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<td>5. Development of significant neurological changes (suspected CVA, seizure, new onset paralysis)</td>
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<tr>
<td>6. Iatrogenic event: serious complications from medical interventions</td>
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<td>7. Unexpected blood transfusion without prior attending knowledge or instruction</td>
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<td>8. Development of any clinical problem that requires an invasive procedure/operation for treatment</td>
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<td>9. Initiation of restraints</td>
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<tr>
<td>10. Signing out against medical advice (AMA)</td>
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<td>11. Suicide attempt</td>
</tr>
<tr>
<td>12. Death</td>
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<td>13. At patient or family request</td>
</tr>
</tbody>
</table>

This protocol is designed to ensure communication, but **should not preclude** communication for any issue short of the above criteria. Any member of the team should feel comfortable to contact the attending of record at any time for questions of clinical management.

***Inability to reach the attending should NOT impede needed or emergent clinical care.***

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**NewYork-Presbyterian**

Quality & Patient Safety
Creating Culture Change

Patient Safety Awareness Campaign
Innovation and Research: Leading the Way at Academic Medical Centers

Publications

✔ Academic Medicine
✔ American Journal of Medical Quality
✔ Journal of Quality and Patient Safety
✔ Quality Awards:
  ➢ The Joint Commission John M. Eisenberg Award
  ➢ ACGME David C. Leach Award
Communicating Through Publications

Ten Years After the IOM Report: Engaging Residents in Quality and Patient Safety by Creating a House Staff Quality Council

Peter M. Fleischut, MD,1 Adam S. Evans, MD, MBA,1
William C. Nugent, MD, MBA,1 Susan L. Faggiani, RN, BA, CPHQ
Eliot J. Lazar, MD, MBA,1 Richard S. Liebowitz, MD,1
Laura L. Forese, MD, MPH,1 and Gregory E. Kerr, MD, MBA1

The Role of Housestaff in Implementing Medication Reconciliation on Admission at an Academic Medical Center

Adam S. Evans, MD, MBA,1 Eliot J. Lazar, MD, MBA,2
Victoria L. Tiase, RN, MS,3 Peter Fleischut, MD,1
Susan B. Bostwick, MD, MBA,1 George Hripcsak, MD,2
Richard Liebowitz, MD,3 Laura L. Forese, MD, MPH,2
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An Anesthesiology Department Leads Culture Change at a Hospital System Level to Improve Quality and Patient Safety

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Quality and Safety

Perspective: Call to Action: It Is Time for Academic Institutions to Appoint a Resident Quality and Patient Safety Officer

Peter M. Fleischut, MD, Adam S. Evans, MD, MBA, William C. Nugent, MD, MBA, Susan L. Faggiani, RN, Gregory E. Kerr, MD, MBA, and Eliot J. Lazar, MD, MBA
Challenges

✓ Communication
✓ Effective Representation
✓ Sustainability
✓ Data Transparency
✓ Exportability
Questions?

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