Quality in Interventional Radiology

• There is no I in TEAM!!!
Quality

• Noun
  • An essential or distinctive characteristic, property, or attribute
  • Character or nature, as belonging to or distinguishing a thing
  • Character with respect to fineness, or grade of excellence
  • High grade; superiority; excellence
  • a personality or character trait
  • native excellence or superiority
  • An accomplishment or attainment

http://dictionary.reference.com/browse/quality
Quality

• Adjective
  • of or having superior quality
  • Producing or providing products or services of high quality or merit
  • of or occupying high social status
  • marked by a concentrated expenditure of involvement, concern or commitment

http://dictionary.reference.com/browse/quality
Types of Errors

- Diagnostic
  - Error or delay in diagnosis
  - Failure to employ indicated tests
  - Use of outmoded tests or therapy
  - Failure to act on results of monitoring or testing

- Treatment
  - Error in the performance of an operation, procedure, or test
  - Error in administering the treatment
  - Error in the dose or method of using a drug
  - Avoidable delay in treatment or in responding to an abnormal test
  - Inappropriate (not indicated) care

- Preventive
  - Failure to provide prophylactic treatment
  - Inadequate monitoring or follow-up of treatment

- Other
  - Failure of communication
  - Equipment failure
  - Other system failure

Adverse Events in Hospitals:
National Incidence Among Medicare Beneficiaries:

Estimated 13.5% of hospitalized Medicare beneficiaries

↓

Adverse events during their hospital stays

(≈134,000 for October 2008)

26% were related to surgery or other procedures

Dept. of Health and Human Services, Office of the Inspector General. Nov 2010
“To Err is Human: Building a Safer Health System”

Institute of Medicine; September 1999

Medical errors: the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.

These are system errors, not individual

We cannot assure quality
Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries:

44% of adverse and temporary harm events

↓

clearly or likely preventable

Hospital care associated with adverse/ temporary harm events estimated $324 million in October 2008 ($4.4 billion/year)
Quality in Interventional Radiology

There is no I in TEAM!!!
Overview

• What is Quality? “Beauty is in the Eye of the Beholder”
  • Look at Different perspectives
  • Can we find a common ground?
• Current Quality Measures
  • CONFORM AND COMPLY!!!!
  • Limits and stressors of current system
• Redefining Quality
  • Welcome to the 80’s
Quality

• Administration Perspective
  • Cost
  • Charge Capture
  • Utilization
Quality

- Physician Perspective
  - PQRS
  - M+M
  - EMR
  - Radiation Dose
  - Reimbursement
Quality

• Patient Perspective
  • Survive
  • Mistake
  • Pain
  • Understand
Quality

• Staff Perspective
  • EMR
  • Reporting Standards
  • Compliance
  • Patient Satisfaction
  • Check list

http://www.ultrasoundschoolsinfo.com/vascular-interventional-sonography/
Common Ground

- Patient Centered
- Time
- Radiation
- Cost
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Current State

- EMR
- Press Ganey
- Self Reporting
- Sentinel Event
Current State

• Problem
  • Static
  • Conform
  • Confrontational

• Reality

• Task Oriented
Guidelines for Establishing a Quality Improvement Program in Interventional Radiology

Joseph R. Steele, MD, Michael J. Wallace, MD, David M. Hovsepian, MD, Brent C. James, MD, MStat, Sanjoy Kundu, MD, Donald L. Miller, MD, Steven C. Rose, MD, David Sacks, MD, Samir S. Shah, MD, and John F. Cardella, MD

J Vasc Interv Radiol 2010; 21:617–625

Abbreviations: CQI = continuous quality improvement, PDSA = plan do study act, QA = quality assurance
## Quality

<table>
<thead>
<tr>
<th>Physician</th>
<th>Avg Cost</th>
<th>Avg Room Time (M)</th>
<th>Avg Fluoro Time (S)</th>
<th>Avg Fluoro Dose</th>
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<tbody>
<tr>
<td>1</td>
<td>$2,066.01</td>
<td>141</td>
<td>1306</td>
<td>386096</td>
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<tr>
<td>2</td>
<td>$2,758.90</td>
<td>162</td>
<td>1535</td>
<td>644892</td>
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<tr>
<td>3</td>
<td>$2,327.84</td>
<td>167</td>
<td>1568</td>
<td>520443</td>
</tr>
</tbody>
</table>
Overview

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Foundation

*Kaizen* (改善, Japanese for "improvement")

Japanese philosophy that focuses on continuous improvement throughout all aspects of life.

When applied to the workplace, Kaizen activities continually improve all functions of a business, from manufacturing to management and from the CEO to the assembly line workers.

Foundation

“We are what we repeatedly do; excellence is not an act, but a habit”

- Aristotle

• “Work smarter – not harder”

• “Every deficit is a treasure”
Definition of Quality

Meeting the needs and exceeding the expectations of those we serve

*It is NOT...*

- Yelling at people to work harder, faster, or safer
- Creating order sets or protocols and then failing to monitor their use or effect
- Traditional Quality Assurance
- Research
The Co-morbidities of Poor Safety Culture

- Horrible Handoffs
- Toxic Work Environments
- Caregiver Burnout/Depression
- Caregiver Self Injury
- Disruptive Behavior
- Staff Turnover
- Patient Harm
- Defensive and Distrustful Staff
- Repeat Sentinel Events
- Innovation Fatigue
- Loss of Sense of Purpose/meaning
Principles

#1 Improvement Requires Change
• Every system is perfectly designed to achieve exactly the results it gets.
• Change is not just doing something different, but engineering something different.

#2 Less is more
• Must not destroy productivity.
• Keep it simple.

#3 Communication
• Identify Stakeholders
• Open Conversation (Learn first, Comment third)
The Co-morbidities of Good Safety Culture

Non-negotiable respect for every person, in every interaction, every day

Staff surface solutions, rather than problems

Autonomy over responsibilities

Mastery of skills

Purpose: “this is my calling”

Well rested healthcare workers

Creativity and Innovation flourish

Resilience and self-care is the norm

Trust in leadership, colleagues, and the “system”
Teamwork Climate Across Michigan ICUs

The strongest predictor of clinical excellence: caregivers feel comfortable speaking up if they perceive a problem with patient care.

Hudson et al., 2009. Contemporary Critical Care Vol 7 No 5
When $\geq 60\%$ report good teamwork or safety norms, there is a significant DECREASE in bad outcomes.
Safety Culture Drill Down

• If low on teamwork – what pulled the score down?
  • Difficulty Speaking Up
  • Breakdowns in Interdisciplinary Care Coordination
  • Difficulty Resolving Conflicts
  • Difficulty Asking Questions

• If low on safety norms – what pulled the score down?
  • Lack of trust
  • Lack of feedback
  • Lack of engagement
Mindfully Learning from Defects:

- Monthly (to be sustainable)
- Hybrid of RCA and Debriefing for “less than Sentinel” events
  - Structure keeps glitches on the radar for improvement
- Local ownership for quality
- Improve patient safety norms:
  - Learning from errors of others
  - Encouraged to participate in patient safety
  - Know the channels to direct questions
- Reliability through resilience, not at the expense of it
Compelling Reasons

• Why develop a culture of quality improvement within your practice?
  • We’re not as good as we think we are...
    • $2.4 trillion spent on healthcare with quality worse than developing countries with lower spending
  • Gaps in care
    • Care should be safe, timely, effective, efficient, equitable & patient-centered (STEEEP)

• Consumers demand:
  • Demonstrated high quality
  • Timely access
  • Convenience
  • Low cost

Especially within the walk-in, episodic, urgent care setting...
Overcoming the Barriers - Leadership

• Leadership
  • What providers’ want
    • Help people
    • Respect
    • Autonomy
    • Financial rewards
    • Recognition
  • Provider’s role is essential
    • Key decision maker
    • Viewed as leaders by patients, staff and peers.
• Providers are:
  • Educated – give them definitions
  • Scientists – give them data
  • Proud & Competitive – give them peer information
  • Results oriented – give them goals
Model for Improvement

PDSA

Plan Do Study Act

PDSA → PDSA → PDSA → PDSA → PDSA → PDSA → PDSA

Improve incrementally. Learn through action.

Test your changes.

Assess their effect.

Then re-work the changes and do it again...and again...
Stages of Working with Data

• Deny
• Ignore
• Shoot the Messenger
• Accept and Use
Engineering Change

What do we want to achieve?

What changes will drive our progress?

How will we measure our progress?

How should we modify our latest changes?

Modified from: *The Foundation of Improvement* by Thomas W. Nolan *et. al*
Culture – Communication and Transparency

Patient Satisfaction: The Story
- Duke Urgent Care has always worked hard to provide great medical care. We also always have worked to give our patients a highly satisfactory experience.
- As Duke grew, it became clear we needed an objective tool to measure our success in patient satisfaction.
- Press Ganey could provide us that tool.

Press Ganey: Background
- Studies show satisfied patients are more likely to follow medical advice with better outcomes.
- More than 7,000 health care facilities turn to Press Ganey for evaluations in their efforts to improve performance and patient care.
Source: http://www.pressganey.com

Teamwork In Action: Goals
- The committee chose to focus on three key goals:
  1. Keep patients informed about delays
  2. Increase the “Top Box” percentage – earn more “Very Good” ratings by providing 5 out of 5 service
  3. Increase Overall Patient Satisfaction Percentage

Teamwork: The Duke Urgent Care Team
- Strive for Five!
  - What can we do to earn your “Very Good”?
  - “Very Good” is the top Press Ganey score, a 5 on a scale from 1 to 5.
  - We want to earn “Very Good” from every patient in every category every day.
  - Please let us know what we can do for you today to earn your “Very Good”.
  - Please let us know what we can do differently in the future to improve.

Teamwork In Action: Results
- Informed about Delays
- Top Box
- Overall Satisfaction

Teamwork In Action: Plans
- Action Plans
  1. “Visibility” every hour: Address/Apologize/Reason/Response/Communicate
  2. “Strive for Five!” every patient every day, waiting room transparency, thank you cards
  3. Work with cycle time committee to try to decrease wait times. Improve waiting room: decor, TV, puzzles, children’s coloring books

We need your feedback!
If you get a survey, please fill it out and return it to Press Ganey

Surveys are similarly sent out to several patients each month.

Patient Satisfaction: Teamwork In Action
Duke Urgent Care Services

Duke Medicine
Patient Experience

The sum of all interactions, shaped by an organization’s culture, that influence patient perceptions across the continuum of care.

The Beryl Institute
Why CG CAHPS?

**Clinician & Group**

**C**onsumer  
**A**ssessment of  
**H**ealthcare  
**P**roviders and  
**S**ystems

- Tool developed by CMS and the Agency for Healthcare Research and Quality (AHRQ) to understand patients’ perception
- Comparable data for public reporting
- Enhance accountability and transparency
- PQRS CAHPS mandatory for 2015 performance year
- Publicly reported beginning in 2016 – CG CAHPS included in 2% payment at risk
How Measurements Translate?

<table>
<thead>
<tr>
<th>Pre Procedure</th>
<th>yes</th>
<th>no</th>
<th>n/a</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the Physician credentialed for moderate sedation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consent for sedation/procedure signed, dated, timed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H&amp;P completed 30 days and pt. examined prior to procedure start?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ASA class score documented by MD?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time out completed immediately prior to start of procedure? (before sedation)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Did all staff participate in time out?</td>
<td></td>
<td></td>
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<tr>
<td>VS completed within 10 minutes of start of procedure (immediate reassessment)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All medications and VS documented and syringes and blankets and syringes and</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>injectors labeled.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Isolation status reviewed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Procedure**

<table>
<thead>
<tr>
<th>Procedure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Read back of medication orders?</td>
<td></td>
</tr>
<tr>
<td>Proper Hand Hygiene completed for entire process</td>
<td></td>
</tr>
<tr>
<td>Addition Time Out completed as necessary</td>
<td></td>
</tr>
<tr>
<td>Immobilization devices used according to policy (all prone and GA cases</td>
<td></td>
</tr>
<tr>
<td>require Velcro Straps)</td>
<td></td>
</tr>
</tbody>
</table>

**Post Procedure**

<table>
<thead>
<tr>
<th>Post Procedure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Proc. Notes: Description of procedure/ FINDINGS</td>
<td></td>
</tr>
<tr>
<td>Post Proc. Notes: Pre-procedure diagnosis</td>
<td></td>
</tr>
<tr>
<td>Post Proc. Notes: Adverse response to sedation/procedure</td>
<td></td>
</tr>
<tr>
<td>Discharge criteria LOC documented</td>
<td></td>
</tr>
<tr>
<td>Discharge pain score and RASS score documented</td>
<td></td>
</tr>
<tr>
<td>Discharge Instructions documented</td>
<td></td>
</tr>
<tr>
<td>Start and end times for procedure documented</td>
<td></td>
</tr>
<tr>
<td>Sharps and fluids disposed of properly</td>
<td></td>
</tr>
</tbody>
</table>
Ideas

• What if you asked Press Ganey questions during the Pre-procedure phone call?
• PED’s (Not just for athletes)
• Beta Testing
• Industry (Not healthcare) Standards
Thank you

- Tony Smith, MD
- Don Frush, MD
- W. Kevin Broyles, MD, MHS-CL
- Sanne Henninger, MSW, LCSW, Ed D
Bibliography


• Brent James, MD, MStat (Intermountain Health Care's Institute for Health Care Delivery Research): concepts, content, figures.


• Greg Maynard, MD, MSc (University of California, San Diego): editorial composition and review.
Bibliography


• Jason Stein, MD (Emory University School of Medicine): editorial composition.


• Postal, LH. Director of Nursing and Performance Improvement – Duke Primary Care. Email communication. 21 March 2011.
Overcoming the Barriers - Culture

• Developing an:
  • Informed culture – communication
    • (to patients, as well as staff & providers)
    • Storyboards, posters
    • Meetings
    • Newsletters, emails
  • Reporting culture
    • Transparency
    • Accountability
  • Flexible culture
  • Learning culture
    • Committed to improvement
    • Everyone engaged
    • DNA of the organization
  • Just culture
    • Safe