QI Programs and Initiatives: How We Do It

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Quality Improvement – More Than Just

RadPeer®

Children’s Hospital Program in
Patient Safety and Quality
Developing a Quality Plan

• **Comprehensive**: Does the Plan reflect *all aspects* of the care provided in Radiology?

• **Aligned**: Is your Radiology Department Quality Improvement Plan *aligned* with your Hospital’s Strategic Plan for Clinical Safety and Quality?

• **Aspirational**: Is the Plan designed to truly improve patient care delivery, regardless of how well you are doing now-or does it just support the status quo?

• **Practical**: Can you sell it?
Elements of a Quality Management Plan

- Scope of Services
- Governance, Accountability & Representation
- Evidence Based Review
  - M&M, Double Reads and MUCH more
- Quality Improvement Initiatives
  - Required for ongoing PQI certification
- Event Review
- Normative Behavior
- External Communication
Description of Scope of Services

• Quantification of Clinical Activities
  – Organ-based Divisions
  – Modality-based Operational Sections

• Identifying non-Radiology Contributors: *Knowing and Involving your team*
  – Nursing
  – Anesthesia
Governance/Accountability

- Organ-based Division and Modality Operations meetings
- Quality Improvement Committee (QIC)
  - Broad Representation
- Imaging Safety:
  - MR Safety
  - Radiation Safety
  - Fluoroscopy Training
Evidence-Based Review

• Developing Internal Benchmarks
• Quality Assurance and Performance Improvement (QAPI) Performance Improvement Initiative
• Comprehensive Quality Report (CQR) – Error rates
• Outcome / Process Measures and Validation Against Reliable Benchmarks
Comprehensive Quality Indices
Comprehensive Quality Indices
Event Review

– Monthly M&M (Difficult Diagnosis)
  • General Radiology, Neuroradiology, IR
  • SERS, Sentinel Events, DPH reportable events
  • Sedation & Anesthesia Safety Committee

– Monthly Hospital Committee
  • Clinical Peer Review; Medical Peer Review

– Ad Hoc Critical Event Review
  • Representation from Radiology
DPH Sentinel Event – Retained Sponge

- Comprehensive review of OR practice
- Review of radiology
- ID’d breakdown in OR procedure
- New guidelines for OP note reporting
- New requirements for queries re: counts
Event Triggering Manufacturer Review

Retained marker ring from IVC filter sheath
Hospital Committee Representation

• Clinical Peer Review
  – Necrotizing fasciitis
  – GJ Tube complications
  – Intra-operative tubes/lines/drains

• Radiation Safety
  – Badging and compliance
  – Dose Reduction Initiatives & Protocol Review

• Medical Peer Review and Critical Events
  – Missed diagnoses, etc.
Quality Improvement Initiatives

• Clinical
  – Report Turnaround time
  – Staff-directed Initiatives
    • IR complication Rates
    • Patient History
  – Decision Support & Appropriateness Criteria
  – Radiology Consult Service
  – Image Gently Campaign
  – SCAMPS (aka – CPGs or practice guidelines)
Report Turnaround Time

Average Total Turnaround from Exam Completion to Report Verification

Hours Turnaround

Month

May 02, May 03, May 04, May 05, May 06, May 07, May 08, May 09, May 10, May 11, May 12

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VR
Staff Initiatives: Benchmarking IR Complication Rates

• Currently no benchmarks for complications occurring during pediatric IR procedures

• Between 2004 – 2010: 14,042 IR procedures
  • Severity Level 1 – None: No harm, no change in condition
  • Severity Level 2 – Minor: Transient change in condition, not life threatening, returns to baseline, +/- minor intervention
  • Severity Level 3 – Moderate: Transient change in condition, may be life threatening if not treated, still returns to baseline, intervention is required
  • Severity Level 4 – Major: Change in condition, may be permanent or life threatening, may require admission or ICU transfer, requires major intervention/procedure
  • Severity Level 5 – Catastrophic: Death
Evaluating and Benchmarking IR Complication Rates

• The overall complication rate was less than 1% for all procedures performed.
• Complication rates for the respective severity levels:
  – Level 1 (0.235%)
  – Level 2 (0.3%)
  – Level 3 (0.1%)
  – Level 4 (0.249%)
  – Level 5 (0.028%)
• The severity of a given complication was not associated with procedural complexity.
• No operator-specific trends were identified.
• Serves as foundation for a robust IR QI program
Quality Improvement Initiatives (con’t)

- Operational
  - LifeImage and Teleradiology Consults
  - Centralized Scheduling
  - Anesthesia and Sedation workflow
  - Radiology Dashboard (protocoling, study management)
  - Staffing and Billing/Contract changes
  - Referring MD Outreach
  - Patient Satisfaction
Dose Reduction Initiatives

CT Radiation Dose Reduction Using Indication-Based Protocols and Dose Reduction Strategies

*Starting July 16, 2012, all cases should be protocoled in Allocade.
Fostering Quality and Safety: Normative Behavior: Education

• Continuing Education
  – 10-15 weekly/biweekly clinical/teaching conferences
  – MD’s, Nursing Staff, Technologists

• Physician Management Team

• Representation on Hospital Committees
  – Radiation Safety, Clinical Peer Review

• Departmental Communication
Communicating Errors

• Establish a process
• Invite discussion in a safe forum
• Include and attend inter-departmental and interdisciplinary meetings
• Meet with patients as appropriate and communicate directly
• *Develop a framework for reporting errors to outside consultants*
Communication of Error: Creating a Constructive Environment

Meckel’s scan: in OR, nl
- False +: Rt kidney

Discussion:
- “…can’t believe you missed that...between you and me that’s a ‘resident miss’…”
Errors Occurring at Outside Institutions: 
*Responsibility to Patients & Providers?*

- 15 yo boy presents to OSH in October with back pain, Rt lateral thigh/calf pain x 4 mo
- Spine Xrays: nl. **MRI read as negative**
- Pt returns in December with persistent Sx
  - Pelvic CT confirms bone and soft tissue mass
- Referred to BCH and DFCI for further care
- Review w/oncologist: outside MR reviewed
  - Mass was present, invading spinal canal
Communicating Results and Disclosing Errors From Outside Referrals

12/13/2011

10/20/2011
• Outside exam reported as normal
  • Interpreting radiologist not listed in Hospital directory
  • Exam performed by Mobile service covering northern New England
Communicating Results and Disclosing Errors From Outside Referrals

• What do we do with outside (imaging) studies when a discrepancy is found?
  • Who has a relationship with the patient
  • What should (*must*) we say to the patient
  • Should we notify outside provider: clinician, radiologist

• No institutional policy
• No agreement amongst providers
• Potential legal implications
Conclusion

• A healthy quality management plan has involvement from many areas

• A comprehensive plan should:
  – Establish the operational layout and current state
  – Include programs and criteria for ongoing assessment and improvement
  – Integrate into larger hospital/institutional initiatives

• Encourage teamwork; build *esprit de corps*

• Be supportive of even the smallest initiative