

MultiCare Health System Imaging Division

QUALITY IMPROVEMENT – PEER REVIEW

AHRA Regional Conference

Tacoma, WA

January 30, 2014

Presented by Katherine Choi-Chinn, MD

Chair, Executive Committee

Medical Imaging Northwest, LLP

and Kathleen Floyd, RT (R)(M)(QM)

Imaging Quality Coordinator

Multicare Health System

PRESENTER INFORMATION



Katherine Choi-Chinn, MD – Chair, Executive Committee, Medical Imaging Northwest

Dr. Katherine Choi-Chinn is a board certified diagnostic radiologist for 15 years. Her interest is in Women's Imaging. She has been practicing with Medical Imaging Northwest since 2001. She recently became chair of Medical Imaging Northwest in August 2013.

Although she is relatively new to her role, Kathy is excited in her role of Quality Improvements. She is currently the lead QA representative for Medical Imaging Northwest.

Kathy received her medical degree from New York Medical College in 1994. She received her radiology degree from Tripler Army Medical Center in 1998.

Kathy can be reached at kchinn@minw.com or 253-583-8670.

Kathleen Floyd – Multicare Health System - Imaging Quality Coordinator

Kathy Floyd oversees the Imaging Quality components across all of MultiCare Health System's Imaging sites. She was instrumental in achieving system-wide ACR advanced modality accreditation in December 2011, which covered 29 site modalities (CT, MRI, PET, NUC MED, US – 3 mammo sites were already accredited).

Kathy has 33 years of experience as a Radiologic Technologist, which includes 20+ years specializing in Mammography, 10+ years as the Mammography Compliance Coordinator and 5 years in her current system-wide role as Quality Coordinator, covering all Imaging modalities. Kathy is also part of the LEAN Coordinator Network at Multicare.

She earned her AAS and ATA (Radiologic Technology) from Tacoma Community College and is ARRT registered with advanced certification in Mammography and Quality Management.

Kathy can be reached at kathleen.floyd@multicare.org or 253-459-6463.

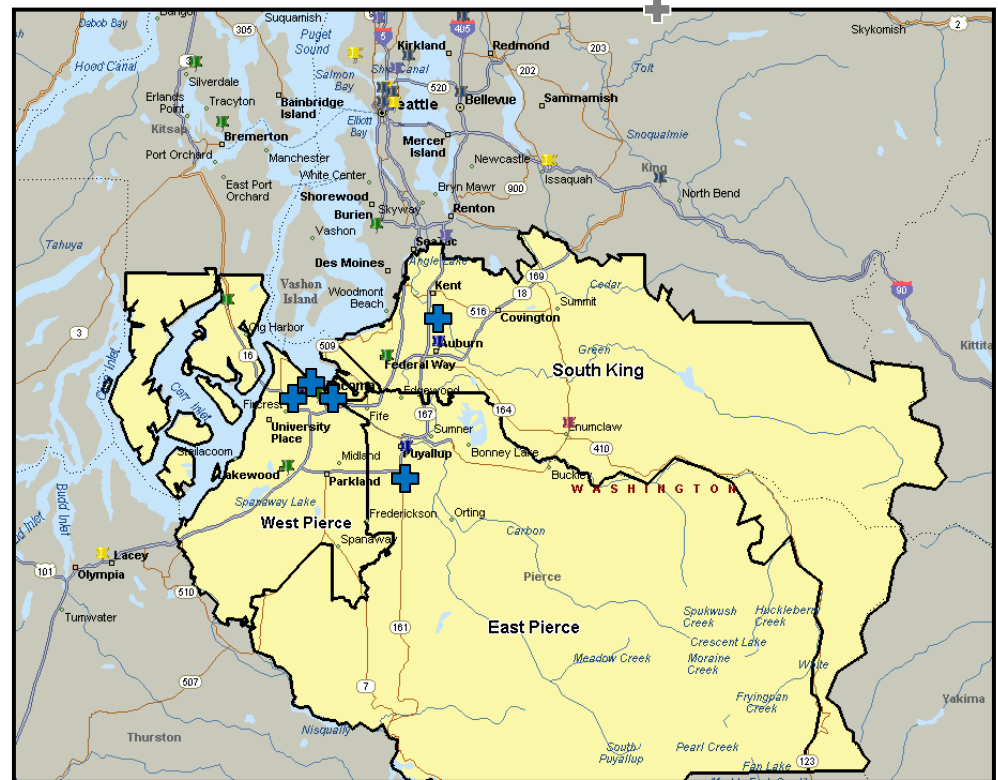
Objectives

- Overview of Quality Improvement processes in Imaging at Multicare Health System (MHS)
- Identify ‘Problems’ that faced MHS in the past
 - Hot topics
 - ED TAT
 - Peer review
 - Technologist QA
- Identify ‘Solutions’ used to solve those problems
 - Quality Coordinator role
 - Professional services strategy
 - Imaging QA Committee
 - Imaging Executive Team
 - Lean methods
 - Standard tools
 - Peer review software
 - Radimetrics software – covered by our Radiation Safety Officer in next presentation

MultiCare Health System



- Not-for-profit health system based in Tacoma, Pierce County, Washington (40 miles south of Seattle)
- Founding roots – Tacoma’s first hospital in 1882
- 5 acute care facilities with 988 beds, 7 ASC’s, 7 UCC’s and 20 outpatient imaging sites of care performing 450,000 studies/year
- 535 FTE employed providers in MultiCare Medical Associates
- Top 10 in IMS 2012 Top 100 Integrated Health Networks
- Mission: Quality Patient Care
- Values: Respect, Integrity, Stewardship, Excellence, Collaboration, Kindness



5 MultiCare hospitals include:

- Auburn Medical Centre (Auburn)
- Good Samaritan Hospital (Puyallup)
- Tacoma General Hospital (Tacoma)
- Allenmore Hospital (Tacoma)
- Mary Bridge Childrens' Hospital (Tacoma)

MultiCare Health System - Imaging



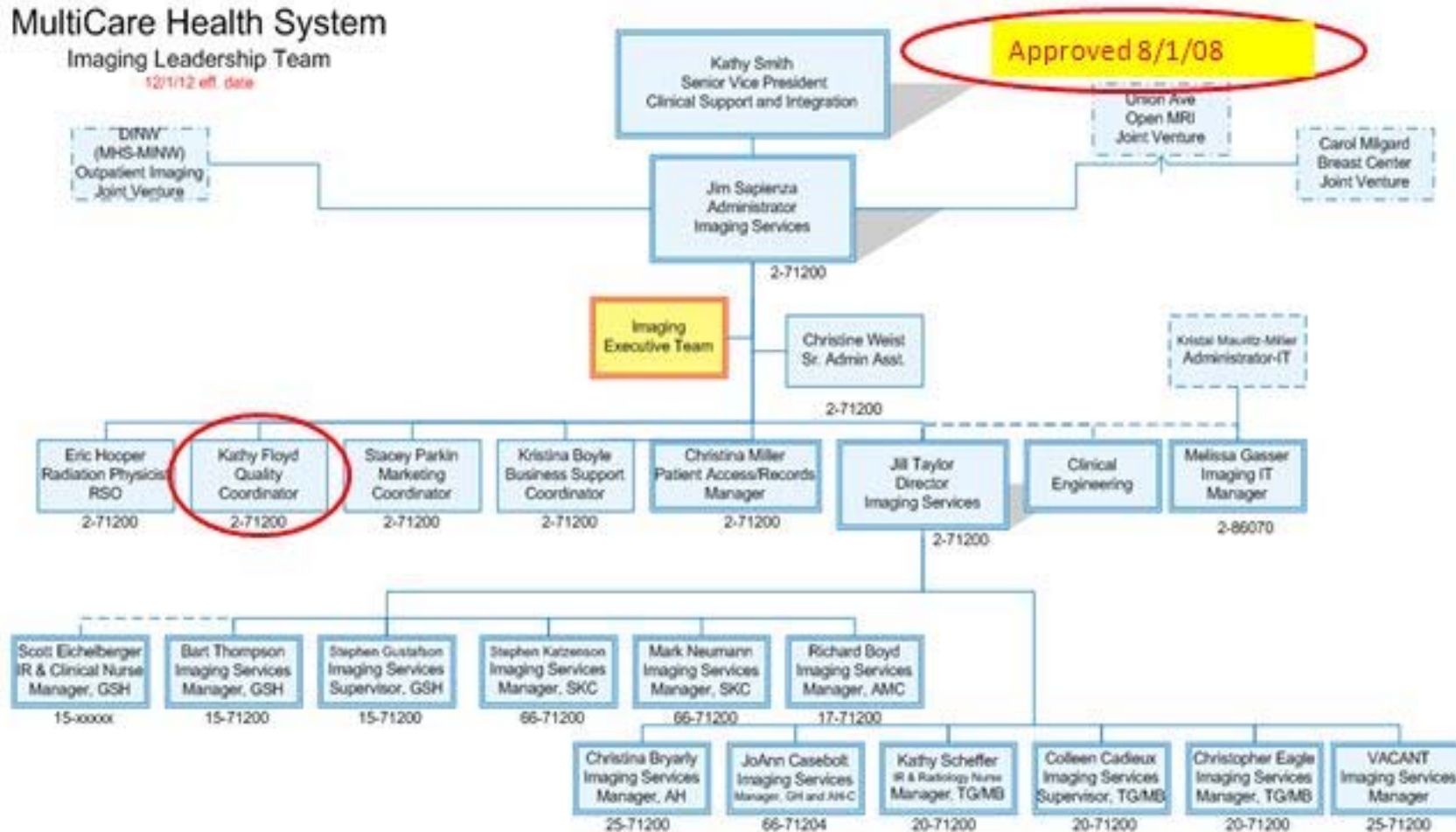
Vision: we connect patients and providers through innovative and integrated technology in a caring and compassionate environment supporting excellent clinical outcomes.

Problem: In 2008, MultiCare Health System, a 5 hospital - 20 imaging clinic system, with 3 radiology groups faced perceptions of lack of standards for quality and service from ordering providers of imaging exams. Through two different calls for action from the Medical Staff Executive Committee and from the office of the CEO, Imaging Administration and Radiology Group leaders agreed on a cooperative approach.

Solutions:

1. Organizational Structure – Create a dedicated Quality Role – The Imaging Quality Coordinator
2. Professional Services Strategy– Align and focus Radiology Groups with Health System through accountable metrics by formation of the Imaging Executive Team (IET) through the Shared Quality Service Agreement (SQSA)
3. Imaging QA Committee – Oversee peer review and processes

Solution 1. Organizational Structure – adding Imaging Quality Coordinator



Solution 2. Professional Services Strategy

- Completion of Shared Quality and Service Agreement (SQSA) between MHS, Medical Imaging Northwest (MINW) and Tacoma Radiology Associates (TRA) Groups effective January 1, 2010; Vantage Group (Vrads) added January 1, 2013
 - Quality and Service Metrics included
 - Metrics track and trend radiology group performance
 - Metrics tied to incentive compensation for both groups
- Imaging Executive Team (IET) created as governing body
- KPI's (Key Performance Indicators) developed
 - 100 possible metrics reviewed
 - 6 chosen as KPI's
- Highest weighted metric: Report TAT to ED: FROM Exam complete TO Actionable Report available to ED Provider
 - Rapid Process Improvement Workshop (RPIW) in 2009 to address issue of ED TAT
 - Determine what is Actionable Report
 - Develop strategies to improve report TAT – set Target and Best Practice goals

ED Provider & Radiologist

What is an “actionable” report?

1. Answers the clinical (disposition) question.
2. Includes incidental findings that may require follow up.
3. Understanding - There is a process for discrepancies between preliminary and final reports when both exist
 - Actionable Report can always be found in PACS.

Tacoma General Hospital ED-Imaging Report TAT : Rapid Process Improvement Workshop (RPIW) TEAM - April 2009



Back row: Kevin Ridnour, RT, Jim Sapienza, Jeff Greagrey, RT, Stephen Imbriaco, Laura Kinney, Paul Houle, Heather Marshall, MD, Mike Dowd, MD
Front Row: Maurya Radvilas, Jaime Del Campo, MD, Mara McMahan, RN, Charlene Sole, RN

ED-Imaging TAT RPIW Target Sheet

MHS Imaging Target Sheet – 90 Days

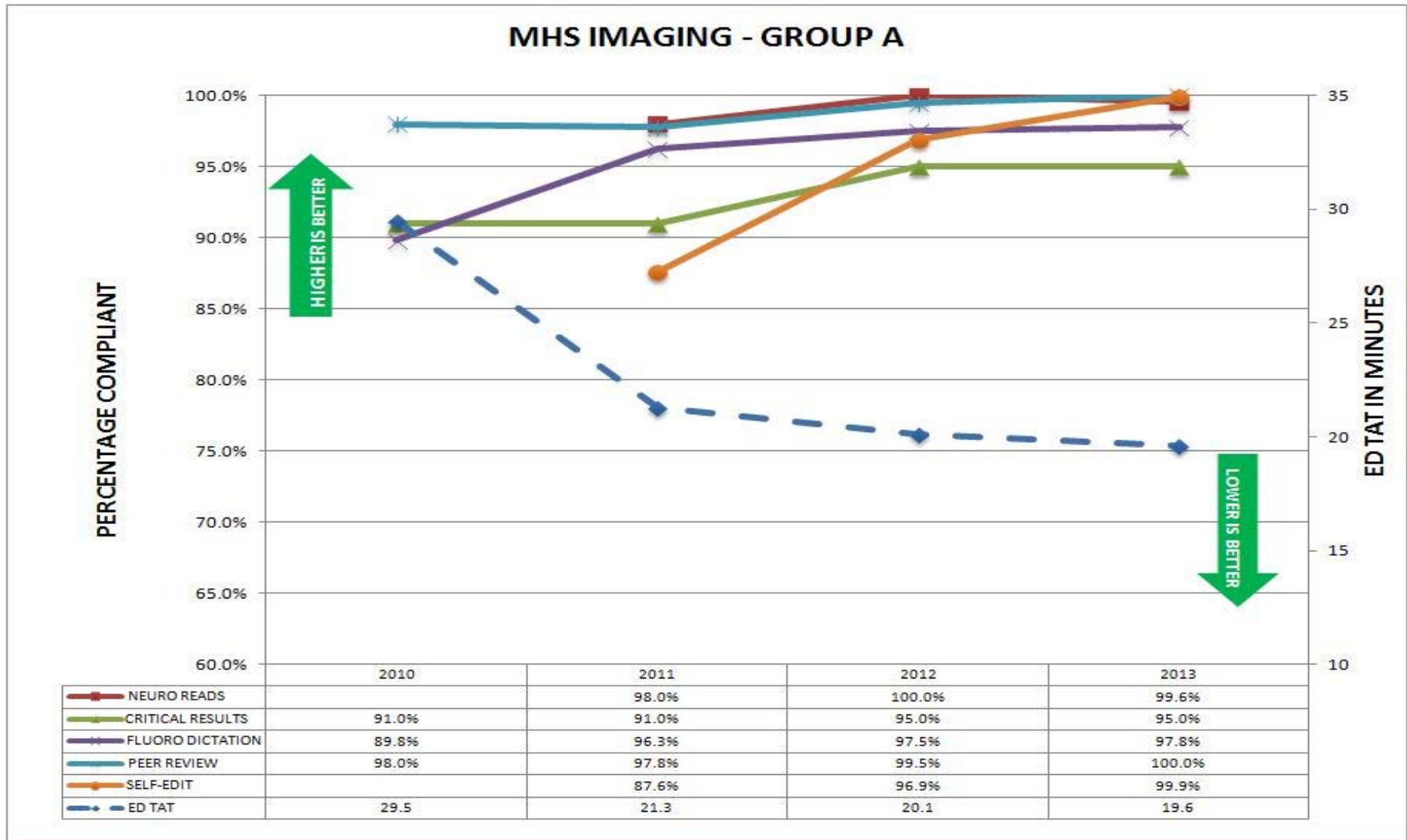
Team Name: ED-Imaging Communication and Final TAT	Date: April 13-17, 2009
Department: ED/Imaging	TAKT Time: 11.78 minutes (11 minutes 48 seconds)
Product/Process Summary: Reduce the overall lead time for imaging exams in the ED.	Team Leader: Maurya Radvilas Workshop Leader: Jim Sapienza Operational Owner: Crystal Billings, Maurya Radvilas, Tod Wurst MD, Andy Levine, MD OE Consultants: Paul Houle, Laura Kinney

Metric (units of measurement)	Baseline	Target	Day 2	Day 3	Day 4	Final	30 days mm/dd/yy	60 days mm/dd/yy	90 days mm/dd/yy	% Change
Space (square feet)	n/a	n/a								
Inventory (dollars)	n/a	n/a								
Parts Travel	n/a	n/a								
Staff Walking Distance (steps) diagnostic tech for dx tech portable	201	100				104	201	TBM	201	0%
Lead Time (hr:min)										
1. CT: ED order to result viewed (Actionable Report)	1. 2:25	1:12					1. 1:24		1. 1:06	1. -54%
2. Dx: ED order to result viewed (Actionable Report)	2. 2:00	1:00					2. 0:56		2. 0:25	2. -79%
3. CT: ED order to tech complete	3. 1:30	0:45	TBM	TBM	TBM	TBM	3. 0:53	TBM	3. 0:54	3. -40%
4. Dx: ED order to tech complete	4. 0:18	0:09					4. 0:27		4. 0:29	4. +61%
5. CT: Tech complete to final report	5. 3:56	1:53					5. 2:13		5. 1:13	5. -69%
6. Dx: Tech complete to final report	6. 2:21	1:10					6. 2:20		6. 1:38	6. -30%
Work in Process (WIP) (units observed in the process @ 3:00p & 9:00p) CT: Completed/Ordered = % exams with final report Dx: Completed/Ordered = % exams with final report	3p:CT=33% Dx=70% 9p:CT=40% Dx=53%	≥50%	3p:CT50% DX 77%	3p:CT 82% DX 33%		3p:CT 82% DX 33%	3p:CT 44% DX 52%	TBM	3p:CT 35% DX 58%	3p:CT 2% DX -12%
Standard Work In Process (SWIP) (lead time/takt time); target SWIP should be target lead time/takt time										
Quality (defects)(%) Delays due to: 1.Dx: Will-calls (1) 2.CT: waiting for lab draws/results, IV placement, or other (>15 min)	1. 14% 2. 28%	≥50%	1. 0% 2. 30%	1. 0% 2. -		1. 0% 2. 30%	1. 13% 2. 48%	TBM	1. 10% 2. 83%	1. -29% 2. 296%
Productivity Gain (At 90 day measure – 35% CN sent, 65% CT called for patient)										
Environmental, Health & Safety (5S) (levels 1 thru 5)										
Set-up Reduction										
Remarks: (1) Will-calls are those orders which when placed as STAT, require the imaging tech to wait until called to respond										

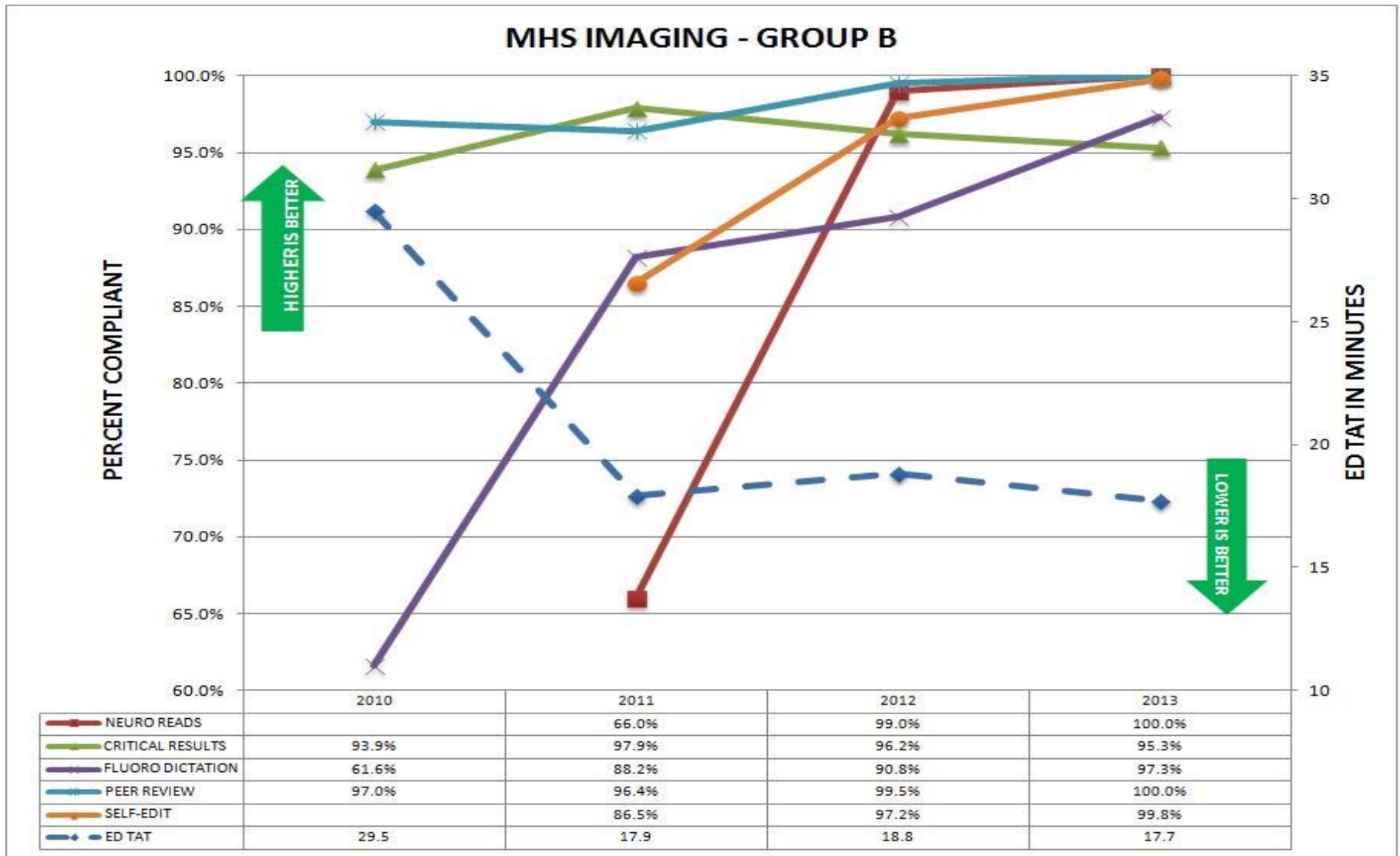
THE FOLLOWING SLIDES SHOW KEY PERFORMANCE INDICATOR (KPI) IMPROVEMENT

- 4 year KPI performance Group A – slide #12
- 4 year KPI performance Group B – slide #13
- 2013 KPI performance Group C – slide #14
- Summary of 2013 YTD current status for all 3 Radiologist Groups A, B, C – slide #15

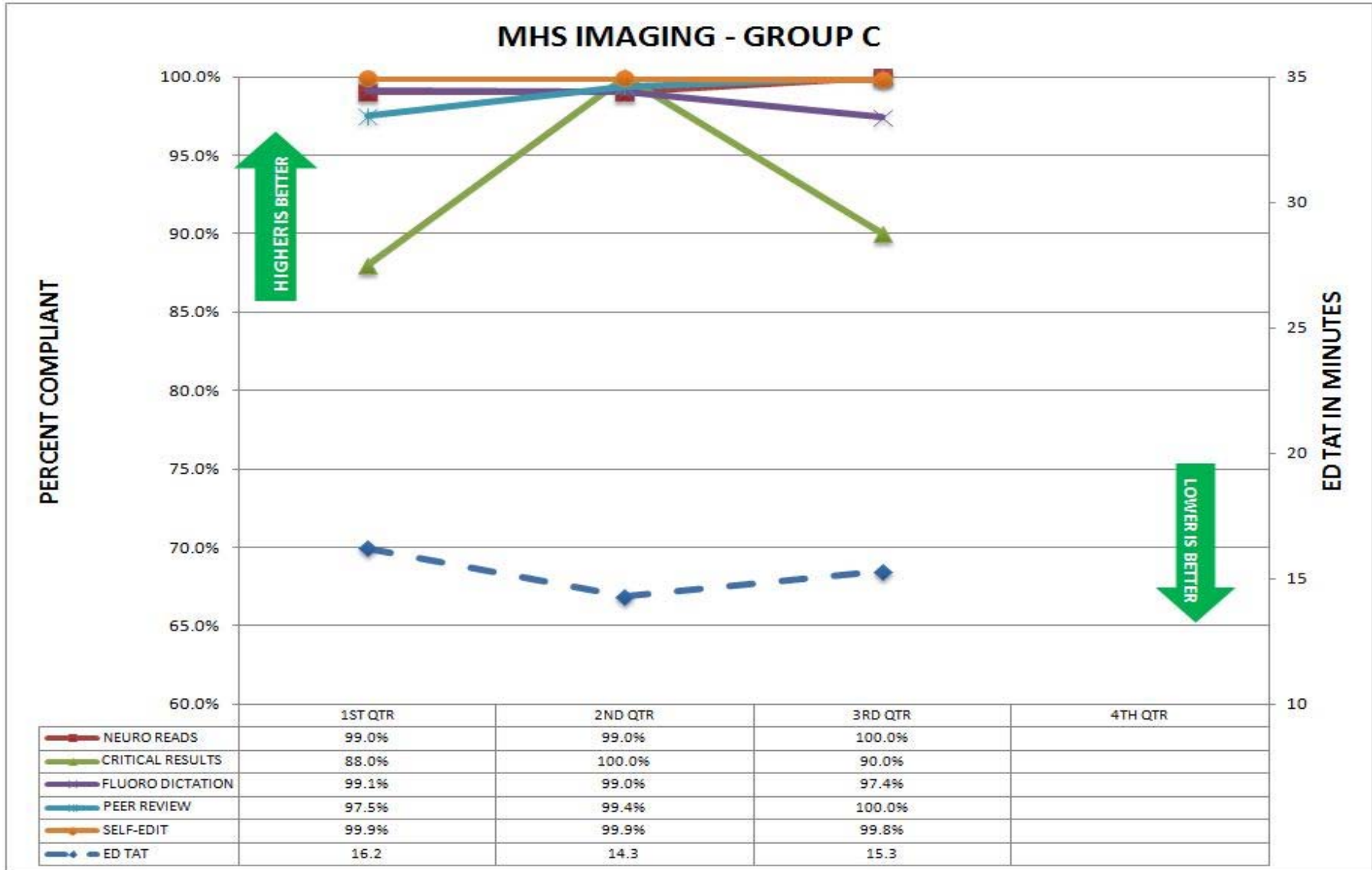
2010-2013 SQSA KPI trends showing annual improvement in quality and service metrics (reference slide 5 – “2. Professional Services Strategy”)



2010-2013 SQSA KPI trends showing annual improvement in quality and service metrics (reference slide 5 – “2. Professional Services Strategy”)



2010-2013 SQSA KPI trends showing annual improvement in quality and service metrics (reference slide 5 – “2. Professional Services Strategy”)



3RD QTR 2013 SQSA KPI SUMMARY

COLORS ARE BASED ON YTD VALUES



METRIC	DESCRIPTION	BEST PRACTICE	TARGET	2012 END OF YEAR BASELINE GROUP A/B	GROUP A QTR/YTD	GROUP B QTR/YTD	GROUP C QTR/YTD
QUALITY							
Quality Reads by NeuroRadiologists	Final reads for MRA's and CTA's of head/neck within 24 hours, by CAQ NeuroRadiologist (or within 2 years of fellowship-training and CAQ eligible). In 2013, Group C readers include both CAQ Neuro (MRA) and CAQ IR (CTA). Select patients may be read by Pediatric Radiologist.	99%+	90%	100%/99%	99.1%/99.6%	100%/100%	100%/99.3%
Critical Results	Critical (Test) Result called to Ordering MD, or appropriate designee, for CT Pulmonary Angiogram (PE), and documented in the final report	99%+ documented in report	95% documented in report	95%/96%	95%/95%	97%/95%	90%/93%
Fluoroscopy exposure time - PQRI Measure 145	Documentation of radiation exposure time in final reports for procedures performed by radiologists using fluoroscopy	99%+	90%	98%/91%	97.6%/97.8%	97.9%/97.3%	97.4%/98.6%
CUSTOMER SERVICE							
Radiologist Peer Review	PeerVue assigned case completion rate of <= 30 days **Group C: % of Budgeted peer review cases completed (not peerVue)	99%+	95%	99.5%/99.5%	100%/99.6%	100%/99.7%	100%/98.6%
ED TAT	Report turnaround time to ED from exam complete to ACTIONABLE report available to ED physician (average)	20 minutes	30 minutes	20.1/18.8	19.3/19.6	18.6/17.7	15.3/15.3
Self-edits vs. send to editor by all Radiologists	Self-edit total for group in PowerScribe (or Nuance), with a goal of 100% self-edit to eliminate need for transcription. Reduce cycle time, improve efficiency, sustain quality.	99%+	98%	99.8%/99.7%	99.9%/99.9%	99.9%/99.8%	99.8%/99.8%
Imaging Services	NOTE: COLORS ARE BASED ON YTD NUMBERS	Best Practice	Target		Approaching Target	Below Target	15

Solution 3. Imaging QA Committee

- MHS Diagnostics and Procedure (D&P) Committee chartered the Imaging QA Committee in Summer 2008 to oversee all Imaging incidents and trends, to perform case review, and to report findings to the MHS Peer Review Committee
- Materials and Methods include (see slide 17 for logos):
 - LEAN methodologies and tools – covered in earlier presentation
 - ACR advanced modality accreditation – achieved in late 2011
 - MEQIM/MIDAS incident reporting system – tied in with EMR (EPIC) - 2007
 - EPIC/Radiant RIS reporting - 2010
 - McKesson Radiology™ PACS - 2005
 - Nuance/Powerscribe 360 automated reporting
 - peerVue/ Qualitative Intelligence & Communication System (QICS®) Radiologist and Technologist peer review - 2009
- Hot Topic #1 – ED-Imaging Report Turn-around Time - covered in previous slides
- Hot Topic #2 – Peer Review


MultiCare Health System - Imaging



Core Radiology Applications – Standard across System
Effective October 1, 2013

Electronic Medical Record (EMR) 
Radiology Information System (RIS) – Radiant (EPIC module)

Picture Archiving and Communications System (PACS)


Peer review and Tech QA software


Voice Recognition Dictation (VR)


Hot Topic #2 – Peer Review

MHS chose a web-based software solution because:

- In 2009, we set a goal of achieving system wide American College of Radiology (ACR) advanced modality Accreditation by end of 2011
 - At the time, only our mammography sites and a few ultrasound modalities were ACR accredited
 - By the end of 2011, 7 CT, 7 MR, 5 NM, 2 PET/CT, 8 US and 3 Mammo sites achieved accreditation covering 8 physical locations system-wide
- MHS expectation for Radiologist Peer Review coupled with the supplementary requirement for ACR Accreditation
 - ACR's RadPeer did not meet our needs for automation with an internal tracking system and robust reporting
 - The software solution we chose (peerVue®) offered a very configurable, custom designed, PACS integrated method of meeting this requirement
 - Participating Radiologists could receive random assigned cases, based on their modality specialties
 - Cases requiring further review could be sent to a different space assigned to a review committee
- The solution also offered a method for Radiologist to Technologist QA feedback
- We could design 'spaces' based on functionality that met our needs
- The solution also offered other options such as Critical Results and ED Provider feedback (we decided not to use these options)

Organizational Solution Configuration

Current Solution Status:

- 25 Radiologists Medical Imaging Northwest (MINW) – 25 participate in receiving assigned studies
- 47 Radiologists Tacoma Radiological Association (TRA) – 21 participate in receiving assigned studies
- 25 Radiologists Vantage – joined late 2012, solution expansion in 2014
- 1 leader from each Radiology Group receives significant issue alerts from both the peer review, trauma, code neuro and transcription spaces – this comprises the Quality Improvement (QI) Committee referenced in later slides
- 8 Orthopedic Physicians also participate in assigned studies
- 27 Technologist Leads – covering CR, CT, MR, NM and US at multiple locations – receive assigned cases for peer review and QA issues from the Radiologists
- 9 Imaging Managers across the system review quality issues from the Leads
- 1 Transcription QA person – reviews random selection of self-edited reports
- 2 representatives from Trauma and Code Neuro Committees

Solution Implementation Timeline

- November 2009 - Our first go-live for first 2 Radiologist Groups
 - On-site applications and set-up for spaces, PACS integration
 - On-site training of certified resources and Radiologist ‘superusers’
- February 2010 - Added Technologist QA space
 - MHS certified resources trained Technologists and updated Radiologists about new space
- June 2010 - Added Orthopedic Physicians
 - MHS certified resources trained Orthopedic Physicians

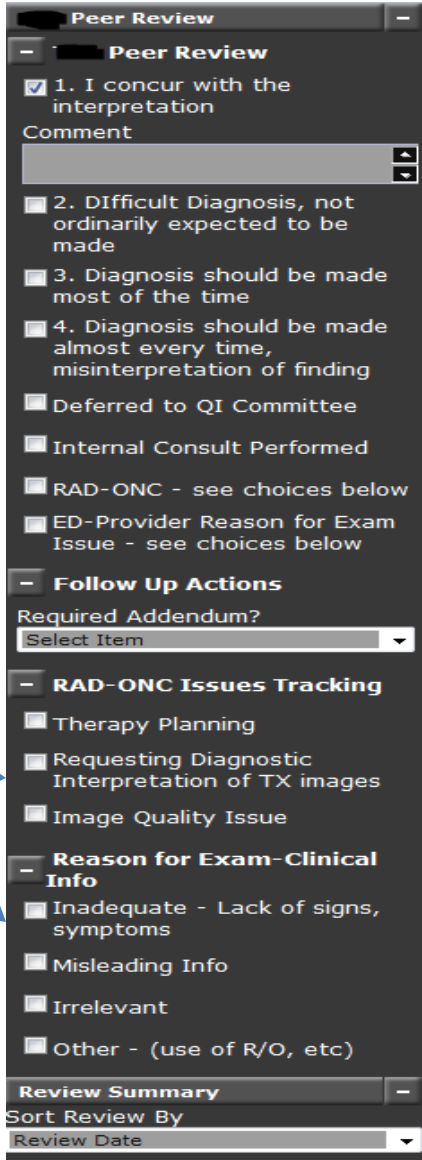
Additional Functionality Evolution

- September 2011 – upgraded to Qualitative Intelligence & Communication System (QICS®) version 6.3.9
 - Minimal overall impact to end-users – no additional training needed
 - Added HL7 interface to prevent Radiologist and Physician self-review
 - Created complex automated workflows with Closed-Loop Engine
 - Spent several weeks testing new workflows and alerts
 - Significantly improved reporting functions
 - Added HL7 patient location as a report column for sorting in the Technologist QA space
 - Added ‘Date Reviewed’ to Completed Worklists – at a glance review for Radiologist 30 day requirement metric
- February 2013 – upgraded to QICS® version 7.2.0
 - Minimal overall impact to end-users – no additional training needed
 - New “look & feel” of panels – darker backgrounds to minimize distractions in PACS
 - Improved assigner ‘engine’ capabilities
 - Improved reporting functions
 - Ability to schedule reports
- April 2014 – planned add of 3rd Radiology Group after recent October 2013 PACS conversion

Overview of Radiologist's Core peerVue/QICS workflows

Radiologist Peer Review:

- On-the-fly peer review panel allows for review selections following ACR Radpeer® Lexicon (1-4)
 - Also has option of “deferred to QI Committee” if unsure of category
 - If category 3, 4, or deferred is selected, the case is automatically forwarded to the “QI Committee” for further review
 - An alert pop-up is automatically sent to the ‘Reviewee’ (initial interpreting Radiologist)
- Offers documentation of followup actions
 - If an addendum is required, an alert pop-up is automatically sent to the ‘Reviewee’ and opens up to the ‘Addendum Review’ space
- Offers selection of ‘RAD-ONC’ and ‘Reason for Exam’ issues tracking
- Offers selection to track ‘Internal Consult Performed’ cases
- Assigned cases panel very similar, minus the alternative tracking choices
 - Participating Radiologists receive up to 3 cases per week for review



Peer Review

Peer Review

1. I concur with the interpretation

Comment

2. Difficult Diagnosis, not ordinarily expected to be made

3. Diagnosis should be made most of the time

4. Diagnosis should be made almost every time, misinterpretation of finding

Deferred to QI Committee

Internal Consult Performed

RAD-ONC - see choices below

ED-Provider Reason for Exam Issue - see choices below

Follow Up Actions

Required Addendum?

Select Item

RAD-ONC Issues Tracking

Therapy Planning

Requesting Diagnostic Interpretation of TX images

Image Quality Issue

Reason for Exam-Clinical Info

Inadequate - Lack of signs, symptoms

Misleading Info

Irrelevant

Other - (use of R/O, etc)

Review Summary

Sort Review By

Review Date

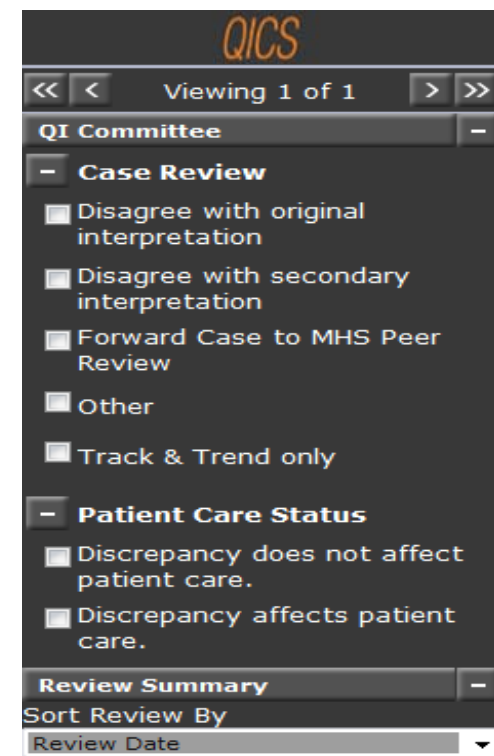
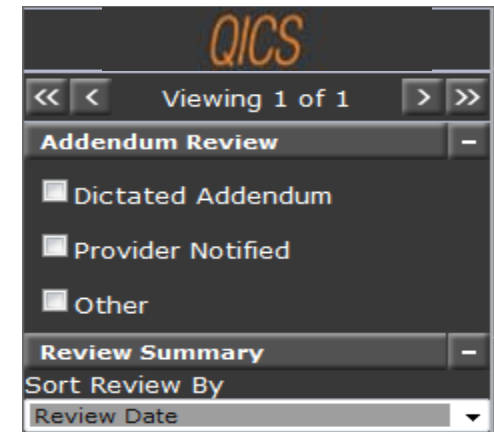
Other Radiology workflows

- Addendum Review
- Trauma Case Review
- Transcription consistency review
- Technologist Image Quality Review

Overview of current workflows

Other Radiologist workflows:

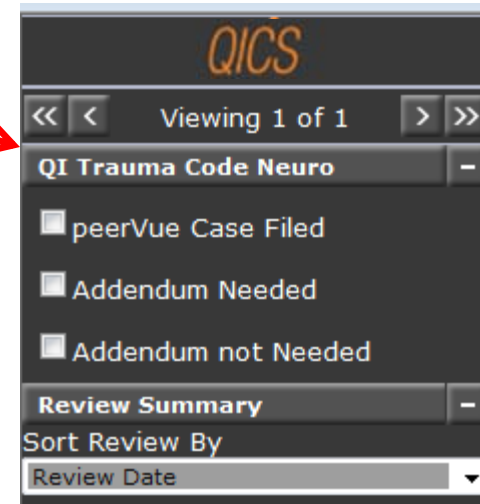
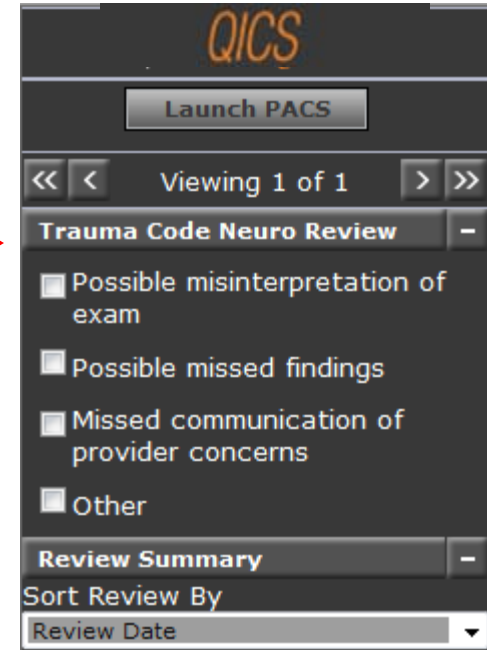
- Addendum Review
 - When an addendum to a report is requested, originating from either assigned or on-the-fly peer review panel or by the QI Committee, the case automatically forwards to the ‘Addendum Review’ space and a pop-up alert is sent to the Reviewee
- QI Committee
 - Committee members:
 - Radiologist representative from 2 radiologist groups
 - Will add representative from 3rd group next year
 - Imaging Quality Coordinator (prepares case spreadsheets, sets up meetings, prepares reports for Imaging QA Committee)
 - Workflows set up to send alert to Reviewee when either one of the first 2 boxes are checked under ‘Case review’
 - Workflow set up to send alert to Reviewee if ‘Discrepancy affects patient care’ is checked under ‘Patient Care Status’ – this triggers a request for an addendum – case sent to ‘Addendum Review’ spaces noted above



Overview of current workflows

Other Radiologist workflows:

- Trauma/Code Neuro case review:
 - Representatives from both MHS Trauma Committee and MHS Code Neuro Committee have access to input cases requesting QI Committee review
 - Possible missed or incorrect findings
- QI Committee review of Trauma Code Neuro cases
 - Cases are reviewed along with peer review cases during QI Committee meetings (usually every 2 months)
 - If warranted, the case is entered into the peer review spaces workflow

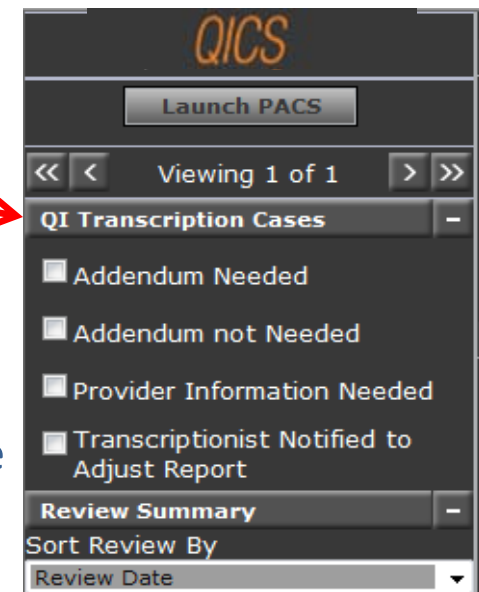
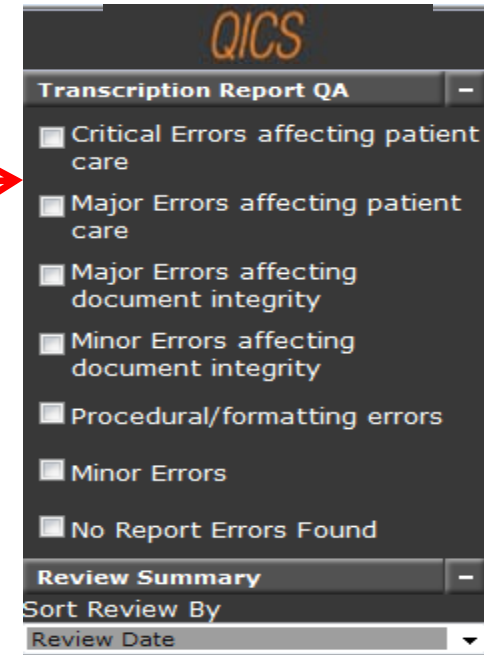


Overview of current workflows

Other Radiologist workflows:

- **Transcription QA Review**
 - 15 random cases assigned 3 days a week to the Transcription QA designee
 - Over 99.9% of dictated cases are self-edited
 - This space provides transcription random review of self-edited cases
 - If any of the top 3 boxes are checked, the case is automatically sent to the 'QI Transcription Cases' space and a pop-up alert is sent to all members of the QI Committee

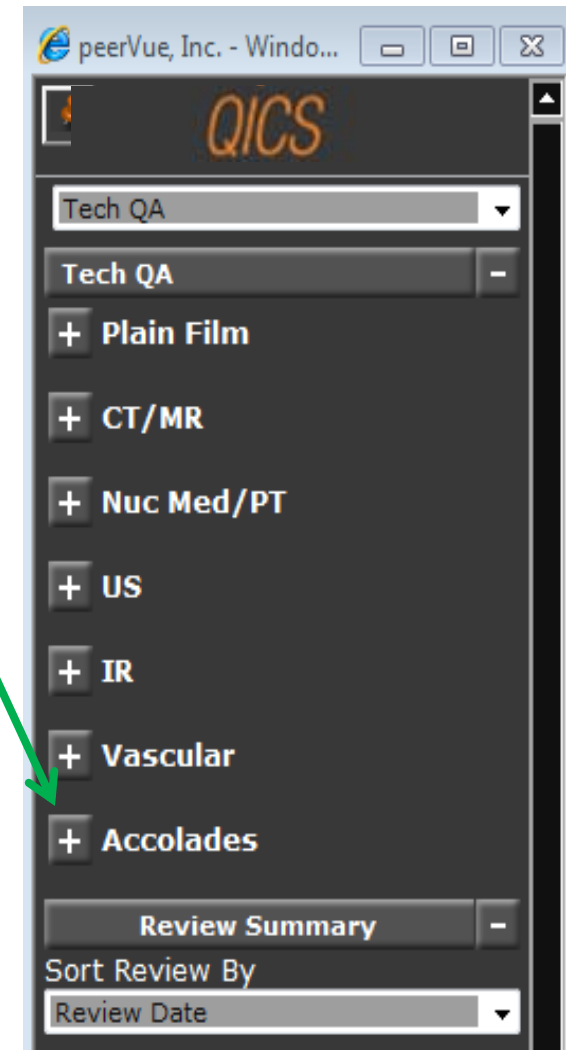
- **QI Committee review of Transcription cases**
 - Either one of the Medical Directors reviews the case to determine if an addendum is needed
 - If yes, the case is automatically sent to the 'Addendum Review' space and the Reviewee is sent a pop-up alert that an addendum needs to be dictated



Overview of current workflows

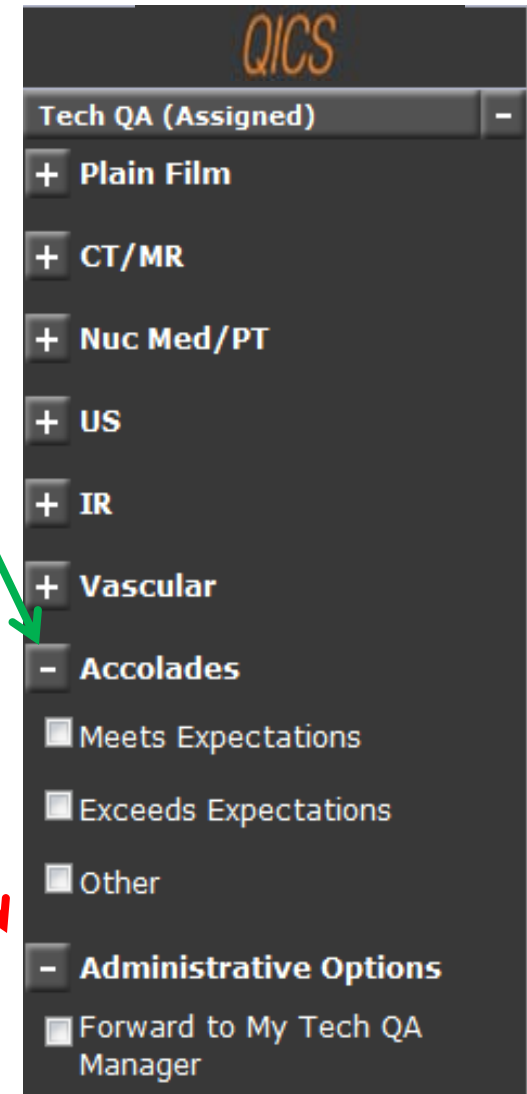
- Technologist QA

- Each modality has a section on the panel with modality specific QA issues (based on exam modality, that section is open when the panel is chosen – compressed here for the picture)
- Accolades section for calling out exceptional exams
- Used primarily for Radiologist QA feedback to the Lead Technologists
- Also used by Leads for ‘on-the-fly’ reviews
- Specialized workflows set up for directing the submitted panel to the correct Lead Technologist based on the modality and patient location
- These workflows send the case to the ‘Lead Technologist QA Review’ space and a pop-up alert to the appropriate Lead Technologist to review



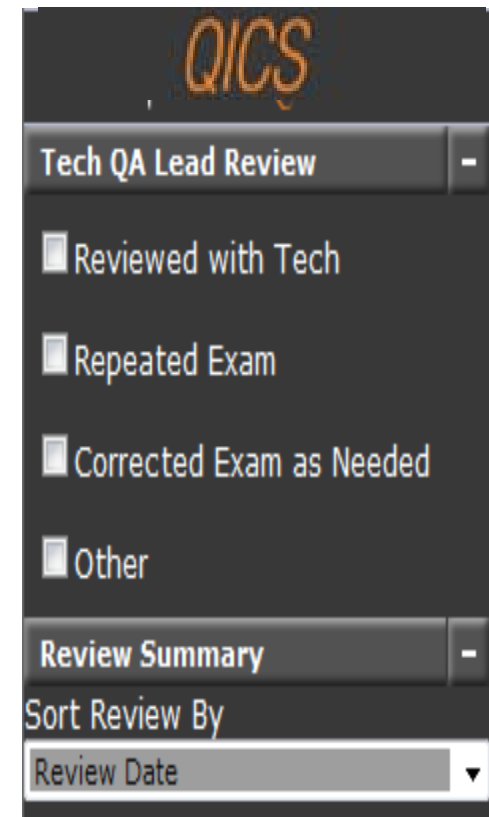
Overview of current workflows

- **Technologist QA - Assigned**
 - Each modality has a section on the panel with modality specific QA issues
 - **Accolades section for calling out exceptional exams**
 - Lead Technologists are randomly assigned up to 3 cases per week by location and modality
 - Under 'Administrative Options', if the Lead feels that the case needs Manager review, there are specialized workflows set up to automatically direct the submitted panel to the correct Manager based on the modality and patient location
 - These workflows send the case to the 'Technologist QA Manager Review' space and a pop-up alert to the appropriate Manager to review



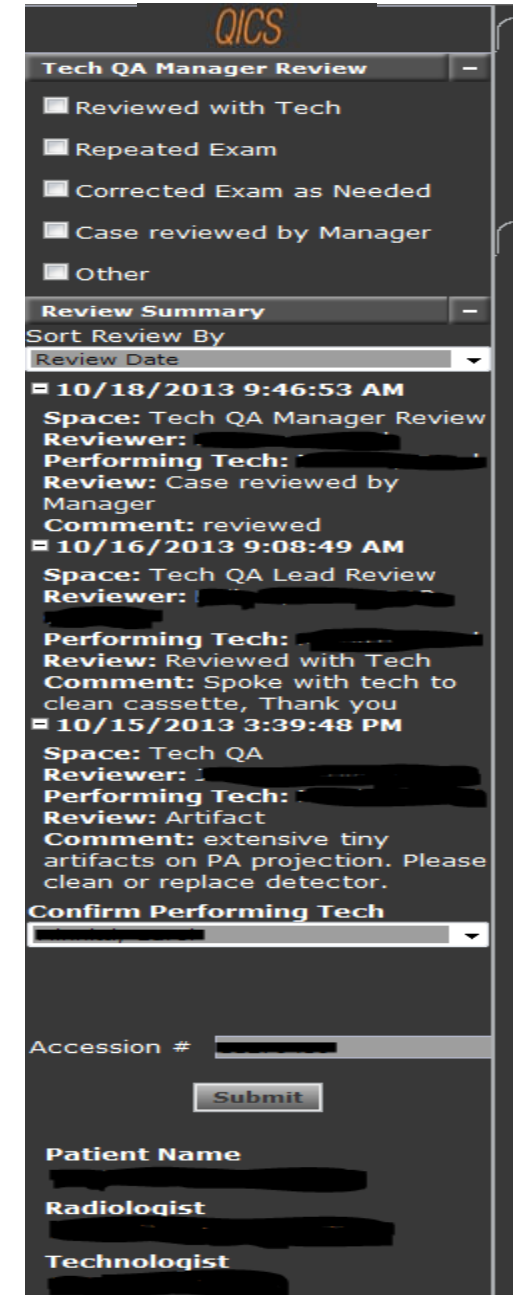
Overview of current workflows

- Technologist QA Lead Review
 - ‘Technologist QA’ submitted cases from Radiologists are sent to this space
 - Lead Technologist reviews case with performing Technologist
 - Documents on this panel any actions taken
 - Specialized workflows automatically send the submitted case to the appropriate Manager based on modality and patient location
 - These workflows send the case to the ‘Technologist QA Manager Review’ space and a pop-up alert to the appropriate Manager to review



Overview of current workflows

- Manager Review of Technologist QA cases
 - Technologist QA cases are automatically sent to Imaging Managers in this space from both the Technologist QA Lead Review space and the Technologist QA (Assigned) space based on modality and patient location workflows
 - Managers review the input from the Lead Technologist and Radiologist and then close out the case with any further actions (if applicable)
 - If the original case was initiated by a Radiologist using the Technologist QA space, the Radiologist is sent a pop-up alert stating their case was reviewed by both the lead and manager and gives them the opportunity to see all comments and actions taken



QICS

Tech QA Manager Review

- Reviewed with Tech
- Repeated Exam
- Corrected Exam as Needed
- Case reviewed by Manager
- Other

Review Summary

Sort Review By
Review Date

- 10/18/2013 9:46:53 AM

Space: Tech QA Manager Review

Reviewer: [REDACTED]

Performing Tech: [REDACTED]

Review: Case reviewed by Manager

Comment: reviewed
- 10/16/2013 9:08:49 AM

Space: Tech QA Lead Review

Reviewer: [REDACTED]

Performing Tech: [REDACTED]

Review: Reviewed with Tech

Comment: Spoke with tech to clean cassette, Thank you
- 10/15/2013 3:39:48 PM

Space: Tech QA

Reviewer: [REDACTED]

Performing Tech: [REDACTED]

Review: Artifact

Comment: extensive tiny artifacts on PA projection. Please clean or replace detector.

Confirm Performing Tech

Accession # [REDACTED]

Patient Name
[REDACTED]

Radiologist
[REDACTED]

Technologist
[REDACTED]

Additional Workflows Accommodated by the Software

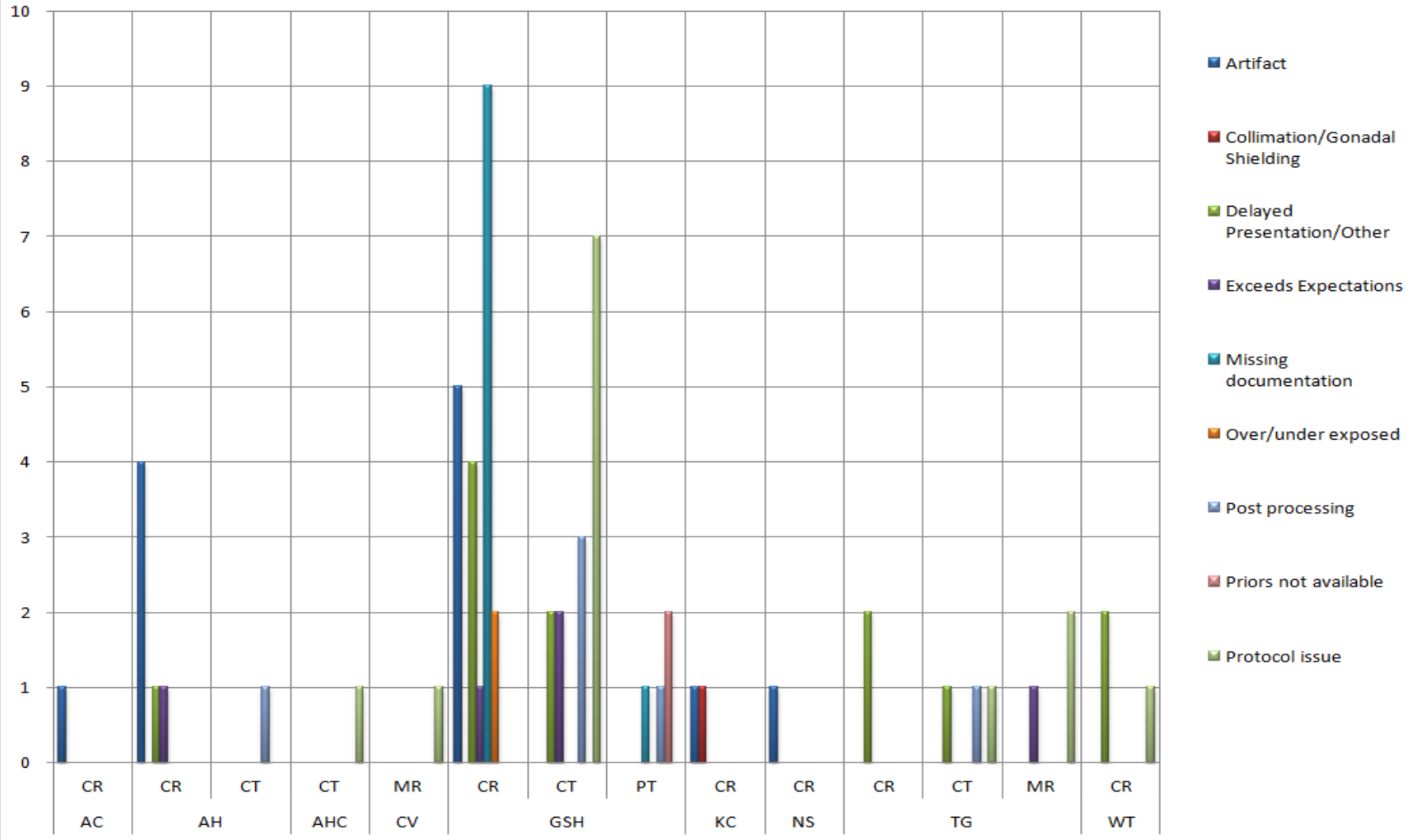
- Radiologist and MHS Shared Quality and Service Agreement (SQSA) metrics
 - One of the metrics is that assigned cases be completed ≤ 30 days
- Radiologist OPPE (Ongoing Professional Practice Evaluation)
 - In addition to timeliness of reviewing assigned cases – track assigned or on-the-fly cases with significant findings from peer review
- Performance Improvement projects
 - Using reporting functionality, track and trend Technologist QA issues by site and modality
- Transcription oversight of Radiologist self-edited reports
 - Significant errors are sent to QI committee for review – workflow to send addendum request to interpreting Radiologist
- Track and trend:
 - Request from Radiologists to track RAD-ONC concerns
 - Request from management to track internal consults performed by Radiologists
 - Request from Imaging QA Subcommittee to track ‘reason for test’ issues on orders from A&E Consultants and other providers

Tech QA Reports using peerVue QICS®

- Software supports exporting data from individual 'spaces' in multiple formats, especially Excel
- The following graphs show typical Excel graphs (using Pivot Charts) sent to site managers to share with staff
- The Excel files also contain the actual exam data for manager review
- The first slide shows one month of data for all sites based on cases submitted by the radiologists
- The next 2 slides show a 4 month time span for all sites; enables focusing on trends
 - Charts are also available in the report for each specific site for the same time frame

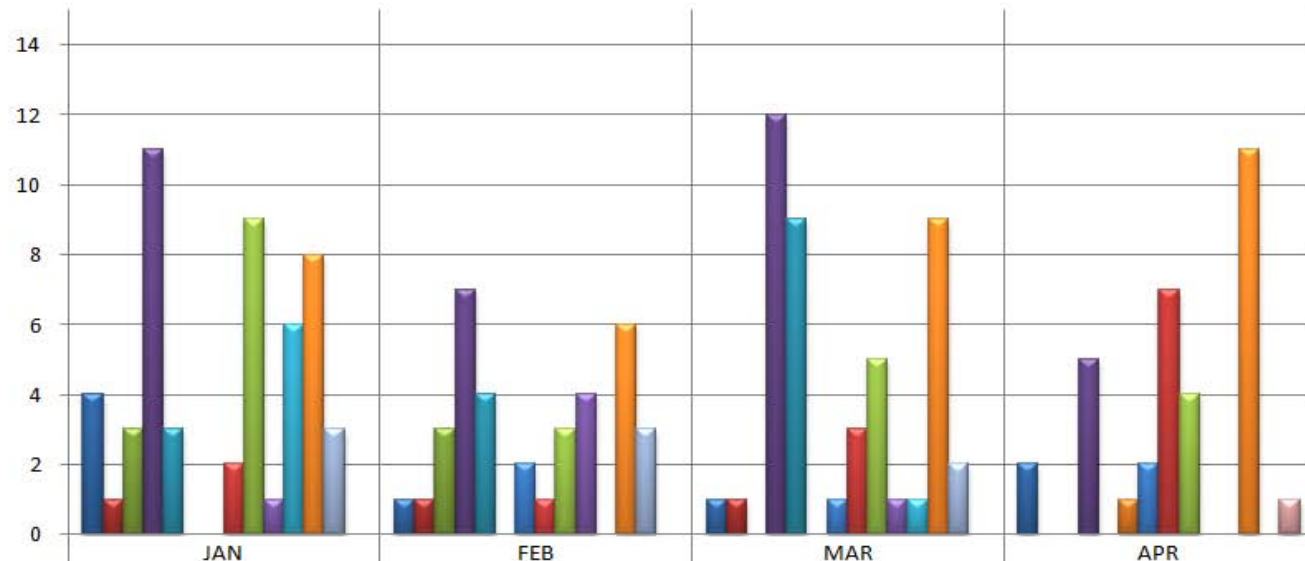
EXAMPLES OF PROCESS IMPROVEMENT REPORTS GENERATED

OCTOBER 2013 TECH QA FROM RADIOLOGISTS - ALL SITES



EXAMPLES OF PROCESS IMPROVEMENT REPORTS GENERATED

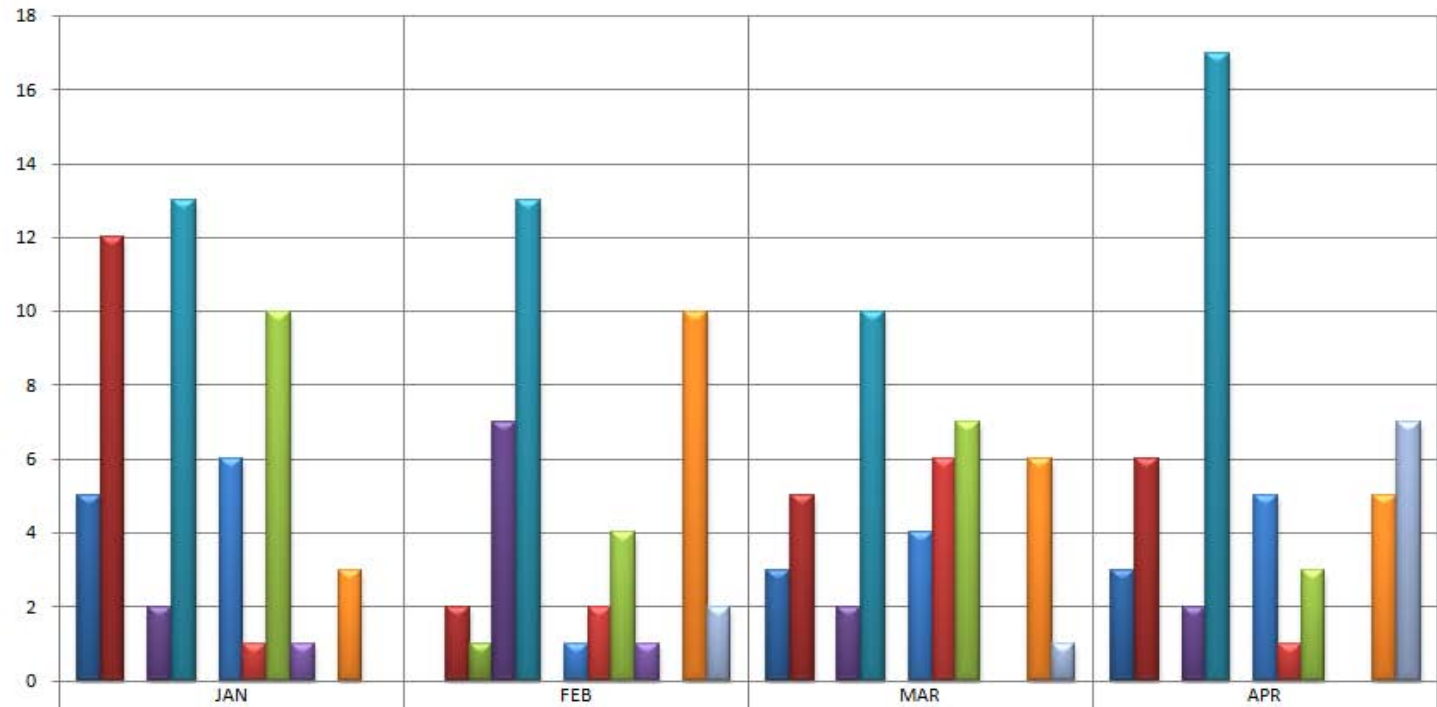
2013 TECH QA FROM RADS - ALL SITES



	JAN	FEB	MAR	APR
ARTIFACT	4	1	1	2
COLLIMATION/GONADAL SHIELDING	1	1	1	0
CONTRAST/BOLUS ISSUE	3	3	0	0
DELAYED PRESENTATION/OTHER	11	7	12	5
INCORRECT LABELING/SIDE MARKERS	3	4	9	0
INCORRECT RAD DOSE	0	0	0	1
MISSING DOCUMENTATION	0	2	1	2
OVER-UNDER EXPOSED	2	1	3	7
POOR POSITIONING/MOTION	9	3	5	4
POST PROCESSING	1	4	1	0
PRIORS NOT AVAILABLE	6	0	1	0
PROTOCOL ISSUE	8	6	9	11
EXCEEDS-MEETS EXPECTATIONS	3	3	2	0
EQUIPMENT FAILURE				1

EXAMPLES OF PROCESS IMPROVEMENT REPORTS GENERATED

2013 TECH QA-ASSIGNED CASES - ALL SITES



	JAN	FEB	MAR	APR
ARTIFACT	5	0	3	3
COLLIMATION/GONADAL SHIELDING	12	2	5	6
CONTRAST/BOLUS ISSUE	0	1	0	0
DELAYED PRESENTATION/OTHER	2	7	2	2
INCORRECT LABELING/SIDE MARKERS	13	13	10	17
INCORRECT RAD DOSE	0	0	0	0
MISSING DOCUMENTATION	6	1	4	5
OVER-UNDER EXPOSED	1	2	6	1
POOR POSITIONING/MOTION	10	4	7	3
POST PROCESSING	1	1	0	0
PRIORS NOT AVAILABLE	0	0	0	0
PROTOCOL ISSUE	3	10	6	5
EXCEEDS EXPECTATIONS	0	2	1	7

KEY LEARNINGS/TAKE-AWAYS:

- Quality Assurance programs are essential to continually improving efficiency, patient safety and providing the highest level of Patient Care
 - Providing review and tracking events across multiple systems and facilities
 - A solution integrating PACS, RIS (Epic) and other systems allowing system-wide standard workflows
- Initial problems faced that prompted more in-depth process improvement
 - ED TAT – Lean Methodology – RPIW bringing together several departments
 - Peer Review
 - Tech QA
- Possible solutions for these problems
 - Quality oversight by Coordinator
 - Quality Committees – Peer Review, Imaging QA
 - Methods (Lean) and tools to aid process improvement
 - Software tools to assist metrics and analysis

Discussion - Questions

