



# QUALITY ASSURANCE PROGRAM IN THE TECHNOLOGIST SPACE:

*ADVANCING KNOWLEDGE, HARNESSING OPPORTUNITIES, AND MAINTAINING ACR COMPLIANT IMAGING.*

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## About Me

In imaging since 2003

Certified in XR, CT, Mammo

Leadership since 2015

Current Manager of Diagnostic Imaging Services for AdventHealth Heartland, Lake Placid campus.

CRA since 2024

QA management of all 4 campuses,

3 hospitals, 1 outpatient center.

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FEBRUARY 20-22, 2026

# AGENDA

- WHAT IS QA
- POSITIVE ATTRIBUTES
- NEGATIVE PERCEPTIONS
- HOW TO CREATE FACILITATION
- TECH BUY IN AND THE IMPORTANCE
- CATEGORIES OF CONCERN
- CONTINUED ACR READINESS
- COMPLIANCE
- UNDERSTANDING THE IMPORTANCE AND USAGE OF RETAKE FUNCTION IN YOUR PACS SYSTEM
- HOW RADIOLOGIST REQUIRED RETAKES CAN AFFECT TAT AND READING DELAYS
- WHY QA IS SO IMPORTANT TO YOUR FACILITY
- FINDING YOUR WHY/CONNECTION

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# WHAT IS QUALITY ASSURANCE?



Quality assurance is a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. (Merriam-Webster, n.d.)



CQI: Continuous Quality Improvement, refers to a process whereby facilities make ongoing efforts to achieve incremental improvements that impact patient care. (Zheng, n.d)

# THE STANDARDIZATION of QUALITY CONTROL

CS516316



# POSTIVE ATTRIBUTES

- Increases awareness regarding the need for quality imaging
- Increases self assessment at the time of exams
- Increases knowledge of proper techniques, positioning, etc.
- Creates educational opportunities
- Upholds our standard of care
- Offers opportunity for motivational goal setting

## NEGATIVE PERCEPTIONS REQUIRING EDUCATION AND REDIRECTION

“ QA IS USED TO DEGRADE OTHERS WORK”

“QA IS A FORM OF PUNISHMENT”

“THEY USE QA TO MICROMANAGE US”

“UGH, I HATE QA, I ALWAYS GET QA'D!!”

# QUALITY ASSURANCE MONITORING



(FARRIS, N.D.)

## **REDIRECTION:**

- **It is leadership's responsibility to ensure our teams understand that the QA program is not punitive in nature, it is a form of constructive criticism used to educate, motivate, and grow our teams. The goal is to create change that betters each member of the team.**
- **Points system is used to identify trends, and alert to learning opportunities, not as a monthly punitive discussion.**
- **Encourage senior technologist to share tips and tricks with newer technologist, and vice versa, never miss a chance to learn! Performing a craft for 20 yrs doesn't mean you can't learn something new!**

## HOW TO:

- Imaging studies are randomly sampled monthly for each technologist and modality
- At least 5- 10 imaging exams per technologist are randomly sampled each month
- Radiologist QA comments from PACS reviewed and recorded monthly, education given to technologist via spreadsheet/email/discussion if needed and QA comment is released to radiologist group closing the communication loop.
- Each technologist receives their own spreadsheet monthly with comments regarding any infractions, accession numbers of patient exams to identify and explore educational opportunities.
- Spreadsheets tally the total QA points per month and show the categories, 1 error equals 1 point, a total of 15 points can be collected monthly, point totals nearing or over 15 result in counseling with manager/supervisor.
- Accession number of exam and explanation given for each point noted

# FACILITATION

**QUALITY MANAGER:** PERFORMS QA FOR MAJORITY OF MODALITIES, ESPECIALLY XRAY OR THEIR MODALITY OF EXPERTISE. RECEIVES DATA FROM OTHER MODAITY LEADS, RECORDS AND REPORTS FINDINGS.

**NON- EXPERTISE MODALITIES:** MODALITY SUPERVISOR OR MODALITY EXPERT PERFORMS QA ASSESSMENT AT BEGINNING OF EVERY MONTH, RECORDS DATA, AND SENDS DATA TO QA MANAGER FOR REPORTING.

QA MANAGER RECORDS RADIOLOGIST QA ENTRIES, RADIOLOGIST RETAKE ENTRIES, AND PACS COORDINATOR ENTRIES. ALL ENTRIES RECORDED IN MONTHLY LOG, BY TECHNOLOGIST, BEFORE INPUT ON SPREADSHEETS.

QA MANAGER ENTERS INFRACTIONS ON TEAM MEMBER SPREADSHEET AND EMAILS ACCORDINGLY. ALSO SEND LIST OF INFRACTIONS TO MODALITY LEADS FOR EDUCATIONAL DISCUSSIONS AND TRENDING EDUCATIONAL OPPORTUNITIES.

MAINTAIN RUNNING SPREADSHEET OF TECHNOLOGIST INFRACTION COUNT TO INVESTIGATE TRENDS

# GAINING TECHNOLOGIST BUY IN

- **TRANSPARENCY**

- Be transparent about why it is important to work on the team's quality to you, them, and the organization. Use active listening when hearing their concerns.

- **EDUCATION**

- Education does not stop when you graduate from college, it is never ending and continuous learning is the way to career growth.

- **RECOGNITION**

- Recognize those who do an exceptional job, those who improve, and those who are working through the learning process. Recognition and praise aren't to be saved for a special occasion; they are a means to grow self confidence and skill confidence over time.



TECHNOLOGIST BUY IN IS THE SINGLE MOST IMPORTANT PIECE OF CREATING A QUALITY ASSURANCE PROGRAM.

QUALITY PROGRAMS ARE SOLEY BASED AROUND BETTERING A PRODUCT, OUR TECHNOLOGIST ARE NOT ONLY SELLING THE COMPANY CULTURE TO THEIR CONSUMERS, THEY'RE IN COMPLETE CONTROL OF CONDUCTING QUALITY CONTROL IN REAL TIME - IT IS IMPORTANT THAT THEY UNDERSTAND HOW SPECIAL THEY AND THEIR JOBS TRULY ARE.

# Incentivizing Buy In – no it's not bribery!

- Use a recognition program to award technologists for no QA monthly.
- Give out kudos awards! Radiologist or QM.
- Hold a drawing each quarter for those who had no QA the whole quarter. Winner receives a gift card, extra recognition points, an incentive to continue their strive for excellence.
- Create a kudos board! Brag on your team and let the world know how proud you are of their work and acknowledge their perseverance.
- Set a 6- month goal to begin, start small and grow over time.
- Drill down your focus points, choose 2 to focus on per modality
- ( they can be the same across the board) Celebrate when they are mastered – and then restart the cycle.
- Make your celebration extra! Party, food, what brings happiness to your team?
- Write encouraging and thank you notes, add them to the spreadsheet email, or hand out cards.

## **CQI is a matter of PDCA cycle**

Much like other projects, it requires planning, action, checking the work, and reassessing before starting the cycle again.

(MASTER CONTROL,N.D.)



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	2023 QA NAME:	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
2		QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD	QM	RAD
3	IMAGE QA																								
4	MARKED WRONG																								
5	TECHNIQUE																								
6	POSITIONING	1																							
7	MOTION																								
8	ORIENTATION																								
9	NO REASON																								
10	NO MARKER																								
11	INCORRECT KVP																								
12	NO TECH SHEET																								
13	INCOMPLETE SHEET																								
14	MISSING IMAGES																								
15	INCORRECT PROTOCOL																								
16	MISSING FLUORO TIME																								
17	OTHER QA																								
18	LEFT IN HOLD/ NO READ																								
19	LEFT IN FAILED STATUS																								
20	EPIC/ORDER ERR																								
21	WRONG PT/EXAM																								
22	RISK EVALS- ER																								
23	QC NOT PERFOR																								
24	TOTAL POINTS	1																							
25	KUDOS																								
26	ACCESSION NUMBER	ADV8675309- pa chest rotated, causing distortion																							

# CATEGORIES OF CONCERN

- Quality of imaging
- Technical characteristics
- Proper positioning
- Adequate exposure
- Motion blur
- Artifacts
- Marker use (wrong/missing)
- Shielding errors (in FOV)
- Retake analysis – radiologist use “retake folder” to send studies back that either need repeats, are missing images, or have errors that require investigation before reading.
- Missing images/series
- Clipped anatomy
- Orientation
- No reasoning/diagnosis listed on image
- Wrong protocol usage
- Missing fluoroscopy time
- Radiologist QA
- EPIC errors

# EMR/PACS SPECIFIC CATEGORIES

- Left in hold/ no read status in PACS
- Left in failed status
- Order errors
- Contrast not charged
- Wrong patient/exam

# Ensuring ACR Compliance

- **ACR requires:**
  - protocol adherence
  - Top tier positioning
  - High quality technical parameters
  - No motion
  - No artifacts
  - Appropriate anatomical coverage
- Each of these items listed, plus others deemed important to your organization, should be on your QA list.
  - Ensuring these pieces are meeting quality standards, will ensure your technologists are ready for ACR renewals.
  - Technologist get nervous when they hear an accreditation is upcoming. By adhering to your QA program, the anxiety is alleviated due to continued readiness.

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# COMPLIANCE

- TECHNOLOGISTS' SPREADSHEETS ARE EMAILED NO LATER THAN THE 15<sup>TH</sup> OF THE MONTH TO ALLOW THEM AMPLE TIME TO RECEIVE EDUCATION IF NEEDED.
- INFRACTIONS SHARED WITH LEADS/SUPERVISORS TO ENSURE APPROPRIATE EDUCATION IS PROVIDED.
- 15 POINTS OR INFRACTIONS ARE ALLOWED PER MONTH, PER TECHNOLOGIST. THIS NUMBER IS EXTREMELY FORGIVING, AND SHOULD TRENDS BE NOTED OR NUMBER OF INFRACTIONS NEARING 15, SUPERVISORY OVERSIGHT SHOULD BE INITIATED.
- ANY NEGATIVE TRENDS NOTED FOR A TECHNOLOGIST MAY REQUIRE ADDITIONAL OVERSIGHT AND DISCUSSION WITH SUPERVISOR TO ENSURE IMPROVEMENT CAN AND WILL BE ENCOURAGED.
- IN AN EFFORT TO SHOW DEDICATION TO PROVIDING QUALITY EXAMS TO CONSUMERS, RADIOLOGISTS, AND REFERRING PHYSICIANS, EVERY EFFORT IS MADE TO ASSIST TECHNOLOGIST IN IMPROVING THEIR WORK WITH IMPROVEMENT TECHNIQUES. SHOULD THEIR BE OPPOSITION TO IMPROVEMENT OR RESISTANCE TO NECESSARY CHANGE, DISCIPLINARY ACTION MAY PROCEED.

## Quality Nightmares

by MasterControl



**"That's how the clinical team decides which regulations they will follow."**

## RETAKE ANALYSIS

Is a monthly data collection and analysis of PACS system “retake folder” usage. The retake folder is used as a means for radiologist to communicate and send exams back to technologists that are missing images, missing diagnosis or documents, or need a patient called back for extra imaging before reading can be completed.

# Retake Workflow

## **RADIOLOGIST**

- Radiologist begins to read study and realizes there is an issue that needs attention.
- Radiologist marks study for \*retake\* this drops the study into the designated folder, sending it back to the technologist worklist.

## **TECHNOLOGIST**

- Technologist read retake comments from radiologist, and fix study issues.
- Technologist marks study as retake complete, prompting the study to fall to radiologist worklist for reading.

- Retake analysis allows for trends to be visualized from the Radiologist view- point.
- Creates opportunity to address issues Radiologist find concerning.
- Opens opportunity to learn and grow as a department as new trends emerge.
- Allows for tracking of progress to show growth.
- Positive effort to maintain high standard of care and reduce turn around times caused by workflow diversion.

# TRENDING ISSUES FOUND

- DELAYED TATs:
  - Technologist were ending exams in EMR before checking that images had made it to PACS, causing the radiologist to receive a partial study prompting the exam be sent to retake folder.
  - Technologist did not notice exams in retake folder immediately, causing delayed TAT
- DIVERSION FROM WORKFLOW/ DECREASED COMMUNICATION:
  - Delay in patient care due technologist workflow, and lack of communication between radiologists and technologists regarding exams being put in retake status.

# REDIRECTED WORKFLOWS

- Department coordinator added retake folder to their watch protocols, and contact technologist when exams are put into retake reducing the amount of time it takes for exam to be amended.
- Technologists educated on the importance of appropriate workflow in their daily activities; checking PACS for study completion before ending study in EMR to ensure radiologists receive complete studies reducing reading delays.
- Radiologists educated on importance of communicating with technologists when priority studies required technologist attention before reading.

# IMPROVING WORKFLOWS

- Over 12 months we saw excellent improvement and reduction in retake folder usage.
- Each site reduced their exams needing retake review by at least 50%.
- Technologist perfected their workflows to ensure only necessary exams were set to retake review.



# CONTINUOUS REVIEW

- Retake folder usage is reviewed monthly - now part of monthly QA process.
- Technologist that performed exams requiring retake receive infraction points on monthly QA, if the reason for retake is one of the following: workflow deficiency or recall of patient for extra imaging.
- Allows leadership to monitor trends, identify outliers, and educate as needed.
- Further reduction of retake use monthly equates to lower TAT on priority imaging.

# Importance of Monthly QA

- MAINTAINING HIGH EXPECTATION OF QUALITY CARE FOR CONSUMERS, PROVIDERS, AND OURSELVES.
- MAINTAIN QUALITY EXPECTATIONS FOR RADIOLOGISTS
- CONTINUED LEARNING FOR TECHNOLOGIST, NEW OR SEASONED
- MAINTAINING ACR ACCREDITATIONS
- MAINTAINING DICOE DESIGNATION
- ACCOUNTABILITY FOR TECHNOLOGISTS AND ORGANIZATION TO CONTINUE PROVIDING PREEMINENT WHOLE PERSON CARE TO OUR COMMUNITY.

## ***FINDING YOUR WHY***

What made you join the world of imaging, or healthcare?

Who supports you? Who pushed you to better yourself when you were finding your way?

What was that one experience that reignited your spark?

## MY WHY



## FAMILY, FRIENDS, AND TEAM





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