# 15 Years of MQSA, What works, what doesn't

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# History of MQSA

- 1990-91 – ACR creates testing procedures
- Oct. 1992 – Mammography Quality Standards Act
- Dec 1993 – Interim Regulations
- Oct. 1994 – All mammography facilities to function must conform to standard

# MQSA Program Components

- Mammographic X-ray Unit
- Mammographic Processor
- Medical Physicist
- Mammographic Technologists
- Radiologist – dedicated to mammography
- The MQSA law
- Service – processor and unit

# X-ray Unit

- Installed by service
- Proper operation verified by medical physicist – initially and annually
- Regular quality assurance by technologist and awareness of problems which occur
- Periodic maintenance by service

# Mammographic Processor

- Daily QA observation by technology staff
- Monthly chemistry maintenance service
- Repair as needed

# Medical Physicist

- Annual survey
- Available for questions as needed
- Inspections for component replacement, i.e. tube replacement, detector, bucky, etc.
- Maintenance of credits

# Mammographic Technologist

- Take good films
- Perform Daily, weekly, monthly quality assurance
- Observe problems and respond appropriately
- Maintain and upgrade knowledge base as needed

# Radiologist

- Dedicated to good film interpretation
- Maintain active involvement in mammography
- Assist in trouble shooting by observing changes

# MQSA Law

- Establishes standard
- Presses all parties toward conformality
- Removes units, programs which fail to perform

# Service

- Processor service
  - Dedicated to understanding mammography needs
  - Good troubleshooting interface
  - Eye for problems
  - Able to make adjustments as needed
- X-ray Unit Service
  - Understanding a particular unit
  - Perform setup and calibration properly
  - Regular quality assurance and maintenance

# What made MQSA work

- People who understood their job

- Technologist – what constitutes a good diagnostic image
- Technologist – if there was a problem where is it located
- Physicist – What do the components of the inspection indicate-both now and in the future.  Enforcing the standard
- Physicist – When called upon, assisting in troubleshooting
- Physician – What is his/her standard for good films and enforcing it
- Service – Knowing the processor and/or the x-ray unit and fixing it correctly

# What was the Goal of MQSA

- To develop a standard for breast screening
- To be able to assist the discovery and/or to rule out pathology
- To be able to discover disease earlier and thus improve the chances of cancer eradication and cure

# Did MQSA Work

- When all the components and personnel described above were in place – YES
- When one or more of the above individuals did not remember the goal, the result was poor quality, missed disease, and cancer death

# What was the glue that held it together

- MQSA Law
- Remembering the goal
- 51% of the worlds population are women
- Many of the women are married to men who like their breasts

# The Long Term Results

- The number of earlier stage of breast cancers is increasing
- More focused treatment modalities exist with better cosmesis and local cancer control
- Shorter treatment experiences along with reduced cost and reduced acute and chronic sequelai

# The Future

- 27% of all mammography is FFDM with the number growing daily
- While there is amount reduced of quality assurance, the intensity remains
- It was a model that worked

# Other Imaging Modalities currently in focus

- MRI and CT accreditation
- Motivated by health insurance companies
- The programs are somewhat subjective as regulated by the ACR
- The technology, medical, service and physicist staff are unprepared for the process
- The panic is equal to 5 seconds before impact in a crashing airliner

# Is imaging in CT and MRI improving?

- For those who entered the voluntary process early – Yes
- For those that did not, there is improvement but it is in fits and spurts and it is by discovery
- There is a decided anger towards the ACR
- The ACR is not responding with one voice and appears capricious and financially motivated
- Other accrediting bodies are appearing

# Things we should think about

- Far more whole body and regional dose delivered from CT
- Far greater risk of missed pathology from poorly run MRI or CT programs
- The technology staffs are far more eclectic in their training
- Few medical physicist are entering the foray
- Service is only giving what is asked for and few know what to expect or ask for