

COMMUNICATION AND RADIOLOGY

Jana C. Arellano, RTT

Objectives

- Evaluate the importance of communication in Radiology.
- Identify the interaction points of communication in the medical imaging workflow.
- Utilize the PACS system and EMR system to bridge the communication gap.

Importance of Communication in Radiology.



Importance of Communication in Radiology.

- A study in 2005 tracked the cascade of errors. Fully 80% of the errors that initiated cascades involved informational or personal miscommunication.
- Research conducted during the 10 year period of 1995-2005 has demonstrated that ineffective team communication is the root cause for nearly 66 percent of all medical errors during that period.
- Clinical Communication failures are considered the leading cause of medical errors.

Importance of Communication in Radiology.

- A ten year study in Radiology errors reported: Among 380 communication errors in a radiology department, 37.9% had a direct impact on patient care, with an additional 52.6% having a potential impact. Most communication errors (52.4%) occurred at steps other than result communication, with similar severity of impact.
- Radiology itself is one of the specialties most liable to claims of medical negligence.

Communication: improved Patient Outcomes and Satisfaction



Communication and Patient Outcomes

- Improved patient health by decrease in medical errors.
- Improved patient safety.
- Improved quality of care.

Improved Patient Satisfaction

- Healthcare has shifted to the patient centered approach.
- Patients have more options in where they receive their care- urgent care, hospitals, and outpatient facility.
- Hospitals are required to conduct HCAHPS Surveys. Which is a survey to patients that is focused on the patient experience.



RADIOLOGY FACTS

RADIOLOGY FACTS

- In addition to their amazing uses in the medical field, x-rays have been used in the art world to examine under-paintings, which are rough sketches artists used to guide their final paintings.
- Due to x-rays, scientists were able to see the [double-helix structure of DNA](#) in the early 1950s.
- Despite incredible technology advancements in imaging, x-rays continue to be the most common form of imaging used by medical professionals.

Communication Impact on the Radiologist Diagnosis

- Restated- Radiology is a specialty most liable for malpractice claims.
- Communication can lead to less lawsuits for the radiologist, however technologist have been listed in malpractice lawsuits.
- Imaging assist in the diagnosis for the patients. In some modalities, the technologist are the one's leading the radiologist to the exact diagnosis.
- Proper communication to the radiologist is the responsibility of the technologist.

Interaction Point of Communication

- The workflow in the radiology department has increased over the last ten years.
 - *More people have access due to the availability of insurance*



Technologist and Patient

- Patient centered approach
- Obtaining health histories,
- Verifying patients identity
- Explain the procedure to be performed
- Screening for safety
- Providing instructions
- Answering patient questions
- Explaining post-examination care

Technologist and Patient

- Technologist are the core of the radiology experience – for that reason we are the people that are responsible for the majority of the patients experience.
- Patients' perceptions of the quality of the healthcare they received are highly dependent on the quality of their interactions with their healthcare clinician and team.
- Communication at every point will ensure that patients have clear expectations.
- The incorporates introductions, time durations, explanations and next steps.
- This includes the communication to the family members present or caregivers.
- Remember medical imaging contribute to the overall patient satisfaction of the facility.

Technologist to Technologist

- Coordination within the medical imaging department.
- Medical imaging is a team work environment.
- As a member of the team we ask for help, we assist each other.
- Coordination with modalities to ensure the flow of the patient is efficient.
 - X-ray to CT or ultrasound.

Technologist and Radiologist

- We are required to obtain information from the patient. The next step is to communicate the information to the radiologist.
- Although, Radiologist are present for a few medical imaging exams as a whole the interaction is minimal.
- The communication on the Technologist needs to be assertive and proactive as the responsibility is to for the quality of care to the patient.
- If face to face is not an option an optimal method of communication is the use of the PACS and EMR system.

Pacs and the EMR System

- The digital systems have communication components at all level.
- The digital indicators are a communication of the quality of the x-ray.
- S-values are the digital indicators in the FUGI systems that tell the technologist if the image, based on anatomy, is optimal for diagnostic quality.
- The values are also used in quality control features for the pacs systems and can get scores on the quality of images that the departments are completing as a whole.
- These indicators determine if changes in the preset protocols need to be adjusted.
- Staff needs to communicate changes in digital image quality.

Pacs and the EMR System

- Pacs and the Electronic Medical Record are the Gateway to Technologist and Radiologist Communication.
- The PACS and the EMR systems are two softwares that are bridge the information thru what is called dicom and HL7 links.
- When Radiologist are reading the exams they are reading out of the PACS system. They use a dictating system that once the workflow is completed the full report is loaded into the Electronic Health Record or Epic system.
- The Digital Systems have change the work environment and the relationships between the radiologist and the technologist.
- Medical imaging workflow has increased with an increasing pressure for fast turn around from imaging to report.

Before and After the PACS System



Pacs and the EMR System Communication

- The radiology workflow has changed in the last ten to 15 years with the implementation of the PACS and EMR systems.
- Technologist still have a duty to fully communicate with the Radiologist which can be done utilizing the PACS and EMR system.
- The Systems have alerts and journal entry components that will populate at the Radiologist work stations.
- The communication in the systems aids the Radiologist in accurately reading the exams and properly diagnosing the patients.

Medical Imaging

- Medical Imaging is one of the core departments of the hospital.
- This means that the Imaging Department has a huge impact on the patient experience.
- Patient's are surveyed on their experience and those results are reported to the government.
- Hospital reimbursements from government funding can be affected by the results of the surveys.

References

- Institute of Healthcare Communicatio. (2011, July). Impact of Communication in Healthcare. Retrieved February 12, 2019, from <https://healthcarecomm.org/about-us/impact-of-communication-in-healthcare/>
- Siewert, B., Brook, O., Hochman, M., & Eisenberg, E. (2016, March). Impact of Communication Errors in Radiology on Patient Care, Customer Satisfaction, and Work-Flow Efficiency - American Journal of Roentgenology; Vol. 206, No. 3 (AJR). Retrieved February 12, 2019, from <https://www.ajronline.org/doi/10.2214/AJR.15.15117>
- Y. K. (2019). *Understanding effective clinical communication in medical errors.* - PubMed - NCBI. [online] Ncbi.nlm.nih.gov. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/20841777> [Accessed 11 Feb. 2019].
