Patient Imaging Studies Integrated into the EHR on the Cloud: A Use Case in Workflow Automation and Accelerated Patient Care at a Leading Academic Medical Center

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Background/Problem Being Solved

CD burning, uploading, and ingestion into PACS.

 Intervention(s)

One of the nation’s leading academic medical centers in the Northeast, with imaging volumes exceeding 1.2 million studies per year, began using a nationwide Cloud based platform for immediate sharing of patient images in specialty areas of radiology, cardiology, and trauma to inform care decisions, accelerate time to treatment, and improve patient outcomes.

Through an integrated application in the Epic EHR, nearly 2,000 providers at 308 connected facilities, hospitals, large health systems, medical vendors, and research facilities across the US in an expanding medical network are able to link in context to the imaging exchange platform without leaving the patient’s chart. They can then view imaging, associated clinical data, and diagnostic reports at any time and from any mobile device or computer. Additionally, providers can nominate images to PACS if they are ordering a new study for comparison.

Barriers/Challenges

One of the biggest challenges associates with migrating to a cloud-based image exchange platform is improving cloud redundancy in the event the platform experiences an outage.
Outcome

Through this use case, 147,000 studies have been uploaded to the platform and 88,000 images shared. The immediate access and ease of exchange via the Cloud benefits referring providers and imaging administrative staff. It saves CD burning, uploading, and ingestion into PACS.

Conclusion/Statement of Impact

A Cloud based Image Sharing platform is essential to ensure that diagnostic imaging and essential clinical data is always available at the point-of-care to improve time-to-treatment and patient outcomes.

Lessons Learned

- In order to identify use cases, you must understand the problems to be solved by using an imaging exchange platform
- To accelerate time to treatment, workflow processes that are manually based must be prioritized for automation and optimization
- Replace CDs with the cloud for image access and exchange
- Once cloud is deployed, develop a redundancy strategy

Keywords

Applications; Clinical Workflow & Productivity; Emerging Technologies; Enterprise Imaging; Provider Experience; Standards & Interoperability

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