

Cleveland Clinic's Enterprise Imaging Strategy

Optimizing Your EMR with an Enterprise Imaging Strategy

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The presentation of will focus on the key components that should be considered during the development of an enterprise imaging strategy.

Governance model to develop the strategy and provide program oversight and direction.

Identify opportunities within a healthcare organization to capture and provide access to clinical imaging

Understanding the storage and workflow requirements

Develop an image access and visualization strategy

Incorporating an image exchange program to ingest studies from outside the organization and make those images available through the EMR.

Drivers of an Enterprise Imaging Strategy

Complete the EMR and provide access to all clinical content
... according to some sources, as much as 70% of clinical data remains trapped in locked or siloed systems.

Provide an imaging infrastructure that aligns technology with business goals

- Mergers and Acquisition
- Hospital affiliation networks
- Expand physician referral base
- Private physician practice support

Clinical integration and coordination
Organizing care coordination across the healthcare network

Enterprise Imaging Strategic Plan

Understand the imaging environment within your organization

Design and implement a multi-department imaging strategy

Develop department and enterprise workflows

Eliminate the imaging silos; centralize storage and management

Provide access to all clinical multi-media content through the EMR

Governance

Clinical & Business Analytics
Image (Content) Exchange
Access - Visualization
Service-line Integration
Technology Solution

Clinical and management tool for quality improvement, business statistics and population health

Imaging technology platform that includes:
- storage infrastructure
- EMR integration engine
- workflow management system

Enterprise Imaging Solution

Governance

Establish an effective governance model to create the strategy and provide program oversight and direction.

Strategic Management of Imaging Data

Includes all the Key Stakeholders



Governance



Program Governance

Technology Governance

Information Governance

Define an Implementation Strategy

How do you build a roadmap that executes on the strategy?

Defining the technical and functional requirements of an enterprise imaging platform

Integration of department PACS or Image Management Systems (IMS)


Develop point-of-care imaging programs

- Ultrasound
- Clinical Photography
- Mobile Strategy

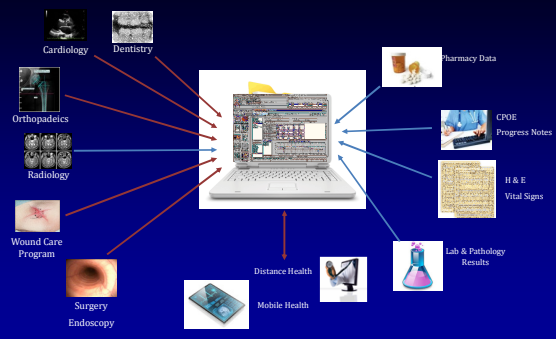
Distance Health Programs

- Image Exchange Program

Image Enabling the EMR / EHR



Changing Healthcare with access to ALL clinical data at the point-of-care



Service Line Integration

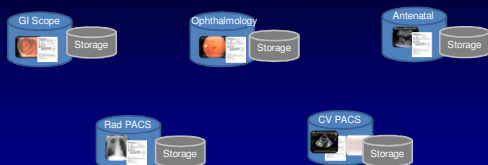


- ### Challenges Due to Proliferation of Imaging
- Inconsistent & inefficient acquisition workflows
 - Clinical decisions based on images that are not retained
 - No way to collaborate with colleagues
 - Risk of compliance audit findings (HIPAA, CMS, etc.)
 - Descriptions lack meaning and are inconsistently assigned
 - Unprotected patient health information
 - Images are scattered throughout the EHR

Common “Solutions” to Solve the Challenges

- Use radiology workflow in non-radiology areas
- Prohibit the use of mobile devices
- Copy & paste images into encounter/progress notes
- Print images & scan into medical record
- Print images & store in physician's office record
- Email or text images to colleagues

Specialty Diagnostic Systems – Managed Data

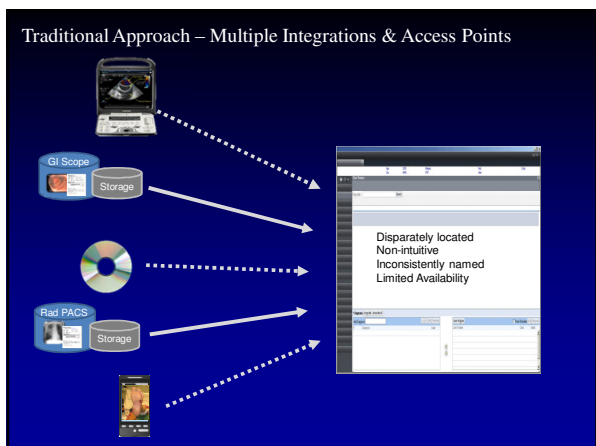


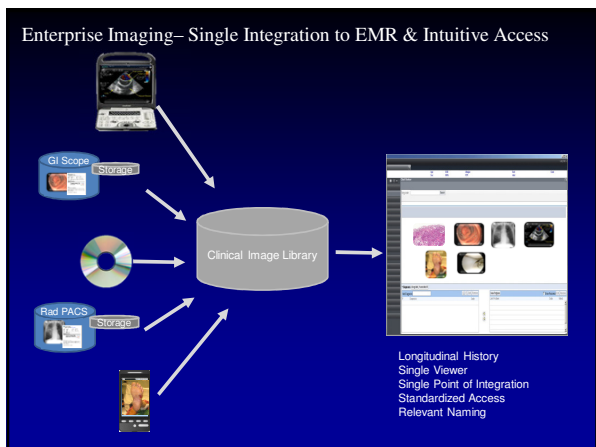
- Matched with patient demographics and other relevant meta data
- Secure, HIPAA compliant storage
- Possible access within the context of the patient's EMR

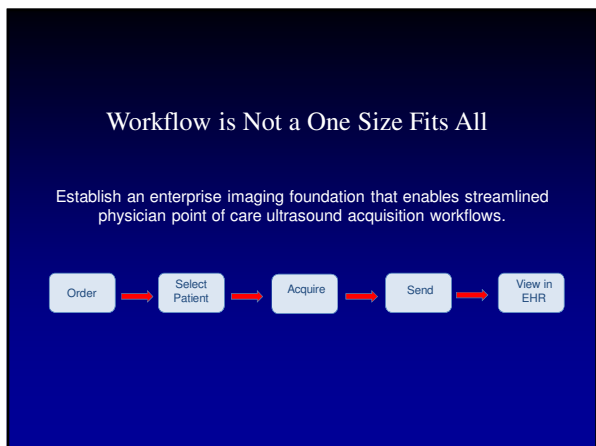
Point of Care & External Imaging – Unmanaged Data



- Not matched with patient demographics and other relevant meta data
- Not secure or HIPAA compliant, often not stored
- Limited to no access within the context of the patient's EMR







Display Only Relevant Images in the EHR

Be thoughtful when designing orders:
Hide images that need to be retained but are rarely needed for reference.

Standardize Naming Conventions & Assign Consistently

Image description naming conventions should be specific but not too specific. Limit the number of similar descriptions.



Ensure Appropriate Meta Data Assignment

Require the use of a DICOM Modality Worklist (patient worklist) during image acquisition.

Involve Users in the Acquisition Workflow Design

Develop physician and other process champions to increase workflow adoption and user satisfaction.

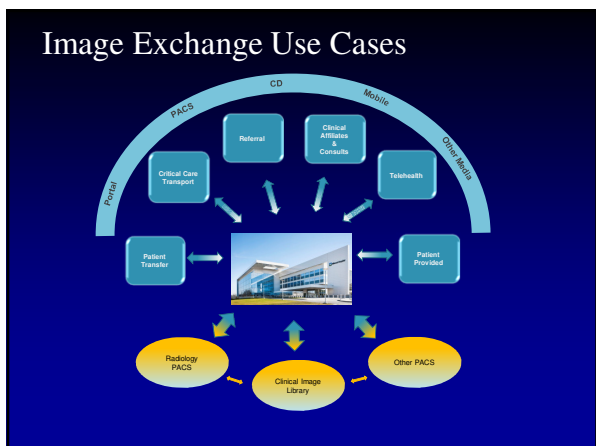


Image Exchange

Imaging is no longer contained within the boundaries of a single health care system.



Definition
The ability to efficiently access, view and share images between hospitals, physicians and patients.



Benefits

- Enhanced care planning; images arrive before patient
- Increased physician satisfaction; images online
- Increased patient satisfaction; no longer asked to obtain copies of images
- Enhanced clinical collaboration; visual complements verbal description
- Reduced costs

Thank You

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