Encounter-based imaging has expanded rapidly in recent years in virtually all clinical care locations. It is one of the few diagnostic modalities that can be performed rapidly at the bedside, in a busy emergency room or during a clinic visit. It is portable, readily accessible and cost-effective, and has no risk of ionizing radiation. However, too often encounter-based procedures remain sequestered in stand-alone settings accessible only to imaging specialists and not to clinicians throughout the healthcare enterprise.

Encounter-based workflow procedures are revolutionizing healthcare by decreasing complications, limiting pain and improving diagnostic capabilities for patients. At the same time, they save healthcare delivery organizations (HDOs) millions in imaging costs. However, several challenges exist when it comes to linking images captured on encounter-based devices (such as ultrasound) to enterprise systems such as electronic medical records (EMRs). For example, most encounter-based technology lacks common worklist features that are typically present in larger departments, such as radiology. In addition, encounter-based procedures often lack a written physician order used to initiate workflow capabilities. Finally, these procedures aren’t always stored or managed in a way that enables enterprise utilization. These functionality gaps mean the patient and study indexing data is often entered manually, which introduces error and inhibits access to this important clinical information. Ultimately, fractured access to this information can be detrimental to patient care. Image Link Encounter Workflow (ILEW) from PACSgear can help address all of these issues and more.

ADDRESS ALL THE REQUIREMENTS FOR MANAGING ENCOUNTER-BASED IMAGES

PACSgear ILEW increases the speed and accuracy of encounter-based image indexing by bridging the worklist functionality gap that currently exists in many point-of-care ultrasound (POCUS) devices by providing access to the HL7 patient and study data generated as part of normal clinical workflows. Using an automated process, ILEW can resolve issues with incomplete or incorrect metadata (e.g. order number, accession number, etc.) using a variety of data sources, logic and/or lookup tables. Updated medical imaging data for these assets is then forwarded to the appropriate enterprise repository such as picture archiving and communications systems (PACS) or a vendor-neutral archive (VNA).

Once stored in a VNA or PACS, encounter-based studies can be made available enterprise-wide through the zero-footprint, NilRead enterprise viewer. This web-based viewer can be integrated with any EMR, allowing images from any modality to be accessed and referenced by clinicians from any PC or mobile device.

ILEW eliminates clinical blind spots often created by point-of-care devices, enhancing clinical visibility and improving patient care and outcomes. This common solution framework can be easily expanded to address the needs of many other image-intensive specialty departments.
1. Patient presents for care and an HL7 message (ADT or SIU) message is generated.

2. The Modality performs a DICOM modality worklist (DMWL) query for the scheduled procedure. The operator selects the appropriate scheduled procedure from a list to ensure proper indexing.

3. The procedure is performed, and the Modality sends the DICOM object via C-STORE to ILEW for reconciliation.

4. ILEW reconciles the received study with the scheduled procedure.

5. ILEW links the order to the patient by sending an HL7 ORM message to the EMR.

6. ILEW sends via C-STORE the reconciled DICOM object to the Acuo VNA or PACS.

7. Acuo VNA or PACS sends an HL7 notification message back to the EMR with an appropriate HTML URL to access the study.

8. The EMR creates an HTML URL within the patient’s medical record to launch the study with NilRead or another enterprise viewer.

FEATURES:
- Utilizes industry-standard protocols to capture, manage and visualize encounter-based studies within an enterprise imaging approach
- Scalable archive and viewing capabilities that can support a single department up to an entire enterprise
- Provides methods to standardize workflow capabilities to address downstream requirements
- Improves charge capture for non-ordered procedures