

Interoperability Scenarios

Care Theme: Emergency Care

Act 2 - Emergency Department (ED) Encounter with Imaging Requirement

Scenario Primary Goal: To demonstrate ability to share patient information across multiple acute care departments and care provider systems

Key Points

- This scenario features a patient arriving in the emergency department with symptoms requiring a cervical spine digital radiograph.
- Image is taken and is available for viewing by the patient's physician in the ED who is able to see results from the imaging department including the images and the report.
- ED encounter summary and images are made available for viewing by the patient's primary care physician.

Meaningful Use Relevance

MU Objective 1: Improving Quality, Safety, Efficiency and Reducing Health Disparities.

MU Objective 2: Engaging Patients and Families in Their Healthcare.

Clinical Workflow:

A 25 year old male went partying after work. Despite consuming too much alcohol, he decided to drive home. On the way home, he lost control of the car and hit a telephone pole. The ambulance took him to the local hospital after extracting him from his car. The ambulance radioed the hospital ED to provide basic information and notifies the patient's primary care physician (PCP). The PCP forwards a medical history for the patient as part of an ED referral. The patient was taken from the ambulance and triaged immediately in the ED. The ED physician reviews the ED referral from the PCP, examines the patient and determines that the patient needs to be taken directly to radiology for an emergency DR of the spine; the ordered procedure is completed and reveals no spinal cord injury. The ED displays the image and reports and determines the patient can be discharged.

Care Scenario Steps:	Care Setting From	Care Setting To	IHE Profiles	Title	HITSP Construct s	Title
2-25 Y/O male in MVA with neck injury	Phys Office	ED	EDR (PCC)	Emergency Department Referral		
2-2 ED orders emergency DR of spine	ED	Imaging Dept	RAD (RAD)	Radiology [Scheduled Work Flow, Image Capture, PACS]		
2-3 Radiology department processes cervical spine DR order	Imaging Dept	Imaging (Mod)	SWF (RAD)	Scheduled Workflow		
2-4 Acquire image, read and archive in PACS systems	Imaging (Mod)	Imaging (PACS)	SWF, XDS-I (RAD)	Scheduled Workflow	HITSP/CAP128 HITSP/TP49	Sharing Imaging Results Sharing Imaging Results
2-5 Reporting and distributing images	Imaging (PACS)	Imaging (Reporting) to ED	XDS/XDS-I (RAD)	Cross-enterprise Document Sharing for Imaging	HITSP/CAP128 HITSP/TP49	Sharing Imaging Results Sharing Imaging Results
2-6 Report Results to EMR and primary care provider. Patient dispositioned to home.	Imaging	ED-EMR, Primary provider and PHR with Imaging (Reporting)	XDS/XDS-I (RAD)	Cross-enterprise Document Sharing for Imaging	HITSP/CAP128 HITSP/TP49	Sharing Imaging Results Sharing Imaging Results

Health Information Exchange (HIE) Core Services			
IHE Profiles		HITSP Service Collaborations / Constructs	
XCA XDS/XDR/XDM	Cross-community and Cross-enterprise Document Sharing	SC112 / TP13, T31, T33	Healthcare Document Management Manage Transfer of Documents, Document Reliable Interchange, Transfer of Documents on Media
PIX	Patient Identity Cross-reference	SC112 / TP22	Patient ID Cross-Referencing
PDQ	Patient Demographics Query	SC112 / T23	Patient Demographics Query
ATNA	Audit Trail and Node Authentication	SC112 / T15, T17	Collect and Communicate Security Audit Trail, Secured Communication Channel
CT	Consistent Time	SC112 / T16	Consistent Time