

Integrating the Healthcare Enterprise (IHE) Profile Descriptions



Anatomic Pathology

Anatomic Pathology Workflow (PWF) establishes the continuity and integrity of basic pathology data acquired for examinations being ordered for an identified inpatient or outpatient.

Cardiology

Cardiac Cath Workflow (CATH) integrates ordering, scheduling, imaging acquisition, storage and viewing for Cardiac Catheterization procedures.

Echocardiography Workflow (ECHO) integrates ordering, scheduling, imaging acquisition, storage and viewing for digital echocardiography Retrieve ECG for Display [ECG] provides access throughout the enterprise to electrocardiogram (ECG) documents for review purposes.

Evidence Documents (ED) adds Cardiology-specific options to the Radiology ED profile.

Stress Testing Workflow (STRESS) provides ordering and collecting multi-modality data during diagnostic Stress testing procedures.

Displayable Reports (DRPT) distributes “display ready” (PDF) cardiology clinical reports from the department to the enterprise.

Eye Care

Eye Care Workflow (EYECARE) manages eye care workflow including ordering, scheduling, imaging acquisition, storage and viewing.

Eye Care Evidence Document (ECED) creates, stores, retrieves and uses objects to record Eye Care evidence.

Eye Care Displayable Report (ECDR) creates, stores and retrieves displayable (PDF) clinical professional reports.

IT Infrastructure

Consistent Time (CT) ensures system clocks and time stamps of computers in a network are well synchronized (median error less than 1 second).

Audit Trail and Node Authentication (ATNA) describes authenticating systems using certificates and transmitting PHI-related audit events to a repository. This helps sites implement confidentiality policies.

Request Information for Display (RID) provides simple (browser-based) read-only access to clinical information (e.g. allergies or lab results) located outside the user’s current application.

Enterprise User Authentication (EUA) enables single sign-on by facilitating one name per user for participating devices and software.

Patient Identifier Cross Referencing (PIX) cross-references patient identifiers between hospitals, care sites, health information exchanges, etc.

Patient Synchronized Application (PSA) allows selection of a patient in one application to cause other applications on a workstation to tune to that same patient.

Patient Demographics Query (PDQ) lets applications query a central patient information server and retrieve a patient’s demographic and visit information.

Cross Enterprise Document Sharing (XDS) registers and shares electronic health record documents between healthcare enterprises, ranging from physician offices to clinics to acute care in-patient facilities.

Personnel White Pages (PWP) provides basic directory information on human workforce members to other workforce members and applications.

Cross-Enterprise Document Media Interchange (XDM) transfers XDS documents and metadata over CD-R and USB memory devices, and over email using a ZIP attachment.

Cross-Enterprise Document Reliable Interchange (XDR) provides a standards-based specification for managing the interchange of documents that healthcare enterprises have decided to explicitly exchange using a reliable point-to-point network communication.

Cross-Enterprise Sharing of Scanned Documents (XDS-SD) defines how to couple legacy paper, film, electronic and scanner outputted formats, represented within a structured HL7 CDA R2 header, with a PDF or plaintext formatted document containing clinical information.

Patient Identifier Cross-Reference and Patient Demographics Query for HL7v3 (PIX/PDQ/v3) extends the Patient Identifier Cross-Reference and Patient Demographics Query profiles leveraging HL7 version 3.

Registry Stored Query Transaction for Cross-Enterprise Document Sharing Profile adds a single transaction, Stored Query, to the XDS Profile.

Stored Query is a large improvement over the existing Query Registry transaction since it removes the use of SQL.

Retrieve Form for Data Capture (RFD) enables EHR applications to directly request forms from clinical trial sponsors and public health reporting.

Laboratory

Laboratory Scheduled Workflow (LSWF) establishes the continuity and integrity of clinical laboratory testing and observation data throughout the healthcare enterprise.

Sharing Laboratory Reports (XD*-LAB) describes a clinical laboratory report as an electronic document.

LOINC Test Codes Subset (LTCS)

Patient Care Coordination

Medical Summaries (MS) defines the content and format of Discharge Summaries and Referral Notes.

Exchange of Personal Health Record Content (XPHR) describes the content and format of summary information extracted from a PHR system for import into an EHR system, and visa versa.

Emergency Department Referral (EDR) allows clinicians to create electronic referrals to the emergency room including the nature of the current problem, past medical history, and medications. Upon arrival of the patient to the Emergency Department, the patient is identified as a referral, and the transfer document is incorporated into the EDIS. This profile builds on medical summaries by adding structures to pass data specific for ED referrals such as the estimated time of arrival and method of transport.

Basic Patient Privacy Consents (BPPC) enables XDS Affinity Domains to be more flexible in the privacy policies that they support by providing mechanisms to record patient privacy consents, enforce these consents, and create Affinity Domain defined consent vocabularies that identify information sharing policies.

Pre-procedural History and Physical (PPHP) describes the content and format of an electronic Preprocedural History and Physical document.

Antepartum Care Summary (APS) describes the content and format of summary documents used during antepartum care.

Functional Status Assessments (FSA) describes the content and format of Functional Status Assessments that appear within summary documents.

Emergency Department Encounter Record (EDER) describes the content and format of records created during an emergency department visit.

Query for Existing Data (QED) allows information systems to query data repositories for clinical information on vital signs, problems, medications, immunizations, and diagnostic results.

Patient Care Devices

Alarm Communication Management (ACM) enables the communication of alarm information from devices to alarm managers to end receivers and archives.

Device Enterprise Communication (DEC) enables communication of device data to Enterprise applications (CDSS, CIS, EMR, etc.), including filtering and patient identity binding.

Implantable Device Cardiac Observation (IDCO) specifies the creation, transmission, and processing of discrete data elements and report attachments associated with cardiac device interrogations (observations) or messages.

Point-of-care Infusion Verification (PIV) specifies the communication of a 5-rights validated medication / infusion order from a BCMA to an infusion pump.

Rosetta Terminology Mapping (RTM) provides a map between proprietary device semantics to a standard representation, including parameter co-constraints.

Radiation Oncology

Normal Treatment Planning-Simple (NTPL-S) illustrates flow of treatment planning data from CT to Dose Review.

Multimodality Registration for Radiation Oncology (MMR-RO) shows how radiation oncology treatment planning systems integrate PET and MRI data into the contouring and dose review process.

Treatment Workflow (TRWF) integrates daily imaging with radiation therapy treatments using workflow.

Radiology

Scheduled Workflow (SWF) integrates ordering, scheduling, imaging acquisition, storage and viewing for Radiology exams.

Patient Information Reconciliation (PIR) coordinates reconciliation of the patient record when images are acquired for unidentified (e.g. trauma), or misidentified patients.

Post-Processing Workflow (PWF) provides worklists, status and result tracking for post-acquisition tasks, such as Computer-Aided Detection or Image Processing.

Reporting Workflow (RWF) provides worklists, status and result tracking for reporting tasks, such as dictation, transcription and verification.

Import Reconciliation Workflow (IRWF) manages importing images from CDs, hardcopy, etc. and reconciling identifiers to match local values.

Portable Data for Imaging (PDI) provides reliable interchange of image data and diagnostic reports on CDs for importing, printing, or optionally, displaying in a browser.

Nuclear Medicine Image (NM) specifies how Nuclear Medicine images and result screens are created, exchanged, used and displayed.

Mammography Image (MAMMO) specifies how Mammography images and evidence objects are created, exchanged, used and displayed.

Evidence Documents (ED) specifies how data objects such as digital measurements are created, exchanged, and used.

Simple Image and Numeric Report (SINR) specifies how Diagnostic Radiology Reports (including images and numeric data) are created, exchanged, and used.

Key Image Note (KIN) lets users flag images as significant (e.g. for referring, for surgery, etc.) and add notes.

Consistent Presentation of Images (CPI) maintains consistent intensity and image transformations between different hardcopy and softcopy devices.

Presentation of Grouped Procedures (PGP) facilitates viewing and reporting on images for individual requested procedures (e.g. head, chest, abdomen) that an operator has grouped into a single scan.

Image Fusion (FUS) specifies how systems creating and registering image sets and systems displaying fused images create, exchange and use the image, registration and blended presentation objects.

Cross-enterprise Document Sharing for Imaging (XDS-I) extends XDS to share images, diagnostic reports and related information across a group of care sites.

Teaching File and Clinical Trial Export (TCE) lets users flag images and related information for automatic routing to teaching file authoring or clinical trials management systems.

Access to Radiology Information (ARI) shares images, diagnostic reports, and related information inside a single network.

Audit Trail and Node Authentication (ATNA) Radiology Option defines Radiology-specific audit trail messages.

Charge Posting (CHG) provides timely procedure details from modalities to billing systems.