

Care Everywhere Supported Standards

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INTRODUCTION

Care Everywhere, Epic's interoperability platform, exchanges patient data with other healthcare institutions, HIEs, and U.S. government agencies on the eHealth Exchange (formerly the Nationwide Health Information Network) during point-of-care treatment and care coordination workflows. Care Everywhere can exchange information directly between systems without an intermediary and follows transaction and terminology standards specified by IHE, ONC, HITSC, and other industry groups. In Epic's query-based approach, Care Everywhere uses transactions from the XCA and XDS.b integration profiles developed by IHE. When pushing or receiving pushed information for planned transitions of care, Care Everywhere uses XDR Direct Project standards.

Using both query-based and push-based approaches, Care Everywhere can receive and display Continuity of Care Documents as well as other industry standard document types (including all CDA-based documents). Care Everywhere supports the exchange of documents defined in the Consolidated CDA framework required for the U.S.'s Meaningful Use 2014 Certification Criteria.

This document lists the standards supported by Care Everywhere, which is one method organizations can use to connect with Epic. You can give this information to other organizations that don't use Epic's software so they can determine whether their vendor can communicate with Epic when exchanging patient records using Care Everywhere. For other ways to connect with Epic, go to <http://open.epic.com>.

FUNCTIONAL AREAS

<i>Functional Capability</i>	<i>Description</i>	<i>Relevant Standards</i>	<i>Use Cases</i>
Patient Discovery	Discovers patient identifiers to be used for interoperability exchange.	<ul style="list-style-type: none">• XCPD• PDQ HL7 v3	<p>This functionality allows the requester to discover the patient identifiers that are known by the exchange partner and are used in subsequent queries or information submissions (pushes).</p> <ul style="list-style-type: none">• A patient discovery query obtains the common identifier to be used in a healthcare information exchange community.• A patient discovery query precedes the document list targeted query for a particular patient. In addition to

FUNCTIONAL AREAS

Functional Capability	Description	Relevant Standards	Use Cases
Targeted Query	Queries for and retrieves documents related to a patient.	<ul style="list-style-type: none"> • XCA • XDS.b 	<p>obtaining the identifier necessary for performing the query, a positive response to the request also indicates that the patient is known by the exchange partner.</p> <p>This functionality allows the requester to find out what information is available for the given patient (also known as a query for a list of documents) and to retrieve the documents that are relevant for patient care.</p> <ul style="list-style-type: none"> • The targeted query is sent to one or more organizations that have information about the patient. Patient discovery can be used to determine which exchange partners have information about the patient. • A document list query is sent to one or more Healthcare Information Exchange (HIE) communities. The query obtains the list of available documents and the locations from where they can be retrieved. Patient discovery can be used to determine the common identifier known to each community.
Targeted Push	Sends a set of documents related to a patient as a result of an end user action. Can receive an unsolicited set of documents related to a patient.	<ul style="list-style-type: none"> • XDR • Direct Project • XDS.b 	<p>This functionality allows the sending of clinical information to an exchange partner, as in the following scenarios:</p> <ul style="list-style-type: none"> • A patient is referred to a specialist in another organization. A clinical summary is sent to the specialist's system. • A patient is discharged from a hospital, and their PCP is in another organization. The hospital sends a clinical summary to the PCP's system.
eHealth Exchange Support	Support for implementation guides specific to the Sequoia Project's eHealth Exchange.	<ul style="list-style-type: none"> • NHIN Web Services Registry • NHIN Authorization Framework • NHIN Patient Discovery • NHIN Document List Query • NHIN Document Retrieve 	

TRANSACTIONS

Supported Standard	Description	Roles	Documentation/Specifications
IHE Register On-Demand Document Entry (ITI-61)	Registers an On-Demand Document with a document registry. Available in Epic 2012 and later versions.	<ul style="list-style-type: none"> • On-Demand document source 	IHE ITI TF Vol 2b Section 3.61
IHE Cross-Enterprise Document Reliable Interchange (XDR)	Targeted push of a set of documents related to a patient.	<ul style="list-style-type: none"> • Document source • Document recipient • Limited-metadata document source • Limited-metadata document recipient 	IHE ITI TF Vol 1 Chapter 15 Section 2.2.15
Direct Project	Targeted push using the Direct Project protocol using either SMTP/S/MIME or SOAP-based XDR.	<ul style="list-style-type: none"> • Sender • Receiver 	Applicability Statement for Secure Health Transport 1.1 - 2012-07-10 XDR and XDM for Direct Messaging Specification Rev 1.0 2011-03-09
NHIN Web Services Registry	Query to an NHIN Web Services Registry to retrieve connection information about other NHIN participants.	<ul style="list-style-type: none"> • Inquiry API only. (The Subscription API is not supported at this time.) 	NHIN Web Services Registry Specification V 3.0 (Final Production) NHIN Web Services Registry Specification V 2.0 (Final Production)
NHIN Patient Discovery	Implementation guide for using XCPD within the NHIN.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway 	NHIN Patient Discovery Specification V 2.0 (Final Production) NHIN Patient Discovery Specification V 1.0 (Final Production)
NHIN Query for Documents	Implementation guide for using XCA within NHIN.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway 	NHIN Query for Documents Specification V 3.0 (Final Production) NHIN Query for Documents Specification V 2.0 (Final Production)
NHIN Retrieve Documents	Implementation guide for using XCA within NHIN.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway 	NHIN Retrieve Documents Specification V 3.0 (Final Production) NHIN Retrieve Documents Specification V 2.0 (Final Production)
Patient Demographics Query (PDQ) HL7 v3	Patient identification query.	<ul style="list-style-type: none"> • Patient Demographics Consumer • Patient Demographics Supplier 	IHE ITI TF Vol 1 Chapter 24 IHE ITI TF Vol 2b Section 3.47

TRANSACTIONS

Supported Standard	Description	Roles	Documentation/Specifications
XDS.b ITI-18: Registry Stored Query Transaction	Query for a list of documents related to a patient.	<ul style="list-style-type: none"> • Document consumer • Document registry (supports all query types required by the IHE XCA profile) • Option: On-Demand documents 	IHE ITI TF Vol 1 Chapter 10 IHE ITI TF Vol 2a Section 3.18
XDS.b ITI-41: Provide and Register Document Set b	Provides a set of documents to a document repository or a recipient.	<ul style="list-style-type: none"> • Document source • Document repository 	IHE ITI TF Vol 1 Chapter 10 IHE ITI TF Vol 2b Section 3.41
XDS.b ITI-43: Retrieve Document Set	Query to retrieve a document included in a previous Registry Stored Query response.	<ul style="list-style-type: none"> • Document consumer • Document repository • Option: On-Demand documents 	IHE ITI TF Vol 1 Chapter 10 IHE ITI TF Vol 2a Section 3.18
XCPD ITI-55: Cross Gateway Patient Discovery	Patient identification query.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway 	IHE ITI TF Vol 1 Chapter 27 IHE ITI TF Vol 2b Section 3.55
XCPD ITI-56: Patient Location Query	Query for a list of communities that have health data for particular patients.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway 	IHI IT Infrastructure TF Supplement Chapter 27
XCA ITI-38: Cross Gateway Query	Query for a list of documents related to a patient.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway • Option: On-Demand documents 	IHE ITI TF Vol 1 Chapter 18 IHE ITI TF Vol 2b Section 3.38
XCA: ITI-39 Cross Gateway Retrieve	Query to retrieve a document included in a previous Cross Gateway Query response.	<ul style="list-style-type: none"> • Initiating gateway • Responding gateway • Option: On-Demand documents 	IHE ITI TF Vol 1 Chapter 18 IHE ITI TF Vol 2b Section 3.39

DOCUMENT CONTENT

<i>Supported Standard</i>	<i>Description</i>	<i>Documentation/Specifications</i>
HL7/IHE Consolidated CDA	<p>Content for the exchange of various patient summary documents.</p> <ul style="list-style-type: none"> • Document Source: CCD and Progress Note • Document Consumer: Valid C-CDA document profiles 	<p>CDA® Release 2: IHE Health Story Consolidation, Release 1.1 – US Realm CCHIT Certification Requirements for Meaningful Use Stage 2</p>
HL7/ASTM CCD, HITSP C32 Implementation, CCHIT 2011 certification criteria constraints	<p>Content for the exchange of patient summary document.</p> <ul style="list-style-type: none"> • Document Source: CCD • Document Consumer: Valid CDA documents 	<p>HL7 CCD final HITSP C32 v2.5 CCHIT Certification Requirements for Meaningful Use Stage 1</p>

COMMUNICATION PROTOCOLS

<i>Supported Standard</i>	<i>Description</i>	<i>Documentation/Specifications</i>
HTTPS, SOAP 1.2 with MTOM/XOP	<p>Low-level Communication Protocol</p> <ul style="list-style-type: none"> • Patient Demographics Query, Registry Stored Query, XCPD Query, and XCA Query transactions require SOAP 1.2 • XDR Provide and Register Document Set, Retrieve Document Set, and XCA Retrieve transactions require SOAP 1.2 with MTOM/XOP 	
SMTP with S/MIME	<p>Low-level Communication Protocol for the Direct Project.</p>	<p>Applicability Statement for Secure Health Transport - 2012-07-10</p>