

# INTEROPERABILITY SHOWCASE™



## Spectrum of Care Continuity using 360X

**Short Description:** Sheryl's daughter notices her mother has become increasingly aggressive, wanders away from home and occasionally gets lost. In a visit with Sheryl's longtime PCP, the PCP suggests Sheryl be referred to a neurologist for a dementia evaluation. The neurologist evaluates Sheryl and establishes that she has multi-infarct dementia with behavioral disturbance, requiring care in a long-term skilled nursing facility (SNF). With Sheryl's PCP and daughter, they arrange for her transfer to the SNF.

**Participants:** eClinicalworks, Epic, Kno2, MatrixCare, MedAllies, Qvera

**Sponsors:** DirectTrust, IHE, ONC

Scenario	Vendor	Products	Standards
Sheryl, her daughter and her PCP, Dr. Massoud, agree on a neurology evaluation for dementia cause and treatment.	eClinicalWorks	eClinicalWorks EHR	
Dr. Massoud, via eClinicalWorks, sends the 360X referral request to Dr. Carlyle, a neurology specialist, using Qvera via Direct across the MedAllies HISP.	eClinicalWorks MedAllies Qvera	eClinicalWorks EHR MedAllies HISP Qvera	360X via Direct, HL7 C-CDA, HL7V2
The referral request is reviewed by the neurology office staff and declined. The decline causes the Referral C-CDA to be purged. The decline 360X message is sent from Qvera via Direct to eClinicalWorks over the MedAllies HIS.	Qvera MedAllies eClinicalWorks	Qvera MedAllies HISP eClinicalWorks EHR	360X via Direct, HL7V2
The decline is received and reviewed by the PCP staff using eClinicalWorks. The decline automatically closes the referral loop per 360X standards and protocol. A second referral request is sent to Dr. Allen, a second neurology specialist, who uses an Epic EHR with a new unique referral ID number, according to the 360X standards and protocol via Direct. The referral request is reviewed and accepted, and the discrete data from the C-CDA populates the new patient's chart in the neurology office. The Accept message is sent to the PCP EHR.	eClinicalWorks MedAllies Epic	eClinicalWorks EHR MedAllies HISP Epic EpicCare	360X via Direct, HL7 C-CDA, HL7V2
eClinicalWorks, using the Argonaut FHIR Scheduling specification, schedules an appointment for Sheryl in the Epic system.	eClinicalWorks Epic	eClinicalWorks Epic Cadence	Argonaut FHIR Scheduling

Scenario	Vendor	Products	Standards
The brain MRI demonstrates multi-infarct dementia. The neurologist increases the Sheryl's Lisinopril dose from 20 mg 1 po qd to 40 mg 1 po qd and adds the ICD10 diagnoses of F01.51 for multi-infarct dementia with behavioral disturbance, and Z91.83 for wandering. Neurology staff return the consultation to the PCP via 360X Direct with a recommendation that Sheryl is placed in a skilled nursing facility (SNF).	Epic MedAllies eClinicalWorks	Epic EpicCare MedAllies HISP eClinicalWorks	360X via Direct, HL7 C-CDA HL7V2
The PCP, Dr. Massoud, (eClinicalWorks) receives the neurology consult, closing the referral loop. The PCP office reconciles the PAMI data in the eClinicalWorks chart.	eClinicalWorks	eClinicalWorks EHR	C-CDA
The PCP (eClinicalWorks), using 360X via Direct LTPAC functionality sends referral requests for Sheryl to two SNFs along with the C-CDA and PRI (PDF) to determine which of the SNFs will accept her.	eClinicalWorks MatrixCare Kno2	eClinicalWorks EHR MatrixCare/Kno2	360X via Direct, C-CDA, HL7V2
The SNFs receive the request, review the C-CDA and Patient Review Instrument (PRI) (PDF) and respond. Both accept the patient and send an "Accept" notification to the PCP (eClinicalWorks).	eClinicalWorks MatrixCare Kno2	eClinicalWorks EHR MatrixCare/Kno2	60X via Direct, L7V2
Sheryl, her caregiver and her PCP review key SNF performance data and select the SNF from the available options. The PCP (eClinicalWorks) sends a "confirm" SNF selection message to the selected SNF, and a "discontinue request" message to the not selected SNF.	eClinicalWorks MatrixCare Kno2	eClinicalWorks EHR MatrixCare/Kno2	360X via Direct HL7V2
The selected SNF creates a new patient chart from the discrete data in the C-CDA at the time Sheryl is admitted to the SNF.	MatrixCare	MatrixCare/Kno2	C-CDA
The selected SNF sends the PCP a notification when Sheryl is admitted. The PCP staff reviews the notification. This CLOSES THE LOOP.	MatrixCare eClinicalWorks	MatrixCare/Kno2 eClinicalWorks EHR	360X via Direct HL7V2

## Data Exchange Standards:

Vendor	Product	Category	Protocol	Interop Body	Interop Profile	Interop Actor	Interop Message	Send or Receive	Transaction Description
eClinical works	Web EHR	EHR	Direct/XDM	IHE PCC	360X	Referral Initiator	Referral Request	Send	An XDM package with a C-CDA document and an HL7 v2 message
			Direct/XDM	IHE PCC	360X	Referral Initiator	Referral Accept	Receive	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360X	Referral Initiator	Referral Decline	Receive	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360X	Referral Initiator	Referral Outcome	Receive	An XDM package with a C-CDA document and an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	Referral Confirm	Send	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	Referral Discontinue	Send	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	LTC Admit Notification	Receive	An XDM package with an HL7 v2 message
			FHIR Operations	Argonaut HL7	Argonaut Sched	Requester	\$find	Initiate	Retrieve a list of available appointment slots
			FHIR Operations	Argonaut HL7	Argonaut Sched	Requester	\$book	Initiate	Create an appointment for the chosen slot

Vendor	Product	Category	Protocol	Interop Body	Interop Profile	Interop Actor	Interop Message	Send or Receive	Transaction Description
Epic	EpicCare, Cadence	EHR, PM	Direct/XDM	IHE PCC	360X	Referral Recipient	Referral Request	Receive	An XDM package with a C-CDA document and an HL7 v2 message
			Direct/XDM	IHE PCC	360X	Referral Recipient	Referral Accept	Send	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360X	Referral Recipient	Referral Outcome	Send	An XDM package with a C-CDA document and an HL7 v2 message
			FHIR Operations	Argonaut HL7	Argonaut Sched	Responder	\$find	Respond	Provide a list of available appointment slots
			FHIR Operations	Argonaut HL7	Argonaut Sched	Responder	\$book	Respond	Create an appointment at the requested time slot
Kno2			Direct/XDM	IHE PCC	360XL	Referral Recipient	Referral Request	Receive	An XDM package with a C-CDA document and an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Recipient	Referral Accept	Send	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	Referral Confirm	Receive	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	Referral Discontinue	Receive	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	LTC Admit Notification	Send	An XDM package with an HL7 v2 message

Vendor	Product	Category	Protocol	Interop Body	Interop Profile	Interop Actor	Interop Message	Send or Receive	Transaction Description
MatrixCare	MatrixCare Transitions 2020-R1	LTPAC EMR	Direct/XDM	IHE PCC	360XL	Referral Recipient	Referral Request	Receive	An XDM package with a C-CDA document and an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Recipient	Referral Accept	Send	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Recipient	Referral Confirm	Receive	An XDM package with an HL7 v2 message
			Direct/XDM	IHE PCC	360XL	Referral Initiator	LTC Admit Notification	Send	An XDM package with an HL7 v2 message
MedAllies	MedAllies HISP v.3.4	HISP	SOAP XDR	IHE ITI	XDR	Document Source	ITI-41	Send	Provide and Register Document Set-b
			SOAP XDR	IHE ITI	XDR	Document Recipient	ITI-41	Receive	Provide and Register Document Set-b
			Direct/XDM	IHE ITI	XDM	Portable Media Creator	ITI-32	Send	XDM over SMTP and S/MIME
			Direct/XDM	IHE ITI	XDM	Portable Media Consumer	ITI-32	Receive	XDM over SMTP and S/MIME
Qvera	Qvera Interface Engine (QIE)	Interface Engine / Integration Engine	SOAP XDR	IHE PCC	360X	Referral Recipient	Referral Request	Receive	A Provide and Register XDR message with a C-CDA document and an HL7 v2 message
			SOAP XDR	IHE PCC	360X	Referral Recipient	Referral Decline	Send	A Provide and Register XDR message with an HL7 v2 message

References:

[360 Exchange Closed Loop Referral \(360X\)](#)

[360X Closed Loop Acute Care to SNF Transfer \(360XL\)](#)