

Provincial Client Registry

Implementation Guide

Version:

1.2

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2 Introduction

2.1 Background

The eHealth Identity, Access and Privacy (IAP) Program is responsible for enabling interaction with all of the people and businesses that are participants in the Ontario health system and is responsible for the development and deployment of critical eHealth infrastructure components for a Provincial Client Registry (Provincial CR) to uniquely identify the individuals who receive care in Ontario. The Provincial CR has been identified as one of the cornerstone systems (CS) and is the hub of the Ontario eHealth Blueprint and Reference Architecture.

The CS infrastructure supports shared services access to Electronic Health Records (EHR) in Ontario, and provides the foundation for existing eHealth solutions (e.g. Ontario Laboratories Information System (OLIS), Diagnostic Imaging) and upcoming medical solutions. The eHealth solutions will ultimately allow providers to improve the quality of health care delivered to patients and their families, and improve patient outcomes.

The purpose of this document is to provide implementation, compliance and conformance guidelines for use in developing software that conforms to the specifications adapted or adopted by eHealth Ontario through the Standards Development Life Cycle.

2.2 Ontario vs. pan-Canadian or International Standards

If pan-Canadian or international standards are available, why does eHealth Ontario need to constrain or extend those standards?

- Pan-Canadian standards have been developed in a number of clinical and administrative domains. These standards are intended to cover the needs and requirements of all jurisdictions across the country. As such, there are elements of these standards that are not appropriate in Ontario and need to be removed or constrained. We would expect jurisdictional differences to be small and manageable, primarily focused on legislative and practice differences amongst the jurisdictions.
- Standards being developed or proposed for use in Ontario by eHealth Ontario are subsets of pan-Canadian standards and quite closely aligned, taking into account Ontario constraints.
- Where there are no pan-Canadian standards, the eHealth Ontario Standards Program works with projects to develop Ontario standards which are subsequently proposed for consideration as pan-Canadian standards.
- For all Ontario EHR Interoperability Standards, the eHealth Ontario Standards Program works with the Canada Health Infoway Standards Collaborative working groups in order to ensure that Ontario requirements are incorporated into relevant pan-Canadian standards.

2.3 Scope

This document provides guidance for implementations supporting HL7 Version 3 messages in order to interact with the eHealth Ontario Provincial CR services, leveraging, enhancing and constraining pan-Canadian Client Registry (Volume 4) messaging standards as required for use in Ontario.

Sufficient business rationale is provided to illustrate the scenarios that the specification aims to fulfill. Storyboards, interactions, message types, vocabulary, data types, object identifiers, and HL7 XML message instance examples are included to facilitate the implementation process.

While the business processes that this specification is intended to support are identified in this document, provincial personal information and personal health information policies are out of scope for the specification.

2.4 Audience

The audience for this document includes eHealth Ontario Programs and any organizations implementing the specifications contained in this Implementation Guide.

The intended audience includes technical and business audiences who will use the guide to develop implementations and validate that these implementations conform to the specifications and to the requirements of stakeholder organizations. Readers are expected to have some basic understanding of HL7 V3 methodology and implementations.

A basic outline of HL7 methodology is provided in section 14.1.

2.5 Approach

A fundamental goal of this specification is to ensure that Ontario needs are met and that there is as much alignment with pan-Canadian and international specifications as possible. In that context, the following table outlines the approach that was used to develop this specification. It should be noted that while the process is shown as a linear progression many of the steps were iterative.

Table 1 - Provincial Client Registry Specification Development Approach

Step	Methodology
Review requirements	- Reviewed the following requirements documents: - eHealth Ontario Provincial Client Registry (PCR) -Business Requirements Summary Listing (v 1.02, June 2012) - eHealth Ontario EMPI-IF Integration Project Functional Design Requirements (v1.8, August 15, 2012) - Mapped requirements to the following standards: - eHealth Ontario Provincial Client Registry EMPI Interface Specification (v2.5, August 16, 2012)

Step	Methodology
Review relevant pan-Canadian and international standards and related documentation	• Canada Health Infoway pan-Canadian Messaging Standard (MR2009) – Client Registry (Volume 4) Business and Technical Artifacts (March 26, 2010) • eHealth Ontario Client Registry HL7 Interface Specification (v2.8 July 2011)
Validate Business Model and Requirements	• A series of eHealth PCR Requirements Validation Workshops were held with project stakeholders
Perform Options Analysis	• Select an existing standard to adapt / adopt based on the validated requirements • The Options Analysis exercise concluded that the most appropriate work upon which to base this specification was the MR2009 pan-Canadian Client Registry
Align with selected standard	• Constrain and /or extend the MR2009 pan-Canadian Client Registry standard as required to meet Ontario requirements
Review, Refine	• Review and refine the draft specification with Ontario stakeholders – repeating as necessary
Publish	• Publication of final specification

2.6 Assumptions

The assumptions identified as applicable to this Implementation Guide volume have been included in interaction description sections (7.1.1-7.1.9) in order to provide better guidance to implementers of that specific transaction.

2.7 Notes to Implementers

The MR2009 pan-Canadian Client Registry message models were adopted ‘as is’ with the exception of a pre-adopted change to the artefact “identifiedEntity.id” which is expected to be included in the next release of the pan-Canadian Client Registry messaging standards.

Although message models and schemas are not altered, business logic was applied to limit data elements cardinalities in support of stakeholders’ business requirements, reflected in the Provincial CR physical data model. Those constraints are described in the Section 7.2.1 and shall be applied to models listed in the section.

2.8 Risks

eHealth Ontario pre-adopted the cardinality change for the identifiedEntity.id from [1..40] to [1..1000]. Artifacts were generated by eHealth Ontario Standards Program. The change will be validated after the next pan-Canadian messaging standards maintenance release.

2.9 Referenced Documents

Table 2 - Reference Documents¹

#	Document Name	Version	Comments
DOC01	Canada Health Infoway SC-0006-EN - Implementation Guide - Volume 4 - Client Registry	R02.04.02, March 26 2010	
DOC02	Canada Health Infoway SC-3002-EN-Data Type Specification	R02.04.03, August 31, 2010	
DOC03	eHealth Ontario Provincial Client Registry (PCR) - Business Requirements Summary Listing	v 1.02, June 2012	
DOC04	eHealth Ontario Provincial Client Registry EMPI Interface Specification	V2.5, August 16 2012	
DOC05	eHealth Ontario EMPI-IF Integration Project Functional Design Requirements	V1.8, August 15 2012	
DOC06	eHealth Ontario Provincial Common Integration Services (Pub-Sub) specification	(Available February 2013)	
DOC07	eHealth Ontario Blueprint 2015		
DOC08	Provincial CR OID List	V1.1, January 2013	
DOC09	Ontario Consent Directives specification	V1.01, June 2012	

¹ Some of these documents are not readily publicly available but may be made available by request to the IAP Program on a case-by-case basis.

2.10 Acronyms

Table 3 – Acronyms Used in this Document

Acronym	Full Name
BRD	Business Requirements Document
BRG	Business Review Group
CHI	Canada Health Infoway (“Infoway”)
CR	Client Registry
CS	Cornerstone Services
EHR	Electronic Health Record
EHRi	Electronic Health Record Infrastructure
EID	Enterprise Identifier
EMPI	Enterprise Master Patient Index
HL7	Health Level Seven
IAP	Identity, Access and Privacy
iEHR	Interoperable Electronic Health Record
IHE	Integrating the Health Care Environment
ISO	International Standards Organization
MoHLTC	Ministry of Health and Long-Term Care
MR	Maintenance Release
MRN	Medical Record Number
OLIS	Ontario Lab Information System
pCCP	pan-Canadian Conformance Profile(s)
pCS	pan-Canadian Standard(s)
PHI	Personal Health Information
PI	Personal Information

Acronym	Full Name
PIA	Privacy Impact Assessment
PCR	Provincial Client Registry
PSA	Privacy and Security Architecture
RFP	Request for Proposals
SC	Standards Collaborative
SCWG	Standards Collaborative Working Group
TRG	Technical Review Group

2.11 Changes to the Specification

Place holder for documenting changes made after the first official release.

3 Business Context

3.1 Business Model

The use cases described in the following sections represent possible scenarios related to the Patient Administration function in the clinical care settings and can be implemented using the Provincial CR services. The use cases have been collated to produce an overarching business model (diagrammed below) to help better illustrate the complete set of supported business functions.

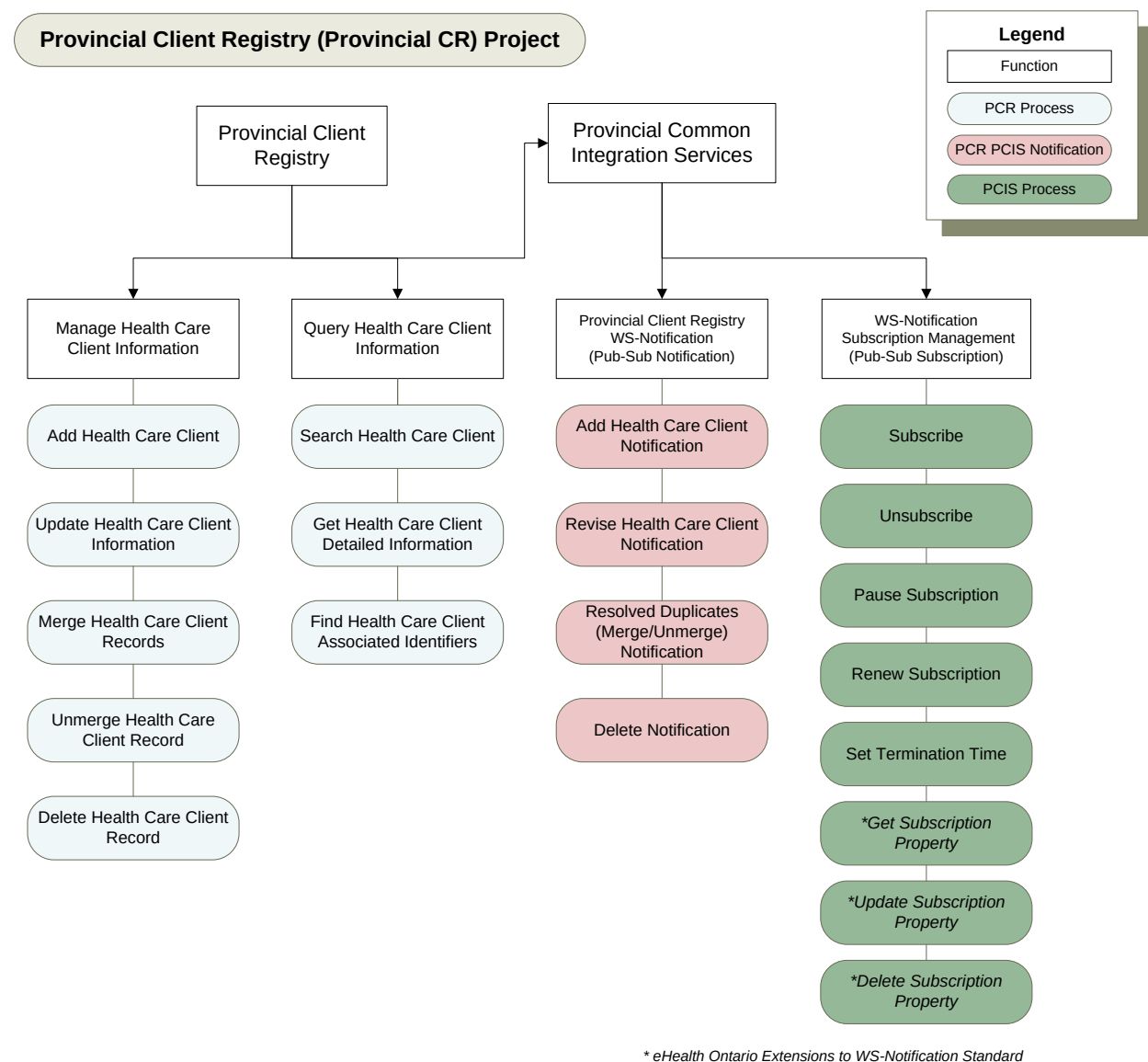


Figure 1 - Provincial CR Business Model

PCR Processes – a collection of activities that allow the management and viewing of information about a Health Care Client in the Provincial CR.

PCR Notifications – Notification services, delivered by Provincial Common Integration Services (PCIS), related to Health Care Client identification change events.

PCIS Processes – Publication-Subscription services, delivered by Provincial Common Integration Services, to communicate Health Care Client identification change events to EHR systems.

3.1.1 Provincial CR Key Concepts

This section describes core definitions, required to understand the Provincial CR implementation guide.

3.1.1.1 Health Care Client

Health Care Client is a person who:

- is eligible to receive health care services in Ontario, or
- has received or is receiving health care services in the province of Ontario (i.e. a patient).

3.1.1.2 Person Identification Domains

Person Identification Domain (PID) is a logically defined data domain, where information about a Health Care client is attached to the unique identifier. A source system that contributes information to this domain is called **Definitional Source**.

Definitional Source may be formed by one or more sources. If the hospital uses a corporate model, multiple hospitals may submit information to the central database. Individual hospital/sub-system feeds are called **Informational Sources**.

Object identifiers are assigned to each Person Identification Domain and enumerated in the Provincial CR OID List [DOCo08].

3.1.1.3 Identifier types

Definitional Identifier is a unique identifier within Person Identification Domain, assigned by the health information custodian (i.e. Hospital, Clinic, or Pharmacy).

Informational Identifier is a unique identifier within an Informational Source that may be assigned to a health care client record and communicated to the Provincial CR. Jurisdictional Health identifiers, Driver Licence numbers, Passport numbers are considered an informational identifier as well and may be communicated to the Provincial CR. Identifiers and their OIDs are listed in the Provincial CR OID List [DOCo08].

3.1.1.4 Ontario Consent Management Program

eHealth Ontario is currently leading a Consent Management Program (CMP), which operates as part of the Identity, Access, and Privacy (IAP) Program. The IAP Program, part of eHealth Ontario's Cornerstone Information Systems (see Ontario's eHealth Blueprint), enables interaction with all the people and businesses that are participants in the Ontario health system. Specifically, it supports the identification of clients and providers, controls access to information and manages the consent of citizens.

The vision of CMP is to provide Ontarians with the ability to exercise control over the sharing of personal health information (PHI) through the management of consent directives. CMP also aims to ensure public confidence in the deployment of an electronic health solution, as it must address end-users' privacy concerns and protect PHI that is under eHealth Ontario's control.

eHealth Ontario provides a specification to enable interoperable exchange and management of consent directives; it is referred to as the Ontario Consent Directives specification (OnCD) [DOC009]. OnCD will be consent policy neutral, providing the flexibility needed in order to ensure that consent management solutions can follow the consent policy developed by the Ontario Ministry of Health and Long Term Care (MoHLTC).

Provincial CR solution foresees Ontario Consent Directives solution will handle all consent needs. The near term implementation has identified the use of A_ConsentEventRegistryBasic (COCT_MT470012CA) is not required.

3.2 Use Cases and Participants

3.2.1 Participants

This section defines roles of healthcare applications when using the Provincial CR to get or update client information.

Definitional Source (system) – a point of service application that initiates requests to add or update health client records into the Person Identification Domain within Provincial CR; for example: Good Health Hospital Information System; Dr. Bob's Electronic Medical Record (EMR) application.

Definitional Source User, a user (human) – a person who interacts with the Definitional Source System; for example: a hospital registration clerk; a physician, etc.

Provincial Client Registry (system) – a system that supports the centralized storage and retrieval of client identification information (i.e. names, addresses, identifiers, etc.).

Notification Consumer (system) – a system that is designed to receive notifications produced by the Notification Manager as a result of a subscription.

Notification Producer (system) – a system that is capable of producing notifications for those Notification Consumers for which subscriptions have been registered based on provided subscription parameters.

3.2.2 Use Cases

This section describes key use cases scoped by the following business functions:

- Manage Health Care Client Information
- Query Health Care Client Information
- Provincial CR Notification
- Subscription Management

3.2.2.1 Manage Health Care Client Information and Provincial CR Notification

The Manage Health Client Record function describes scenarios when the Provincial CR User submits requests to add or update health care client identification information in the Provincial CR System.

The Provincial CR Notification function is invoked to inform Notification Consumer systems about health care client information changes. Details of Provincial CR WS-Notification and Subscription Management interface are outlined in the eHealth Ontario Provincial Common Integration Services (Pub-Sub) Specification [DOCo06].

3.2.2.1.1 Add Health Care Client Record

Purpose

The Add Health Care Client Record scenario describes messaging interactions invoked to add a record about a health care client into the Provincial CR. The registry will respond with the Accept or Reject Response message. The unique health client identifier (EID) will be assigned to a record and it will be returned to eligible systems via subscription notification.

Story Event

Eve Everywoman has enjoyed good health and has never been admitted to a hospital. She showed up in the hospital emergency room with a high fever after travelling to a different country. After being seen by the Triage Nurse, Eve proceeded to the registration clerk so that her medical record for her visit can be created. Connor Comrade, the registration clerk, attempts several Provincial CR Find Candidates Queries, but as he can find no previous record, the clerk requests to add a new record about the health client to the Provincial CR. Connor carefully completes the on screen record detailing Eve's full name, address, date of birth, sex and telephone number as well as the hospital Corporate ID/Medical Record Number (MRN). This data is transmitted to the Provincial CR as a request to add a Client Record. The Notification Manager generates an Add Client Notification message that broadcasts information about EID, clinical identifiers and health client demographics, informing Notification Consumer information systems about the new record in the registry.

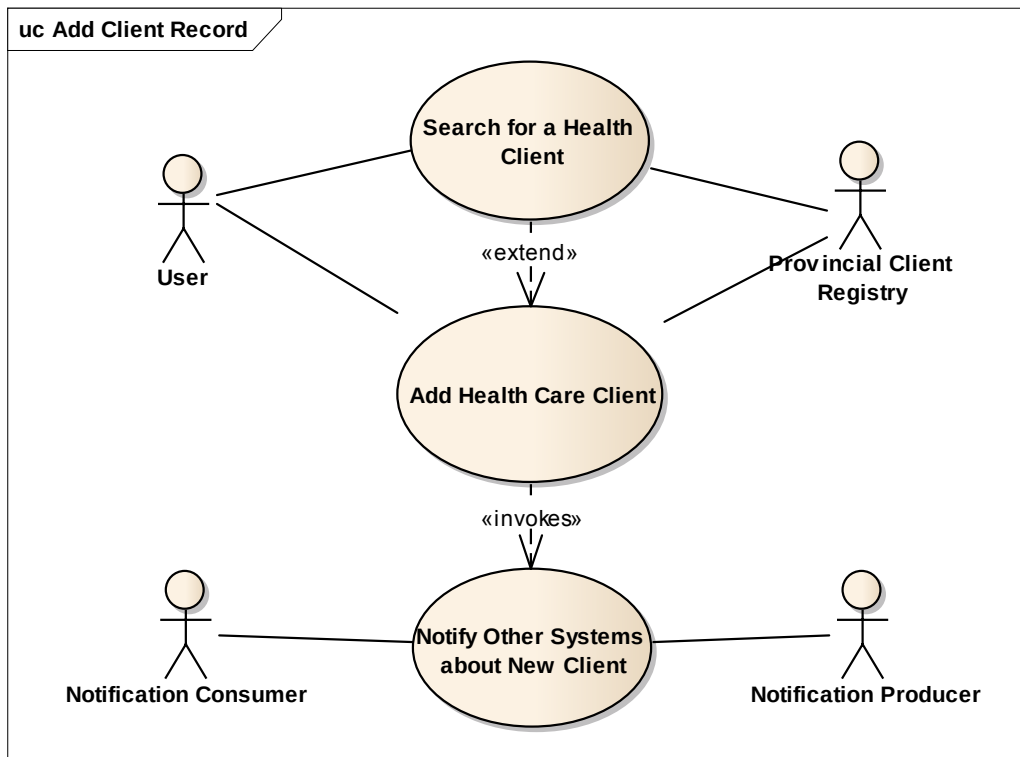


Figure 2 - Add Client - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR responds that there is no record that matches the criteria.
3. A User decides to send a request to add a client record to the Provincial CR; the request includes client identifiers and current demographic information (Add Client Request).
4. If sufficient information is provided to complete the action, the Provincial CR will respond with an Add Client Accept Response.
5. The Notification Producer sends a notification about a new identifier to Notification Consumers.

Alternate Flow of Events 1

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR responds that there is no record that matches the criteria.
3. A User decides to send a request to add a client record to the Provincial CR; the request includes client identifiers and current demographic information (Add Client Request).
4. If there is not enough information or a business rules violation is identified e.g., the definitional client identifier is not provided, the Provincial CR responds with Add Client Reject Response.

Alternate Flow of Events 2 – Add Newborn Request

1. A User initiates a request to add a client record of a newborn baby to the Provincial CR and provides client identifiers and known demographic information.
2. If the request was processed successfully, the Provincial CR system responds with an Add Client Accept Response, or if the action can't be completed due to system errors or a business rules violation, an Add Client Reject Response is sent.

Interaction Diagram

Detailed Messaging Sequence diagram is included in the Section 7.1 Transactions and Interactions: 7.1.8 Find Candidates Query/Response; 7.1.1 Add Client Request/Response and 7.1.2 Add Client Notification.

3.2.2.1.2 Update Client Information

Purpose

The Update Health Care Client Demographics use case describes messaging interactions for updating an existing record in the Provincial CR. The Provincial CR will process a request and respond with the successful confirmation or return an error details.

Story Event

A baby was born in hospital was registered in the Provincial CR and received a client identifier (Health Care Number (HCN), MRN, and/or Corporate ID); the baby was unnamed at the time. The baby's demographic information was added to the PCR without the baby's name. A few weeks later after leaving the hospital, the mother brings the baby to a local clinic for the scheduled visit. The local clinic receptionist performs a search against the PCR using the baby's client identifier. The list of candidate records is returned. The receptionist locates the matching record and calls a Get Client Demographic function to obtain full information. Demographic information for the baby is returned. The receptionist validates the demographic information, updates it and sends a request to the Provincial CR to update the record with the baby's name.

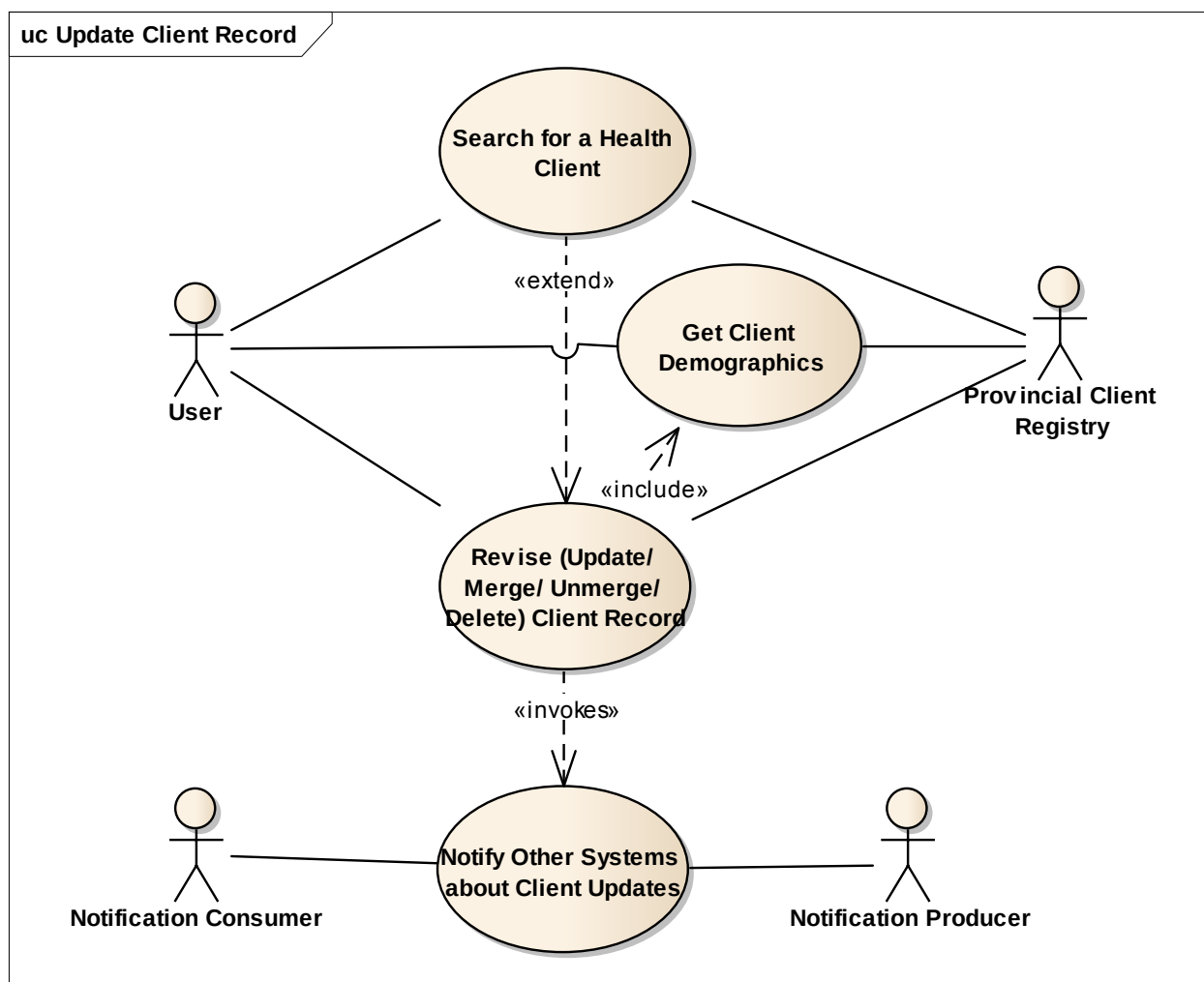


Figure 3 - Revise (Update) Client - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR responds with the list of matching candidates' records.
3. A User initiates a Get Client Demographic query using the client identifier to the Provincial CR.
4. A Get Client Demographic Response is returned with corresponding client information.
5. A Revise Person request is sent to the Provincial CR with current demographic information, current and former identifiers.
6. The Provincial CR responds with the Revise Person Accept Response.

Alternate Flow of Events 1

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR responds with the list of matching candidates' records.
3. A User initiates a Get Client Demographic query using the client identifier to the Provincial CR.
4. A Get Client Demographic Response is returned with corresponding client information.
5. A Revise Person request is sent to the Provincial CR with conflicting or incomplete information.
6. The Provincial CR responds with the Revise Person Reject Response.

Interaction Diagram

Detailed Messaging Sequence diagram is included in the Section 7.1 Transactions and Interactions: 7.1.8 Find Candidates Query/Response; 7.1.7 Get Client Demographic Query/Response; 7.1.3 Revise Client Request/Response and 7.1.4 Revise Client Notification.

3.2.2.1.3 Merge Health Care Client Records

Purpose

The Merge Health Care Client Records use case describes messaging interactions for resolving discovered duplicate information records for the same client in the Provincial CR. The Registry will process a request and respond with the successful confirmation or return an error details.

Story Event

Anne Smith, a registration clerk searches for the patient record in her Hospital Information System using demographics information. Anne discovers two records for the same health care client in her Hospital Information System and merges them; this triggers the sending of a request to merge information to resolve duplicates in the PCR.

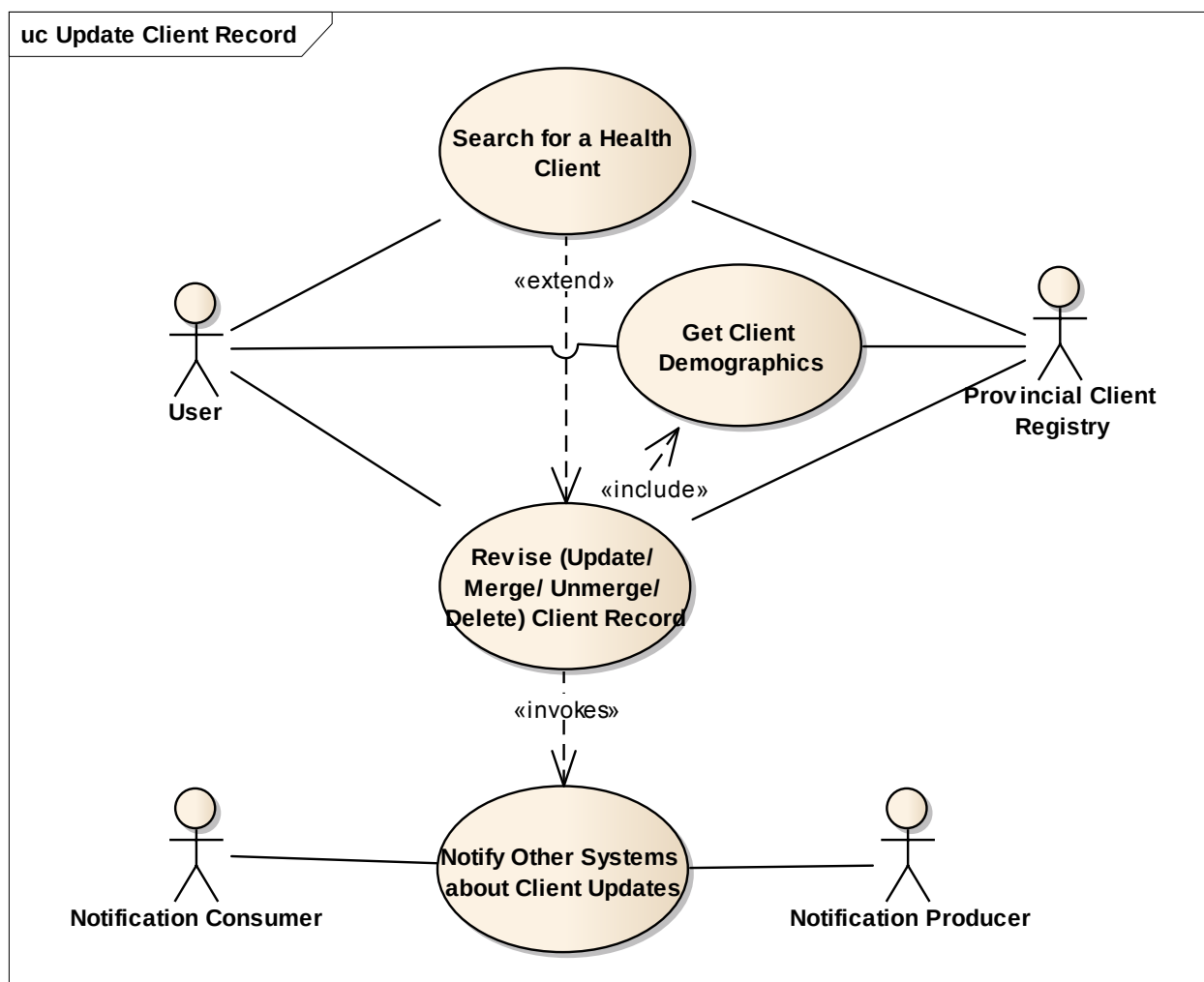


Figure 4 - Revise (Merge) Client - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR system responds with the list of matching candidates' records.
3. A User initiates a Get Client Demographic query using the client identifier to the Provincial CR for each suspected record to confirm duplicate information discovered.
4. A Get Client Demographic Response is returned with corresponding client information.
5. A User sends a Revise Person (Merge) request to the Provincial CR with the current and former identifiers.
6. The Provincial CR responds with the Revise Person Accept Response.
7. The Notification Producer sends a Resolve Duplicates (Merge) notification to Notification Consumers.

Interaction Diagram

Detailed Messaging Sequence diagram is included in the Section 7.1 Transactions and Interactions: 7.1.8 Find Candidates Query/Response; 7.1.7 Get Client Demographic Query/Response; 7.1.3 Revise Client Request/Response and 7.1.5 Resolve Duplicate Person Registration.

3.2.2.1.4 Unmerge Health Care Client Records

Purpose

The Unmerge Health Care Client Records use case describes messaging interactions for unmerging previously merged health care client records in the Provincial CR. The Registry will process a request and respond with the successful confirmation or return an error details.

Story Event

Anne Smith, a registration clerk searches for a patient record in her Hospital Information System using demographics information. Anne discovers a previously merged record. After interviewing a patient, she identifies that merged records belong to twin sisters and unmerges them in her Hospital Information System; this triggers the sending of a request to unmerge health care client records to the PCR.

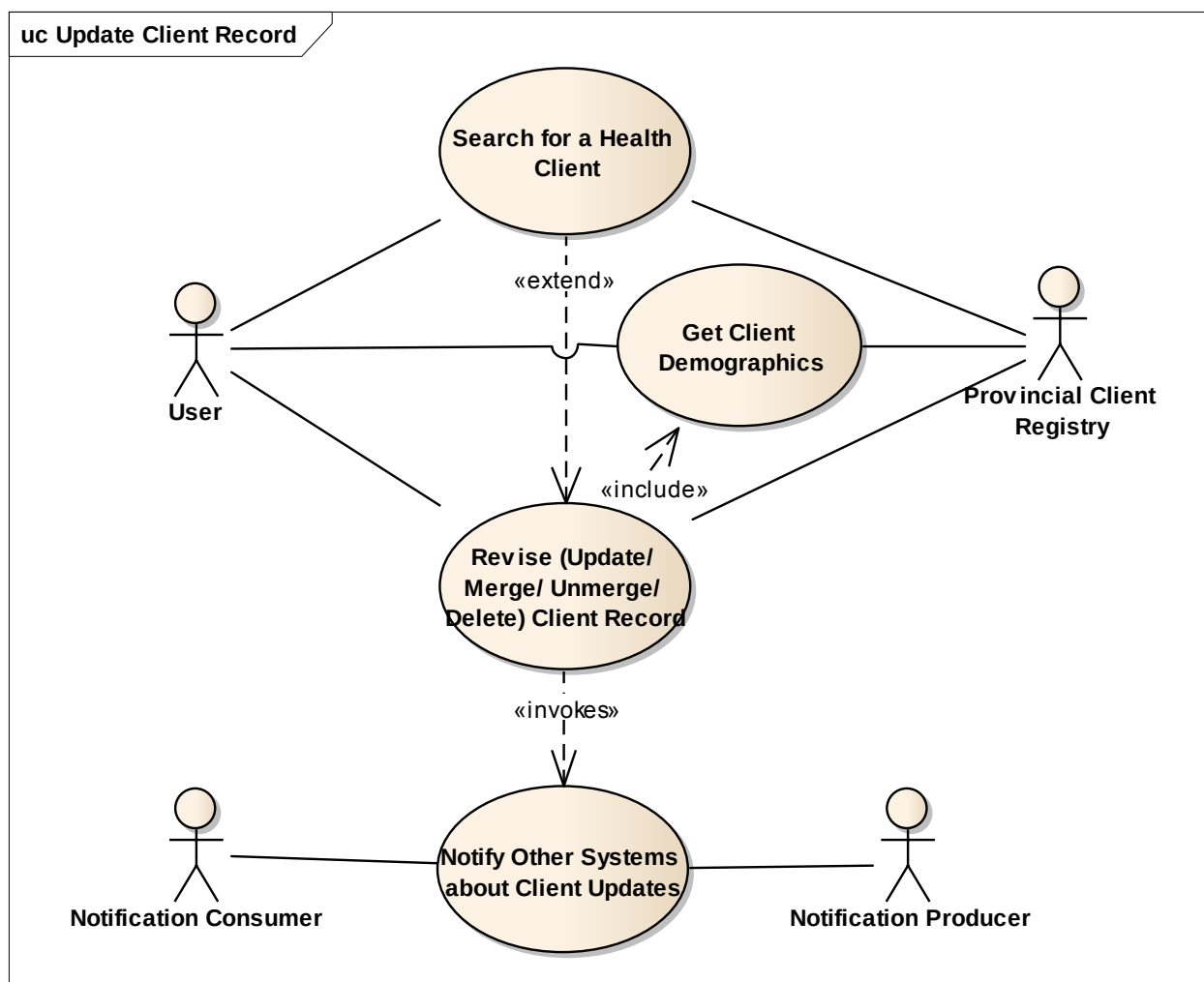


Figure 5 - Revise (Unmerge) Client - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR system responds with the list of matching candidates' records.
3. A User initiates a Get Client Demographic Query using the client identifier to the Provincial CR to confirm health care client information.
4. A Get Client Demographic Response is returned with corresponding client information.
5. A Revise Person (Unmerge) request is sent to the Provincial CR with the identifier of the previously merged record.
6. The Provincial CR responds with the Revise Person Accept Response.
7. The Notification Producer sends a Resolve Duplicates (Unmerge) notification to Notification Consumers.

Interaction Diagram

Detailed Messaging Sequence diagram is included in the Section 7.1 Transactions and Interactions: 7.1.8 Find Candidates Query/Response; 7.1.7 Get Client Demographic Query/Response; 7.1.3 Revise Client Request/Response and 7.1.5 Resolve Duplicate Person Registration.

3.2.2.1.5 Delete Health Care Client Record

Purpose

The Delete Health Care Client Records use case describes messaging interactions involved to nullify a health care client record created in error. The Registry will process a request and respond with the successful confirmation or return an error details.

Story Event

Anne Smith, a registration clerk, created a health care client record in error. She submits a Revise Request to nullify this record.

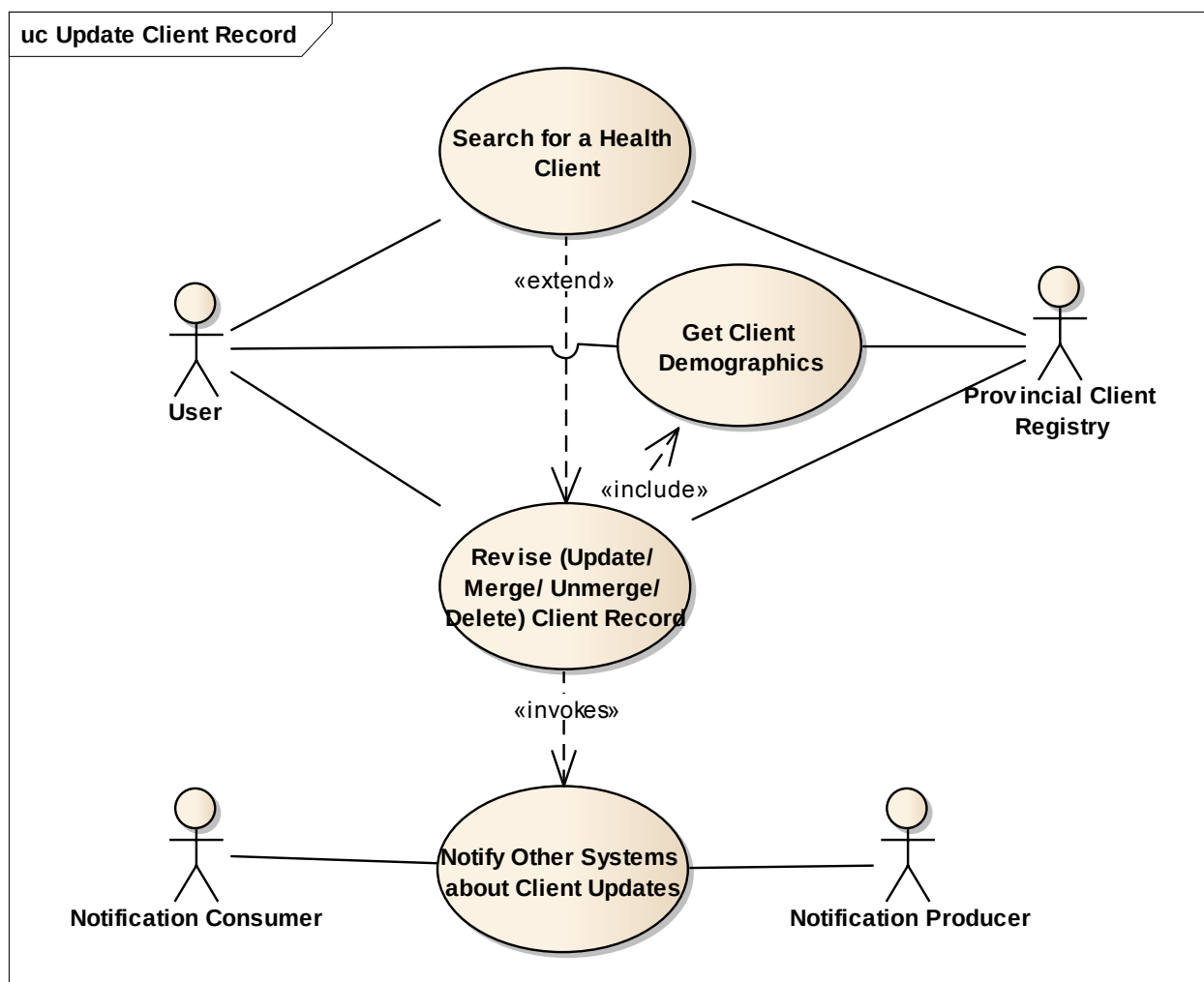


Figure 6 - Revise (Delete) Client - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Get Client Demographic query using the client identifier to the Provincial CR for the record to confirm this is the record that needs to be deleted.
2. A Get Client Demographic Response is returned with corresponding client information.
3. A User initiates a Revise Person (Delete) Request to the Provincial CR with the record identifier.
4. The Provincial CR responds with the Revise Person Accept Response.
5. The Notification Producer sends a Delete Client notification to Notification Consumers.

Interaction Diagram

Detailed Messaging Sequence diagram is included in the Section 7.1 Transactions and Interactions: 7.1.8 Find Candidates Query/Response; 7.1.7 Get Client Demographic Query/Response; 7.1.3 Revise Client Request/Response and 7.1.6 Client Registry Delete Notification.

3.2.2.2 View Health Care Client Records

The View Health Client Records function describes business use cases that enable EHR applications to view demographic and identification information of the health care client in the Provincial CR.

3.2.2.2.1 Find Associated Client Identifiers

Purpose

The Find Update Client use case describes querying the Provincial CR for all known identifiers associated with a particular person identifier.

Story Event

Christopher Clerk works at the Digital Imaging (DI) Regional Records Management Office. The Document Repository that is in place associates all the identifiers for a person in order to allow access to all the digital imaging reports within the Document Repository for a person. Christopher Clerk enters an identifier for Adam Everyman and initiates a Find Associated Identifiers Query to the Provincial CR. The registry returns a Find Associated Identifiers Response with all identifiers associated with Adam Everyman in the Provincial Client Registry.

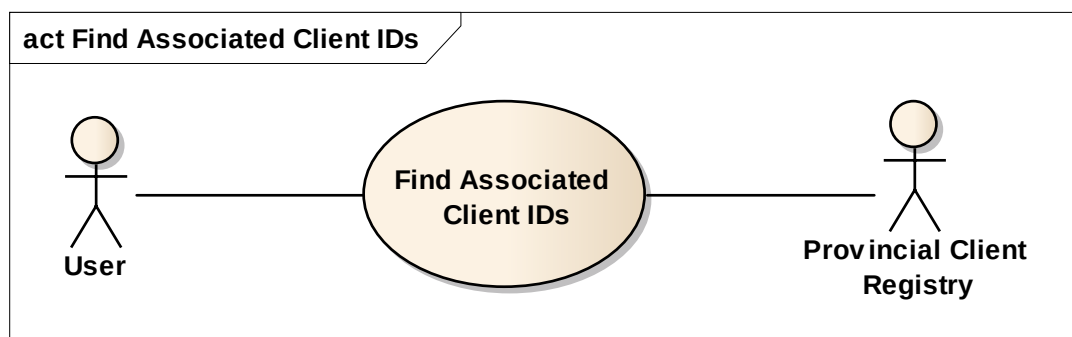


Figure 7 - Find Associated Ids Query/Response - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Associated Client Ids Query to the Provincial CR.
2. The Provincial CR returns a Find Associated Clients Ids Response with a matched record.

3.2.2.2.2 Find Matching Candidates

Purpose

The Find Candidates use case describes querying the Provincial CR for a list of clients matching the search criteria when the client identifier is not known.

Story Event

Dr. Smith, who has admitting privileges at North General Hospital (NGH), requested person demographics for his patient, Adam Everyman. The NGH medical record clerk, Peter Clerk, first determined whether Mr. Everyman is in the Provincial CR. Peter used the Connecting Greater Toronto Area (cGTA) Provincial CR portlet and entered Mr. Everyman's last name, first name and gender and initiated a Find Candidates Query to the Provincial CR. The person registry returned a Find Candidates Query Response with the collection of candidate records allowing Peter Clerk to refine the query for Adam Everyman, if desired.

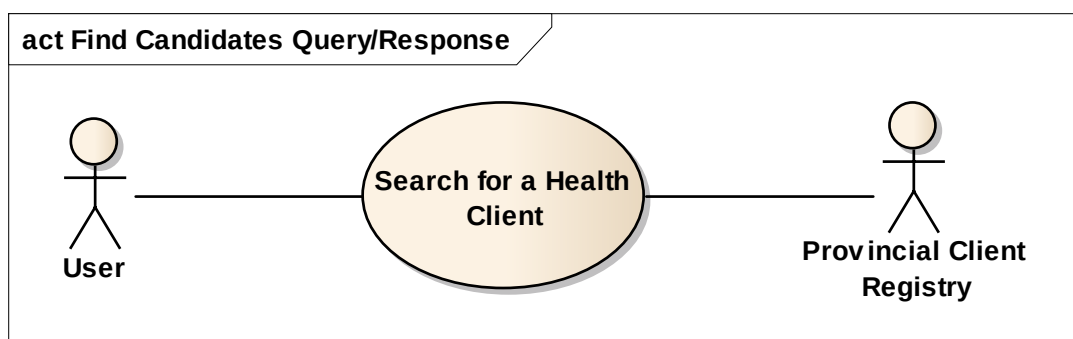


Figure 8 - Find Candidates Query/Response - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Find Candidate Query to the Provincial CR.
2. The Provincial CR returns a Find Candidate Response with the list of matching candidates' records.

3.2.2.2.3 Get Client Demographics

Purpose

The Get Client Demographic use case describes querying the Provincial CR for the detailed demographic information corresponding to a client identifier.

Story Event

Dr. Alan Admit, who has admitting privileges at Good Health Hospital (GHH), notified the GHH Registration Office that his patient, Adam Everyman, would arrive at the hospital at a scheduled time, and that his office had performed a pre-admit for Adam Everyman. As part of the admitting process, the GHH Registration clerk Alice Admitter entered

Mr. Everyman's person identifier and initiated a Get Client Demographics Query to the Provincial CR. The Provincial CR returned Mr. Everyman's current demographic information in a Get Client Demographics Query Response and Alice confirmed this information with Mr. Everyman as she completed the admission process.

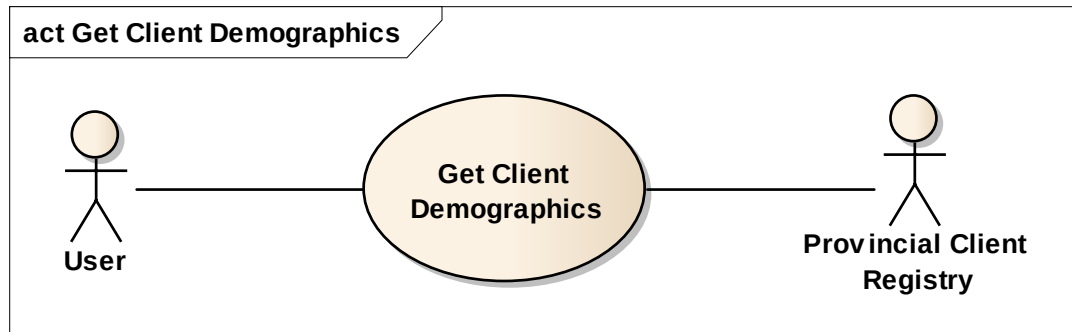


Figure 9 - Get Client Demographics Query/Response - Activity Diagram

Flow of Events

1. A User of a Definitional Source system, such as a Hospital Information System, initiates a Get Client Demographics Query to the Provincial CR.
2. The Provincial CR returns a Get Client Demographics Response with a matching record.

4 Business-Based Considerations

The following sections identify business-based considerations.



The developers of this Specification do not assert that the set of Business-based considerations and guidelines are complete.

4.1 Provincial Client Registry

Ontario's Provincial Client Registry (Provincial CR or PCR) provides a source for the latest known client identifiers and demographic information to assist in uniquely identifying a client being registered for the purpose of receiving health care. The system assists with identifying duplicate records and links identities across source systems.

The purpose of implementing a province wide client registry system is to provide a single, province-wide view of client demographic and identifying information, and to improve the integrity of client information both within and across health care organizations, and to lay the foundation for future sharing of clinical information across organizational boundaries, as per eHealth Ontario's Blueprint, and in support of the electronic health record.

4.1.1 Security and Privacy Considerations

Prior to implementing Provincial CR interface, an organization should appropriately complete security and privacy impact assessments (PIA) and implement the recommendations of those assessments. Care should be taken to ensure that the confidentiality and integrity of PHI in transit and at rest can be maintained at a level that is appropriate for the implementing organization.

Information from the Provincial CR is considered to be Personal Information and Personal Health Information in the context of an EHR. As a result, access to the health client information must be restricted to only appropriately **authorized users** and used on a **need-to-know** basis.

4.1.2 Known Issues

None at this time.

4.1.3 Creating, Modifying and Deleting Records

Create conformance: a new record request shall contain a definitional identifier, assigned to a health care client by the Definitional Source System, with associated client demographic information.

Update conformance: an update request shall contain a definitional identifier, used to add a record to the Provincial CR, accompanied by new health client information.

Merge conformance: two definitional identifiers shall exist in the message, surviving and non-surviving.

Unmerge conformance: only one definitional identifier of the previously merged record required. If the record wasn't merged, the error code will be returned.

Delete conformance: only one definitional identifier is expected in the message. The deleted record will not be physically removed from the Provincial CR; the record status will be changed to "inactive".

5 Implementation Considerations



The developers of this Specification do not assert that the set of implementation considerations and guidelines are complete.

5.1 Cardinality Considerations

The Ontario Provincial CR specification uses the following cardinalities:

- 0..1: Optional, single occurrence
- 0..N: Optional, up to N occurrences
- 1..1: Mandatory, single occurrence
- 1..N: Mandatory, up to N occurrences (at least one occurrence)

Cardinalities of demographic elements are constrained by the system and outlined in the section below. Business logic checks the conformance of the message and an error may be returned if the cardinality constraints are not followed. It is possible the cardinality will be modified in future releases.

5.2 Provincial Client Record Data Elements

The Table 4 illustrates demographic and identification information available from the Provincial CR, data element cardinalities and a mapping to HL7 v3 attributes.

Table definition:

- Attribute Name:** a business name of the data element
- HL7 v3 Name:** HL7 v3 attribute name that corresponds with the business name
- Max Active:** Indicates a number of active historical records in the Provincial CR. If there are more attributes of the same type submitted to the registry, older updates will be stored as inactive and latest updates will be returned in queries.
- Data Sample:** An example of possible values assigned to a data element.

Table 4 - Provincial CR Record Attributes

Attribute Name	HL7 v3 Name	Max Active	Data Sample
Alternate Identifier	identifiedEntity.id	100	Driver Licence RT091-12990192-090
Health Number	identifiedEntity.id	1	9876543217

Attribute Name	HL7 v3 Name	Max Active	Data Sample
MRN	identifiedEntity.id	1000 (See note*)	UHN000002
Home Address	identifiedPerson.addr	1	123 Home Line Toronto ON M1M 1M1
Mailing Address	identifiedPerson.addr	1	P.O. Box 200 Toronto ON M1M 1M2
Confidentiality Indicator	identifiedEntity.confidentialityCode	1	TRUE
Corporate Identifier	identifiedEntity.id	See note*	UHN0002
Death Indicator	identifiedPerson.deceasedInd	1	FALSE
Gender	identifiedPerson.administrativeGenderCode	1	M
Birth Date	identifiedPerson.birthTime	1	1972-01-01
Death Date	identifiedPerson.deceasedTime	1	
Home eMail	identifiedPerson.telecom	1	home@mail.com
Workplace eMail	identifiedPerson.telecom	1	work@ehealthontario.on.ca
Language	identifiedPerson.languageCommunication	2	ENG
Multiple Birth Indicator	identifiedPerson.multipleBirthInd	1	TRUE
Multiple Birth Order	identifiedPerson.multipleBirthOrder	1	2
Legal Name	identifiedPerson.name	1	John Smith
Alias	identifiedPerson.name	1	JS
Birth Mother	identifiedPerson.personalRelationship	1	Anna Smith
Next of Kin	identifiedPerson.personalRelationship	1	Mark Twain
Emergency Phone	identifiedPerson.telecom	1	416-111-1111

Attribute Name	HL7 v3 Name	Max Active	Data Sample
Home Phone Number	identifiedPerson.telecom	1	416-222-2222
Mobile Phone	identifiedPerson.telecom	1	416-333-3333
Other Phone Number	identifiedPerson.telecom	1	416-444-4444
Work Phone	identifiedPerson.telecom	1	416-555-5555

Note: The total number of clinical identifiers should not exceed 1000 identifiers. This eHealth Ontario extension was approved as a change to a pan-Canadian model identifiedEntity.id in all Client Registry message types.

5.3 Inbound and Outbound Notifications

Pan-Canadian HL7 v3 Messaging standards describe to types of notifications: Inbound and Outbound.

Inbound notifications may be sent to the Provincial CR in Ontario by other jurisdictional registries to communicate updates, related to Ontario health clients' identification information.

Outbound notifications are generated by the Provincial CR (Notification Producer) and designed to broadcast health care client identification updates to Notification Consumer systems.

Details of the Provincial WS-Notifications and Subscription Management interface are outlined in the eHealth Ontario Provincial Common Integration Services (Pub-Sub) Specification [DOC006].

The current release of the Provincial CR supports outbound notifications only.

6 Vocabulary-Based Considerations



The developers of this Specification do not assert that the set of vocabulary-based considerations and guidelines are complete.

6.1 HL7 Compliance

In order to be compliant with the HL7 Standards, all concept domains must be registered with HL7 international. The current design is that the model is associated with the concept domain. The vocabulary worksheet then asserts a binding, in the ON-CA realm, to be included in the value set.

All .code attributes are bound only to concept domains (as indicated in the RMIM).

6.2 New Codes

Any codes created as part of this specification which appear in an HL7 Concept Domain will be proposed for addition to the pan-Canadian vocabulary and harmonized appropriately.

Any new codes created as part of the specification or any requests for additional codes will be managed as per the eHealth Ontario Terminology Maintenance management process.

6.3 Lists of Codes

The vocabulary worksheet contains the list of allowable coded values for the majority of the coded concepts with the following exceptions:

- HL7 v3 structural codes or concepts with a fixed single value do not have their own worksheets. Structural codes are defined as codes that are bound to structural elements – elements that describe HL7 v3 classes and message structure, but don't convey any business information. A reference to the HL7 v3 source is provided in the worksheet titled "Vocabulary Code Systems & OIDS"
- The list of allowable codes is too long to publish (e.g. HumanLanguage), in which case a partial list is published in the appropriate worksheet with a notice that it is only a partial list and instructions that implementers can use the OID provided to determine the complete list of codes from the source terminology.
- The Provincial Client Registry only supports a subset of codes available in the source terminology (e.g. GenericUpdateReasonCode), and therefore the worksheet only contains the supported subset.

7 Message Specification Overview

7.1 Application Roles

This section defines application roles for the Provincial CR implementation.

7.2 Person Registry Query Placer

This is a pan-Canadian HL7 v3 Messaging Standard (MR2009) application role that represents applications that initiate queries to the Provincial CR.

Application example: Hospital Information System, EMR, Lab Information System

7.2.1 Person Registry Query Fulfiller

This is a pan-Canadian HL7 v3 Messaging Standard (MR2009) application role that represents the responsibility of the Provincial CR to respond to queries.

Application Example: Ontario Provincial CR

7.2.2 Person Comprehensive Placer

This is a pan-Canadian HL7 v3 Messaging Standard (MR2009) application role that represents applications that inform the Provincial CR about health care client identification related events including: creation, updates, merges, etc.

Application example: Hospital Information System, EMR, Lab Information System

7.2.3 Person Comprehensive Fulfiller

This is a pan-Canadian HL7 v3 Messaging Standard (MR2009) application role that represents the responsibility of the Provincial CR to respond to health care client identification related events including: creation, updates, merges, etc.

Application Example: Ontario Provincial CR Notification Producer

7.2.4 Person Comprehensive Tracker

This is a WS-Notification standard role, a system that designed to receive notifications produced by the Notification Manager as a result of a subscription.

7.2.5 Person Comprehensive Informer

This is a WS-Notification standard role, a system, capable of producing notifications for those Notification Consumers for which subscriptions have been registered based on provided subscription parameters.

7.3 Transactions and Interactions

This section describes the structure of Provincial CR messages that conform to this specification. The artifacts indicated by “ON” have been constrained or extended specifically for the Ontario PCR specification:

Table 5 - PCR Interoperability Interactions Summary

Use Case	Scenario(s) Involved	Trigger Event	Trigger Event Identifier	Interaction Identifier
Manage Health Client Records	Add Client Record	New Person Added Request	PRPA_TE101201CA	PRPA_IN101201CA
	Update Client Record	Person Demographics Revised	PRPA_TE991204ON	PRPA_IN101204CA
	Merge Client Records	Person Records Revised (Merge)	PRPA_TE991205ON	PRPA_IN101204CA
	Unmerge Client Records	Person Records Revised (Unmerge)	PRPA_TE991206ON	PRPA_IN101204CA
	Delete Client Record	Person Record Revised (Nullify)	PRPA_TE991207ON	PRPA_IN101204CA
View Health Client Records	Find Candidates	Find Candidates Query	PRPA_TE101103CA	PRPA_IN101103CA
		Find Candidates Response	PRPA_TE101104CA	PRPA_IN101104CA
	Find Health Care Client Associated Identifiers	Find Associated IDs Query	PRPA_TE101105CA	PRPA_IN101105CA
		Find Associated IDs Response	PRPA_TE101106CA	PRPA_IN101106CA
	Get Health Care Client Demographics	Get Demographics Query	PRPA_TE101101CA	PRPA_IN101101CA
		Get Demographics Response	PRPA_TE101102CA	PRPA_IN101102CA

Use Case	Scenario(s) Involved	Trigger Event	Trigger Event Identifier	Interaction Identifier
Subscription Notifications	Add Client Notification	New Person Added Notification	PRPA_TE101001CA	PRPA_IN101001CA
	Resolve Duplicates Notification – Merge	Person Duplicates Resolved (Merge)	PRPA_TE101004CA	PRPA_IN101004CA
	Resolve Duplicates Notification – Unmerge	Person Duplicates Resolved (Unmerge)	PRPA_TE991005ON	PRPA_IN101004CA
	Delete Notification	Person Nullified	PRPA_TE101999CA	PRPA_IN101999CA

7.3.1 Add Client Request/Response

The following table lists messages to support the Add Client Request/Response transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

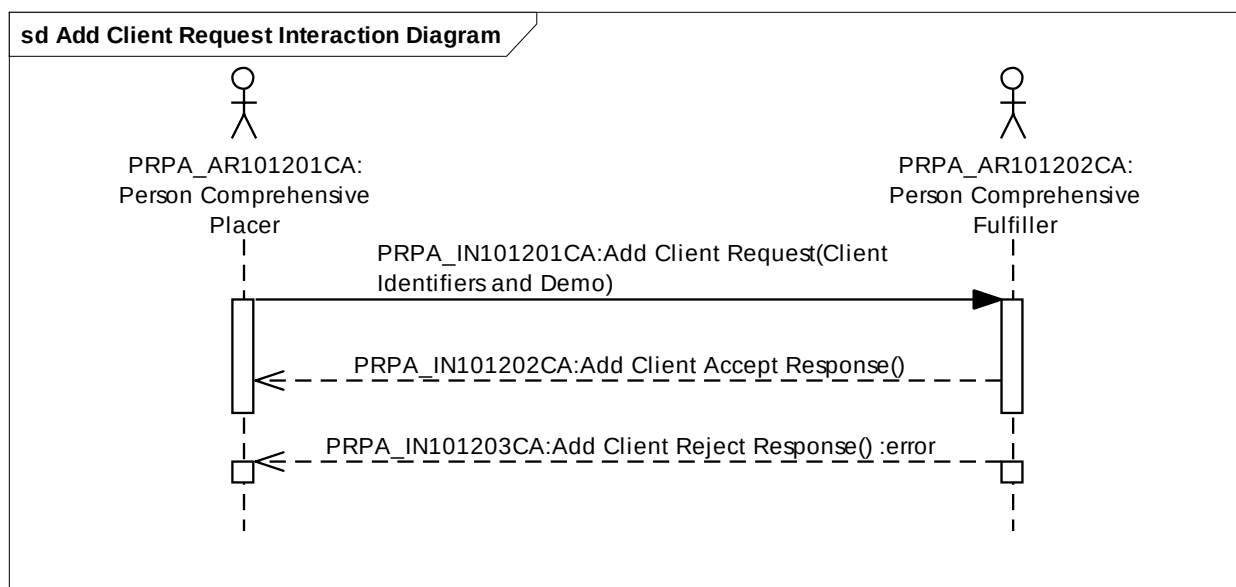


Figure 10 - Add Client Request Interaction Diagram

Table 6 - Add Client Request/Response Interactions

Interaction Identifier	Trigger Event Identifier	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101201CA Add Client Request	PRPA_TE101201CA New Person Added Request	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	PRPA_MT101001CA Add Client
PRPA_IN101202CA Add Client Accept Response	PRPA_TE101202CA Person Create Event Accept	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700726CA Registry Response Wrapper - Device Initiated With Role Payload	PRPA_MT101106CA Find Associated IDs Response
PRPA_IN101202CA Add Client Reject Response	PRPA_TE101203CA Person Create Event Reject	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700726CA Registry Response Wrapper - Device Initiated With Role Payload	PRPA_MT101106CA Find Associated IDs Response

PRPA_IN101201CA – Add Client Request

This interaction is used to request to add a client record to the Registry. Registry is interpreted as the Provincial CR and is treated as a single instance of client identity information. Definitional Identifier must be present in the request. The Provincial CR will respond with the Accept or Reject Response.

PRPA_IN101202CA – Add Client Accept Response

If the client record was successfully added into the Provincial CR, this interaction will be returned by the request fulfilling application in response to the Add Client Request (PRPA_IN101201CA), the demographic information and client identifiers are omitted from the Accept Response.

PRPA_IN101202CA – Add Client Reject Response

If the record was not added to the Provincial Client Registry, this interaction will be returned by the request fulfilling application in response to the Add Client Request (PRPA_IN101201CA). The demographic information and client identifiers are omitted from the Reject Response. Refer to the interaction Acknowledgement and Detected Issue Event for information about a reason for the rejection.

7.3.2 Add Client Notification

The following table lists messages to support the Add Client Notification transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

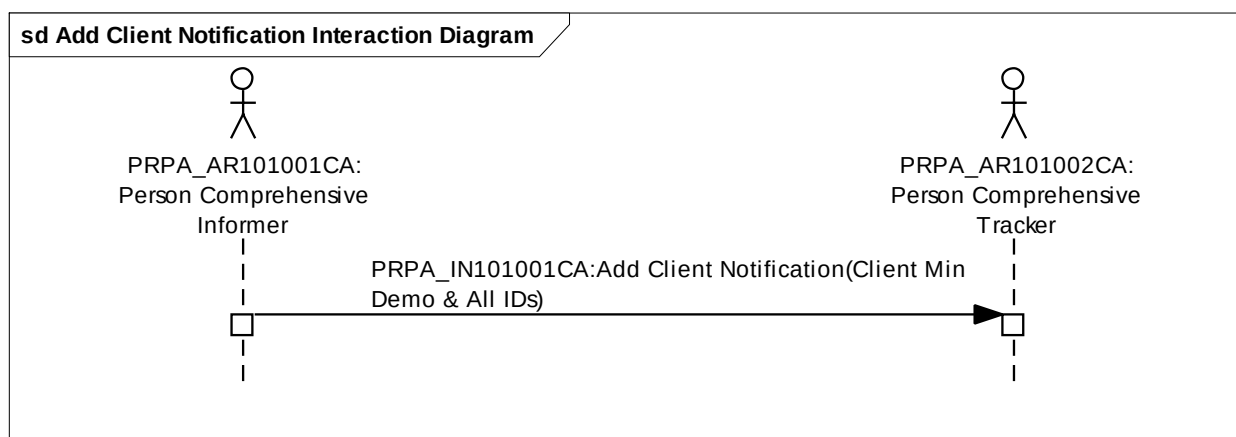


Figure 11 - Add Client Notification Interaction Diagram

Table 7 - Add Client Notification Interaction

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101001CA Add Client Notification	PRPA_TE101001CA New Person Added Notification	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	PRPA_MT101001CA Add Client

PRPA_IN101001CA - Add Client Notification

This interaction is used to notify systems that consume eHealth Ontario Notifications that the record was added to the Provincial CR. The inbound notifications to the Provincial CR are not supported in this release.

7.3.3 Revise Client Request/Response

The following table lists messages to support the Update Client Request/Response transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

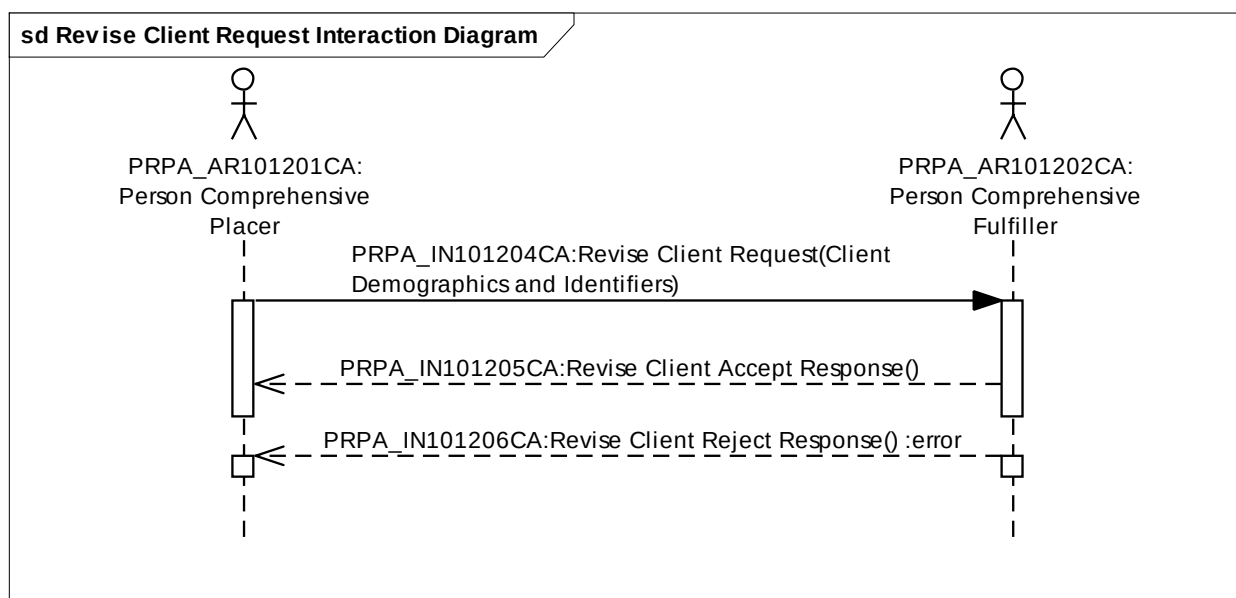


Figure 12 - Revise Client Request Interaction Diagram

Table 8 - Revise Client Request/Response Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101204CA Revise Client Request	PRPA_TE991204ON Revised Person Request – Demographic Update Only. PRPA_TE991205ON Revised Person Request – Merge Identifiers.	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	PRPA_MT101002CA Revise Client

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
	PRPA_TE991206ON Revised Person Request – Unmerge Identifiers. PRPA_TE991207ON Revised Person Request – Nullify Record.			
PRPA_IN101205CA Revise Client Response Accept	PRPA_TE101205CA Person Revise Event Accept	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700726CA Registry Response Wrapper - Device Initiated With Role Payload	PRPA_MT101102CA Get Demographics Response
PRPA_IN101206CA Revise Client Response Reject	PRPA_TE101206CA Person Revised Event Reject	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700726CA Registry Response Wrapper - Device Initiated With Role Payload	PRPA_MT101102CA Get Demographics Response

PRPA_IN101204CA – Revise Client Request

This interaction is used to request an update of the client record and replace an existing Provincial CR record with the current client information provided in the HL7 message. The client record must exist in the Provincial CR and the client definitional identifier within the Personal Information Domain must be provided to successfully process the request.

The Provincial CR implementation uses this interaction to update a client record, merge two client records, unmerge client records or nullify a record that was placed in error. The trigger event code shall be populated with the corresponding trigger event code from the Table 5. The Provincial CR will respond with the Revise Client Accept or Revise Client Reject message, to communicate the outcome of the interaction. The previous and current set of identifiers must be present in the request for merge and unmerge interactions. The interaction type is identified by the trigger code.

PRPA_IN101205CA – Revise Client Response Accept

If the client record was found and changes were applied successfully to the record in the Provincial CR, this interaction will be returned by the request fulfilling application in response to the Revise Client Request (PRPA_IN101204CA). The demographic information and client identifiers are omitted from the Accept Response.

PRPA_IN101206CA – Revise Client Response Reject

If the client record was not found or changes were not applied to the record in the Provincial CR, this interaction will be returned by the request fulfilling application in response to the Revise Client Request (PRPA_IN101204CA). The demographic information and client identifiers are omitted from the Reject Response. Refer to the interaction Acknowledgement and Detected Issue Event for information about a reason for the rejection.

7.3.4 Revise Client Notification

The following table lists messages to support the Update Client Information Notification transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

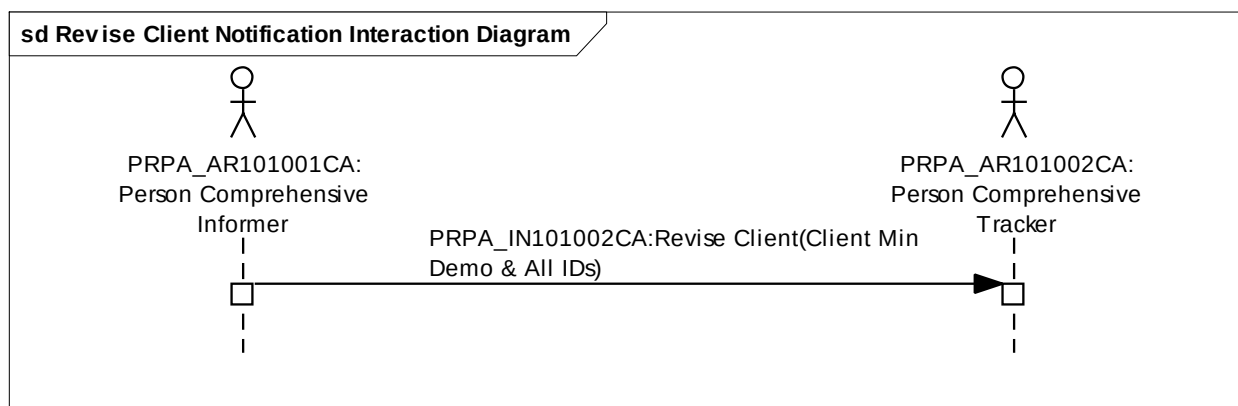


Figure 13 - Revise Client Notification Interaction Diagram

Table 9 - Revise Client Notification Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101002CA Revise Client Notification	PRPA_TE101002CA Person Information Revised	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	PRPA_MT101002CA Revise Client

PRPA_IN101002CA – Revise Client Notification

This interaction is used to notify eHealth Ontario Notifications consuming systems that the record was changed in the Provincial CR. The inbound notifications to the Provincial CR are not supported in this release.

7.3.5 Resolve Duplicate Person Registration

The following table lists messages to support the Resolve Duplicate Person Registration transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

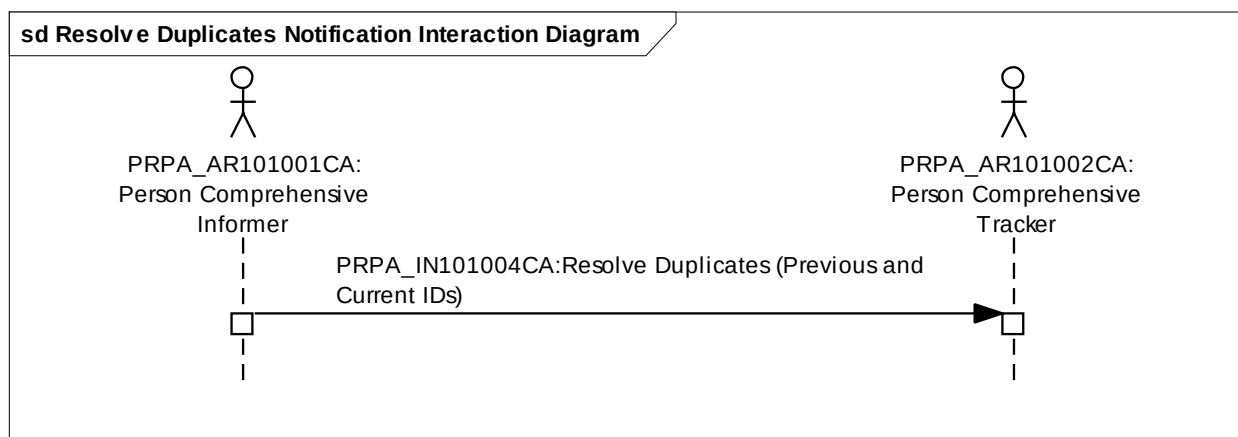


Figure 14 - Resolve Duplicate Person Registration Interaction Diagram

Table 10 Resolve Duplicate Person Registration Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101004CA Resolve Duplicates Notification	PRPA_TE101004CA Person Duplicates Resolved	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	PRPA_MT101002CA Revise Client

PRPA_IN101004CA – Resolve Duplicates Notification

This interaction is used to notify eHealth Ontario Notifications consuming systems, which the record duplicate was identified and two records were merged in the Provincial CR. The inbound notifications to the Provincial CR are not supported in this release.

7.3.6 Client Registry Delete Notification

The following table lists messages to support the Client Registry Delete Notification transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

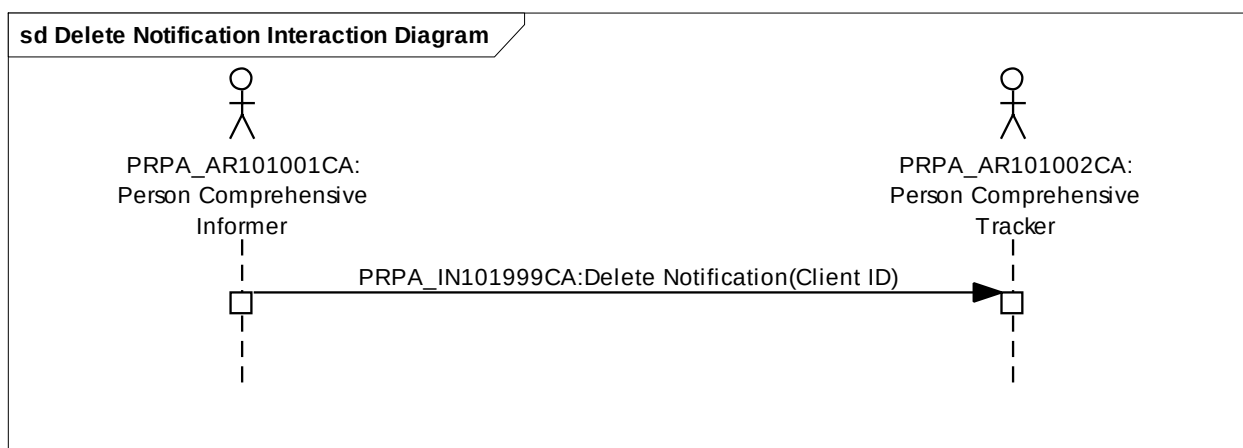


Figure 15 - Delete Client Notification Interaction Diagram

Table 11 Client Registry Delete Notification Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101999CA Delete Notification	PRPA_TE101999CA Person Nullified	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	PRPA_MT101003CA Nullify Client Record

PRPA_IN101999CA – Delete Notification

This interaction is used to notify eHealth Ontario Notifications consuming systems that the client record is deleted because it was placed in error in the Provincial CR. The inbound notifications to the Provincial CR are not supported in this release.

7.3.7 Get Client Demographics Query/Response

The following table lists messages to support the Get Client Demographics Query/Response transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

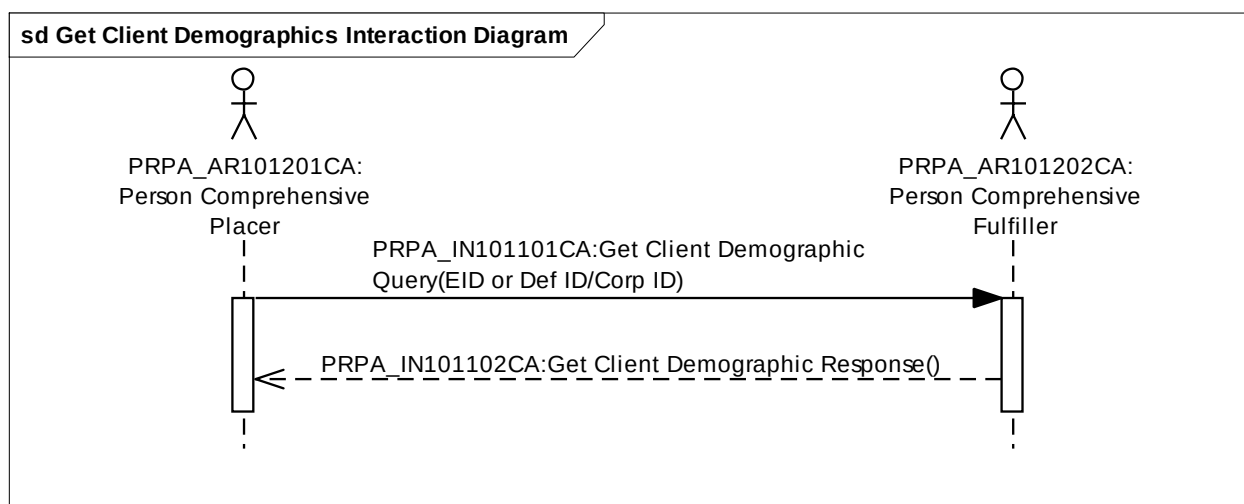


Figure 16 - Get Client Demographics Query/Response Interaction Diagram

Table 12 Find Associated Client Identifiers Query/Response Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101101CA Get Client Demographic Query	PRPA_TE101101CA Get Demographic Query	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPA_MT101101CA Query by Client ID
PRPA_IN101102CA Get Client Demographic	PRPA_TE101102CA Get Demographic	MCCI_MT002300CA Application Ack	MFMI_MT700746CA Registry Query	PRPA_MT101102CA Get Demographics

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
Response	Response	Transport Wrapper	Response Wrapper - Device Initiated With Role Payload	Response PRPA_MT101101CA Query by Client ID

PRPA_IN101101CA – Get Client Demographic Query

This interaction sends a query to the Provincial CR requesting all demographic and identification information associated with a specific person identifier. Definitional Identifier or Ontario Personal Health Card number can only be used for this interaction. Only one identifier must be present as a query parameter.

PRPA_IN101102CA – Get Client Demographic Response

This interaction will be returned by the query fulfilling application in response to the Get Client Demographic Query (PRPA_IN101101CA) and includes all demographic and all active, inactive, and merged identifiers associated with the Ontario Personal Health Card number or Definitional Identifier used in the query. Logically deleted identifiers are not returned in the Get Client Demographic Response. If there are no records in the response, refer to the interaction Acknowledgement and Detected Issue Event for information about a reason for it.

7.3.8 Find Candidates Query/Response

The following table lists the messages to support the Find Candidates Query/Response transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

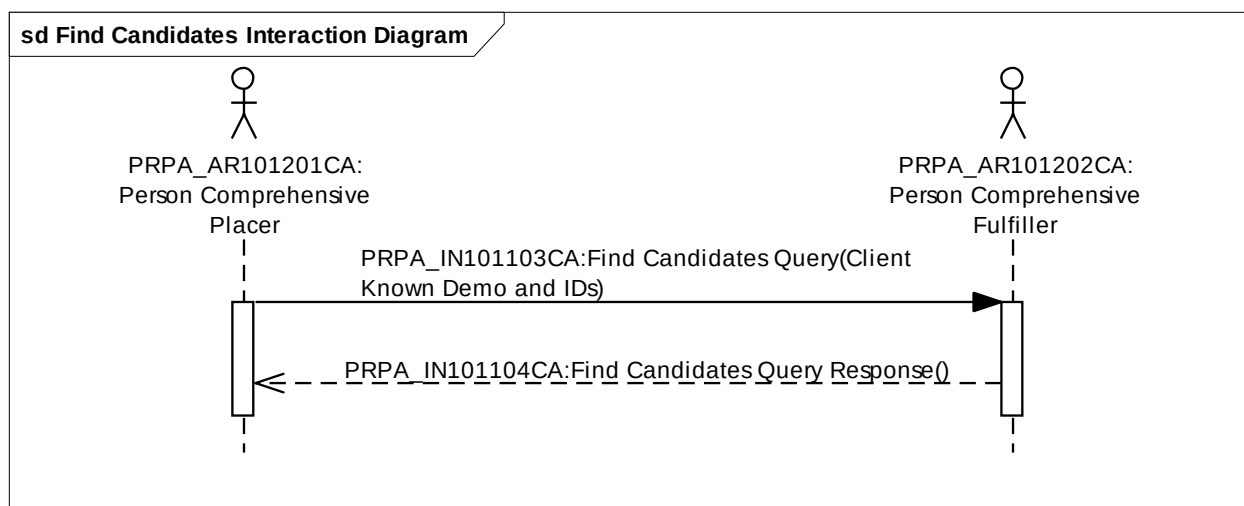


Figure 17 - Find Candidates Query/Response Interaction Diagram

Table 13 Find Candidates Query/Response Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101103CA Find Candidates Query	PRPA_TE101103CA Find Candidates Query	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPA_MT101103CA Query by Client Demographics
PRPA_IN101104CA Find Candidates Response	PRPA_TE101104CA Find Candidates Response	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPA_MT101104CA Find Candidates Response PRPA_MT101103CA Query by Client Demographics

PRPA_IN101103CA – Find Candidates Query

This interaction sends a query to the Provincial CR requesting a list of candidates that match a particular set of person demographics. Definitional Identifiers are not permitted to be used in the search criteria. The minimal search set must be met as it is specified in the message payload section (PRPA_MT101103CA - Query by Client Demographics)

PRPA_IN101104CA – Find Candidates Response

This interaction will be returned by the query fulfilling application in response to the Find Associated Client Identifiers Query (PRPA_IN101105CA) and includes a list of candidates from the Provider CR that match a particular set of person demographics. The response may also include a score indicating the probability of match for each candidate. If there are no records in the response, refer to the interaction Acknowledgement and Detected Issue Event for information about a reason for it.

7.3.9 Find Associated Client Identifiers Query/Response

The following table lists messages to support the Find Associated Client Identifiers Query/Response transaction. It lists the interaction, and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

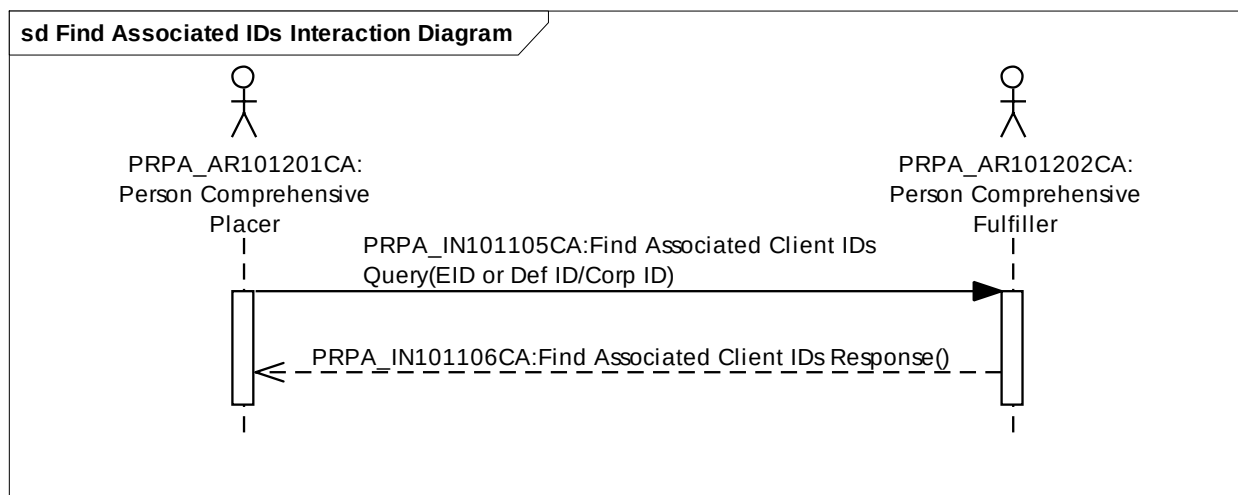


Figure 18 - Find Associated Ids Query/Response Interaction Diagram

Table 14 Find Associated Client Identifiers Query/Response Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101105CA Find Associated Client Identifiers Query	PRPA_TE101105CA Find Associated Identifiers Query	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPA_MT101101CA Query by Client ID

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPA_IN101106CA Find Associated Client Identifiers Response	PRPA_TE101106CA Find Associated Identifiers Response	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPA_MT101106CA Find Associated IDs Response PRPA_MT101101CA Query by Client ID

PRPA_IN101105CA – Find Associated Client Identifiers Query

This interaction sends a query to the Provincial CR requesting all other identifiers associated with a specific person identifier. Definitional Identifier or Ontario Personal Health Card number can only be used for this interaction. Only one identifier must be present in the query.

PRPA_IN101106CA – Find Associated Client Identifiers Response

This interaction will be returned by the query fulfilling application in response to the Find Associated Client Identifiers Query (PRPA_IN101105CA) and includes all active, inactive, and merged identifiers associated with a particular person identifier in the Provincial CR. Logically deleted identifiers are not returned in the Find Associated Client Identifiers Response. If there are no records in the response, refer to the interaction Acknowledgement and Detected Issue Event for information about a reason for it.

7.4 Provincial Client Registry Interface Details

This section highlights technical implementation details and will assist HL7 developers to map data source elements to corresponding HL7 message elements; or adjust existing HL7 pan-Canadian interface implementation for the eHealth Ontario use.

7.4.1 Pan-Canadian HL7 V3 Messaging Standard – Client Registry - Implementation Constraints.

Cardinalities are not changes in the original pan-Canadian schemas for the future use; the business validation will be performed before processing the message and an error message will be returned in the response, if the cardinality of the element is not maintained.

The following are constraints to the pan-Canadian HL7 Messaging Standard – Client Registry (Volume 4) implemented to access the eHealth Ontario Provincial CR services:

Table 15 - Amalgamated HDM with implementation constraints.

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}		
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care	eHealth Ontario PCR will support clinical and alternate identifiers in this element: • Personal Health Number (HCN) (all provinces) • Hospital Corp Id/Local EMPI EID

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	facility. Usage Notes: At least 1 client identifier must be present in the message Rationale: Mandatory attribute supports unique identification of the client.	• Hospital MRN • EID – Enterprise Id • Pharmacy Client Id • EMR Chart Number • Other Health care Ids Pan-Can cardinality was 40, Pre-adoption of the cardinality change to [1..1000] – Aug 16 2012 SCWG7 approved. Role based masking policy may be applied to certain types of identifiers.
statusCode [1..1] Role (CS) {CNE:D: RoleStatus }	Design Comments: Indicates the status of the Client role (e.g. Active) UsageNotes: Status shall be 'active' by default, or 'terminated', should the health number have been ended due to Client being deceased or Client identifier has been determined to be a duplicate. If masked, the code attribute shall be replaced by a nullFlavor mask attribute. PubSub notifications support “nullified” status for deleted records. Rationale: Populated attribute supports the	eHealth Ontario PCR expects the following statuses: • terminated, if the deceased date is populated; • nullified, if the record is cancelled or inactivated; • active, for all other cases.

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	identification of the client	
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known Rationale: Required attribute supports the identification of the client	eHealth Ontario PCR will support the effective time element . If the status of the health client record is “terminated” or “nullified”, the effective time specifies the period when the record was active in the source system. If this information is not provided by the source system, Provincial CR application will generate create and effective date of the record in the Provincial CR database.
confidentialityCode [1..1] Role (CV) {CNE:V:x_VeryBasicConfidentialityKind}	Design Comments: A code that controls the disclosure of information about this patient encounter. Usage Notes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by	eHealth Ontario PCR will support the following confidentiality codes: • R – restricted • N – normal

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required	
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data	

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	elements for the focal class IdentifiedEntity	
subjectOf [0..1] (Subject)	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).	
Person	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity	
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}		
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}		

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
name [1..20] Person (LIST<PN.FULL>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client	eHealth Ontario PCR will support one instance of each name type: - Official Registered/Legal; @use="OR" – must be populated - Alias;@use="P" – populated if it is available The @use attribute must contain either "OR" or "P". The preferred name can be identified by adding "L" value to the @use attribute: For example: @use="OR L" is identifying that the official registered named is a client's preferred name.
telecom [1..20] Person (LIST<TEL.PHONEMAIL>)	Design Comments: Provides information about telecom Usage Notes: System shall support multiple use codes for both telephone and email address. SpecializationType attribute shall distinguish either telephone or email. If masked, the specializationType shall be present and a nullFlavor mask shall be present. Rationale: Populated attribute supports the identification of the client	eHealth Ontario PCR will support one instance of each phone type: - Home Phone; @use="H" @specializationType="TEL.PHONE" - Work place phone; @use="WP" @specializationType="TEL.PHONE" - Mobile Phone; @use="MC" @specializationType="TEL.PHONE" - Emergency Phone;

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
		@use="EC" @specializationType="TEL.PHONE" • Temporary or other phone; @use="TMP" @specializationType="TEL.PHONE" The phone use code shall have a type, optionally followed by "DIR" (Direct), "BAD" (Invalid), flagged as confidential by specifying an additional @use="CONF". Format of number shall be 'tel:' + (optionally) country calling code (Len 6) & area code (Len 3) & local number (Len 7) & (optionally) extension (Len 6). eHealth Ontario PCR will support one instance of each email type: • Home Email; @use="H" @specializationType="TEL.EMAIL" • Workplace Email; @use="WP" @specializationType="TEL.EMAIL" The email address use code shall have a type, optionally followed by 'TMP'

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
		(Temporary), 'BAD' (Invalid), 'CONF' (Confidential). Email text shall not exceed 128 characters in length.
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undifferentiated (U) Rationale: Populated attribute supports the identification of the client	eHealth Ontario PCR will support only F and M codes. If gender information is unknown or not asked then the @nullFlavor="UNK" shall be populated. • F – Female • M – Male
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the client	
deceasedInd [0..1] Person (BL)	Design Comments: An indication that the client is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message.	

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	Rationale: Required attribute supports the identification of the client	
deceasedTime [0..1] Person (TS.DATETIME) Constraint: deceasedTime only present if deceasedInd is = TRUE	Design Comments: The date and time that a client's death occurred. Rationale: Required attribute supports verification of death from official source such as Vital Statistics.	
multipleBirthInd [0..1] Person (BL)	Design Comments: An indication as to whether the client is part of a multiple birth. Rationale: Required attribute supports the identification of the client	
multipleBirthOrderNumber [0..1] Person (INT.POS)	Design Comments: The order in which this client was born if part of a multiple birth. Rationale: Required attribute supports the identification of the client	
addr [1..10] Person (LIST<AD.FULL>)	Design Comments: Address(es) of the Client	eHealth Ontario PCR will support one instance of each address type:

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
	Rationale: Populated attribute supports the identification of the client	• Home address; @use="H" • Mailing address; @use="PST" • Temp address; @use="TMP" The 'use' attribute shall be populated with a type (H, PST, TMP), with (optionally) additional indicators (BAD, CONF).
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element.	At present this information is not stored in the eHealth Ontario PCR and this element is not expected in the message. Only clinical or health care service related identifiers are accepted by the PCR and they shall be placed in the identifiedEntity.id element. For example: The driver licence may be used to fulfill a prescription or order a lab test and this identifier shall be stored as an id of the health care client. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca
personalRelationship	Design Comments:	eHealth Ontario PCR will support one

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
[0..10] (PersonalRelationship)	Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin	instance of each personal relationship type: • Next of kin without any specific type of relationships (@code="NOK") • Natural Mother name (@code="NMTH")
languageCommunication	Design Comments: Information about what	eHealth Ontario PCR will support one instance of the communication

PRPA_MT101001CA - Add Client PRPA_MT101002CA - Revise Client PRPA_MT101102CA - Get Demographics Response PRPA_MT101104CA - Find Candidates Response PRPA_MT101106CA - Find Associated IDs Response	Notes	eHealth Ontario Implementation Constraints
[1..10] (LanguageCommunication)	language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication	language.

PRPA_MT101103ON Query by Client Demographics	Documentation
ParameterList	Design comments: [Even though the individual cardinalities of parameters below specify [0..n] , there must be at least one Parameter present in a Query by Client Demographic message]
administrativeGender [0..1] (AdministrativeGender)	Only “F” and “M” codes are supported.
clientId [0..10] (ClientId)	If MRN is used in the search, it is recommended not to specify any other parameters for the effective search result. EID or Corp ID should not be used for the Query by Client Demographics.
deceasedIndicator [0..1] (DeceasedIndicator)	Not supported.

PRPA_MT101103ON Query by Client Demographics	Documentation
deceasedTime [0..1] (DeceasedTime)	Not supported.
fathersName [0..1] (FathersName)	Not supported.
languageCode [0..1] (LanguageCode)	Not supported.
mothersMaidenName [0..1] (MothersMaidenName)	Not supported.
multipleBirthIndicator [0..1] (MultipleBirthIndicator)	Not supported.
multipleBirthOrderNumber [0..1] (MultipleBirthOrderNumber)	Not supported.
personAddress [0..10] (PersonAddress)	One instance of the home address. One instance of the mailing address. One instance of the temporary address.
personBirthtime [0..1] (PersonBirthtime)	If the person birth time parameter is used, then at least a year must be populated.
personName [0..10] (PersonName)	One instance of the officially registered name. One instance of the alias.
personTelecom [0..10] (PersonTelecom)	One instance of the home phone. One instance of the working phone. One instance of the mobile phone. One instance of the emergency phone. One instance of the other phone. One instance of the home email. One instance of the workplace email.
personalRelationshipCode [0..1] (PersonalRelationshipCode)	Not supported.

Other message components are supported as it is described in the pan-Canadian HL7 v3 Messaging Standard (Volume 4) – Client Registries.

7.4.2 Transmission Wrappers

This section describes requirements for transmission wrappers. The wrapper may be used in multiple interactions. Refer to [Transactions and Interactions](#) section for detailed information applicable message wrappers for the target interaction.

7.4.2.1 Request Transport Wrapper (MCCI_MT002100CA)

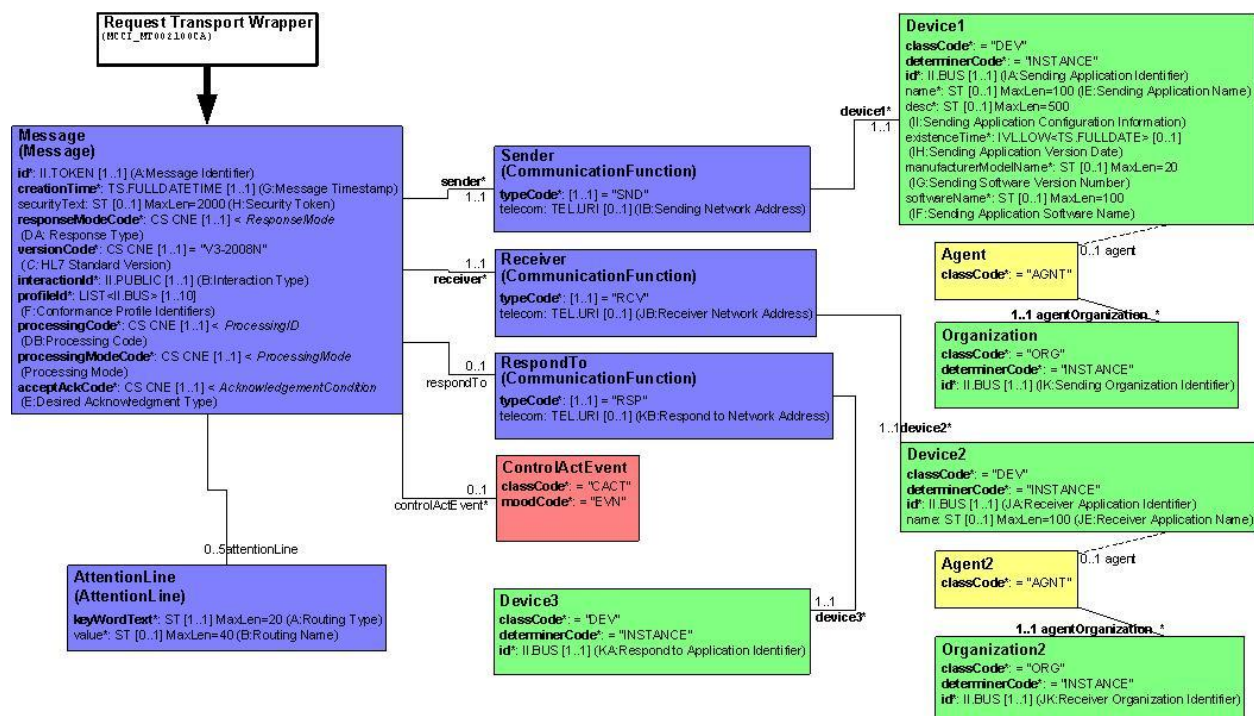


Figure 19 - Request Transport Wrapper (MCCI_MT002100CA) Refined Message Information Model

Table 16 - Request Transport Wrapper HMD

MCCI_MT002100CA Request Transport Wrapper	Documentation
Message	Design Comments: The root class of all messages. Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) <u>Message (II.TOKEN)</u>	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is therefore mandatory. Mapping: soap:Header\wsa:MessageID
creationTime [1..1] (M) <u>Message (TS.FULLDATETIME)</u>	Design Comments: Indicates the time this particular message instance was constructed.

MCCI_MT002100CA Request Transport Wrapper	Documentation
	Rationale: Allows identification of how current the information in a message is. Also provides a baseline for identifying the time-zone of other times within the message. As a result, the attribute is mandatory. Notes: The format shall be UTC local time.
securityText [0..1] <u>Message (ST)</u>	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) <u>Message (CS)</u> {CNE:D: ResponseMode }	Design Comments: Identifies whether the application level response is desired immediately (as a direct acknowledgement), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behaviour and therefore mandatory. Notes: Only Supports immediate response for the initial release.
versionCode [1..1] (M) <u>Message (CS)</u> {CNE:C: HL7StandardVersionCode:V3-2008N , fixed value= "V3-2008N"}	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is therefore mandatory. Mapping: soap:Header\wsa:To\ (portion between last “\” and second-last “\”)
interactionId [1..1] (M) <u>Message (II.PUBLIC)</u>	Design Comments: Indicates the interaction conveyed by this message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is therefore mandatory. Mapping: soap:Header\wsa:Action (after “urn:hl7-org:v3:” and before the second underscore, if any)
profileId [1..10] (M) <u>Message (LIST<II.BUS>)</u>	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also influences what extensions can be processed.

MCCI_MT002100CA Request Transport Wrapper	Documentation
processingCode [1..1] (M) <u>Message (CS) {CNE:D:ProcessingID}</u>	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is therefore mandatory.
processingModeCode [1..1] (M) <u>Message (CS) {CNE:D:ProcessingMode}</u>	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) <u>Message (CS)</u> <u>{CNE:D:AcknowledgementCondition}</u>	Design Comments: Indicates how the message is expected to be acknowledged. Usage Notes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is therefore mandatory.
receiver [1..1] (<u>Receiver</u>)	
respondTo [0..1] (<u>RespondTo</u>)	Design Comments: Indicates the system that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (<u>Sender</u>)	
attentionLine [0..5] (<u>AttentionLine</u>)	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
controlActEvent [0..1] (Stub "ControlActEvent")	Design Comments: The ControlActProcess represents the trigger event control act.

MCCI_MT002100CA Request Transport Wrapper	Documentation
	.
Receiver	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RCV , fixed value= "RCV"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The address to which this message is being sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:To
device [1..1] (<u>Device2</u>)	
Device2	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application. Mapping: soap:Header\wsa:To\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: Name of the receiver application. Rationale: Optional name of the receiver application.
agent [0..1] (<u>Agent2</u>)	
Agent2	
classCode [1..1] (M)	

MCCI_MT002100CA Request Transport Wrapper	Documentation
<u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization2</u>)	
Organization2	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (IL.BUS)	Design Comments: Unique identifier for the receiver organization. Rationale: The identifier is the only non-structural attribute in this class and is therefore mandatory. The association from receiver device to agent is optional.
RespondTo	Design Comments: Indicates the system that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RSP , fixed value= "RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to. Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP. Mapping: soap:Header\wsa:ReplyTo

MCCI_MT002100CA Request Transport Wrapper	Documentation
device [1..1] (<u>Device3</u>)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to. Mapping: soap:Header\wsa:ReplyTo\@endpointID
Sender	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:SND , fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message. Rationale: May be important for sender validation. Usually also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:From

MCCI_MT002100CA Request Transport Wrapper	Documentation
device [1..1] (<u>Device1</u>)	
Device1	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the application or system from which the message has originated. Rationale: Because this is the key identifier of where the message has originated, this attribute is mandatory in order to support efficient logging, auditing and debugging requirements. Mapping: soap:Header\wsa:From\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1] <u>Device</u> (ST)	Design Comments: Provides additional information about the configuration of the sending application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] <u>Device</u> (IVL.LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] <u>Device</u> (ST) {CWE:D: ManufacturerModelName }	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used to filter messages based on the compliance testing of the sending software.
softwareName [0..1] <u>Device</u> (ST) {CWE:D: SoftwareName }	Design Comments: Indicates the name of the software used to construct the message.

MCCI_MT002100CA Request Transport Wrapper	Documentation
	Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (<u>Agent</u>)	
Agent	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization</u>)	
Organization	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (II.BUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is therefore mandatory. The association from sending device to agent is optional.
AttentionLine	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
keyWordText [1..1] (M) <u>AttentionLine</u> (ST) {CWE:D: AttentionKeyword }	Design Comments: A particular type of guidance for routing the message. Rationale: Allows categorization of routing types or support for multiple route pieces. Mandatory to understand the routing information.
value [0..1] <u>AttentionLine</u> (ST) {CWE:D: AttentionLineValue }	Design Comments: Indicates the specific value used to route the item. Rationale: Allows internal routing within an application.

7.4.2.2 Application Ack Transport Wrapper (MCCI_MT002300CA)

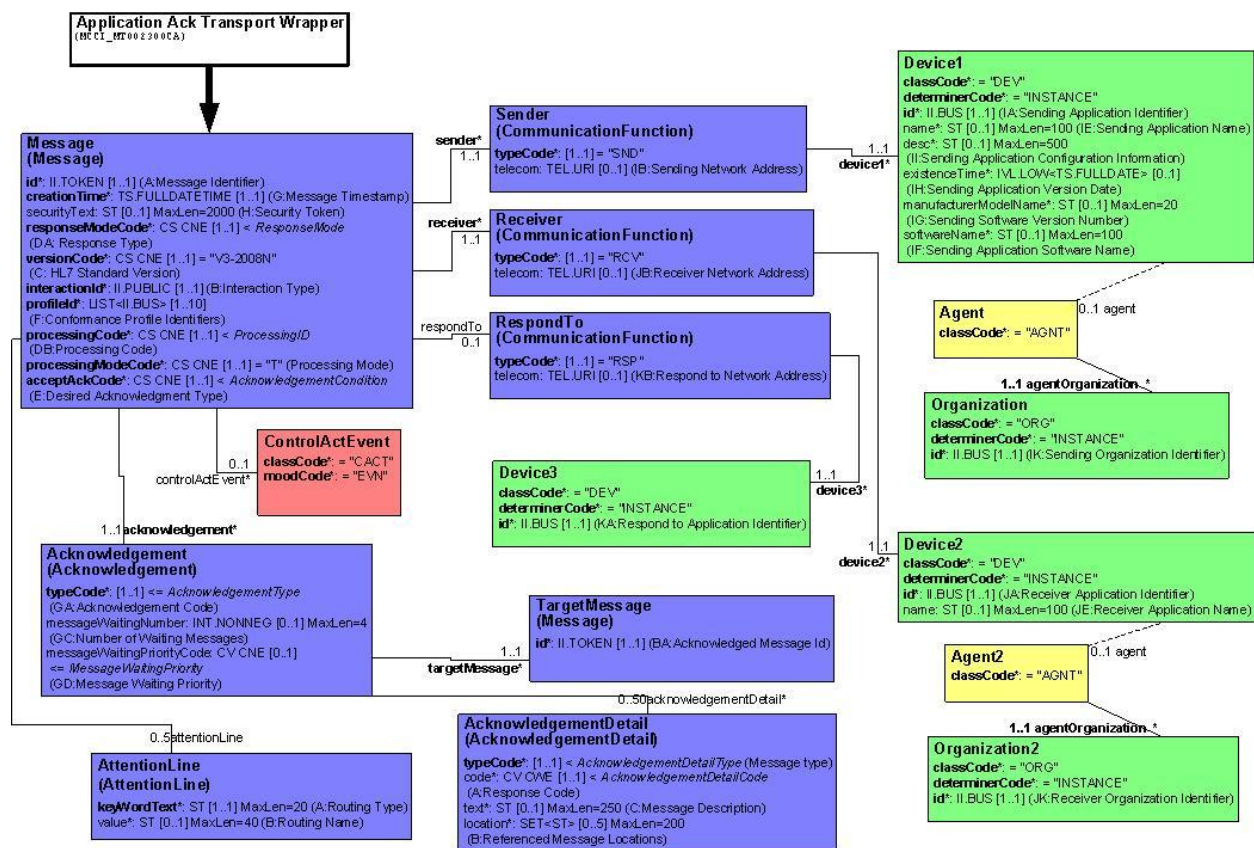


Figure 20 - Application Ack Transport Wrapper (MCCI_MT002300CA) Refined Message Information Model

Table 17 - Application Ack Transport HMD

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
Message	Design Comments: The root class of all messages. Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) <u>Message (IL.TOKEN)</u>	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is therefore mandatory.

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
	Notes: Use of UUID is recommended
creationTime [1..1] (M) <u>Message (TS.FULLDATETIME)</u>	Design Comments: Indicates the time this particular message instance was constructed. Rationale: Allows identification of how current the information in a message is. Also provides a baseline for identifying the time-zone of other times within the message. As a result, the attribute is mandatory.
securityText [0..1] <u>Message (ST)</u>	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) <u>Message (CS) {CNE:D:ResponseMode}</u>	Design Comments: Identifies whether the response is desired immediately (as a direct acknowledgement), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behaviour and therefore mandatory.
versionCode [1..1] (M) <u>Message (CS)</u> {CNE:C: HL7StandardVersionCode:V3-2008N , fixed value= "V3-2008N"}	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is therefore mandatory.
interactionId [1..1] (M) <u>Message (IL.PUBLIC)</u>	Design Comments: Indicates the interaction conveyed by this message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is therefore mandatory.
profileId [1..10] (M) <u>Message (LIST<IL.BUS>)</u>	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also influences what extensions can be processed.
processingCode [1..1] (M) <u>Message (CS) {CNE:D:ProcessingID}</u>	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
	therefore mandatory.
processingModeCode [1..1] (M) <u>Message (CS)</u> {CNE:C: ProcessingMode:T , fixed value= "T"}	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode, Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) <u>Message (CS)</u> {CNE:D: <u>AcknowledgementCondition</u> }	Design Comments: Indicates how the message is expected to be acknowledged. Usage Notes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is therefore mandatory.
receiver [1..1] (<u>Receiver</u>)	
respondTo [0..1] (<u>RespondTo</u>)	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (<u>Sender</u>)	
attentionLine [0..5] (<u>AttentionLine</u>)	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
acknowledgement [1..1] (<u>Acknowledgement</u>)	
controlActEvent [0..1] (Stub "ControlActEvent")	
Receiver	
typeCode [1..1] (M)	

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
<u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RCV , fixed value= "RCV"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The address to which this message is being sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP.
device [1..1] (<u>Device2</u>)	
Device2	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (IL.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application.
name [0..1] <u>Device</u> (ST)	Design Comments: Optional name of receiver application. Rationale: Optional application name.
agent [0..1] (<u>Agent2</u>)	
Agent2	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization2</u>)	
Organization2	
classCode [1..1] (M)	

MCCI_MToo2300CA Application Ack Transport Wrapper	Documentation
<u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (IL.BUS)	Design Comments: Organization intended to receive this message Rationale: Id is the only attribute in this class which is non-structural and is therefore mandatory. The agent association (from the receiver device) is optional.
RespondTo	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RSP , fixed value= "RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to. Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP.
device [1..1] (<u>Device3</u>)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed.

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
	Rationale: Provides support for directing responses to applications other than the original sender.
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (ILBUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to.
Sender	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:SND , fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message. Rationale: May be important for sender validation. Usually also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP.
device [1..1] (<u>Device1</u>)	
Device1	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed	

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (ILBUS)	Design Comments: The unique identifier of the application or system to whom the message is being routed. Rationale: Because this is the key identifier of where the message is intended to go, this attribute is mandatory.
name [0..1] <u>Device</u> (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1] <u>Device</u> (ST)	Design Comments: Provides additional information about the configuration of the sending application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] <u>Device</u> (IVL:LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] <u>Device</u> (ST) {CWE:D: <u>ManufacturerModelName</u> }	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used to filter messages based on the compliance testing of the sending software.
softwareName [0..1] <u>Device</u> (ST) {CWE:D: <u>SoftwareName</u> }	Design Comments: Indicates the name of the software used to construct the message. Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (<u>Agent</u>)	
Agent	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: <u>RoleClass</u> : <u>AGNT</u> , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization</u>)	
Organization	
classCode [1..1] (M)	

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
<u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (IL.BUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is therefore mandatory. The association from sending device to agent is optional.
AttentionLine	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
keyWordText [1..1] (M) <u>AttentionLine</u> (ST) {CWE:D: AttentionKeyword }	Design Comments: A particular type of guidance for routing the message. Rationale: Allows categorization of routing types or support for multiple route pieces. Mandatory to understand the routing information.
value [0..1] <u>AttentionLine</u> (ST) {CWE:D: AttentionLineValue }	Design Comments: Indicates the specific value used to route the item. Rationale: Allows internal routing within an application.
Acknowledgement	
typeCode [1..1] (M) Acknowledgement (CS) {CNE:D: AcknowledgementType }	Design Comments: Indicates whether the previous interaction was successfully processed. Rationale: Key to understanding whether the interaction has been successful and is therefore mandatory.
messageWaitingNumber [0..1] <u>Acknowledgement</u> (INT.NONNEG)	Design Comments: For applications which support polling, indicates the total number of messages waiting to be retrieved. Rationale: Indicates to a system how many polled messages are available without the need to send a separate query. The element is optional because not all systems will support polling.
messageWaitingPriorityCode [0..1]	Design Comments: Indicates the priority of the highest-priority

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
Acknowledgement (CV) {CNE:D: MessageWaitingPriority }	message that is waiting on the poll queue for the system being responded to. Rationale: The priority of the waiting message may influence how quickly the polling system may choose to download queued messages. The element is optional because not all systems will support polling.
targetMessage [1..1] (TargetMessage)	
acknowledgementDetail [0..50] (AcknowledgementDetail)	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
TargetMessage	
id [1..1] (M) Message (IL.TOKEN)	Design Comments: References the identifier of the message this current message is acknowledging. Rationale: Provides the necessary link to complete a conversation for systems using communication technologies which are not conversational. This attribute is therefore mandatory. Mapping: soap:Header\wsa:RelatesTo
AcknowledgementDetail	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
typeCode [1..1] (M) AcknowledgementDetail (CS) {CNE:D: AcknowledgementDetailType }	Design Comments: Distinguishes between errors, warnings and information messages. Rationale: Different types of messages have substantially different ramifications.
code [1..1] AcknowledgementDetail (CV) {CWE:D: AcknowledgementDetailCode }	Design Comments: Indicates the specific issue represented by this message. Rationale: By providing coded identification of issues and errors, allows applications to have logic that manages particular errors and warnings automatically. However in some circumstances, a code may not be available. Therefore the attribute is marked as 'populated'. The coding strength is CWE (coded with extensions). The use of

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
	local codes is only permitted when those codes are submitted to the SC for consideration and if the SC makes a recommendation other than adoption of the local code, jurisdictions are bound to adopt the recommendation.
text [0..1] AcknowledgementDetail (ST)	Design Comments: The human-readable description of the error, warning or information message. May convey additional details not present in the 'code', but is not intended to be human-processable. Rationale: Allows supplementing the 'computer' information for human-readability.
location [0..5] AcknowledgementDetail (SET<ST>)	Design Comments: Indicates the location of the elements within the message instance that triggered this error, warning or information message. UsageNotes: I.e. only the default 'child' axis is permitted, occurrence numbers are always specified, and no other predicates are permitted. Rationale: Allows syntax and other messages to be linked to particular fields within the message.

MCCI_MT002200CA Accept Ack	Documentation
Message	Design Comments: The root class of all messages. Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) <u>Message (IL.TOKEN)</u>	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is therefore mandatory. Notes: GUID must be unique per message transmission.
creationTime [1..1] (M) <u>Message (TS.FULLDATETIME)</u>	Design Comments: Indicates the time this particular message instance was constructed. Rationale: Allows identification of how current the information in a message is. Also provides a baseline for identifying the time-zone of other times within the message. As a result, the attribute is mandatory.

MCCI_MT00200CA Accept Ack	Documentation
securityText [0..1] <u>Message (ST)</u>	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) <u>Message (CS)</u> {CNE:D: ResponseMode }	Design Comments: Identifies whether the response is desired immediately (as a direct acknowledgement), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behaviour and therefore mandatory. Mapping: soap:Header\wsa:Action (after the second underscore, if any, "D" otherwise)
versionCode [1..1] (M) <u>Message (CS)</u> {CNE:C: HL7StandardVersionCode:V3-2008N , fixed value= "V3-2008N"}	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is therefore mandatory. Mapping: soap:Header\wsa:To\ (portion between last "\" and second-last "\")
interactionId [1..1] (M) <u>Message (IL.PUBLIC)</u>	Design Comments: Indicates the interaction conveyed by this message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is therefore mandatory. Mapping: soap:Header\wsa:Action (after "urn:hl7-org:v3:" and before the second underscore, if any)
profileId [1..10] (M) <u>Message (LIST<IL.BUS>)</u>	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also influences what extensions can be processed.
processingCode [1..1] (M) <u>Message (CS)</u> {CNE:D: ProcessingID }	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is

MCCI_MT00200CA Accept Ack	Documentation
	therefore mandatory. Mapping: soap:Header\wsa:To\(portion between second-last “\” and third-last “\”)
processingModeCode [1..1] (M) <u>Message (CS)</u> {CNE:D: ProcessingMode }	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode, Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) <u>Message (CS)</u> {CNE:D: <u>AcknowledgementCondition</u> }	Design Comments: Indicates how the message is expected to be acknowledged. UsageNotes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is therefore mandatory.
receiver [1..1] (<u>Receiver</u>)	
respondTo [0..1] (<u>RespondTo</u>)	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (<u>Sender</u>)	
acknowledgement [1..1] (<u>Acknowledgement</u>)	
Receiver	
typeCode [1..1] (M) <u>CommunicationFunction (CS)</u> {CNE:C: CommunicationFunctionType:RCV , fixed value= "RCV"}	
telecom [0..1]	Design Comments: The address to which this message is being

MCCI_MT002200CA Accept Ack	Documentation
CommunicationFunction (TEL.URI)	sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:To
device [1..1] (<u>Device2</u>)	
Device2	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (IL.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application. Mapping: soap:Header\wsa:To\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: Name of receiver application. Rationale: Optional name of receiver application
agent [0..1] (<u>Agent2</u>)	
Agent2	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization2</u>)	
Organization2	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	

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determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: <u>EntityDeterminer:INSTANCE</u> , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (ILBUS)	Design Comments: Receiver organization. Rationale: The identifier of the receiver organization. This is the only non-structural attribute in this class and is therefore mandatory. Receiver organization is optional (as the scoper association from the receiver application is optional).
RespondTo	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: <u>CommunicationFunctionType:RSP</u> , fixed value= "RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to. Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP. Mapping: soap:Header\wsa:ReplyTo
device [1..1] (<u>Device3</u>)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.

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classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (IL.BUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to. Mapping: soap:Header\wsa:ReplyTo\@endpointID
Sender	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:SND , fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message. Rationale: May be important for sender validation. Usually also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:From
device [1..1] (<u>Device1</u>)	
Device1	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed	

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value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (ILBUS)	Design Comments: The unique identifier of the application or system to whom the message is being routed. Rationale: Because this is the key identifier of where the message is intended to go, this attribute is mandatory. Mapping: soap:Header\wsa:From\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1] <u>Device</u> (ST)	Design Comments: Provides additional information about the configuration of the sending application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] <u>Device</u> (IVL:LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] <u>Device</u> (ST) {CWE:D: ManufacturerModelName }	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used to filter messages based on the compliance testing of the sending software.
softwareName [0..1] <u>Device</u> (ST) {CWE:D: SoftwareName }	Design Comments: Indicates the name of the software used to construct the message. Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (<u>Agent</u>)	
Agent	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization</u>)	
Organization	

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classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (ILBUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is therefore mandatory. The association from sending device to agent is optional.
Acknowledgement	
typeCode [1..1] (M) Acknowledgement (CS) {CNE:D: AcknowledgementType }	Design Comments: Indicates whether the previous interaction was successfully processed. Rationale: Key to understanding whether the interaction has been successful and is therefore mandatory.
messageWaitingNumber [0..1] <u>Acknowledgement</u> (INT.NONNEG)	Design Comments: For applications which support polling, indicates the total number of messages waiting to be retrieved. Rationale: Indicates to a system how many polled messages are available without the need to send a separate query. The element is optional because not all systems will support polling.
messageWaitingPriorityCode [0..1] <u>Acknowledgement</u> (CV) {CNE:D: MessageWaitingPriority }	Design Comments: Indicates the priority of the highest-priority message that is waiting on the poll queue for the system being responded to. Rationale: The priority of the waiting message may influence how quickly the polling system may choose to download queued messages. The element is optional because not all systems will support polling.
targetMessage [1..1] (TargetMessage)	
acknowledgementDetail [0..50] (<u>AcknowledgementDetail</u>)	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
TargetMessage	

MCCI_MT002200CA Accept Ack	Documentation
id [1..1] (M) <u>Message (IL.TOKEN)</u>	Design Comments: References the identifier of the message this current message is acknowledging. Rationale: Provides the necessary link to complete a conversation for systems using communication technologies which are not conversational. This attribute is therefore mandatory. Mapping: soap:Header\wsa:RelatesTo
AcknowledgementDetail	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
typeCode [1..1] (M) AcknowledgementDetail (CS) {CNE:D: AcknowledgementDetailType }	Design Comments: Distinguishes between errors, warnings and information messages. Rationale: Different types of messages have substantially different ramifications.
code [1..1] AcknowledgementDetail (CV) {CWE:D: AcknowledgementDetailCode }	Design Comments: Indicates the specific issue represented by this message. Rationale: By providing coded identification of issues and errors, allows applications to have logic that manages particular errors and warnings automatically. However in some circumstances, a code may not be available. Therefore the attribute is marked as 'populated'. The coding strength is CWE (coded with extensions). The use of local codes is only permitted when those codes are submitted to the SC for consideration and if the SC makes a recommendation other than adoption of the local code, jurisdictions are bound to adopt the recommendation.
text [0..1] AcknowledgementDetail (ST)	Design Comments: The human-readable description of the error, warning or information message. May convey additional details not present in the 'code', but is not intended to be human-processable. Rationale: Allows supplementing the 'computer' information for human-readability.
location [0..5] AcknowledgementDetail (SET<ST>)	Design Comments: Indicates the location of the elements within the message instance that triggered this error, warning or information message. UsageNotes: I.e. only the default 'child' axis is permitted,

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	occurrence numbers are always specified, and no other predicates are permitted. Rationale: Allows syntax and other messages to be linked to particular fields within the message.

7.4.2.3 Accept Ack Wrapper (MCCI_MT002200CA)

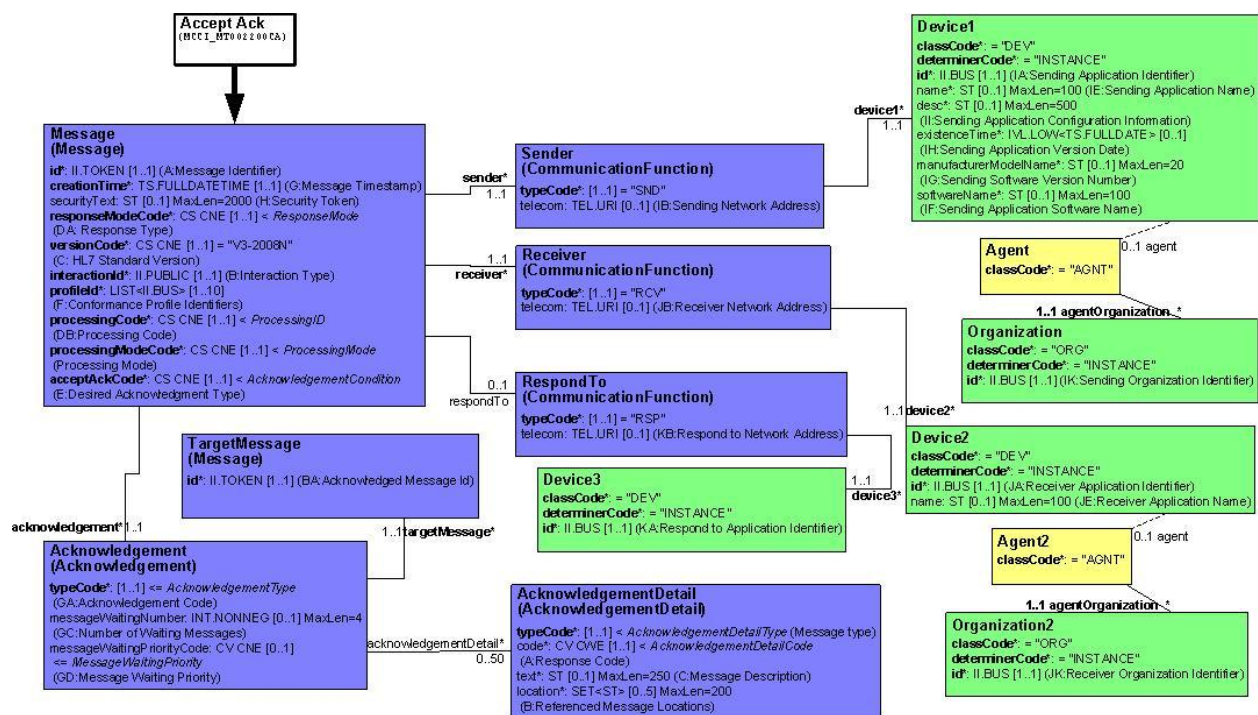


Figure 21 - Accept Ack Wrapper (MCCI_MT002200CA) Refined Message Information Model

Table 18 - Accept Ack HMD

MCCI_MT002200CA Accept Ack	Documentation
Message	Design Comments: The root class of all messages.

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	Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) <u>Message (IL.TOKEN)</u>	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is therefore mandatory. Mapping: soap:Header\wsa:MessageID
creationTime [1..1] (M) <u>Message (TS.FULLDATETIME)</u>	Design Comments: Indicates the time this particular message instance was constructed. Rationale: Allows identification of how current the information in a message is. Also provides a baseline for identifying the time-zone of other times within the message. As a result, the attribute is mandatory.
securityText [0..1] <u>Message (ST)</u>	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) <u>Message (CS) {CNE:D:ResponseMode}</u>	Design Comments: Identifies whether the response is desired immediately (as a direct acknowledgement), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behaviour and therefore mandatory. Mapping: soap:Header\wsa:Action (after the second underscore, if any, "D" otherwise)
versionCode [1..1] (M) <u>Message (CS)</u> {CNE:C: HL7StandardVersionCode:V3-2008N , fixed value= "V3-2008N"}	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is therefore mandatory. Mapping: soap:Header\wsa:To\ (portion between last "\ " and second-last "\ ")
interactionId [1..1] (M)	Design Comments: Indicates the interaction conveyed by this

MCCI_MT00200CA Accept Ack	Documentation
<u>Message (II.PUBLIC)</u>	message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is therefore mandatory. Mapping: soap:Header\wsa:Action (after “urn:hl7-org:v3:” and before the second underscore, if any)
profileId [1..10] (M) <u>Message (LIST<II.BUS>)</u>	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also influences what extensions can be processed.
processingCode [1..1] (M) <u>Message (CS) {CNE:D:ProcessingID}</u>	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is therefore mandatory. Mapping: soap:Header\wsa:To\ (portion between second-last “\” and third-last “\”)
processingModeCode [1..1] (M) <u>Message (CS) {CNE:D:ProcessingMode}</u>	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode, Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) <u>Message (CS)</u> <u>{CNE:D:AcknowledgementCondition}</u>	Design Comments: Indicates how the message is expected to be acknowledged. UsageNotes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is therefore mandatory.
receiver [1..1] (Receiver)	
respondTo [0..1] (RespondTo)	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the

MCCI_MT00200CA Accept Ack	Documentation
	acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (<u>Sender</u>)	
acknowledgement [1..1] (<u>Acknowledgement</u>)	
Receiver	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RCV , fixed value= "RCV"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The address to which this message is being sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:To
device [1..1] (<u>Device2</u>)	
Device2	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (IL.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application. Mapping: soap:Header\wsa:To\@endpointID
name [0..1]	Design Comments: Name of receiver application.

MCCI_MT002200CA Accept Ack	Documentation
<u>Device</u> (ST)	Rationale: Optional name of receiver application
agent [0..1] (<u>Agent2</u>)	
Agent2	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization2</u>)	
Organization2	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (IL.BUS)	Design Comments: Receiver organization. Rationale: The identifier of the receiver organization. This is the only non-structural attribute in this class and is therefore mandatory. Receiver organization is optional (as the scoper association from the receiver application is optional).
RespondTo	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RSP , fixed value= "RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to.

MCCI_MT00200CA Accept Ack	Documentation
	Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP. Mapping: soap:Header\wsa:ReplyTo
device [1..1] (<u>Device3</u>)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (IL.BUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to. Mapping: soap:Header\wsa:ReplyTo\@endpointID
Sender	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:SND , fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message.

MCCI_MT002200CA Accept Ack	Documentation
	Rationale: May be important for sender validation. Usually also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:From
device [1..1] (<u>Device1</u>)	
Device1	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (ILBUS)	Design Comments: The unique identifier of the application or system to whom the message is being routed. Rationale: Because this is the key identifier of where the message is intended to go, this attribute is mandatory. Mapping: soap:Header\wsa:From\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1] <u>Device</u> (ST)	Design Comments: Provides additional information about the configuration of the sending application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] <u>Device</u> (IVL.LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] <u>Device</u> (ST) {CWE:D: ManufacturerModelName }	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used to filter messages based on the

MCCI_MT00200CA Accept Ack	Documentation
	compliance testing of the sending software.
softwareName [0..1] <u>Device</u> (ST) {CWE:D: SoftwareName }	Design Comments: Indicates the name of the software used to construct the message. Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (<u>Agent</u>)	
Agent	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (<u>Organization</u>)	
Organization	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (IL.BUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is therefore mandatory. The association from sending device to agent is optional.
Acknowledgement	
typeCode [1..1] (M) Acknowledgement (CS) {CNE:D: AcknowledgementType }	Design Comments: Indicates whether the previous interaction was successfully processed. Rationale: Key to understanding whether the interaction has been successful and is therefore mandatory.
messageWaitingNumber [0..1] <u>Acknowledgement</u> (INT.NONNEG)	Design Comments: For applications which support polling, indicates the total number of messages waiting to be retrieved. Rationale: Indicates to a system how many polled messages are available without the need so send a separate query. The element

MCCI_MT002200CA Accept Ack	Documentation
	is optional because not all systems will support polling.
messageWaitingPriorityCode [0..1] <u>Acknowledgement (CV)</u> {CNE:D: MessageWaitingPriority }	Design Comments: Indicates the priority of the highest-priority message that is waiting on the poll queue for the system being responded to. Rationale: The priority of the waiting message may influence how quickly the polling system may choose to download queued messages. The element is optional because not all systems will support polling.
targetMessage [1..1] (<u>TargetMessage</u>)	
acknowledgementDetail [0..50] (<u>AcknowledgementDetail</u>)	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
TargetMessage	
id [1..1] (M) <u>Message (IL.TOKEN)</u>	Design Comments: References the identifier of the message this current message is acknowledging. Rationale: Provides the necessary link to complete a conversation for systems using communication technologies which are not conversational. This attribute is therefore mandatory. Mapping: soap:Header\wsa:RelatesTo
AcknowledgementDetail	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
typeCode [1..1] (M) AcknowledgementDetail (CS) {CNE:D: AcknowledgementDetailType }	Design Comments: Distinguishes between errors, warnings and information messages. Rationale: Different types of messages have substantially different ramifications.
code [1..1] AcknowledgementDetail (CV) {CWE:D: AcknowledgementDetailCode }	Design Comments: Indicates the specific issue represented by this message. Rationale: By providing coded identification of issues and errors, allows applications to have logic that manages particular errors and warnings automatically. However in some circumstances, a code may not be available. Therefore the

MCCI_MT002200CA Accept Ack	Documentation
	attribute is marked as 'populated'. The coding strength is CWE (coded with extensions). The use of local codes is only permitted when those codes are submitted to the SC for consideration and if the SC makes a recommendation other than adoption of the local code, jurisdictions are bound to adopt the recommendation.
text [0..1] AcknowledgementDetail (ST)	Design Comments: The human-readable description of the error, warning or information message. May convey additional details not present in the 'code', but is not intended to be human-processable. Rationale: Allows supplementing the 'computer' information for human-readability.
location [0..5] AcknowledgementDetail (SET<ST>)	Design Comments: Indicates the location of the elements within the message instance that triggered this error, warning or information message. UsageNotes: I.e. only the default 'child' axis is permitted, occurrence numbers are always specified, and no other predicates are permitted. Rationale: Allows syntax and other messages to be linked to particular fields within the message.

7.4.3 Control Act Wrappers

This section describes requirements for control act wrappers. The wrapper may be used in multiple interactions. Refer to [Transactions and Interactions](#) section for detailed information applicable message wrappers for the target interaction.

7.4.3.1 Registry Request Wrapper - Human Initiated With Role Payload (MFMI_MT700711CA)

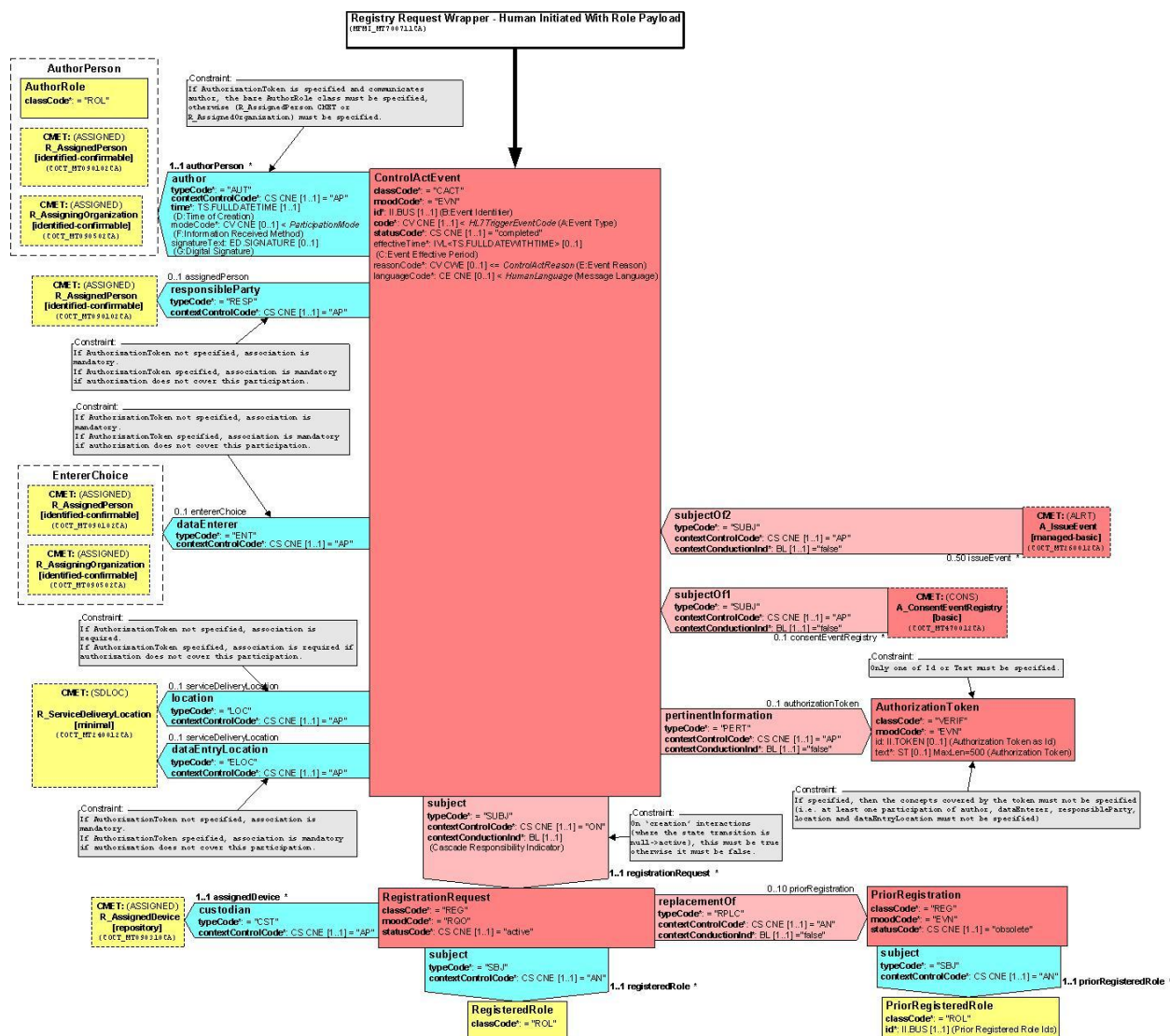


Figure 22 - Registry Request Wrapper - Human Initiated With Role Payload (MFMI_MT700711CA) Refined Message Information Model

Table 19 – Registry Request Wrapper – Human Initiated With Role Payload HMD

MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	Documentation
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MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	Documentation
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. UsageNotes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActClass</u> :CACT, fixed value= "CACT"}	
moodCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActMood</u> :EVN, fixed value= "EVN"}	
id [1..1] (M) <u>ControlAct</u> (ILBUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. UsageNotes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present on the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D:HL7TriggerEventCode}	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActStatus</u> :completed, fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be

MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	Documentation
	indicated.
reasonCode [0..1] <u>ControlAct (CV)</u> {CWE:D: ControlActReason }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request, etc.) occurred. UsageNotes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] <u>ControlAct (CE)</u> {CNE:D: HumanLanguage }	
responsibleParty [0..1] (<u>ResponsibleParty</u>)	Design Comments: Allows for the trail of responsibility for the action. The association is optional because in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation.
author [1..1] (<u>Author</u>)	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.
dataEnterer [0..1] (<u>DataEnterer</u>)	Design Comments: Indicates the person responsible for entering the query into the system. Used when different from the person responsible for the request (author). For example, physician requests administrative assistant to print off a patient's medication profile. UsageNotes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
dataEntryLocation [0..1] (<u>DataEntryLocation</u>)	Design Comments: Indicates the location where the record of this event was entered. UsageNotes: This should only be specified if different from the

MFMI_MT700711CA Registry Request Wrapper - Human Initiated With Role Payload	Documentation
	location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
location [0..1] (<u>Location</u>)	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
subject [1..1] (<u>Subject2</u>)	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. UsageNotes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
pertinentInformation [0..1] (<u>PertinentInformation</u>)	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
subjectOf1 [0..1] (<u>Subject3</u>)	Design Comments: Information pertaining to a client's (or provider's) agreement/acceptance to have his/her client/provider identification and demographic information electronically stored and shared. Rationale: Provides authorization to record and/or view client/provider information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by

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	message basis.
subjectOf2 [0..50] (<u>Subject</u>)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
ResponsibleParty [Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	Design Comments: Allows for the trail of responsibility for the action. The association is optional because in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:RESP , fixed value= "RESP"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	
Author [Constraint: " If AuthorizationToken is specified and communicates author, the bare AuthorRole class must be specified, otherwise (R_AssignedPerson CMET or R_AssignedOrganization) must be specified. "]	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:AUT , fixed	UsageNotes: Value should always be AUT

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value= "AUT"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
time [1..1] (M) Participation (TS.FULLDATETIME)	Design Comments: The time the person responsible for the event made the decision for it to occur. This may be different than the time the change became effective. (E.g. If a provider decides today to put a prescription on hold starting next Tuesday, the time of creation would be today and the change effective period would be next Tuesday.) This date can be back-dated. Rationale: The time a change is made is a critical piece of audit information and is therefore mandatory.
modeCode [0..1] Participation (CV) {CNE:D: ParticipationMode }	Design Comments: Indicates how the person who recorded the event became aware of it. E.g. Verbal, written, fax, etc. Rationale: May have ramifications for the audit trail and reliability of the information. Usage Note: This element is not supported by eHealth Ontario PCR.
signatureText [0..1] <u>Participation</u> (ED.SIGNATURE)	Design Comments: Indicates the formal digital signature of the message content. Rationale: Digital signatures may be needed for authentication of message content. The attribute is marked as optional because it is not yet clear whether there is a use-case for this, or where it will be used.
authorPerson [1..1] (<u>AuthorPerson</u>)	
AuthorPerson	
choice of <u>AuthorRole</u>	Rationale: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
or R_AssignedPersonIdentified- confirmable	
or R_AssigningOrganizationIdentified-	

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confirmable	
AuthorRole	Rationale: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
DataEnterer [Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	Design Comments: Indicates the person responsible for entering the query into the system. Used when different from the person responsible for the request (author). For example, physician requests administrative assistant to print off a patient's medication profile. UsageNotes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:ENT , fixed value= "ENT"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
entererChoice [1..1] (<u>EntererChoice</u>)	
EntererChoice	
choice of R_AssignedPersonIdentified- confirmable	
or R_AssigningOrganizationIdentified- confirmable	
DataEntryLocation	Design Comments: Indicates the location where the record of this

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[Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	event was entered. UsageNotes: This should only be specified if different from the location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C:ParticipationType:ELOC, fixed value= "ELOC"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R <u>ServiceDeliveryLocationMinimal</u>)	
Location [Constraint: " If AuthorizationToken not specified, association is required. If AuthorizationToken specified, association is required if authorization does not cover this participation. "]	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C:ParticipationType:LOC, fixed value= "LOC"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R <u>ServiceDeliveryLocationMinimal</u>)	
Subject2	Design Comments: Indicates the item(s) being acted upon by this

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[Constraint: " On 'creation' interactions (where the state transition is null->active), this must be true otherwise it must be false. "]	trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. UsageNotes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C:ActRelationshipType:SUBJ, fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C:ContextControl:ON, fixed value= "ON"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL)	Design Comments: Indicates whether or not objects of the trigger event are to be cascaded to the payload. If true, associations in the parent act are conducted across the ActRelationship to the message payload (act). Conduction for each association is specifically indicated by each associations' contextControlCode value. In other words, if the "subject" act relationship has contextConductionInd=true; THEN the subjectOf association is carried (to the registrationRequest act) according to the subjectOf.contextControlCode (AP = propagate to the reg request and add to any subject(s) (issues) already present in the payload). Rationale: Cascading of trigger event objects allows different messages to employ consistent and common objects. Attribute is mandatory to ensure that cascading will be specified one way or another.
registrationRequest [1..1] (<u>RegistrationRequest</u>)	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a request to register. Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory

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RegistrationRequest	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a request to register. Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value="REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:RQO , fixed value="RQO"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:active , fixed value="active"}	
subject [1..1] (<u>Subject4</u>)	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
custodian [1..1] (<u>Custodian</u>)	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
replacementOf [0..10] (<u>ReplacementOf</u>)	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
Subject4	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS)	

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{CNE:C: <u>ParticipationType</u> : <u>SBJ</u> , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: <u>ContextControl</u> : <u>AN</u> , fixed value= "AN"}	
registeredRole [1..1] (Stub "RegisteredRole")	
Custodian	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: <u>ParticipationType</u> : <u>CST</u> , fixed value= "CST"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: <u>ContextControl</u> : <u>AP</u> , fixed value= "AP"}	
assignedDevice [1..1] (R_AssignedDeviceRepository)	
ReplacementOf	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: <u>ActRelationshipType</u> : <u>RPLC</u> , fixed value= "RPLC"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: <u>ContextControl</u> : <u>AN</u> , fixed value= "AN"}	

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contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
priorRegistration [1..1] (<u>PriorRegistration</u>)	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
PriorRegistration	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:obsolete , fixed value= "obsolete"}	
subject [1..1] (<u>Subject5</u>)	
Subject5	
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
priorRegisteredRole [1..1] (<u>PriorRegisteredRole</u>)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PriorRegisteredRole	Design Comments: Identifies "duplicate" records of the registered

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	item that have been superseded by this record. Rationale: Provides support for merges.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
id [1..1] (M) <u>Role</u> (II.BUS)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PertinentInformation	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:PERT , fixed value= "PERT"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
authorizationToken [1..1] (<u>AuthorizationToken</u>)	Design Comments: Conveys an authentication token associated with the event. The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.
AuthorizationToken [Constraint: "	Design Comments: Conveys an authentication token associated with the event.

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If specified, then the concepts covered by the token must not be specified (i.e. at least one participation of author, dataEnterer, responsibleParty, location and dataEntryLocation must not be specified) "] [Constraint: " Only one of Id or Text must be specified. "]	The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.
classCode [1..1] (M) <u>Observation</u> (CS) {CNE:C: ActClass:VERIF , fixed value= "VERIF"}	
moodCode [1..1] (M) <u>Observation</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
id [0..1] <u>Observation</u> (II.TOKEN)	Design Comments: An authorization token expressed as a GUID. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: GUIDs are an effective way of conveying a temporary authentication token
text [0..1] <u>Observation</u> (ST)	Design Comments: An authentication token expressed as a non-GUID string. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: Some systems may choose to use a hash code or other approach to token construction.
Subject3	Design Comments: Information pertaining to a client's (or provider's) agreement/acceptance to have his/her client/provider identification and demographic information electronically stored and shared. Rationale: Provides authorization to record and/or view client/provider information. Indicates the consent or keyword used to authorize access or update,

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	including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
consentEvent [1..1] (A_ConsentEventRegistryBasic)	
Subject	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A_IssueEventManaged-basic)	

Figure 23 - Registry Response Wrapper - Device Initiated With Role Payload (MFMI_MT700726CA)
Refined Message Information Model

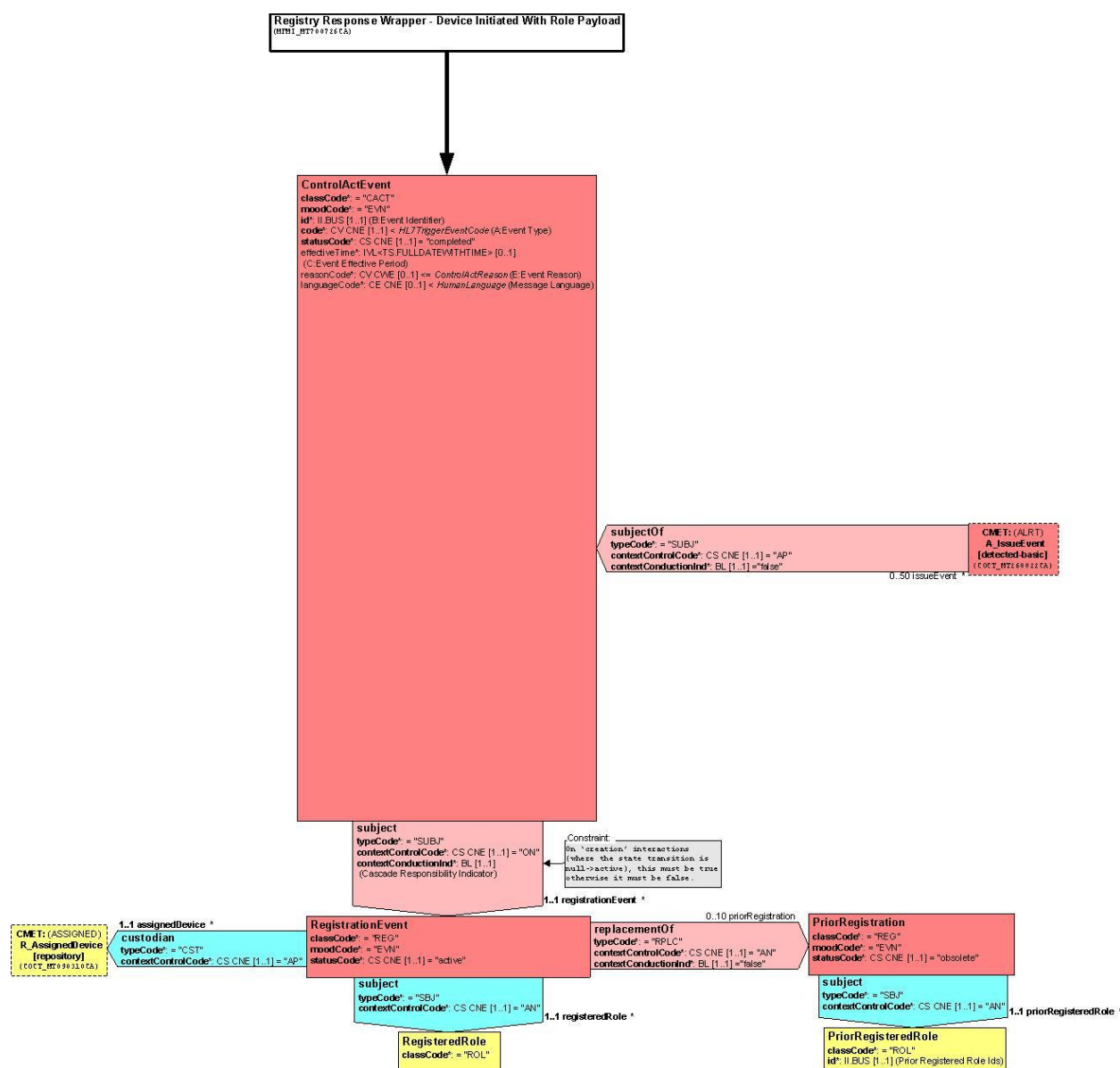


Figure 23 - Registry Response Wrapper - Device Initiated With Role Payload (MFMI_MT700726CA)
Refined Message Information Model

Table 20 - Registry Response Wrapper - Device Initiated With Role Payload HMD

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ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. UsageNotes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActClass</u> :CACT, fixed value= "CACT"}	
moodCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActMood</u> :EVN, fixed value= "EVN"}	
id [1..1] (M) <u>ControlAct</u> (IL.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. UsageNotes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present on the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D:HL7TriggerEventCode}	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActStatus</u> :completed, fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the

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	time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] <u>ControlAct (CV)</u> {CWE:D: <u>ControlActReason</u> }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request, etc.) occurred. UsageNotes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] <u>ControlAct (CE)</u> {CNE:D: <u>HumanLanguage</u> }	
subject [1..1] (<u>Subject2</u>)	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. UsageNotes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
subjectOf [0..50] (<u>Subject</u>)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
Subject2 [Constraint: " On 'creation' interactions (where the state transition is null->active), this must be true otherwise it must be false. "]	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. UsageNotes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created,

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	modified or removed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:ON , fixed value= "ON"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL)	Design Comments: Indicates whether or not objects of the trigger event are to be cascaded to the payload. If true, associations in the parent act are conducted across the ActRelationship to the message payload (act). Conduction for each association is specifically indicated by each association's contextControlCode value. In other words, if the "subject" act relationship has contextConductionInd=true; THEN the subjectOf association is carried (to the registrationEvent act) according to the subjectOf.contextControlCode (AP = propagate to the reg event and add to any subject(s) (issues) already present). Rationale: Cascading of trigger event objects allows different messages to employ consistent and common objects. Attribute is mandatory to ensure that cascading will be specified one way or another.
registrationEvent [1..1] (<u>RegistrationEvent</u>)	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
RegistrationEvent	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory

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classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:active , fixed value= "active"}	
subject [1..1] (<u>Subject4</u>)	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
custodian [1..1] (<u>Custodian</u>)	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
replacementOf [0..10] (<u>ReplacementOf</u>)	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
Subject4	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value=	

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"AN"}	
registeredRole [1..1] (Stub "RegisteredRole")	
Custodian	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:CST , fixed value= "CST"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedDevice [1..1] (R_AssignedDeviceRepository)	
ReplacementOf	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:RPLC , fixed value= "RPLC"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
priorRegistration [1..1] (<u>PriorRegistration</u>)	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a

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	registration already received (supports merges).
PriorRegistration	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:obsolete , fixed value= "obsolete"}	
subject [1..1] (<u>Subject5</u>)	
Subject5	
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
priorRegisteredRole [1..1] (<u>PriorRegisteredRole</u>)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PriorRegisteredRole	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	

MFMI_MT700726CA Registry Response Wrapper - Device Initiated With Role Payload	Documentation
id [1..1] (M) <u>Role</u> (II.BUS)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
Subject	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A <u>IssueEventDetected-basic</u>)	

7.4.3.3 Registry Notification Wrapper - Device Initiated With Role Payload (MFMI_MT700717CA)

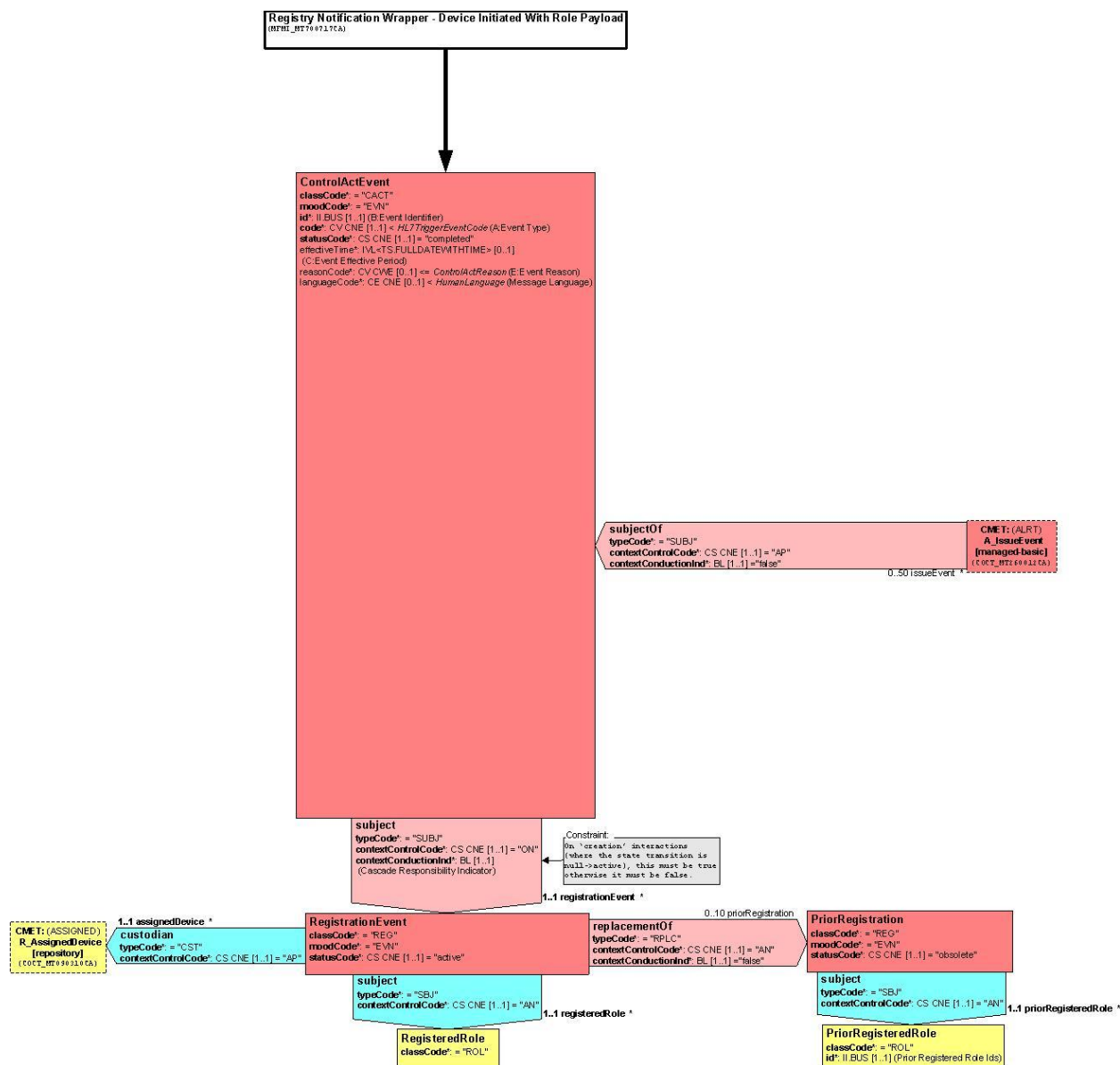


Figure 24 - Registry Notification Wrapper - Device Initiated with Role Payload (MFMI_MT700717CA) Refined Information Model

Table 21 - Registry Notification Wrapper - Device Initiated With Role Payload HMD

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. UsageNotes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActClass</u> :CACT, fixed value= "CACT"}	
moodCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActMood</u> :EVN, fixed value= "EVN"}	
id [1..1] (M) <u>ControlAct</u> (IL.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. UsageNotes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present on the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D:HL7TriggerEventCode}	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActStatus</u> :completed, fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
	time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] <u>ControlAct (CV)</u> {CWE:D: <u>ControlActReason</u> }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request, etc.) occurred. UsageNotes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] <u>ControlAct (CE)</u> {CNE:D: <u>HumanLanguage</u> }	
subject [1..1] (<u>Subject2</u>)	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. UsageNotes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
subjectOf [0..50] (<u>Subject</u>)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
Subject2 [Constraint: " On 'creation' interactions (where the state transition is null->active), this must be true otherwise it must be false. "]	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. Usage Notes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created,

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
	modified or removed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:ON , fixed value= "ON"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL)	Design Comments: Indicates whether or not objects of the trigger event are to be cascaded to the payload. If true, associations in the parent act are conducted across the ActRelationship to the message payload (act). Conduction for each association is specifically indicated by each association's contextControlCode value. In other words, if the "subject" act relationship has contextConductionInd=true; THEN the subjectOf association is carried (to the registrationRequest act) according to the subjectOf.contextControlCode (AP = propagate to the reg request and add to any subject(s) (issues) already present in the payload). Rationale: Cascading of trigger event objects allows different messages to employ consistent and common objects. Attribute is mandatory to ensure that cascading will be specified one way or another.
registrationEvent [1..1] (<u>RegistrationEvent</u>)	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a notification of the registration. Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
RegistrationEvent	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a notification of the registration. Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value="REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value="EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:active , fixed value="active"}	
subject [1..1] (<u>Subject4</u>)	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
custodian [1..1] (<u>Custodian</u>)	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
replacementOf [0..10] (<u>ReplacementOf</u>)	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
Subject4	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value="SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value=	

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
"AN"}	
registeredRole [1..1] (Stub "RegisteredRole")	
Custodian	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:CST , fixed value= "CST"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedDevice [1..1] (R_AssignedDeviceRepository)	
ReplacementOf	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:RPLC , fixed value= "RPLC"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
priorRegistration [1..1] (<u>PriorRegistration</u>)	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
	registration already received (supports merges).
PriorRegistration	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:obsolete , fixed value= "obsolete"}	
subject [1..1] (<u>Subject5</u>)	
Subject5	
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
priorRegisteredRole [1..1] (<u>PriorRegisteredRole</u>)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PriorRegisteredRole	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	

MFMI_MT700717CA Registry Notification Wrapper - Device Initiated With Role Payload	Document
id [1..1] (M) <u>Role</u> (II.BUS)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
Subject	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A <u>IssueEventManaged-basic</u>)	

7.4.3.4 Registry Query Request Wrapper - Human Initiated (MFMI_MT700751CA)

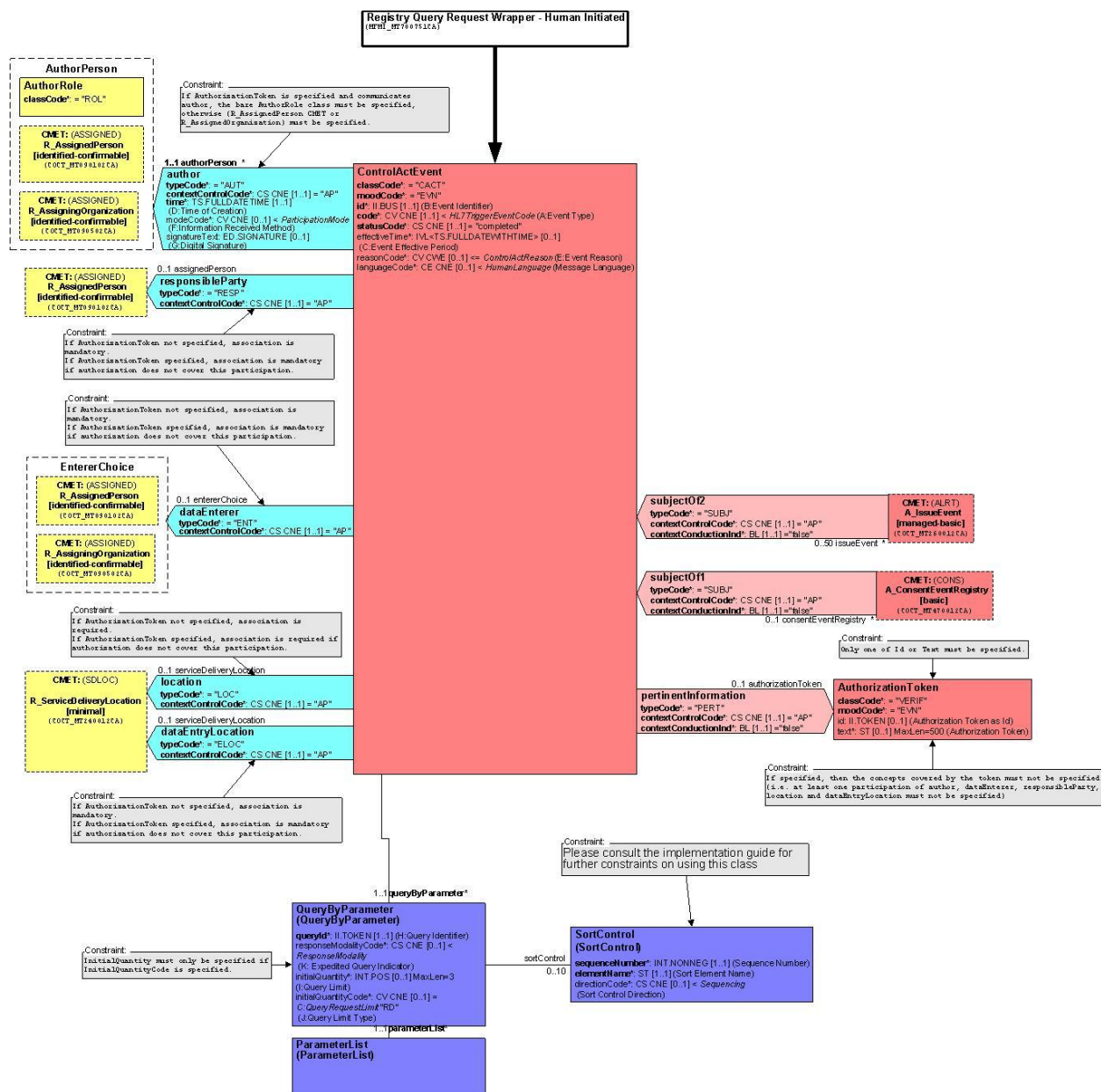


Figure 25 - Registry Query Request Wrapper - Human Initiated (MFMI_MT700751CA) Refined Message Information Model

Table 22- Registry Query Request Wrapper - Human Initiated HMD

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. Usage Notes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) ControlAct (CS) {CNE:C:ActClass:CACT, fixed value= "CACT"}	
moodCode [1..1] (M) ControlAct (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
id [1..1] (M) ControlAct (II.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. Usage Notes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present on the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D:HL7TriggerEventCode}	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) ControlAct (CS) {CNE:C:ActStatus:completed, fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
	time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] ControlAct (CV) {CWE:D: ControlActReason }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request, etc.) occurred. Usage Notes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] ControlAct (CE) {CNE:D: HumanLanguage }	
responsibleParty [0..1] (ResponsibleParty)	Design Comments: Allows for the trail of responsibility for the action. The association is optional because in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token
author [1..1] (Author)	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.
dataEnterer [0..1] (DataEnterer)	Design Comments: Indicates the person responsible for entering the query into the system. Used when different from the person responsible for the request (author). For example, physician requests administrative assistant to print off a patient's medication profile. Usage Notes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
dataEntryLocation [0..1] (DataEntryLocation)	Design Comments: Indicates the location where the record of this event was entered. Usage Notes: This should only be specified if different from the location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
location [0..1] (Location)	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
pertinentInformation [0..1] (PertinentInformation)	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
subjectOf1 [0..1] (Subject1)	Design Comments: Information pertaining to a client's agreement/acceptance to have his/her client identification and demographic information electronically stored and shared. Rationale: Provides authorization to record and/or view client information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis. Usage Notes: Provincial CR solution foresees Ontario Consent Directives solution will handle all consent needs. The near term implementation has identified the use of A_ConsentEventRegistryBasic (COCT_MT470012CA) is not required.
subjectOf2 [0..50] (Subject2)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
	action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
queryByParameter [1..1] (QueryByParameter)	Design Comments: Class which describes the query specifics and parameter list.
ResponsibleParty [Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	Design Comments: Allows for the trail of responsibility for the action. The association is optional because in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:RESP , fixed value= "RESP"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedEntity [1..1] (R_AssignedPersonIdentified- confirmable)	
Author [Constraint: " If AuthorizationToken is specified and communicates author, the bare AuthorRole class must be specified, otherwise (R_AssignedPerson CMET or R_AssignedOrganization) must be specified. "]	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:AUT , fixed	Usage Notes: Value should always be AUT

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
value= "AUT"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
time [1..1] (M) Participation (TS.FULLDATETIME)	Design Comments: The time the person responsible for the event made the decision for it to occur. This may be different than the time the change became effective. (E.g. If a provider decides today to put a prescription on hold starting next Tuesday, the time of creation would be today and the change effective period would be next Tuesday.) This date can be back-dated. Rationale: The time a change is made is a critical piece of audit information and is therefore mandatory.
modeCode [0..1] Participation (CV) {CNE:D: ParticipationMode }	Design Comments: Indicates how the person who recorded the event became aware of it. E.g. Verbal, written, fax, etc. Rationale: May have ramifications for the audit trail and reliability of the information. Usage Note: This element is not supported by eHealth Ontario PCR.
signatureText [0..1] Participation (ED.SIGNATURE)	Design Comments: Indicates the formal digital signature of the message content. Rationale: Digital signatures may be needed for authentication of message content. The attribute is marked as optional because it is not yet clear whether there is a use-case for this, or where it will be used.
authorPerson [1..1] (AuthorPerson)	
AuthorPerson	
choice of AuthorRole	Design Comments: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
or R_AssignedPersonIdentified- confirmable	
or R_AssigningOrganizationIdentified-	

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
confirmable	
AuthorRole	Design Comments: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
DataEnterer [Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	Design Comments: Indicates the person responsible for entering the query into the system. Used when different from the person responsible for the request (author). For example, physician requests administrative assistant to print off a patient's medication profile. Usage Notes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:ENT , fixed value= "ENT"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
entererChoice [1..1] (EntererChoice)	
EntererChoice	
choice of R_AssignedPersonIdentified- confirmable	
or R_AssigningOrganizationIdentified- confirmable	
DataEntryLocation	Design Comments: Indicates the location where the record of this

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
[Constraint: " If AuthorizationToken not specified, association is mandatory. If AuthorizationToken specified, association is mandatory if authorization does not cover this participation. "]	event was entered. Usage Notes: This should only be specified if different from the location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:ELOC, fixed value= "ELOC"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R_ServiceDeliveryLocationMinimal)	
Location [Constraint: " If AuthorizationToken not specified, association is required. If AuthorizationToken specified, association is required if authorization does not cover this participation. "]	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:LOC, fixed value= "LOC"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R_ServiceDeliveryLocationMinimal)	

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
PertinentInformation	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:PERT , fixed value= "PERT"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
authorizationToken [1..1] (AuthorizationToken)	Design Comments: Conveys an authentication token associated with the event. The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.
AuthorizationToken [Constraint: " If specified, then the concepts covered by the token must not be specified (i.e. at least one participation of author, dataEnterer, responsibleParty, location and dataEntryLocation must not be specified) "] [Constraint: " Only one of Id or Text must be specified. "]	Design Comments: Conveys an authentication token associated with the event. The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:VERIF, fixed value= "VERIF"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
id [0..1] Observation (II.TOKEN)	Design Comments: An authorization token expressed as a GUID. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: GUIDs are an effective way of conveying a temporary authentication token
text [0..1] Observation (ST)	Design Comments: An authentication token expressed as a non-GUID string. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: Some systems may choose to use a hash code or other approach to token construction.
Subject1	Design Comments: Information pertaining to a client's agreement/acceptance to have his/her client identification and demographic information electronically stored and shared. Usage Notes: This will usually only be populated for queries, but could be used for updates if a jurisdiction requires consent before recording information in the EHR (e.g. consent to participate in electronic data exchange). Note: keywords cannot be passed from one application to another via the EHR (e.g. prescriber to dispenser via a Drug Information System). Rationale: Provides authorization to record and/or view client information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis.
typeCode [1..1] (M)	

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
ActRelationship (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
consentEvent [1..1] (A_ConsentEventRegistryBasic)	
Subject2	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A_IssueEventManaged-basic)	
QueryByParameter [Constraint: " InitialQuantity must only be specified if InitialQuantityCode is specified. "]	Design Comments: Class which describes the query specifics and parameter list.

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
queryId [1..1] (M) QueryByParameter (II.TOKEN)	Design Comments: Unique number for this particular query. Rationale: Needed to allow continuation of queries and linking of query requests and responses and therefore mandatory.
responseModalityCode [0..1] QueryByParameter (CS) {CNE:D: ResponseModality }	Design Comments: This allows the sender to indicate to the receiver that this query should follow an expedited processing flow. Rationale: Intended to convey the requested 'packaging' of query results. This attribute does not affect which rows are selected by the query, just the manner in which they are returned. For example, a batch file containing responses, a response message containing multiple payloads, or a stream of response messages (notifications) each identifying itself as a response to a query request. Usage Note: This element is not supported by eHealth Ontario PCR.
initialQuantity [0..1] QueryByParameter (INT.POS)	Design Comments: The number of response item repetitions that should be included in the initial response. Usage Notes: If not specified, the default behaviour is to return all repetitions. However the recipient of a query may always choose to limit the quantity returned to be less than the number requested. Regardless of the number specified here, the number of rows returned will never exceed the number of matching rows based on the query parameters. Rationale: There may be a very large number of matching rows. To manage communication bandwidth, a limited set may initially be returned with further data retrieved by using query continuations.
initialQuantityCode [0..1] QueryByParameter (CV) {CNE:C: QueryRequestLimit:RD , fixed value= "RD"}	Design Comments: Defines the units associated with the magnitude of the maximum size limit of a query response that can be accepted by the requesting application. Rationale: Needed to quantify the types of records requested to be returned in the query.
parameterList [1..1] (Stub "ParameterList")	
sortControl [0..10] (SortControl)	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
SortControl	Design Comments: Holds specification of sort order for instance

MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	Documentation
[Constraint: " Please consult the implementation guide for further constraints on using this class "]	matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
sequenceNumber [1..1] (M) SortControl (INT.NONNEG)	Design Comments: When more than one sort control is specified, this is the order of this sort element amongst the others. Rationale: This number determines which sort element is using primarily, secondary, etc. and is therefore mandatory.
elementName [1..1] (M) SortControl (ST)	Design Comments: Name of the element to sort. Rationale: The name of the element is mandatory.
directionCode [0..1] SortControl (CS) {CNE:D: Sequencing }	Design Comments: Sets the ascending or descending nature of the sort request. Rationale: This element is required.

7.4.3.5 Registry Query Response Wrapper - Device Initiated With Role Payload (MFMI_MT700746CA)

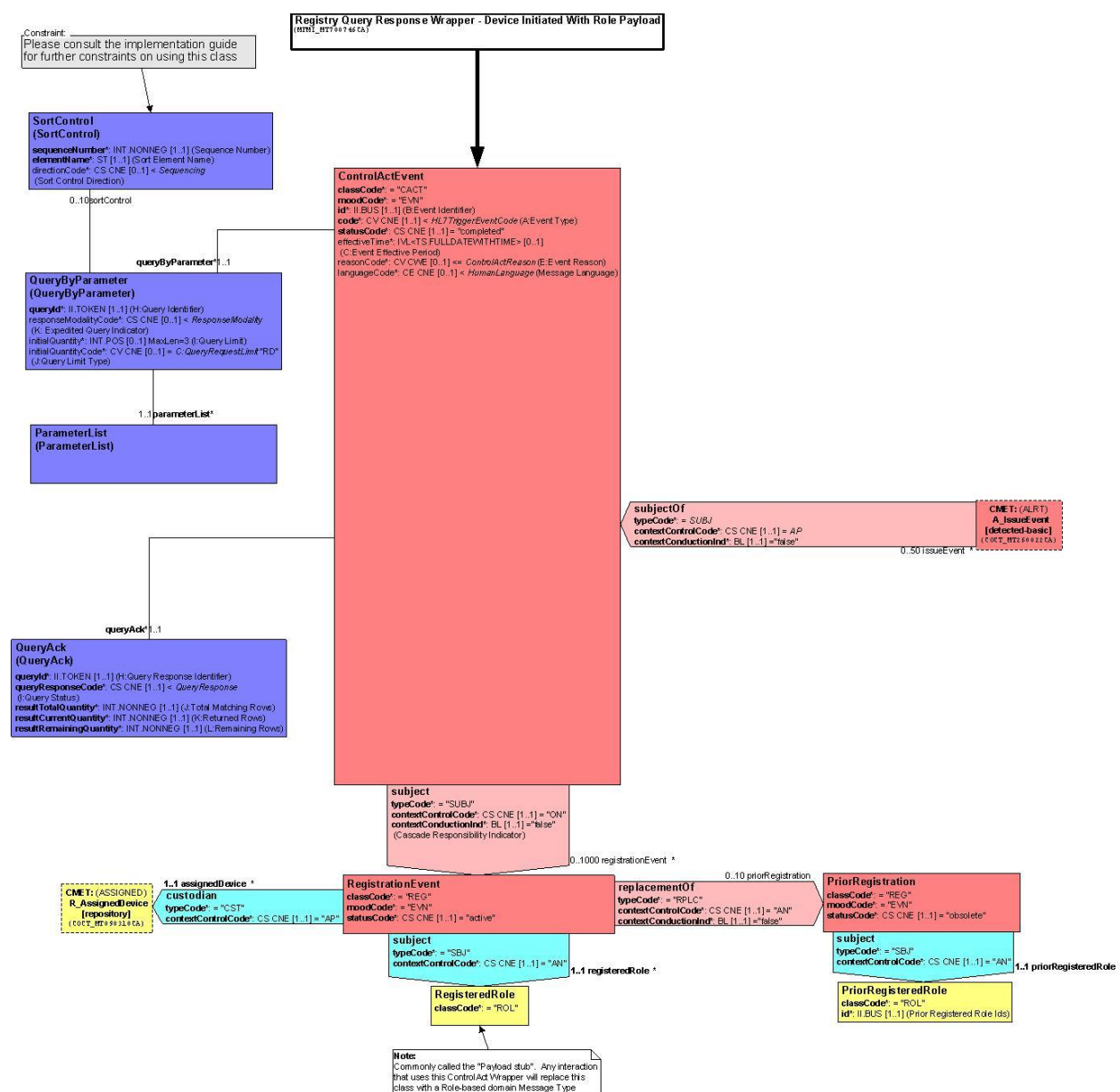


Figure 26 - Registry Query Response Wrapper - Device Initiated With Role Payload (MFMI_MT700746CA) Refined Message Information Model

Table 23 - Registry Query Response Wrapper - Device Initiated With Role Payload HMD

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. Usage Notes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActClass:CACT</u> , fixed value= "CACT"}	
moodCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActMood:EVN</u> , fixed value= "EVN"}	
id [1..1] (M) <u>ControlAct</u> (II.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. Usage Notes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present on the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) <u>ControlAct</u> (CV) {CNE:D: <u>HL7TriggerEventCode</u> }	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) <u>ControlAct</u> (CS) {CNE:C: <u>ActStatus:completed</u> , fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] <u>ControlAct</u> (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
	time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] <u>ControlAct (CV)</u> {CWE:D: <u>ControlActReason</u> }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request, etc.) occurred. Usage Notes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] <u>ControlAct (CE)</u> {CNE:D: <u>HumanLanguage</u> }	
subject [0..1000] (<u>Subject2</u>)	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. Usage Notes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
subjectOf [0..50] (<u>Subject</u>)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
queryAck [1..1] (<u>QueryAck</u>)	
queryByParameter [1..1] (<u>QueryByParameter</u>)	
Subject2	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. Usage Notes: If there are multiple subject items, the changes to all

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
	of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:ON , fixed value= "ON"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	Design Comments: Indicates whether or not objects of the trigger event are to be cascaded to the payload. If true, associations in the parent act are conducted across the ActRelationship to the message payload (act). Conduction for each association is specifically indicated by each associations' contextControlCode value. In other words, if the "subject" act relationship has contextConductionInd=true; THEN the subjectOf association is carried (to the registrationEvent act) according to the subjectOf.contextControlCode (AP = propagate to the reg event and add to any subject(s) (issues) already present). Rationale: Cascading of trigger event objects allows different messages to employ consistent and common objects. Attribute is mandatory to ensure that cascading will be specified one way or another.
registrationEvent [1..1] (<u>RegistrationEvent</u>)	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
RegistrationEvent	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
	mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value="REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value="EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:active , fixed value="active"}	
subject [1..1] (<u>Subject4</u>)	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
custodian [1..1] (<u>Custodian</u>)	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
replacementOf [0..10] (<u>ReplacementOf</u>)	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
Subject4	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed	

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
registeredRole [1..1] (Stub "RegisteredRole")	
Custodian	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:CST , fixed value= "CST"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedDevice [1..1] (R_AssignedDeviceRepository)	
ReplacementOf	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:RPLC , fixed value= "RPLC"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M)	

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
<u>ActRelationship</u> (BL){fixed value= "false"}	
priorRegistration [1..1] (<u>PriorRegistration</u>)	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
PriorRegistration	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:obsolete , fixed value= "obsolete"}	
subject [1..1] (<u>Subject5</u>)	
Subject5	
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
priorRegisteredRole [1..1] (<u>PriorRegisteredRole</u>)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PriorRegisteredRole	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record.

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
	Rationale: Provides support for merges.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
id [1..1] (M) <u>Role</u> (IL.BUS)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
Subject	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A <u>IssueEventDetected-basic</u>)	
QueryAck	
queryId [1..1] (M) <u>QueryAck</u> (IL.TOKEN)	Design Comments: Identifies the query being acknowledged Rationale: Allows linking of a response back to the request that triggered it and is therefore mandatory. Particularly useful when responses are deferred or queued.
queryResponseCode [1..1] (M) <u>QueryAck</u> (CS) {CNE:D: QueryResponse }	Design Comments: Indicates whether the query was successful or not. Rationale: Used to control receiver logic and is therefore mandatory.

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
resultTotalQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Identifies the total number of rows identified that matched the query. Rationale: Indicates the overall size of the result-set and is therefore mandatory. Particularly useful when only part of the result set is actually returned.
resultCurrentQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Identifies the number of rows returned as part of this particular query response. Rationale: Provides a quick overview of the results of the query and is therefore mandatory
resultRemainingQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Indicates the number of rows that still exist after the last row returned in this response. Rationale: Identifies how much data remains to be queried and is therefore mandatory.
QueryByParameter	
queryId [1..1] (M) <u>QueryByParameter</u> (II.TOKEN)	Design Comments: Unique number for this particular query. Rationale: Needed to allow continuation of queries and linking of query requests and responses and therefore mandatory.
responseModalityCode [0..1] <u>QueryByParameter</u> (CS) {CNE:D: ResponseModality }	Design Comments: This allows the sender to indicate to the receiver that this query should follow an expedited processing flow. Rationale: Intended to convey the 'packaging' of query results. This attribute does not affect which rows are selected by the query, just the manner in which they are returned. For example, a batch file containing responses, a response message containing multiple payloads, or a stream of response messages (notifications) each identifying itself as a response to a query request. Usage Note: This element is not supported by eHealth Ontario PCR.
initialQuantity [0..1] <u>QueryByParameter</u> (INT.POS)	Design Comments: The number of response item repetitions that should be included in the initial response. Rationale: There may be a very large number of matching rows. To manage communication bandwidth, a limited set may initially be returned with further data retrieved by using query continuations.
initialQuantityCode [0..1] <u>QueryByParameter</u> (CV) {CNE:C: QueryRequestLimit :RD, fixed	Design Comments: Defines the units associated with the magnitude of the maximum size limit of a query response that can be

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
value= "RD"} 	accepted by the requesting application. Rationale: Needed to quantify the types of records requested to be returned in the query.
parameterList [1..1] (Stub "ParameterList")	
sortControl [0..10] (<u>SortControl</u>)	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
SortControl [Constraint: " Please consult the implementation guide for further constraints on using this class "]	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
sequenceNumber [1..1] (M) <u>SortControl</u> (INT.NONNEG)	Design Comments: When more than one sort control is specified, this is the order of this sort element amongst the others. Rationale: This number determines which sort element is using primarily, secondary, etc. and is therefore mandatory.
elementName [1..1] (M) <u>SortControl</u> (ST)	Design Comments: Name of the element to sort. Rationale: The name of the element is mandatory.
directionCode [0..1] <u>SortControl</u> (CS) {CNE:D: Sequencing }	Design Comments: Sets the ascending or descending nature of the sort request. Rationale: This element is required.

7.4.4 Message Payloads

This section describes requirements for message payloads. The payload may be used in multiple interactions. Refer to [Transactions and Interactions](#) section for detailed information applicable message payload for the target interaction.

7.4.4.1 Add Client Request (PRPA_MT101001CA)

The following figure illustrates the HL7 model for Add Client Request parameters that are required to be populated by the initiating system.

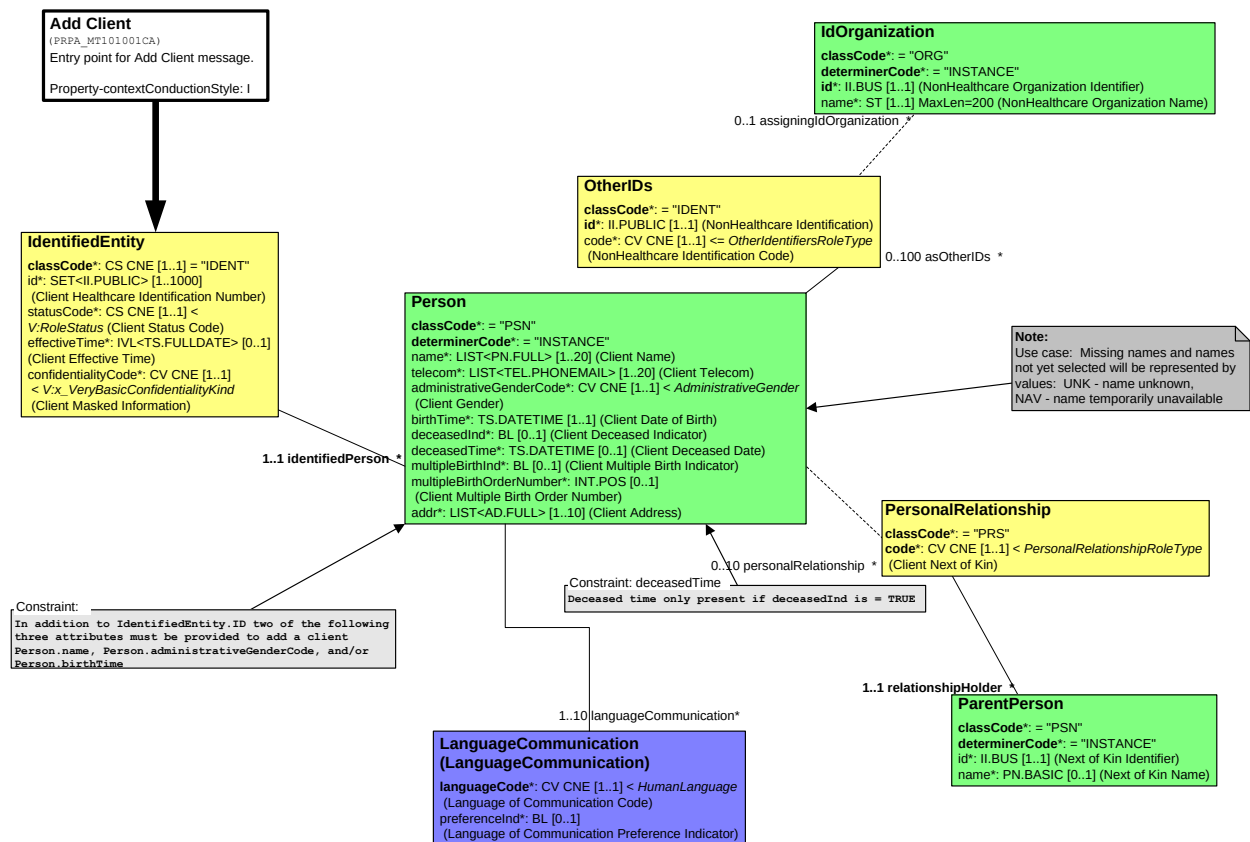


Figure 27 - Add Client (PRPA_MT101001CA) Refined Message Information Model

Table 24 - Add Client HMD

PRPA_MT101001CA Add Client	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:IDENT, fixed	Design Comments: A code specifying the major category of the

PRPA_MT101001CA Add Client	Documentation
value= "IDENT"}	Identified Entity Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. Usage Notes: At least 1 client identifier must be present in the message. No more than 1000 identifiers can be submitted in the message. One definitional / corporate identifier and zero to many informational identifiers are expected by the provincial client registry in Add Client request payload. Rationale: Populated attribute supports unique identification of the client.
statusCode [1..1] Role (CS) {CNE:D:RoleStatus}	Design Comments: Indicates the status of the Client role (e.g. Active) Rationale: Populated attribute supports the identification of the client
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known. Rationale: Required attribute supports the identification of the client
confidentialityCode [1..1] Role (CV) {CNE:V:x_VeryBasicConfidentialityKind}	Design Comments: A code that controls the disclosure of information about this client record. Usage Notes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required

PRPA_MT101001CA Add Client	Documentation
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
Person [Constraint: " In addition to IdentifiedEntity.ID two of the following three attributes must be provided to add a client Person.name, Person.administrativeGenderCode, and/or Person.birthTime "]	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
name [1..20] Person (LIST<PN.FULL>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client
telecom [1..20] Person (LIST<TEL.PHONEMAIL>)	Design Comments: Provides information about telecom Rationale: Required attribute supports the identification of the

PRPA_MT101001CA Add Client	Documentation
	client
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undifferentiated (UN) Rationale: Populated attribute supports the identification of the client
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the client
deceasedInd [0..1] Person (BL)	Design Comments: An indication that the client is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message. Rationale: Required attribute supports the identification of the client
deceasedTime [0..1] Person (TS.DATETIME) Constraint: Deceased time only present if deceasedInd is = TRUE	Design Comments: The date and time that a client's death occurred Rationale: Required attribute supports verification of death from official source such as Vital Statistics.
multipleBirthInd [0..1] Person (BL)	Design Comments: An indication as to whether the client is part of a multiple birth. Rationale: Required attribute supports the identification of the client
multipleBirthOrderNumber [0..1] Person (INT.POS)	Design Comments: The order in which this client was born if part of a multiple birth. Rationale: Required attribute supports the identification of the client
addr [1..10] Person (LIST<AD.FULL>)	Design Comments: Address(es) of the Client Rationale: Populated attribute supports the identification of the client
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class

PRPA_MT101001CA Add Client	Documentation
	Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
personalRelationship [0..10] (PersonalRelationship)	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
languageCommunication [1..10] (LanguageCommunication)	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
OtherIDs	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary.

PRPA_MT101001CA Add Client	Documentation
value= "IDENT"}	Rationale: Provides a means to identify Roles played by entities
id [1..1] (M) Role (II.PUBLIC)	Design Comments: Other non-healthcare identifiers for the Client (e.g. Passport, SIN, DND, DIAND, Driver's License) Rationale: Mandatory attribute supports the identification of the client
code [1..1] Role (CV) {CNE:D: OtherIdentifiersRoleType }	Design Comments: A pan Canadian code further specifying the kind of Role such as Driver's License, RCMP, DND, Social Insurance Number Rationale: Populated attribute supports the identification of the client
assigningIdOrganization [0..1] (IdOrganization)	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
IdOrganization	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Organization (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This

PRPA_MT101001CA Add Client	Documentation
	code distinguishes these different representations.
id [1..1] (M) Organization (II.BUS)	Design Comments: Unique identifier for the organization that assigned the non-healthcare identifier for the client. Rationale: Mandatory attribute supports the identification of the organization assigning the identifier to the client
name [1..1] Organization (ST)	Design Comments: A name for the non-healthcare organization Rationale: Populated attribute supports the identification of the organization assigning the identifier to the client
PersonalRelationship	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:PRS , fixed value= "PRS"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Usage Notes: Links two people in a personal relationship. The character of the relationship must be defined by a PersonalRelationshipRoleType code. The player and scoper are determined by PersonalRelationshipRoleType code as well. Rationale: Provides a means to identify Roles played by entities
code [1..1] (M) Role (CV) {CNE:V:PersonalRelationshipRoleType}	Design Comments: A code further specifying the kind of Role such as Mother, Father, Natural Parent or Step Parent Rationale: Mandatory attribute that supports understanding the relationship between the client and the ParentClient
relationshipHolder [1..1] (ParentPerson)	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper

PRPA_MT101001CA Add Client	Documentation
	should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
ParentPerson	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] Person (II.BUS)	Design Comments: A unique identifier for the next of kin Rationale: Populated attribute supports the identification of the next of kin and allows for the use of null flavours when the identifier is not known or available.
name [0..1] Person (PN.BASIC)	Design Comments: A name for the next of kin Rationale: Required attribute supports the identification of the

PRPA_MT101001CA Add Client	Documentation
	next of kin
LanguageCommunication	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [1..1] (M) LanguageCommunication (CV) {CNE:D:HumanLanguage}	Design Comments: A code indicating the language of communication Rationale: Mandatory attribute conveying the expected language message elements are to be transmitted in.
preferenceInd [0..1] LanguageCommunication (BL)	Design Comments: Indicates the preferred language for all communications. Rationale: Required attribute that supports the business requirement to indicate the preferred language for all communications.

7.4.4.2 Revise Client (PRPA_MT101002CA)

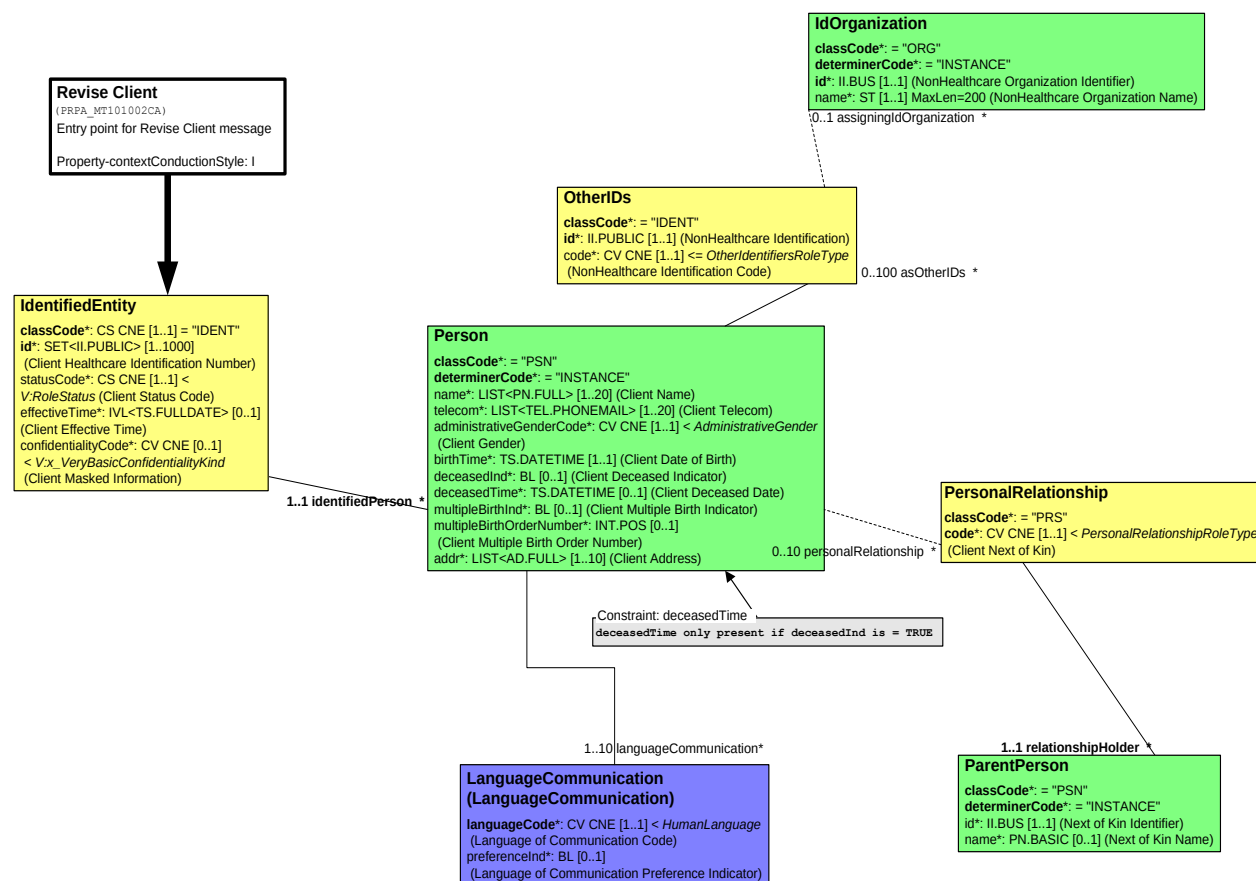


Figure 28 - Revise Client (PRPA_MT101002CA) Refined Message Information Model

Table 25 – Revise Client HMD

PRPA_MT101002CA Revise Client	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry

PRPA_MT101002CA Revise Client	Documentation
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}	Design Comments: A code specifying the major category of the Identified Entity Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. UsageNotes: At least 1 client identifier must be present in the message. One definitional / corporate identifier and zero to many informational identifiers are expected by the provincial client registry in Revise Client request payload. Rationale: Populated attribute supports unique identification of the client.
statusCode [1..1] Role (CS) {CNE:D: RoleStatus }	Design Comments: Indicates the status of the Client role (e.g. Active) Rationale: Populated attribute supports the identification of the client
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known. Rationale: Required attribute supports the identification of the client
confidentialityCode [1..1] Role (CV) {CNE:V:x_ VeryBasicConfidentialityKind }	Design Comments: A code that controls the disclosure of information about this client record. UsageNotes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of

PRPA_MT101002CA Revise Client	Documentation
	kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
Person [Constraint: " In addition to IdentifiedEntity.ID two of the following three attributes must be provided to add a client Person.name, Person.administrativeGenderCode, and/or Person.birthTime "]	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind)

PRPA_MT101002CA Revise Client	Documentation
	or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
name [1..20] Person (LIST<PN.FULL>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client
telecom [1..20] Person (LIST<TEL.PHONEMAIL>)	Design Comments: Provides information about telecom Rationale: Required attribute supports the identification of the client
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undifferentiated (UN) Rationale: Populated attribute supports the identification of the client
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the client
deceasedInd [0..1] Person (BL)	Design Comments: An indication that the client is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message. Rationale: Required attribute supports the identification of the client
deceasedTime [0..1]	Design Comments:

PRPA_MT101002CA Revise Client	Documentation
Person (TS.DATETIME) Constraint: Deceased time only present if deceasedInd is = TRUE	The date and time that a client's death occurred Rationale: Required attribute supports verification of death from official source such as Vital Statistics.
multipleBirthInd [0..1] Person (BL)	Design Comments: An indication as to whether the client is part of a multiple birth. Rationale: Required attribute supports the identification of the client
multipleBirthOrderNumber [0..1] Person (INT.POS)	Design Comments: The order in which this client was born if part of a multiple birth. Rationale: Required attribute supports the identification of the client
addr [1..10] Person (LIST<AD.FULL>)	Design Comments: Address(es) of the Client Rationale: Populated attribute supports the identification of the client
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca .
personalRelationship [0..10] (PersonalRelationship)	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact

PRPA_MT101002CA Revise Client	Documentation
	nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
languageCommunication [1..10] (LanguageCommunication)	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
OtherIDs	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1] (M)	Design Comments: Other non-healthcare identifiers for the Client

PRPA_MT101002CA Revise Client	Documentation
Role (II.PUBLIC)	(e.g. Passport, SIN, DND, DIAND, Driver's License) Rationale: Mandatory attribute supports the identification of the client
code [1..1] Role (CV) {CNE:D: OtherIdentifiersRoleType }	Design Comments: A pan Canadian code further specifying the kind of Role such as Driver's License, RCMP, DND, Social Insurance Number Rationale: Populated attribute supports the identification of the client
assigningIdOrganization [0..1] (IdOrganization)	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
IdOrganization	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Organization (CS)	Design Comments: An HL7 defined value representing whether the Entity represents a

PRPA_MT101002CA Revise Client	Documentation
{CNE:C: EntityDeterminer :INSTANCE, fixed value= "INSTANCE"}	kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] (M) Organization (II.BUS)	Design Comments: Unique identifier for the organization that assigned the non-healthcare identifier for the client. Rationale: Mandatory attribute supports the identification of the organization assigning the identifier to the client
name [1..1] Organization (ST)	Design Comments: A name for the non-healthcare organization Rationale: Populated attribute supports the identification of the organization assigning the identifier to the client
PersonalRelationship	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass :PRS, fixed	Design Comments: A code specifying the major category of a Role as defined by HL7

PRPA_MT101002CA Revise Client	Documentation
value= "PRS"}	vocabulary. UsageNotes: Links two people in a personal relationship. The character of the relationship must be defined by a PersonalRelationshipRoleType code. The player and scoper are determined by PersonalRelationshipRoleType code as well. Rationale: Provides a means to identify Roles played by entities
code [1..1] (M) Role (CV) {CNE:V:PersonalRelationshipRoleType}	Design Comments: A code further specifying the kind of Role such as Mother, Father, Natural Parent or Step Parent Rationale: Mandatory attribute that supports understanding the relationship between the client and the ParentClient
relationshipHolder [1..1] (ParentPerson)	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
ParentPerson	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
classCode [1..1] (M)	Design Comments:

PRPA_MT101002CA Revise Client	Documentation
Person (CS) {CNE:C: EntityClass :PSN, fixed value= "PSN"}	An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer :INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] Person (II.BUS)	Design Comments: A unique identifier for the next of kin Rationale: Populated attribute supports the identification of the next of kin and allows for the use of null flavours when the identifier is not known or available.
name [0..1] Person (PN.BASIC)	Design Comments: A name for the next of kin Rationale: Required attribute supports the identification of the next of kin
LanguageCommunication	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class.

PRPA_MT101002CA Revise Client	Documentation
	Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [1..1] (M) LanguageCommunication (CV) {CNE:D:HumanLanguage}	Design Comments: A code indicating the language of communication Rationale: Mandatory attribute conveying the expected language message elements are to be transmitted in.
preferenceInd [0..1] LanguageCommunication (BL)	Design Comments: Indicates the preferred language for all communications. Rationale: Required attribute that supports the business requirement to indicate the preferred language for all communications.

7.4.4.3 Nullify Client Record (PRPA_MT101003CA)

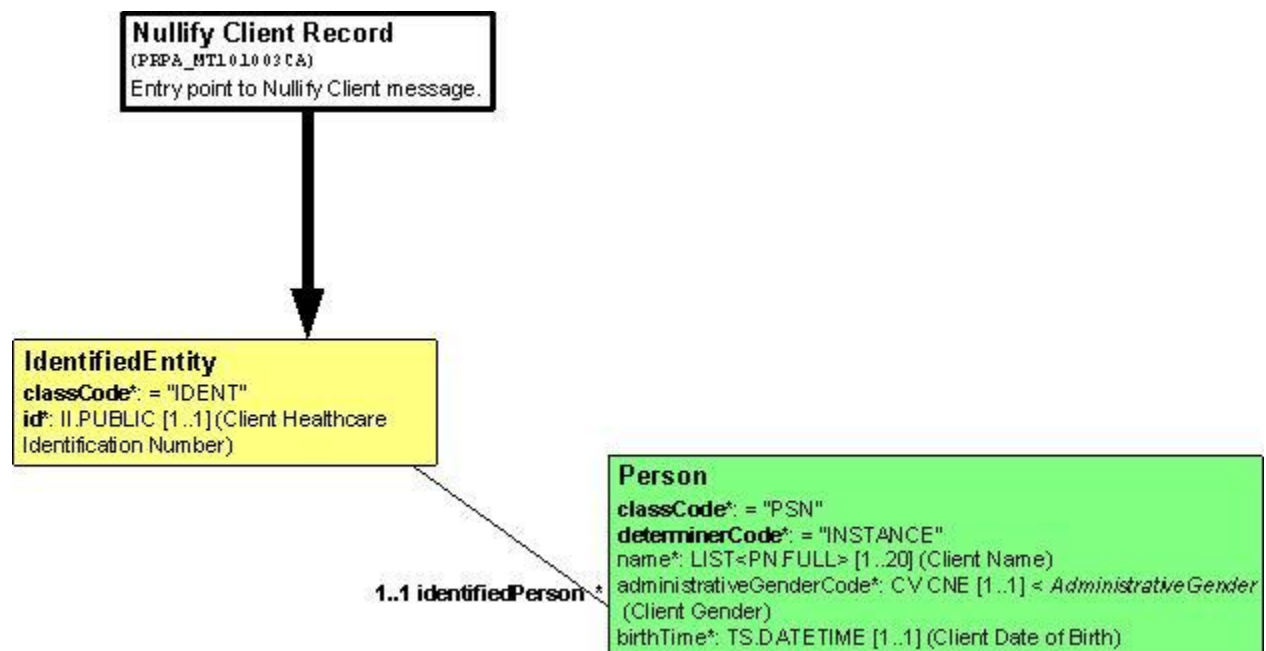


Figure 29 –Nullify Client Record (PRPA_MT101003CA) Refined Message Information Model

Table 26 - Nullify Client Record HMD

PRPA_MT101003CA Nullify Client Record	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1] (M) Role (II.PUBLIC)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. Rationale: Mandatory attribute supports unique identification of the client.
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
Person	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used

PRPA_MT101003CA Nullify Client Record	Documentation
	to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
name [1..20] Person (LIST<PN.FULL>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undeffered (UN) Rationale: Populated attribute supports the identification of the client Usage Notes: Only F and M are supported codes. Unknown gender code shall be communicated using the nullFlavor="UNK"
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the client

7.4.4.4 Query by Client ID (PRPA_MT101101CA)

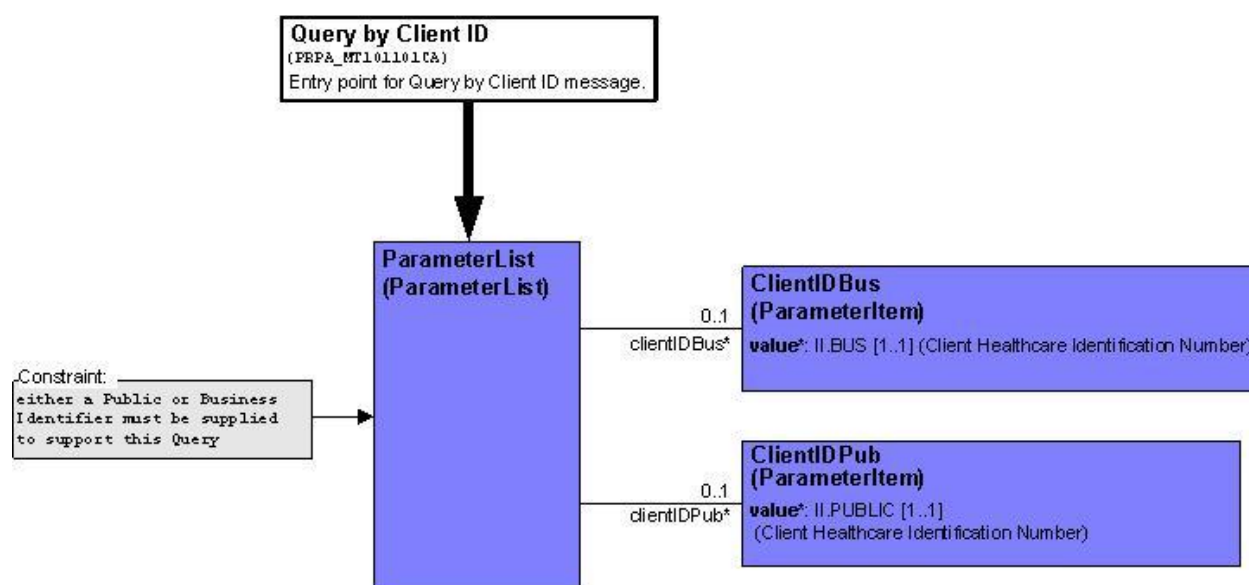


Figure 30 - Query by Client ID (PRPA_MT101101CA) Refined Message Information Model

Table 27 - Query by Client ID HMD

PRPA_MT101101CA Query by Client ID	Documentation
ParameterList [Constraint: "either a Public or Business Identifier must be supplied to support this Query"]	Design Comments: Entry Point
clientIDBus [0..1] (ClientIDBus)	Design Comments: Parameter to query on unknown business/system assigned client identifier e.g. ECID Rationale: Mandatory attribute supports business requirement to query on an unknown business/system assigned client identifier
clientIDPub [0..1] (ClientIDPub)	Design Comments: Parameter to query on known public client identifier Rationale: Mandatory attribute supports business requirement to query on a known public client identifier
ClientIDBus	Design Comments: Parameter to query on unknown business/system assigned client identifier e.g. ECID Rationale: Mandatory attribute supports business requirement to query on an unknown business/system assigned client identifier

PRPA_MT101101CA Query by Client ID	Documentation
value [1..1] (M) ParameterItem (II.BUS)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. UsageNotes: At least 1 client identifier must be present in the messageText constraint exists on the model to support non mandatory requirements either a Public or Business Identifier must be supplied to support this Query. Rationale: Mandatory attribute supports unique identification of the client and is a public identifier. E.G. Internal Business ID
ClientIDPub	Design Comments: Parameter to query on known public client identifier Rationale: Mandatory attribute supports business requirement to query on a known public client identifier
value [1..1] (M) ParameterItem (II.PUBLIC)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. UsageNotes: At least 1 client identifier must be present in the messageText constraint exists on the model to support non mandatory requirements either a Public or Business Identifier must be supplied to support this Query.

7.4.4.5 Get Demographics Response (PRPA_MT101102CA)

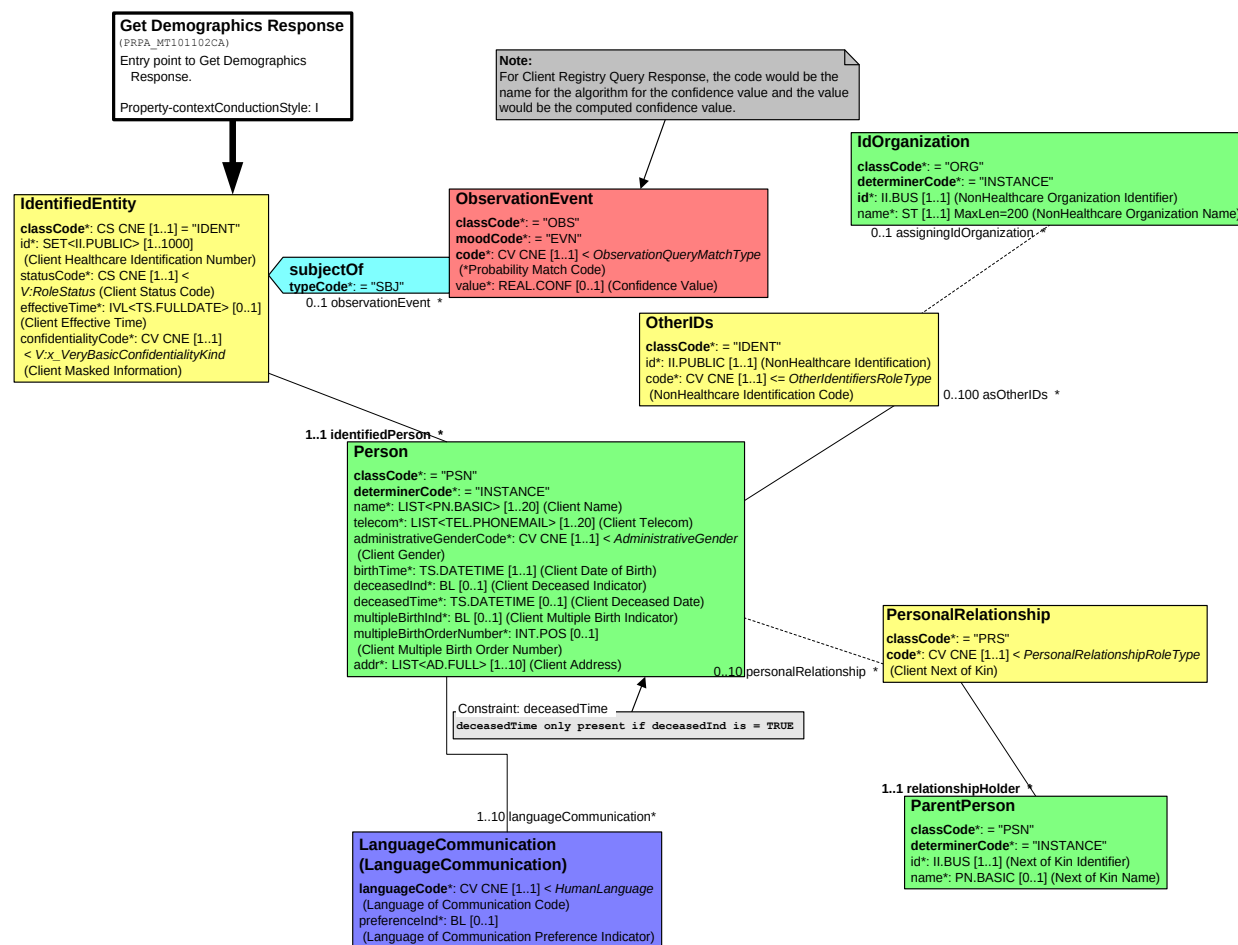


Figure 31 – Get Demographics Response (PRPA_MT101102CA) Refined Information Model

Table 28 – Get Demographics Response HMD

PRPA_MT101102CA Get Demographics Response	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry

PRPA_MT101102CA Get Demographics Response	Documentation
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}	
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. Usage Notes: At least 1 client identifier must be present in the message Rationale: Mandatory attribute supports unique identification of the client.
statusCode [1..1] Role (CS) {CNE:D: RoleStatus }	Design Comments: Indicates the status of the Client role (e.g. Active) Rationale: Populated attribute supports the identification of the client
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known Rationale: Required attribute supports the identification of the client
confidentialityCode [1..1] Role (CV) {CNE:V:x_ VeryBasicConfidentialityKind }	Design Comments: x_NormalRestrictedTabooConfidentialityKind A code that controls the disclosure of information about this patient encounter. Usage Notes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required

PRPA_MT101102CA Get Demographics Response	Documentation
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
subjectOf [0..1] (Subject)	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
Person	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
name [1..20] Person (LIST<PN.BASIC>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client
telecom [1..20] Person (LIST<TEL.PHONEMAIL>)	Design Comments: Provides information about telecom Rationale: Populated attribute supports the identification of the client
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undifferentiated (U) Rationale: Populated attribute supports the identification of the client
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the

PRPA_MT101102CA Get Demographics Response	Documentation
	client
deceasedInd [0..1] Person (BL)	Design Comments: An indication that the client is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message. Rationale: Required attribute supports the identification of the client
deceasedTime [0..1] Person (TS.DATETIME) Constraint: deceasedTime only present if deceasedInd is = TRUE	Design Comments: The date and time that a client's death occurred. Rationale: Required attribute supports verification of death from official source such as Vital Statistics.
multipleBirthInd [0..1] Person (BL)	Design Comments: An indication as to whether the client is part of a multiple birth. Rationale: Required attribute supports the identification of the client
multipleBirthOrderNumber [0..1] Person (INT.POS)	Design Comments: The order in which this client was born if part of a multiple birth. Rationale: Required attribute supports the identification of the client
addr [1..10] Person (LIST<AD.FULL>)	Design Comments: Address(es) of the Client Rationale: Populated attribute supports the identification of the client
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
personalRelationship	Design Comments: Associations between persons in the Person

PRPA_MT101102CA Get Demographics Response	Documentation
[0..10] (PersonalRelationship)	Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
languageCommunication [1..10] (LanguageCommunication)	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
OtherIDs	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:IDENT, fixed value= "IDENT"}	
id [1..1] Role (II.PUBLIC)	Design Comments: Other non-healthcare identifiers for the Client (e.g. Driver's License, RCMP, DND, Social Insurance Number) Rationale: Populated attribute supports the identification of the client
code [1..1] Role (CV) {CNE:D:OtherIdentifiersRoleType}	Design Comments: A pan Canadian code further specifying the kind of Role such as Driver's License, RCMP, DND, Social Insurance Number Rationale: Populated attribute supports the identification of the client

PRPA_MT101102CA Get Demographics Response	Documentation
assigningIdOrganization [0..1] (IdOrganization)	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
IdOrganization	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.BUS)	Design Comments: Unique identifier for the organization that assigned the non-healthcare identifier for the client. Rationale: Mandatory attribute supports the identification of the organization assigning the identifier to the client
name [1..1] Organization (ST)	Design Comments: A name for the non-healthcare organization Rationale: Populated attribute supports the identification of the organization assigning the identifier to the client
PersonalRelationship	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:PRS, fixed	

PRPA_MT101102CA Get Demographics Response	Documentation
value= "PRS"}	
code [1..1] (M) Role (CV) {CNE:V:PersonalRelationshipRoleType}	Design Comments: A code further specifying the kind of Role such as Mother, Father, Natural Parent or Step Parent Rationale: Mandatory attribute that supports understanding the relationship between the client and the Next of Kin
relationshipHolder [1..1] (ParentPerson)	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
ParentPerson	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] Person (II.BUS)	Design Comments: A unique identifier for the next of kin Rationale: Populated attribute supports the identification of the next of kin and allows for the use of null flavours when the identifier is not known or available.
name [0..1] Person (PN.BASIC)	Design Comments: A name for the next of kin Rationale: Required attribute supports the identification of the

PRPA_MT101102CA Get Demographics Response	Documentation
	next of kin
LanguageCommunication	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [1..1] (M) LanguageCommunication (CV) {CNE:D:HumanLanguage}	Design Comments: A code indicating the language of communication Rationale: Mandatory attribute conveying the expected language message elements are to be transmitted in
preferenceInd [0..1] LanguageCommunication (BL)	Design Comments: Indicates the preferred language for all communications. Rationale: Required attribute that supports the business requirement to indicate the preferred language for all communications.
Subject	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	
observationEvent [1..1] (ObservationEvent)	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.
ObservationEvent	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.

PRPA_MT101102CA Get Demographics Response	Documentation
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:OBS, fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:D:ObservationQueryMatchType}	Design Comments: Supports the business requirement to identify type of confidence matching used i.e. the code would be the name for the algorithm for the confidence value Rationale: Mandatory attribute supports confident identification of intended client
value [0..1] Observation (REAL.CONF)	Design Comments: A real number value indicating the confidence of the query with regard to finding the intended target client i.e. the value would be the computed confidence value. Rationale: Required attribute to provide information about success of query

7.4.4.6 Query by Client Demographics (PRPA_MT101103CA)

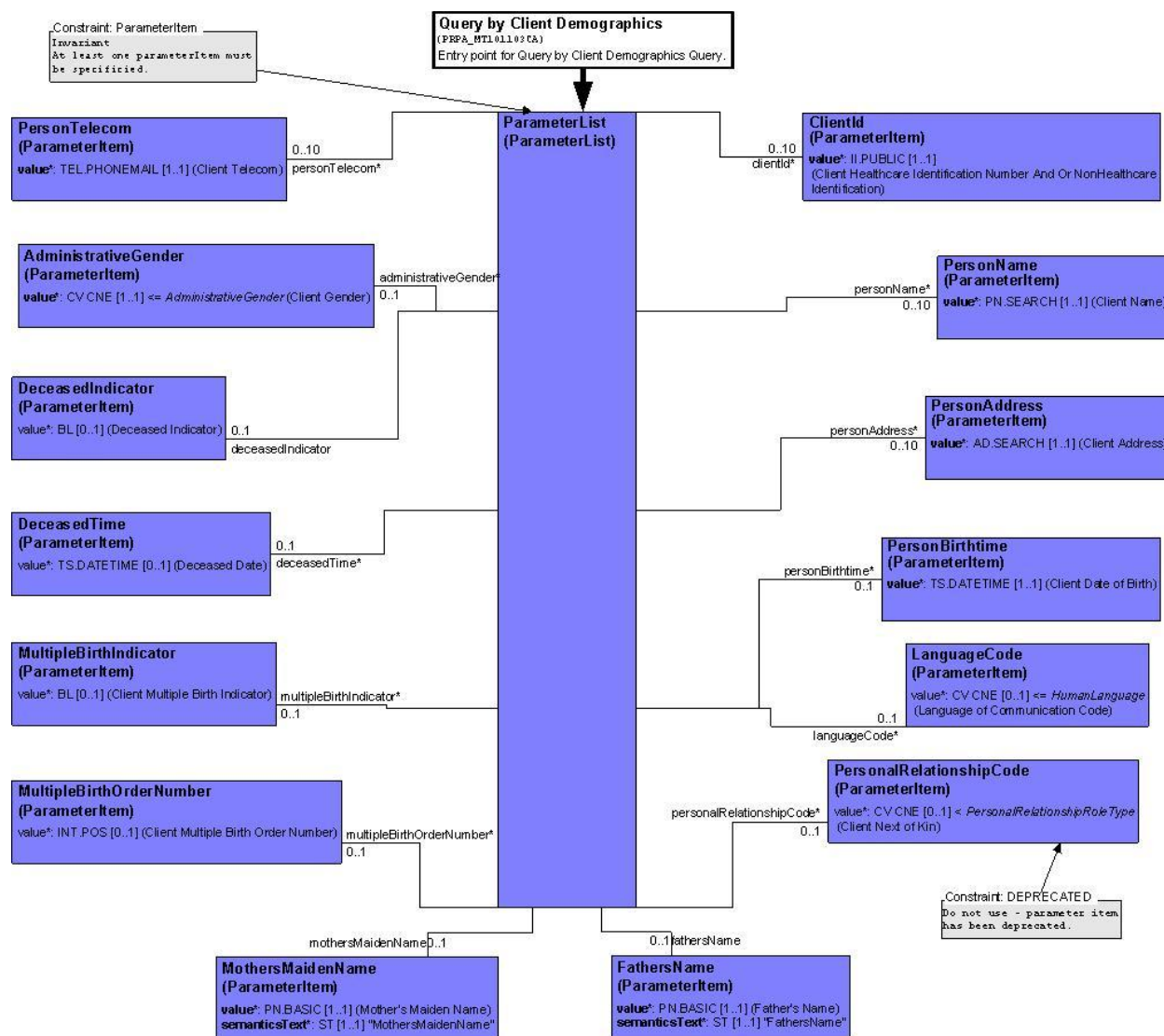


Figure 32 - Query by Client Demographics (PRPA_MT101103CA) Refined Information Model

Table 29 -Query by Client Demographics HMD

PRPA_MT101103ON Query by Client Demographics	Documentation
ParameterList	<i>Design comments:</i>

PRPA_MT101103ON Query by Client Demographics	Documentation
	[Even though the individual cardinalities of parameters below specify [0..n] , there must be at least one Parameter present in a Query by Client Demographic message]
administrativeGender [0..1] (AdministrativeGender)	
clientId [0..10] (ClientId)	
deceasedIndicator [0..1] (DeceasedIndicator)	Not supported.
deceasedTime [0..1] (DeceasedTime)	Not supported.
fathersName [0..1] (FathersName)	Not supported.
languageCode [0..1] (LanguageCode)	Not supported.
mothersMaidenName [0..1] (MothersMaidenName)	Not supported.
multipleBirthIndicator [0..1] (MultipleBirthIndicator)	Not supported.
multipleBirthOrderNumber [0..1] (MultipleBirthOrderNumber)	Not supported.
personAddress [0..10] (PersonAddress)	One instance of the home address. One instance of the mailing address. One instance of the temporary address.
personBirthtime [0..1] (PersonBirthtime)	YYYY, YYYY-MM or YYYY-MM-DD
personName [0..10] (PersonName)	One instance of the officially registered name. One instance of the alias.
personTelecom [0..10] (PersonTelecom)	One instance of the home phone. One instance of the working phone. One instance of the mobile phone. One instance of the emergency phone. One instance of the other phone. One instance of the home email. One instance of the workplace email.
personalRelationshipCode [0..1] (PersonalRelationshipCode)	Not supported.
AdministrativeGender	

PRPA_MT101103ON Query by Client Demographics	Documentation
value [1..1] (M) ParameterItem (CV) {CNE:D: AdministrativeGender }	Usage Notes: Supported values are “F” and “M”. If the gender is unknown, use the nullFlavor=”UNK”
ClientId	
value [1..1] (M) ParameterItem (II.PUBLIC)	
DeceasedIndicator	
value [0..1] ParameterItem (BL)	
DeceasedTime	
value [0..1] ParameterItem (TS.DATETIME)	
FathersName	
value [1..1] (M) ParameterItem (PN.BASIC)	
semanticsText [1..1] (M) ParameterItem (ST){default= "FathersName"}	
LanguageCode	
value [0..1] ParameterItem (CV) {CNE:D: HumanLanguage }	
MothersMaidenName	
value [1..1] (M) ParameterItem (PN.BASIC)	
semanticsText [1..1] (M) ParameterItem (ST){default= "MothersMaidenName"}	
MultipleBirthIndicator	
value [0..1] ParameterItem (BL)	
MultipleBirthOrderNumber	

PRPA_MT101103ON Query by Client Demographics	Documentation
value [0..1] ParameterItem (INT.POS)	
PersonAddress	
value [1..1] (M) ParameterItem (AD.SEARCH)	Usage Notes: Populate @use attribute with the type of the address (“H”, “WP” or “TMP”). At least streetLine (1) and postalCode attributes shall be populated as a minimum search criteria
PersonBirthtime	
value [1..1] (M) ParameterItem (TS.DATETIME)	Usage Notes: At least a birth year shall be populated.
PersonName	
value [1..1] (M) ParameterItem (PN.SEARCH)	Usage Notes: Legal/Officially registered name search only. Populate @use=”OR”. If only the First Name or only the Last Name available
PersonTelecom	
value [1..1] (M) ParameterItem (TEL.PHONEMAIL)	Usage Notes: Populate @use code with the type of the telecom. “H”, “WP”, “TMP”, “EC” or “MC” for phone types and “H” or “WP” for email types. The specializationType attribute shall be populated to distinguish phones and emails. (“TEL.PHONE”, “TEL.EMAIL”). Other types of telecommunications are not supported.
PersonalRelationshipCode	
value [0..1] ParameterItem (CV) {CNE:V:PersonalRelationshipRoleType}	

7.4.4.6.1 Minimal Search Criteria

The following combinations of parameters are required to receive information from the Provincial CR. The minimal search set is identified in the Conceptual Privacy Impact Assessment report.

1. If only one name part is used (i.e. first name, last name) to search the client information, the telephone number or the client known identifier shall be present in the same query.
2. If both first name and last name are used as query parameters, at least one of the following parameters shall be included as well:
 - a. Date of Birth
 - b. Postal Code
 - c. Telephone number
 - d. Known Client Identifier
3. If address parameter is used, at least street line 1 and a postal code shall be populated.
4. Informational Identifiers shall include the root OID of the identifier type and an extension that contains an actual identifier. The list of supported identifier OIDs is included in the section 14.2 – Definitional and Informational Identifiers.

It is recommended to provide as many parameters as possible when searching for client information, except searches by the local identifier, provincial health number (other than Ontario) or an informational MRN. Search by informational identifiers may only include identifier information to increase the matching algorithm record score.

Please note that the query is based on an “and” criteria, i.e. the records in the response will satisfy the and-ed combination of all parameters specified in the query.

7.4.4.7 Find Candidates Response (PRPA_MT101104CA)

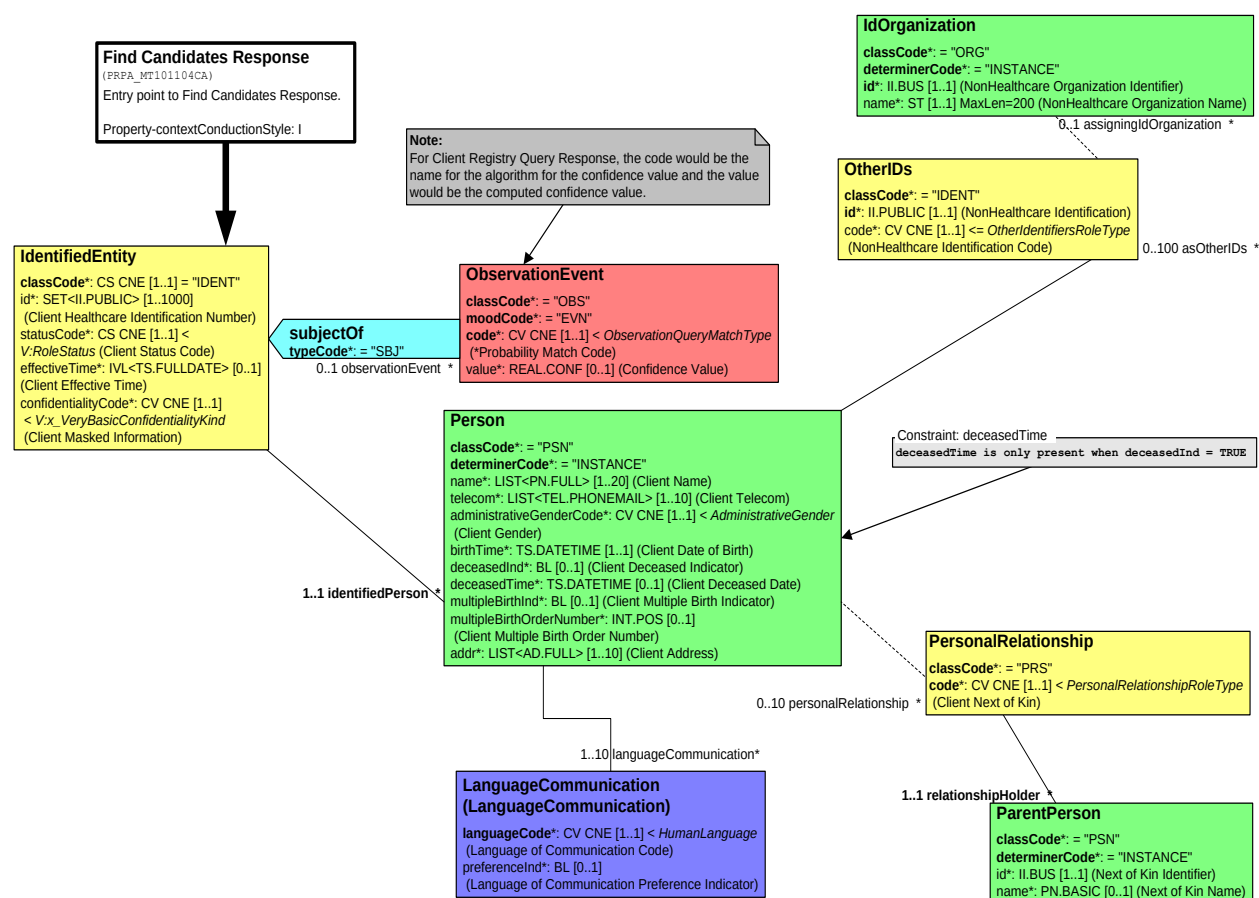


Figure 33 - Find Candidates Response (PRPA_MT101104CA) Refined Information Model

Table 30 – Find Candidate Response HMD

PRPA_MT101104CA Find Candidates Response	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry

PRPA_MT101104CA Find Candidates Response	Documentation
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:IDENT , fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. Usage Notes: At least 1 client identifier must be present in the message Rationale: Mandatory attribute supports unique identification of the client.
statusCode [1..1] Role (CS) {CNE:D: RoleStatus }	Design Comments: Indicates the status of the Client role (e.g. Active) Rationale: Populated attribute supports the identification of the client
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known Rationale: Required attribute supports the identification of the client
confidentialityCode [1..1] Role (CV) {CNE:V:x_ VeryBasicConfidentialityKind }	Design Comments: A code that controls the disclosure of information about this patient encounter. Usage Notes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in

PRPA_MT101104CA Find Candidates Response	Documentation
	the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
subjectOf [0..1] (Subject)	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
Person	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
name [1..20] Person (LIST<PN.FULL>)	Design Comments: Name(s) for the Client Rationale: Populated attribute supports the identification of the client
telecom [1..10] Person (LIST<TEL.PHONEMAIL>)	Design Comments: Provides information about telecom Rationale: Populated attribute supports the identification of the

PRPA_MT101104CA Find Candidates Response	Documentation
	client
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Design Comments: Gender of the Client, this is not to be confused with Clinical Gender of a client. Administrative Gender is typically restricted to Male (M), Female (F) or Undifferentiated (UN) Rationale: Populated attribute supports the identification of the client
birthTime [1..1] Person (TS.DATETIME)	Design Comments: Date of birth of the Client Rationale: Populated attribute supports the identification of the client
deceasedInd [0..1] Person (BL)	Design Comments: An indication that the client is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message. Rationale: Required attribute supports the identification of the client
deceasedTime [0..1] Person (TS.DATETIME) Constraint: deceasedTime is only present when deceasedInd = TRUE	Design Comments: The date and time that a client's death occurred. Rationale: Required attribute supports verification of death from official source such as Vital Statistics.
multipleBirthInd [0..1] Person (BL)	Design Comments: An indication as to whether the client is part of a multiple birth. Rationale: Required attribute supports the identification of the client
multipleBirthOrderNumber [0..1] Person (INT.POS)	Design Comments: The order in which this client was born if part of a multiple birth. Rationale: Required attribute supports the identification of the client
addr [1..10] Person (LIST<AD.FULL>)	Design Comments: Address(es) of the Client Rationale: Populated attribute supports the identification of the client
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class

PRPA_MT101104CA Find Candidates Response	Documentation
	Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
personalRelationship [0..10] (PersonalRelationship)	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
languageCommunication [1..10] (LanguageCommunication)	Design Comments: Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
OtherIDs	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:IDENT, fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1] (M)	Design Comments: Other non-healthcare identifiers for the Client

PRPA_MT101104CA Find Candidates Response	Documentation
Role (II.PUBLIC)	(e.g. Driver's License, RCMP, DND, Social Insurance Number) Rationale: Mandatory attribute supports the identification of the client
code [1..1] Role (CV) {CNE:D:OtherIdentifiersRoleType}	Design Comments: A pan Canadian code further specifying the kind of Role such as Driver's License, RCMP, DND, Social Insurance Number Rationale: Populated attribute supports the identification of the client
assigningIdOrganization [0..1] (IdOrganization)	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
IdOrganization	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] (M)	Design Comments: Unique identifier for the organization that

PRPA_MT101104CA Find Candidates Response	Documentation
Organization (II.BUS)	assigned the non-healthcare identifier for the client. Rationale: Mandatory attribute supports the identification of the organization assigning the identifier to the client
name [1..1] Organization (ST)	Design Comments: A name for the non-healthcare organization Rationale: Populated attribute supports the identification of the organization assigning the identifier to the client
PersonalRelationship	Design Comments: Associations between persons in the Person Registry, such as spouse or parent, can be sent in a PersonalRelationship class. The exact nature of an association is described by the code attribute with a value drawn from the PersonalRelationshipRoleType domain. Most associations can be represented in either of two ways depending on who is the player and who is the scoper. For example, the association between a father and his daughter can be represented by a code of "father" where the parent is the player and the child is the scoper, or by a code of "daughter" where the child is the player and the parent is the scoper. Rationale: Supports the business requirement to capture additional information about the Identified Client's Next of Kin
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:PRS , fixed value= "PRS"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Usage Notes: Links two people in a personal relationship. The character of the relationship must be defined by a PersonalRelationshipRoleType code. The player and scoper are determined by PersonalRelationshipRoleType code as well. Rationale: Provides a means to identify Roles played by entities
code [1..1] (M) Role (CV) {CNE:V:PersonalRelationshipRoleType}	Design Comments: A code further specifying the kind of Role such as Mother, Father, Natural Parent or Step Parent Rationale: Mandatory attribute that supports understanding the relationship between the client and the Next of Kin
relationshipHolder [1..1] (ParentPerson)	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified

PRPA_MT101104CA Find Candidates Response	Documentation
	Client's Next of Kin
ParentPerson	Design Comments: The Parent Person class can send the person that is legally responsible for the care and management of the focal person. If the relationship (e.g., parent, spouse, unrelated friend) of the guardian to the focal person is of interest then a PersonalRelationship with the same persons as player and scoper should also be sent. Rationale: Supports the business requirement to capture identification and demographic information regarding the Identified Client's Next of Kin
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] Person (II.BUS)	Design Comments: A unique identifier for the next of kin Rationale: Populated attribute supports the identification of the next of kin and allows for the use of null flavours when the identifier is not known or available.
name [0..1] Person (PN.BASIC)	Design Comments: A name for the next of kin Rationale: Required attribute supports the identification of the next of kin
LanguageCommunication	Design Comments: Information about what language(s) should be

PRPA_MT101104CA Find Candidates Response	Documentation
	used to communicate with the focal person can be sent in the LanguageCommunication class. Rationale: Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [1..1] (M) LanguageCommunication (CV) {CNE:D: HumanLanguage }	Design Comments: A code indicating the language of communication Rationale: Mandatory attribute conveying the expected language message elements are to be transmitted in
preferenceInd [0..1] LanguageCommunication (BL)	Design Comments: Indicates the preferred language for all communications. Rationale: Required attribute that supports the business requirement to indicate the preferred language for all communications.
Subject	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
observationEvent [1..1] (ObservationEvent)	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.
ObservationEvent	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.
classCode [1..1] (M) Observation (CS) {CNE:C: ActClass:OBS ,	

PRPA_MT101104CA Find Candidates Response	Documentation
fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C: ActMood :EVN, fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:D: ObservationQueryMatchType }	Design Comments: Supports the business requirement to identify type of confidence matching used i.e. the code would be the name for the algorithm for the confidence value Rationale: Mandatory attribute supports confident identification of intended client
value [0..1] Observation (REAL.CONF)	Design Comments: A real number value indicating the confidence of the query with regard to finding the intended target client i.e. the value would be the computed confidence value. Rationale: Required attribute to provide information about success of query

7.4.4.8 Find Associated IDs Response (PRPA_MT101106CA)

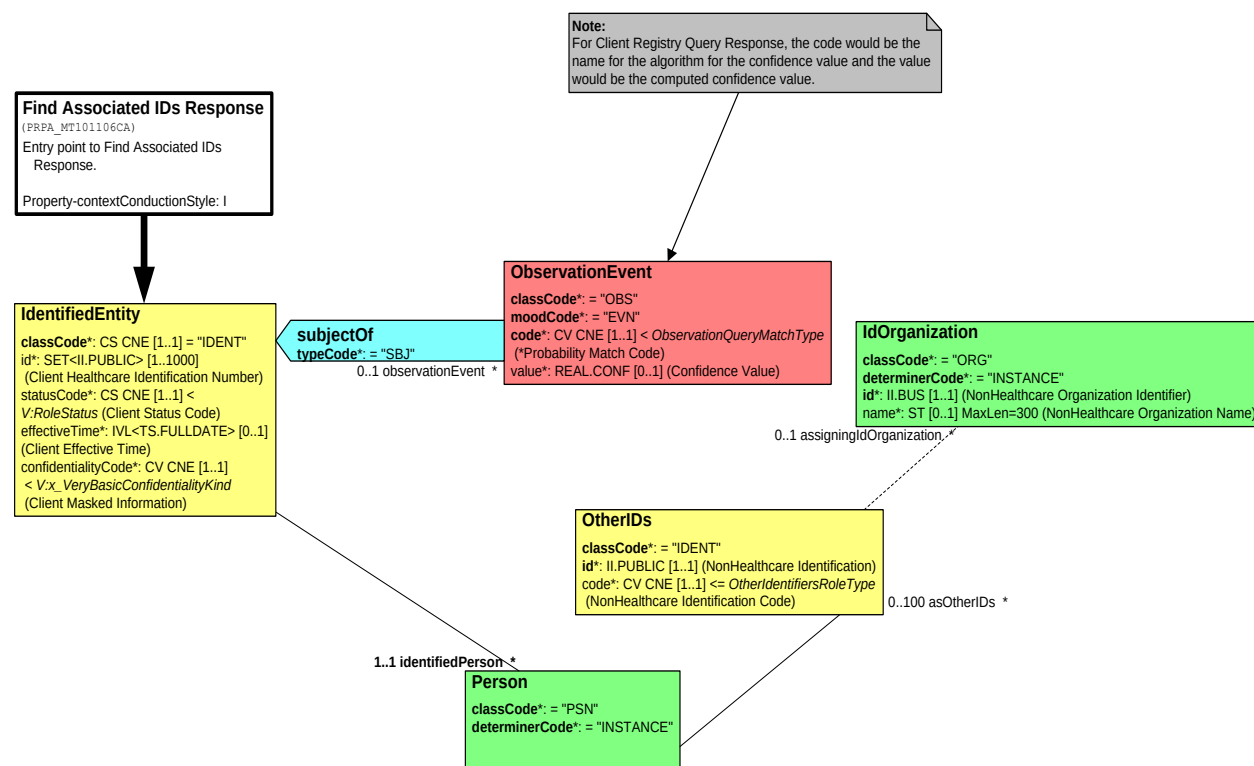


Figure 34 - Find Associated IDs Response (PRPA_MT101106CA) Refined Information Model

Table 31 - Find Associated IDs Response HMD

PRPA_MT101106CA Find Associated IDs Response	Documentation
IdentifiedEntity	Design Comments: The IdentifiedEntity class is the entry point to the R-MIM and contains one or more identifiers (for example an "internal" id used only by computer systems and an "external" id for display to users) for the Person in the Client Registry. The statusCode is set to "active". The beginning of the effectiveTime is when the record was added to the registry. Rationale: Provides the message entry point required to add a person to the Client Registry
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:IDENT, fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities

PRPA_MT101106CA Find Associated IDs Response	Documentation
id [1..1000] Role (SET<II.PUBLIC>)	Design Comments: This identification attribute supports capture of a healthcare identifier specific to the client. This identifier may be assigned jurisdictionally or by care facility. Usage Notes: At least 1 client definitional identifier must be present in the message. All types of client identifiers shall be included in this section. eHealth Ontario PCR will not support OtherID element. The list of definitional and informational identifiers is provided in the section 14.3 Rationale: Mandatory attribute supports unique identification of the client.
statusCode [1..1] Role (CS) {CNE:D:RoleStatus}	Design Comments: Indicates the status of the Client role (e.g. Active) Rationale: Populated attribute supports the identification of the client
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	Design Comments: An interval of time specifying the period during which this record in a client registry is in effect, if such time limit is applicable and known Rationale: Required attribute supports the identification of the client
confidentialityCode [1..1] Role (CV) {CNE:V:x_VeryBasicConfidentialityKind}	Design Comments: A code that controls the disclosure of information about this patient encounter. Usage Notes: Data in the EHR may at some point (and in some jurisdictions) be accessed directly by patients. Some health information may be deemed inappropriate for direct access by patients and requires interpretation by a clinician (e.g. prescription of placebos, analysis of certain psychiatric conditions, etc.) Even where direct access by patient is not provided, there may need to be guidance to other providers viewing the record where care should be used in disclosing information to the patient. Non-clinical data (e.g. demographics) may need to be flagged as not for disclosure to patient and or next of kin. There may be professional policy and or legislative guidelines about when/if records may be flagged as not for direct disclosure. Rationale: Populated attribute supports the business requirement to provide restricted access where required
identifiedPerson [1..1] (Person)	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth,

PRPA_MT101106CA Find Associated IDs Response	Documentation
	deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
subjectOf [0..1] (Subject)	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
Person	Design Comments: The Person class contains identifying and demographic data elements for the focal person similar to those in the HL7 v2.x PID segment such as name, gender, date of birth, deceased indicator and time. Rationale: Provides additional demographic data elements for the focal class IdentifiedEntity
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group, Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
asOtherIDs [0..100] (OtherIDs)	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id

PRPA_MT101106CA Find Associated IDs Response	Documentation
	element. If you have a use case that requires the separation of some identifiers from the identifiedEntity.id element into the OtherID class please contact eHealthstandards@ehealthontario.on.ca.
OtherIDs	Design Comments: Identifiers used for the focal person by other organizations are sent in the OtherIDs class. The other organization can be sent in the E_Organization Entity Class Rationale: Provides the ability to capture additional client identifiers that are not healthcare specific Usage Note: This element is not supported by eHealth Ontario PCR. All Identifiers must be placed in the identifiedEntity.id element.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:IDENT, fixed value= "IDENT"}	Design Comments: A code specifying the major category of a Role as defined by HL7 vocabulary. Rationale: Provides a means to identify Roles played by entities
id [1..1] (M) Role (II.PUBLIC)	Design Comments: Other non-healthcare identifiers for the Client (e.g. Driver's License, RCMP, DND, Social Insurance Number) Rationale: Mandatory attribute supports the identification of the client
code [1..1] Role (CV) {CNE:D:OtherIdentifiersRoleType}	Design Comments: A pan Canadian code further specifying the kind of Role such as Driver's License, RCMP, DND, Social Insurance Number Rationale: Populated attribute supports the identification of the client
assigningIdOrganization [0..1] (IdOrganization)	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
IdOrganization	Design Comments: The Organization responsible for issuing the Other ID identified in the OtherIDs Role Class Rationale: Supports the requirement to supply additional information regarding the assigning Organization of the OtherID
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	Design Comments: An HL7 defined value representing the class or category that the Entity instance represents. Examples: Person, Animal, Chemical Substance, Group,

PRPA_MT101106CA Find Associated IDs Response	Documentation
	Organization Rationale: Due to the extremely large number of potential values for a code set representing all physical things in the universe, the class code indicates both the subtype branch of the Entity hierarchy used as well as a high level classifier to represent the instance of Entity. This can be used to constrain the eligible value domains for the Entity.code attribute.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	Design Comments: An HL7 defined value representing whether the Entity represents a kind-of or a specific instance. Examples: 1 human being (an instance), 3 syringes (quantified kind) or the population of Indianapolis (kind of group) Rationale: An Entity may at times represent information concerning a specific instance (the most common), a quantifiable group with common characteristics or a general type of Entity. This code distinguishes these different representations.
id [1..1] (M) Organization (II.BUS)	Design Comments: Unique identifier for the organization that assigned the non-healthcare identifier for the client. Rationale: Mandatory attribute supports the identification of the organization assigning the identifier to the client
name [0..1] Organization (ST)	Design Comments: A name for the non-healthcare organization Rationale: Populated attribute supports the identification of the organization assigning the identifier to the client
Subject	Design Comments: Associates the IDENT role with a required observation which indicates the confidence value of the returned record(s).
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	
observationEvent [1..1] (ObservationEvent)	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.

PRPA_MT101106CA Find Associated IDs Response	Documentation
ObservationEvent	Design Comments: Each returned IdentifiedPerson can have an associated ObservationEvent reporting the confidence value (degree of certainty) and the name of the matching algorithm that resulted in that record's inclusion in the result set. Rationale: Supports the business requirement to provide a confidence value associated with the identifiedEntity returned in the response distinguishes these different representations.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:OBS, fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:D:ObservationQueryMatchType}	Design Comments: Supports the business requirement to identify type of confidence matching used i.e. the code would be the name for the algorithm for the confidence value Rationale: Mandatory attribute supports confident identification of intended client
value [0..1] Observation (REAL.CONF)	Design Comments: A real number value indicating the confidence of the query with regard to finding the intended target client i.e. the value would be the computed confidence value. Rationale: Required attribute to provide information about success of query

8 Exception Handling

There are several levels of exception handling that are supported, all of which align to typical HL7 request and response behaviour related to registry query interactions.

8.1 Transmission Exceptions

Transport-related exceptions shall be reported on registry query response interactions via the Accept Acknowledgement Transport Wrapper (MCCI_MToo2300ON). There shall be no control event wrapper and no payload message type in the response.

The following table illustrates the exception conditions that may occur. These exceptions are typical of request messages that do not conform to specification, or internal errors that may occur where a fully formed HL7 message cannot be processed.

Table 32 Transmission Exceptions (Fragment)

Exception	Acknowledgement Type Code	Acknowledgment Detail Type Code	Acknowledgement Detail Code
Exception in the syntax or structure of the request communication.	AE	E	SYN
Unsupported interaction specified	AE	E	NS200
Unsupported version ID (profile)	AE	E	NS203
Message routing error, unknown destination; typically due to unrecognized receiver identifier	AE	E	RTUDEST
Unrecognized sender identifier	AE	E	NS260

Exception	Acknowledgement Type Code	Acknowledgment Detail Type Code	Acknowledgement Detail Code
Internal error	AE	E	INTERR

8.2 Control Event Exceptions

Where basic transport requirements are satisfied, additional business-level exceptions may occur. In these cases, the Accept Acknowledgement Transport Wrapper acknowledgement type code may indicate an 'AA' code. The business-level exception shall be populated within the Registry Query Response Wrapper (MFMI_MT700746ON) and the A_IssueEventDetected-basic CMET (COCT_MT260022CA). There shall be no payload message included in these response messages.

The following table illustrates the business-level exception conditions that may occur.

Table 33 Control Event Exceptions (Fragment)

Exception	Detected Issue Event Code	Detected Issue Event Priority Code	Query Acknowledgement Response Code
Invalid query identifier	VALIDAT	E	QE
Identifier not found exception (Issued as warning)	KEY204	W	NF
Missing mandatory request elements	MISSMAND	E	QE
Invalid query request identifier format	FORMAT	E	QE

9 Data Types Summary

eHealth Ontario aligns to pan-Canadian data types. Please refer to the pan-Canadian MR2009 R02.04.03 Data Types specification for further details.

9.1 PN.FULL

The data types specification indicates pan-Canadian rules where at least one name part must be present with a name. This can be one of given, family, or other. eHealth Ontario Registries enforce a mandatory last name. Should any record have only one name, it shall be persisted in the last name field.

The following table describes the length of name parts to add/update or return from the Provincial CR:

Table 34 – PN.FULL Data Type specification

Name Part	eHealth Ontario Data element business name and length	Pan-Canadian Length
prefix(1)	Title(20)	50
prefix(2)	Prefix(20)	50
given(1)	First name (50)	50
given(2)	Middle name (50)	50
family	Last/Family Name (75)	50
suffix(1)	Suffix (50)	50
suffix(2)	Degree (10)	50

9.2 TEL.EMAIL

The length of the email value is extended to 128 characters to accommodate Provincial CR business requirements.

9.3 AD.FULL

The following table describes the length of address parts to add/update or return from Provincial CR:

Table 35 – AD.FULL Data Type specification

Address Part	eHealth Ontario Length	Pan-Canadian Length
streetAddressLine (1-4)	80	80
city	80	80
state	20	80
postalCode	10	80
country (@code)	3	80
unitId	8	80
unitType	10	80
houseNumberNumeric	6	80
buildingNumberSuffix	3	80
streetName	30	80
streetNameType	6	80
Direction	2	80
deliveryAddressLine	80	80
deliveryInstallationArea	30	80
deliveryInstallationType	20	80
deliveryInstallationQualifier	15	80

postBox	5	80
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10 Common Message Element Types (CMETs)

This section provides details for Common Message Element Types (CMETs) that are referenced as part of the Client Registry messaging requirements. CMETs are generically-defined, reusable classes that are used to support the creation of a conformant HL7 message. The content is repeated in this document for completeness. Further information can be obtained by referencing the pan-Canadian document “SC-0006-EN – Implementation Guide volume 1 – Infrastructure R02.04.00 – 20090316.pdf”.

10.1 R_PatientPersonIdentified-confirmable (COCT_MT050202CA)

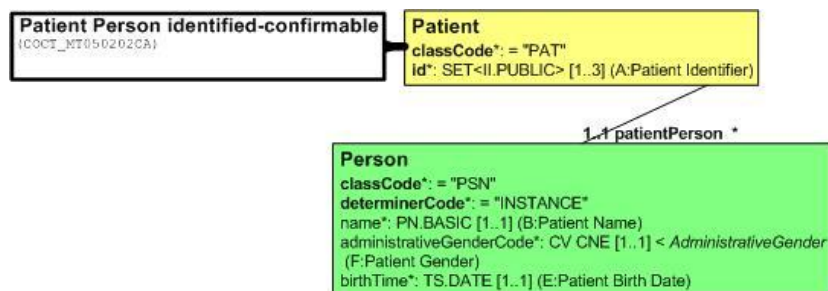


Figure 35 R_PatientPersonIdentified-confirmable (COCT_MT050202CA)

Table 36 CMET Description (COCT_MT050202CA)

Description	A person who is receiving or may receive healthcare services and has personal attributes (e.g. name, birth date).
Rationale	Information used to identify the patient and confirm their identity against the client registry

Table 37 Message Structure (COCT_MT050202CA)

COCT_MT050202CA Patient Person identified-confirmable	Documentation
Patient	Definition: A person who is receiving or may receive healthcare services and has personal attributes (e.g. name, birth date). UsageNotes: Only the identifier attribute is intended to be persisted, with the remaining attributes confirmed against the provider registry. Rationale: Information used to identify the patient and confirm their identity against the client registry.

COCT_MT050202CA Patient Person identified-confirmable	Documentation
classCode [1..1] (M) Patient (CS) {CNE:C: RoleClass:PAT , fixed value= "PAT"}	
id [1..3] (M) Patient (SET<II.PUBLIC>)	Definition: Unique identifier assigned to a person by Federal, Provincial and Territorial jurisdiction for the purposes of uniquely identifying the person within the EHR. The EHR will define which identifier to use within a jurisdiction. Rationale: Allows a patient to be referred to unambiguously. Because this is the principal mechanism for identifying patients to computer systems, the attribute is mandatory. If an identifier is not known, it should be looked up using the 'client registry' capabilities of the EHR application. The cardinality of patient identifiers is up to 3 based on the use case to support communication of a local and jurisdictional identifier along with the national identifier.
patientPerson [1..1] (Person)	
Person	
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
name [1..1] Person (PN.BASIC)	Definition: The name by which the patient is known to the underlying client registry application Rationale: Used, with other patient identity attributes, to confirm patient identity. This element is 'populated' because the patient's name is necessary for positive identification of the patient in the jurisdictional client registry; however in some circumstances it may not exist in the registry (e.g. newborn).
administrativeGenderCode [1..1] Person (CV) {CNE:D: AdministrativeGender }	Definition: Indicates the gender (sex) of the patient as known by the client registry. Complex genetic genders are handled as observations if they are considered relevant. Rationale: Used to confirm patient identity. The element is mandatory because the patient's gender is necessary for positive identification of the patient in the jurisdictional client registry and should always be known.
birthTime [1..1]	Definition: Indicates the date on which the patient was born, as

COCT_MT050202CA Patient Person identified-confirmable	Documentation
Person (TS.DATE)	known by the client registry. Rationale: Used to confirm patient identity. This element is 'populated' because the patient's birth date is necessary for positive identification of the patient in the jurisdictional client registry. However, there may be circumstances where the date of birth is not known to the registry.

10.2 R_AssignedPersonIdentified-confirmable (COCT_MT090102CA)

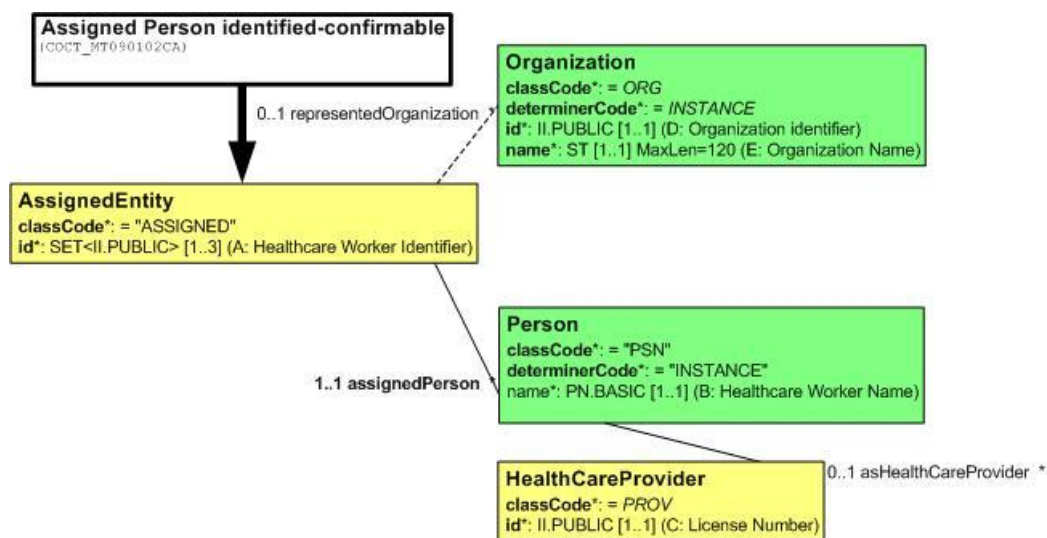


Figure 36 R_AssignedPersonIdentified-confirmable (COCT_MT090102CA)

Table 38 CMET Description (COCT_MT090102CA)

Description	The person assigned to carry out the associated action (linked by participation) and/or the organization/group under whose authority they are acting.
Rationale	Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.

Table 39 Message Structure (COCT_MT090102CA)

COCT_MT090102CA Assigned Person identified-confirmable	Documentation
AssignedEntity	Definition: The person assigned to carry out the associated action (linked by a participation) and/or the organization/group under whose authority they are acting. Rationale: Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value= "ASSIGNED"}	
id [1..3] (M) Role (SET<II.PUBLIC>)	Definition: Unique identifier the person involved in the action. Rationale: Allows unique identification of the person which can be critical for authentication, permissions, drill-down and traceability and is therefore mandatory.
assignedPerson [1..1] (Person)	Definition: Describes the person actually involved in the action. Rationale: Even when an organization is taking responsibility, a person is generally involved in the work.
representedOrganization [0..1] (Organization)	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Person	Definition: Describes the person actually involved in the action. Rationale: Even when an organization is taking responsibility, a person is generally involved in the work.
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
name [1..1] Person (PN.BASIC)	Definition: The name of the involved person. Rationale: This is a human-readable name and is essential for validation of the person. As a result, the attribute is mandatory

COCT_MT090102CA Assigned Person identified-confirmable	Documentation
asHealthCareProvider [0..1] (HealthCareProvider)	
HealthCareProvider	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C: RoleClass:PROV , fixed value= "PROV"}	
id [1..1] (M) LicensedEntity (II.PUBLIC)	Definition: The license number issued to the provider and relevant to the current action. UsageNotes: If the identifier used in the root of the CMET is the same as the license number, the license number should be sent in both places. Rationale: Allows lookup on college website, confirmation of identity, etc. Regulations occasionally require license numbers to be specified as part of clinical records.
Organization	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization. Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization. Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the attribute is mandatory.

10.3 AssignedPerson identified-informational (COCT_MT090108CA)

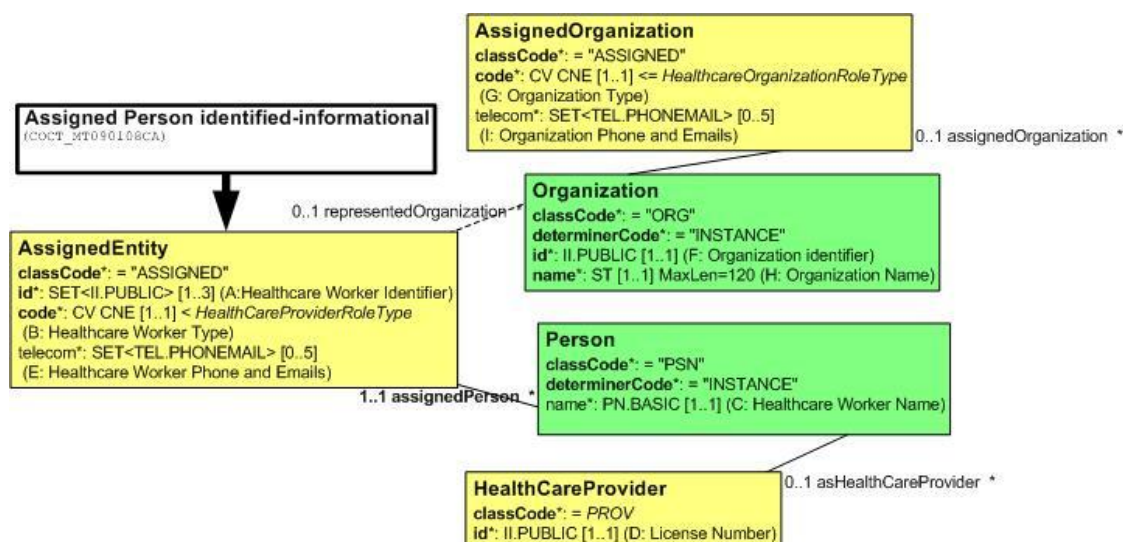


Figure 37 AssignedPerson identified-informational (COCT_MT090108CA)

Table 40 CMET Description (COCT_MT090108CA)

Description	The person assigned to carry out the associated (linked by a participation) action and/or the organization under whose authority they are acting.
Rationale	Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.

Table 41 Message Structure (COCT_MT090108CA)

COCT_MT090108CA Assigned Person identified-informational	Documentation
AssignedEntity	Definition: The person organization assigned to carry out the associated (linked by a participation) action and/or the organization under whose authority they are acting. UsageNotes: All attributes other than the various identifiers are expected to be retrieved from the provider registry. Rationale: Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.

COCT_MT090108CA Assigned Person identified-informational	Documentation
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ASSIGNED , fixed value= "ASSIGNED"}	
id [1..3] (M) Role (SET<II.PUBLIC>)	Definition: Unique identifier the person involved in the action. Rationale: Allows unique identification of the person which can be critical for authentication, permissions, drill-down and traceability and is therefore mandatory.
code [1..1] (M) Role (CV) {CNE:D: HealthCareProviderRoleType }	Definition: Indicates the "kind" of healthcare participant, such as "physician", "dentist", "lab technician", "receptionist", etc. Rationale: Provides context around the actions of the participant and is therefore mandatory.
telecom [0..5] Role (SET<TEL.PHONEMAIL>)	Definition: Indicates phone and/or e-mail addresses at which the healthcare worker can be reached. Rationale: This is the most commonly used piece of contact information and is returned here to avoid unnecessary queries of the provider registry.
assignedPerson [1..1] (Person)	
representedOrganization [0..1] (Organization)	Definition: Identifies the organization on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Person	
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
name [1..1] Person (PN.BASIC)	Definition: The name of the participating person. Rationale: This is a human-readable name and is thus essential for both display and validation of the person. As a

COCT_MT090108CA Assigned Person identified-informational	Documentation
	result, the attribute is mandatory.
asHealthCareProvider [0..1] (HealthCareProvider)	
HealthCareProvider	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C: RoleClass:PROV , fixed value= "PROV"}	
id [1..1] (M) LicensedEntity (II.PUBLIC)	Definition: The license number issued to the provider and relevant to the current action. UsageNotes: If the identifier used in the root of the CMET is the same as the license number, the license number should be sent in both places. Detailed information about the status and effective period of licenses must be retrieved from the provider registry. Rationale: Allows lookup on college website, confirmation of identity, etc. Regulations occasionally require license numbers to be specified as part of clinical records.
Organization	Definition: Identifies the organization on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the

COCT_MT090108CA Assigned Person identified-informational	Documentation
	attribute is mandatory.
assignedOrganization [0..1] (AssignedOrganization)	
AssignedOrganization	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ASSIGNED , fixed value= "ASSIGNED"}	
code [1..1] (M) Role (CV) {CNE:D:HealthcareOrganizationRoleType}	Definition: Identifies the type of organization on whose behalf the action was taken. E.g. Pharmacy, Clinic, Hospital, etc. Rationale: Provides context to the action and is therefore mandatory.
telecom [0..5] Role (SET<TEL.PHONEMAIL>)	Definition: Identifies contact information for the responsible organization. Rationale: This is the most commonly used contact information and is returned to avoid unnecessary queries against the client registry.

10.4 R_AssignedDeviceRepository (COCT_MT090310CA)

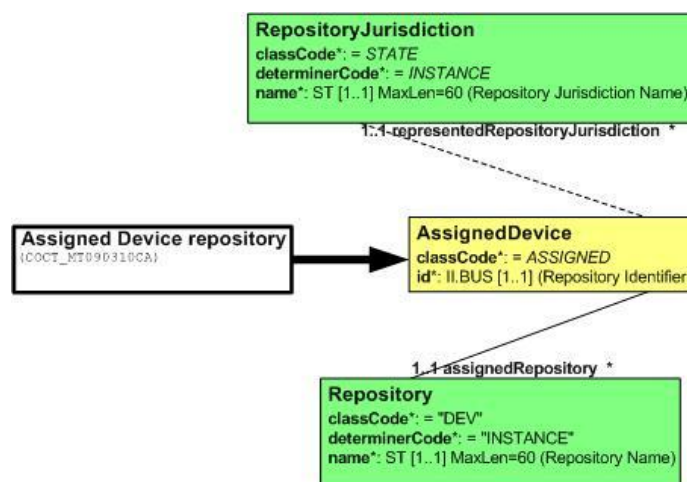


Figure 38 R_AssignedDeviceRepository (COCT_MT090310CA)

Table 42 CMET Description (COCT_MT090310CA)

Description	Identification of the EHR Infostructure responsible for the storage and management of the record.
Rationale	Provides context about the record and its management.

Table 43 Message Structure (COCT_MT090310CA)

COCT_MT090310CA Assigned Device repository	Documentation
AssignedDevice	Definition: Identification of the EHR infrastructure responsible for the storage and management of the record. Rationale: Provides context about the record and its management.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ASSIGNED , fixed value="ASSIGNED"}	
id [1..1] (M) Role (II.BUS)	Definition: A unique identifier for the EHR repository. Rationale: Allows repositories to be uniquely identified for linking or grouping purposes and is therefore mandatory.
assignedRepository [1..1] (Repository)	
representedRepositoryJurisdiction [1..1] (RepositoryJurisdiction)	
Repository	
classCode [1..1] (M) Device (CS) {CNE:C: EntityClass:DEV , fixed value="DEV"}	
determinerCode [1..1] (M) Device (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value="INSTANCE"}	
name [1..1] (M) Device (ST)	Definition: The name of the repository which is responsible for maintaining the record. E.g. "Ontario"

COCT_MT090310CA Assigned Device repository	Documentation
	Health Repository #3" Rationale: Provides a human-readable name for the repository and is therefore mandatory
RepositoryJurisdiction	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:STATE, fixed value= "STATE"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
name [1..1] (M) Organization (ST)	Definition: The name of the jurisdiction that is responsible for the EHR infrastructure that contains and manages the record. Rationale: Establishes business context for determining custodianship, and is therefore mandatory.

10.5 R_AssigningOrganizationIdentified-confirmable (COCT_MT090502CA)

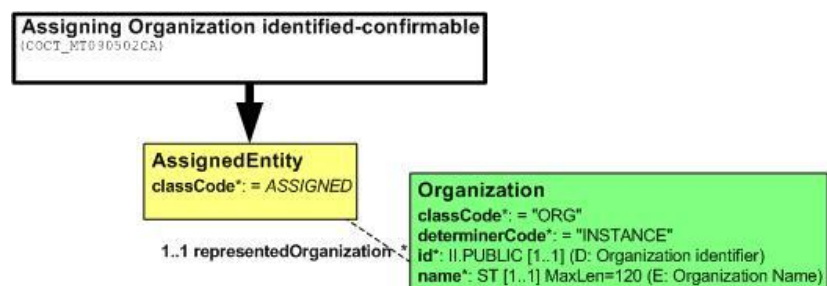


Figure 39 R_AssigningOrganizationidentified-confirmable (COCT_MT090502CA)

Table 44 CMET Description (COCT_MT090502CA)

Description	The organization under whose authority the associated action (linked by a participation) was performed.
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Description	The organization under whose authority the associated action (linked by a participation) was performed.
Rationale	Critical to tracking responsibility and performing follow-up.

Table 45 Message Structure (COCT_MT090502CA)

COCT_MT090502CA Assigning Organization identified-confirmable	Documentation
AssignedEntity	Definition: The organization under whose authority the associated action (linked by a participation) was performed. Rationale: Critical to tracking responsibility and performing follow-up.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value= "ASSIGNED"}	
representedOrganization [1..1] (Organization)	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Organization	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.

COCT_MT090502CA Assigning Organization identified-confirmable	Documentation
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the attribute is mandatory.

10.6 R_ServiceDeliveryLocationMinimal (COCT_MT240012CA)

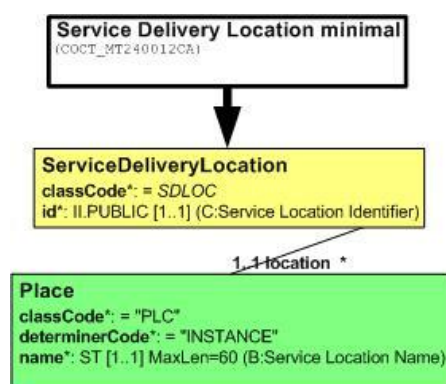


Figure 40 R_ServiceDeliveryLocationMinimal (COCT_MT240012CA)

Table 46 CMET Description (COCT_MT240012CA)

Description	An identification of a service location (or facility) where health service has been or can be delivered. E.g. Pharmacy, Medical Clinic, Hospital.
Rationale	Used for tracking service delivery responsibility but where contact information other than name is either not known or unneeded.

Table 47 Message Structure (COCT_MT240012CA)

COCT_MT240012CA Service Delivery Location minimal	Documentation
ServiceDeliveryLocation	Definition: An identification of a service location (or facility) that can be found in the service delivery location. E.g. Pharmacy,

COCT_MT240012CA Service Delivery Location minimal	Documentation
	Medical Clinic, Hospital Rationale: Used for tracking service delivery responsibility, to provide contact information for follow-up and for statistical analysis. Also important for indicating where paper records can be located.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:SDLOC , fixed value= "SDLOC"}	
id [1..1] (M) Role (II.PUBLIC)	Definition: Unique identifier for a healthcare service location. Rationale: Allows for lookup and retrieval of detailed information about a specific service location. Also ensures unique identification of service location and is therefore mandatory. The identifier is mandatory because it is the principal mechanism for uniquely identifying the facility.
location [1..1] (Place)	
Place	
classCode [1..1] (M) Place (CS) {CNE:C: EntityClass:PLC , fixed value= "PLC"}	
determinerCode [1..1] (M) Place (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
name [1..1] (M) Place (ST)	Definition: The name assigned to the service location. Rationale: Used for human communication, and for cross-checking of location Id and is therefore mandatory

10.7 A_IssueEventManaged-basic (COCT_MT260012CA)

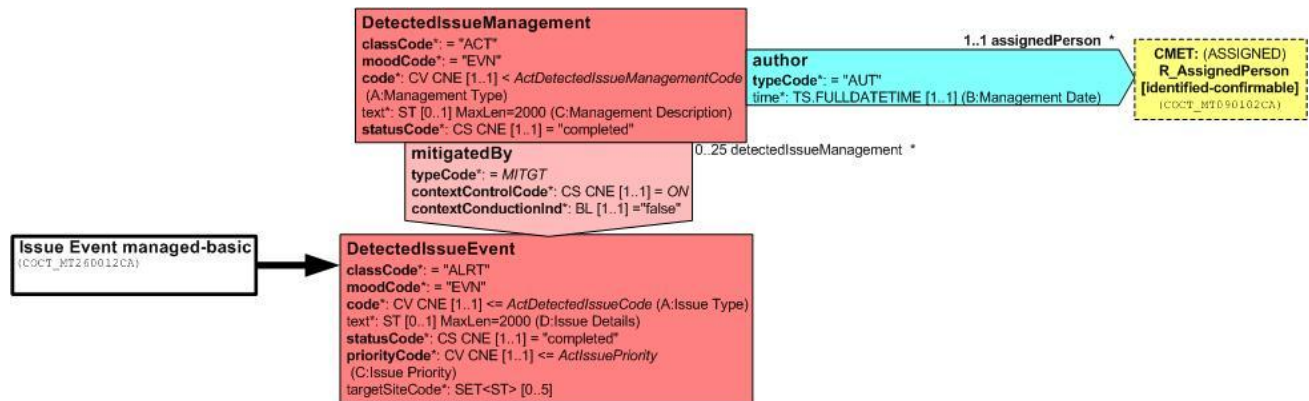


Figure 41 A_IssueEventManaged-basic (COCT_MT260012CA)

Table 48 CMET Description (COCT_MT260012CA)

Description	This is the list of clinical and business issues that have been detected and recorded involving the current action.
Rationale	Provides a list of issues that have been detected and/or managed.

Table 49 Message Structure (COCT_MT260012CA)

COCT_MT260012CA Issue Event managed-basic	Documentation
DetectedIssueEvent	Definition: This is the list of clinical and business issues that have been detected and recorded involving the current action. Rationale: Provides a list of issues that have been detected and/or managed.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:ALRT, fixed value= "ALRT"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed	

COCT_MT260012CA Issue Event managed-basic	Documentation
value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:V: ActDetectedIssueCode }	Definition: A coded value that is used to distinguish between different kinds of issues. Types of issue include: unrecognized identifiers, permission issues, drug-drug contraindications, drug-allergy alerts, duplicate therapies, etc. Rationale: Identifies what kind of issue was detected or is being managed. This is mandatory so as to ensure that one issue type can be distinguished from another.
text [0..1] Observation (ST)	Definition: A free form textual description of a detected issue. This textual information is provided to either augment the coded information or in place of the coded information. Rationale: Lets providers see textual explanation of the issue.
statusCode [1..1] (M) Observation (CS) {CNE:C: ActStatus:completed , fixed value= "completed"}	
priorityCode [1..1] (M) Observation (CV) {CNE:D: ActIssuePriority }	Definition: A coded value denoting the importance of a detectable issue. Valid codes are: I - for Information, E - for Error, and W - for Warning. Rationale: Allows the provider to make informed decision on the importance and criticality of an issue. May also be used by the DIS to determine the order of returning issues. Attribute is mandatory because every issue needs to be prioritized.
targetSiteCode [0..5] Observation (SET<ST>)	Definition: Used to identify XPath references that indicate which attributes from the message instance were involved in the issue.
mitigatedBy [0..25] (Mitigates)	Definition: Indicates how the issue has been managed. Rationale: Allows issues to be overridden and provides for enhanced clinical communication about issues.
Mitigates	Definition: Indicates how the issue has been managed. Rationale: Allows issues to be overridden and provides for enhanced clinical communication about issues.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:MITGT , fixed	

COCT_MT260012CA Issue Event managed-basic	Documentation
value= "MITGT"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:ON , fixed value= "ON"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
detectedIssueManagement [1..1] (DetectedIssueManagement)	Definition: The processes and procedures employed by providers to resolve clinical and business issues between the action being performed and additional information already in the patient's record or system business rules. Rationale: It allows overriding of the detected issue
DetectedIssueManagement	Definition: The processes and procedures employed by providers to resolve clinical and business issues between the action being performed and additional information already in the patient's record or system business rules. Rationale: It allows overriding of the detected issue
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
code [1..1] (M) Act (CV) {CNE:V:ActDetectedIssueManagementCode}	Definition: Indicates the kinds of management actions that have been taken, depending on the issue type. Rationale: Ensures consistency in description of management actions. This is mandatory so as to ensure distinction between different kinds of management.
text [0..1] Act (ST)	Definition: Additional free-text details describing the management of the issue. Rationale: Allows additional clinical detail to be conveyed that are important clinically and not conveyed by the code.
statusCode [1..1] (M) Act (CS) {CNE:C: ActStatus:completed , fixed value= "completed"}	

COCT_MT260012CA Issue Event managed-basic	Documentation
author [1..1] (Author1)	Definition: Identifies the provider who managed the issue. Rationale: Part of the audit record and therefore mandatory.
Author1	Definition: Identifies the provider who managed the issue. Rationale: Part of the audit record and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType :AUT, fixed value="AUT"}	
time [1..1] Participation (TS.FULLDATETIME)	Definition: The date and time on which the provider managed the issue. Rationale: Part of the audit record, but not always available and therefore 'populated'.
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	

10.8 A_IssueEventDetected-basic (COCT_MT260022CA)

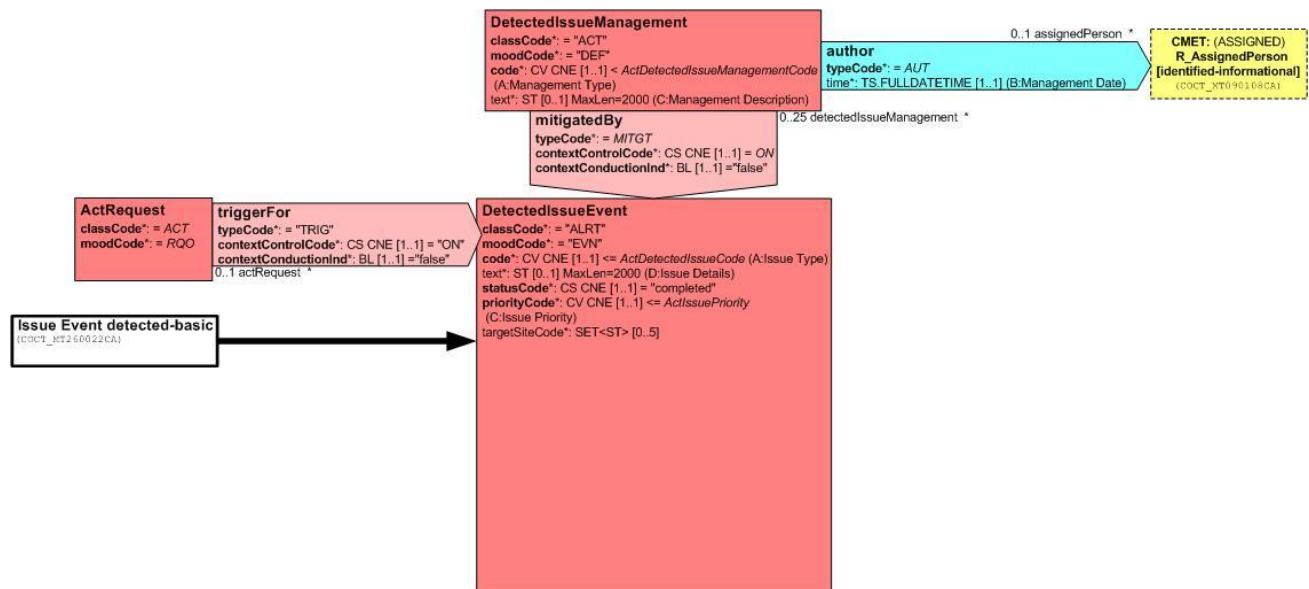


Figure 42 A_IssueEventDetected-basic (COCT_MT260022CA)

Table 50 CMET Description (COCT_MT260022CA)

Description	This is the list of clinical and business-rule issues that have been detected and recorded involving the current action.
Rationale	Provides a list of issues that have been detected.

Table 51 Message Structure (COCT_MT260022CA)

COCT_MT260022CA Issue Event detected-basic	Documentation
DetectedIssueEvent	Definition: This is the list of clinical and business-rule issues that have been detected and recorded involving the current action. Rationale: Provides a list of issues that have been detected.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:ALRT, fixed	

COCT_MT260022CA Issue Event detected-basic	Documentation
value= "ALRT"}	
moodCode [1..1] (M) Observation (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:V: ActDetectedIssueCode }	Definition: A coded value that is used to distinguish between different kinds of issues. Types of issue include: unrecognized identifiers, permission issues, drug-drug contraindications, drug-allergy alerts, duplicate therapies, etc. Rationale: Identifies what kind of issue was detected. This is mandatory so as to ensure that one issue type can be distinguished from another.
text [0..1] Observation (ST)	Definition: A free form textual description of a detected issue. This textual information is provided to either augment the coded information or in place of the coded information. Rationale: Lets providers see textual explanation of the issue.
statusCode [1..1] (M) Observation (CS) {CNE:C: ActStatus:completed , fixed value= "completed"}	
priorityCode [1..1] (M) Observation (CV) {CNE:D: ActIssuePriority }	Definition: A coded value denoting the importance of a detectable issue. Valid codes are: I - for Information, E - for Error, and W - for Warning. Rationale: Allows the provider to make informed decision on the importance and criticality of an issue. May also be used by the DIS to determine the order of returning issues. Attribute is mandatory because every issue needs to be prioritized.
targetSiteCode [0..5] Observation (SET<ST>)	Definition: Used to identify XPath references that indicate which attributes in a message instance were involved in the issue.
mitigatedBy [0..25] (Mitigates)	Definition: Indicates how the issue could be managed. Rationale: Allows past or potential managements to be displayed to assist providers in determining how to manage a particular issue.
triggerFor [0..1] (Trigger2)	Definition: Information that indicates whether or not a detected issue needs to be managed. Rationale: Lets applications distinguish between minor issues

COCT_MT260022CA Issue Event detected-basic	Documentation
	that require no management versus those that need management to successfully process the request. The association behaves as a mandatory attribute where the presence of the association indicates 'true', while the absence of indicates 'false'. Mapping: Contraindication. Management Required (True, if this association is present)
Mitigates	Definition: Indicates how the issue could be managed. Rationale: Allows past or potential managements to be displayed to assist providers in determining how to manage a particular issue.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType :MITGT, fixed value= "MITGT"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl :ON, fixed value= "ON"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
detectedIssueManagement [1..1] (DetectedIssueManagement)	Definition: The processes and procedures employed by providers to resolve clinical conflicts between the action being performed and additional information already in the patient's record. Rationale: Presents alternatives for how the issue could be managed or has been managed in the past.
DetectedIssueManagement	Definition: The processes and procedures employed by providers to resolve clinical conflicts between the action being performed and additional information already in the patient's record. Rationale: Presents alternatives for how the issue could be managed or has been managed in the past.
classCode [1..1] (M) Act (CS) {CNE:C: ActClass :ACT, fixed value= "ACT"}	
moodCode [1..1] (M)	

COCT_MT260022CA Issue Event detected-basic	Documentation
Act (CS) {CNE:C: ActMood:DEF , fixed value="DEF"}	
code [1..1] (M) Act (CV) {CNE:V:ActDetectedIssueManagementCode}	Definition: Indicates the kinds of management actions that can be taken, based on the issue type. Rationale: Ensures consistency in description of management actions. This is mandatory so as to ensure distinction between different kinds of management.
text [0..1] Act (ST)	Definition: Additional free-text details describing the management of the issue. Rationale: Allows additional clinical detail to be conveyed that are important clinically and not conveyed by the code.
author [0..1] (Author1)	Definition: Identifies the provider who created the management of the issue. Rationale: Part of the audit record, but may not always be known for historical managements.
Author1	Definition: Identifies the provider who created the management of the issue. Rationale: Part of the audit record, but may not always be known for historical managements.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:AUT , fixed value="AUT"}	
time [1..1] Participation (TS.FULLDATETIME)	Definition: The date and time on which the provider used this management for the issue in the past. Rationale: Part of the audit record but not always available and therefore only marked as 'populated'.
assignedEntity [1..1] (R_AssignedPersonIdentified-informational)	
Trigger2	Definition: Information that indicates whether or not a detected issue needs to be managed. Rationale: Lets applications distinguish between minor issues that require no management versus those that need management to successfully process the request. The association behaves as a mandatory attribute where the presence of the

COCT_MT260022CA Issue Event detected-basic	Documentation
	association indicates 'true', while the absence of indicates 'false'.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:TRIG , fixed value= "TRIG"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:ON , fixed value= "ON"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
actRequest [1..1] (ActRequest)	
ActRequest	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:RQO , fixed value= "RQO"}	

10.9 A_ConsentEventRegistryBasic (COCT_MT470012CA)

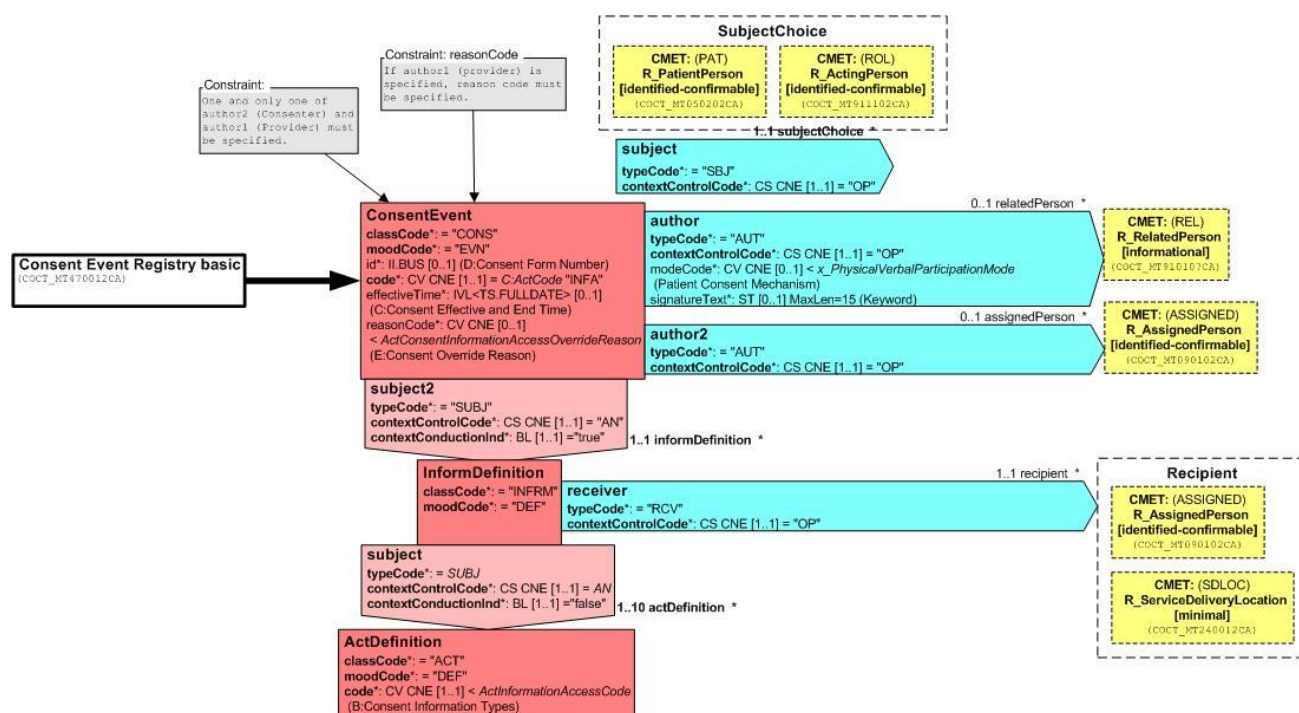


Figure 43 A_ConsentEventRegistryBasic (COCT_MT470012CA)

Table 52 CMET Description (COCT_MT470012CA)

Description	Information pertaining to a patient's agreement/acceptance to have his/her clinical information electronically stored and shared.
Rationale	Provides authorization to record and/or view patient information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis. May be required on a Prescription Request to indicate a keyword for contraindication checking.
Implementation Notes	Provincial CR solution foresees Ontario Consent Directives solution will handle all consent needs. The near term implementation has identified the use of A_ConsentEventRegistryBasic (COCT_MT470012CA) is not required.

Table 53 Message Structure (COCT_MT470012CA)

COCT_MT470012CA Consent Event Registry basic	Documentation
ConsentEvent [Constraint: "One and only one of author2 (Consenter) and author1 (Provider) must be specified."]	Definition: Information pertaining to a patient's (or client or provider) agreement/acceptance to have his/her clinical or demographic information electronically stored and shared. UsageNotes: The keywords will not be passed from prescriber to dispenser by the DIS. Rationale: Provides authorization to record and/or view patient, client, or provider information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis. May be required on a Prescription Request to indicate a keyword for DUR processing.
classCode [1..1] (M) Act (CS) {CNE:C: ActClass :CONS, fixed value= "CONS"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood :EVN, fixed value= "EVN"}	
id [0..1] Act (II.BUS)	Definition: A unique identifier for a specific consent for a patient, client or provider. Rationale: Provides a traceable audit link between a physical consent form and its electronic record
code [1..1] (M) Act (CV) {CNE:C: ActionCode :INFA, fixed value= "INFA"}	
effectiveTime [0..1] Act (IVL<TS.FULLDATE>)	Definition: Indicates the time that the consent will expire. 'Low' is effective time and 'High' is end time. Rationale: Most consents are not open-ended, to ensure the patient, client, or provider retains a level of control.

COCT_MT470012CA Consent Event Registry basic	Documentation
reasonCode [0..1] Act (CV) {CNE:D: ActConsentInformationAccessOverrideReason } Constraint: If author1 (provider) is specified, reason code must be specified.	Definition: Indicates a reason for overriding a patient's (or client or provider) consent rules. Rationale: Important for audit purposes
subject1 [1..1] (Subject)	Definition: The client's(or patient's) or provider's record the consent is associated with. Rationale: Essential for knowing what patient, client, or provider the consent is for, and therefore mandatory.
author1 [0..1] (Author)	Definition: Indicates that the consent was provided by the patient, client, provider or representative. Rationale: Consent can be provided by the patient or representative or the provider.
author2 [0..1] (Author2)	Definition: Indicates that information access was approved by a provider rather than a patient, client, or original provider. I.e. This is an override rather than an actual consent, and is used for the purposes of 'breaking the glass' only. Rationale: Clinical circumstances may demand that a patient's information be accessed without consent to ensure patient safety.
subject2 [1..1] (Subject2)	
Subject	Definition: The client's(or patient's) or provider's record the consent is associated with. Rationale: Essential for knowing what patient, client, or provider the consent is for, and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:SBJ , fixed value="SBJ"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:OP , fixed value="OP"}	

COCT_MT470012CA Consent Event Registry basic	Documentation
subjectChoice [1..1] (SubjectChoice)	
SubjectChoice	
choice of R_PatientPersonIdentified-confirmable	
or R_ActingPersonIdentified-confirmable	
Author	Definition: Indicates that the consent was provided by the patient, client, provider or representative. Rationale: Consent can be provided by the patient or representative or the provider.
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:AUT , fixed value= "AUT"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:OP , fixed value= "OP"}	
modeCode [0..1] Participation (CV) {CNE:V:x_ PhysicalVerbalParticipationMode }	Definition: Indicates whether the patient's consent is written or verbal. Rationale: Verbal consents may trigger a higher level of auditing.
signatureText [0..1] Participation (ST)	Definition: Indicates the keyword appropriate to the action being performed by the message. Rationale: Allows providers who know the keyword to access information protected by patient keywords.
personalRelationship [1..1] (R_RelatedPersonInformational)	
Author2	Definition: Indicates that information access was approved by a provider rather than a patient, client, or original provider. I.e. This is an override rather than an actual consent, and is used for the purposes of 'breaking the glass' only. Rationale: Clinical circumstances may demand that a patient's information be accessed without consent to ensure patient safety.

COCT_MT470012CA Consent Event Registry basic	Documentation
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:AUT , fixed value= "AUT"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C: ContextControl:OP , fixed value= "OP"}	
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	
Subject2	
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "true"}	
informDefinition [1..1] (InformDefinition)	Definition: Defines the types of information permission is being granted to access. Rationale: Allows discrete control over different types of information.
InformDefinition	Definition: Defines the types of information permission is being granted to access. Rationale: Allows discrete control over different types of information.
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:INFRM , fixed value= "INFRM"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:DEF , fixed value= "DEF"}	
receiver [1..1] (Receiver)	Definition: Identifies the beneficiary of the consent as being a Provider or Service Location. Rationale: Indicates who is receiving consent to view information. This participation is marked as "populated" as receiver must be specified when

COCT_MT470012CA Consent Event Registry basic	Documentation
	keyword is involved.
subject [1..10] (Subject3)	
Receiver	Definition: Identifies the beneficiary of the consent as being a Provider or Service Location. Rationale: Indicates who is receiving consent to view information. This participation is marked as "populated" as receiver must be specified when keyword is involved.
typeCode [1..1] (M) ManagedParticipation (CS) {CNE:C: ParticipationType:RCV , fixed value= "RCV"}	
contextControlCode [1..1] (M) ManagedParticipation (CS) {CNE:C: ContextControl:OP , fixed value= "OP"}	
recipient [1..1] (Recipient)	
Recipient	
choice of R_AssignedPersonIdentified-confirmable	
or R_ServiceDeliveryLocationMinimal	
Subject3	
typeCode [1..1] (M) ActRelationship (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
actDefinition [1..1] (ActDefinition)	
ActDefinition	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	

COCT_MT470012CA Consent Event Registry basic	Documentation
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:DEF , fixed value= "DEF"}	
code [1..1] (M) Act (CV) {CNE:D: ActInformationAccessCode }	Definition: The type of patient, client, or provider information that can be accessed or modified. Rationale: Different consents (or even keywords) may be needed to access different types of patient, client, or provider information (e.g. demographics, medications, allergies, lab results). Understanding the type of information the consent applies to is critical, and therefore the attribute is mandatory.

10.10 R_RelatedPersonIdentified-confirmable (COCT_MT910102CA)

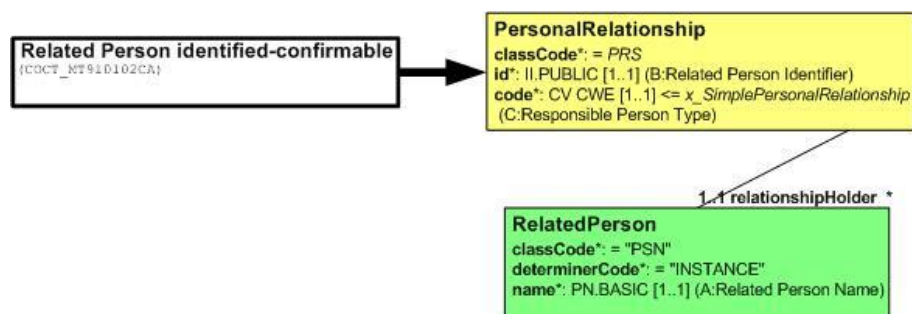


Figure 44 R_RelatedPersonIdentified-confirmable (COCT_MT910102CA)

Table 54 CMET Description (COCT_MT910102CA)

Description	Describes a person (other than a health-care provider or employee) who is providing information and making decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Also used with a relationship of "self" when the patient themselves is providing the care. The expectation is that the person can be found in the client registry.
Rationale	Important for tracking source of information for decision making and other actions taken on behalf of a patient.

Table 55 Message Structure (COCT_MT910102CA)

COCT_MT910102CA Related Person identified-confirmable	Documentation
PersonalRelationship	Definition: Describes a person (other than a health-care provider or employee) who is providing information and making decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Also used with a relationship of "self" when the patient themselves is providing the care. The expectation is that the person can be found in the client registry. Rationale: Important for tracking source of information for decision making and other actions taken on behalf of a patient.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:PRS , fixed value="PRS"}	
id [1..1] (M) <u>Role</u> (II.PUBLIC)	Definition: A unique identifier for the responsible person (as found in a client registry). Rationale: Allows a person to be uniquely referred to and retrieved from the client registry and is therefore mandatory.
code [1..1] (M) <u>Role</u> (CV) {CWE:D:x_ SimplePersonalRelationship }	Definition: A coded value indicating how the responsible person is related to the patient. If the code is "SELF", it indicates that the action was performed by the patient themselves. Rationale: Essential for understanding the authority to perform certain actions as well as the context of the information and is therefore mandatory. E.g. A 'friend' may not be able to make consent decisions, but may be able to pick up dispenses.
relationshipHolder [1..1] (RelatedPerson)	
RelatedPerson	
classCode [1..1] (M) <u>Person</u> (CS) {CNE:C: EntityClass:PSN , fixed value="PSN"}	
determinerCode [1..1] (M) <u>Person</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value="INSTANCE"}	

COCT_MT910102CA Related Person identified-confirmable	Documentation
name [1..1] (M) <u>Person</u> (PN.BASIC)	Definition: The name by which the responsible person is known Rationale: Used when contacting or addressing the responsible person. Because this will be the principle means of identifying the responsible person, it is mandatory.

10.11 R_RelatedPersonInformational (COCT_MT910107CA)

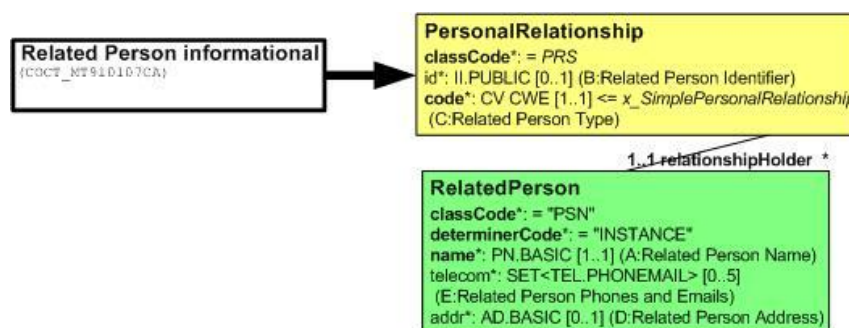


Figure 45 R_RelatedPersonInformational (COCT_MT910107CA)

Table 56 CMET Description (COCT_MT910107CA)

Description	Describes a person (other than a health-care provider or employee) who is providing information and making decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Used when the person cannot be found in the Client registry.
Rationale	Important for tracking source of information for decision making and other actions taken on behalf of a patient.

Table 57 Message Structure (COCT_MT910107CA)

COCT_MT910107CA Related Person informational	Documentation
---	----------------------

COCT_MT910107CA Related Person informational	Documentation
PersonalRelationship	Definition: Describes a person (other than a health-care provider or employee) who is providing information and making decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Used when the person cannot be found in the Client registry. Rationale: Important for tracking source of information for decision making and other actions taken on behalf of a patient.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:PRS , fixed value="PRS"}	
id [0..1] Role (II.PUBLIC)	Definition: A unique identifier for the related person. May include PHNs, driver's license or other identifiers. Rationale: Allows a person to be uniquely referred to.
code [1..1] (M) Role (CV) {CWE:D:x_SimplePersonalRelationship}	Definition: A coded value indicating how the related person is related to the patient. Rationale: Essential for understanding the authority to perform certain actions as well as the context of the information and is therefore mandatory. E.g. A 'friend' may not be able to make consent decisions, but may be able to pick up dispenses.
relationshipHolder [1..1] (RelatedPerson)	
RelatedPerson	
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value="PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value="INSTANCE"}	
name [1..1] (M) Person (PN.BASIC)	Definition: The name by which the responsible person is known Rationale: Used when contacting or addressing the responsible person. Because this will be the principle means of identifying the responsible person, it is mandatory.
telecom [0..5]	Definition: The phone number(s) and email address(s) by which

COCT_MT910107CA Related Person informational	Documentation
Person (SET<TEL.PHONEMAIL>)	a related person may be contacted. Rationale: Used to contact the related person.
addr [0..1] Person (AD.BASIC)	Definition: The mail and/or physical address associated with a related person. Rationale: Used to contact the related person.

10.12 R_ActingPersonIdentified-confirmable (COCT_MT911102CA)

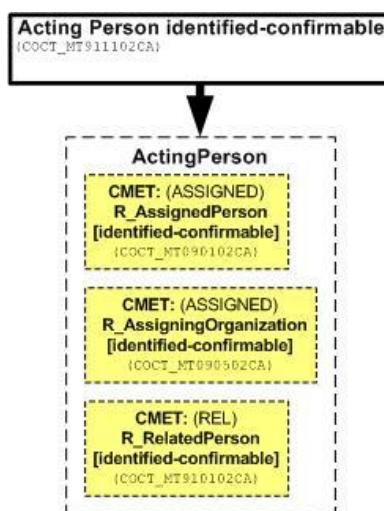


Figure 46 R_ActingPersonIdentified-confirmable (COCT_MT911102CA)

Table 58 CMET Description (COCT_MT911102CA)

Description	The organization under whose authority the associated action (linked by a participation) was performed.
Rationale	Critical to tracking responsibility and performing follow-up.

Table 59 Message Structure (COCT_MT911102CA)

COCT_MT91102CA Acting Person identified-confirmable	Documentation
ActingPerson	
choice of R_AssignedPersonIdentified-confirmable	
or R_AssigningOrganizationIdentified-confirmable	
or R_RelatedPersonIdentified-confirmable	

11 Entity Identifiers

HL7 relies on the use of Object Identifiers in order to determine the source for any identifier or code system.

Please refer to the IAP HL7 Code Tables.xls document for a list of defined object identifiers. Common Public Identifiers (i.e. Client Identifier, Provider License Number) shall leverage existing, publically registered object identifiers, where available.

Implementation specific object identifiers, such as system identifiers, shall be declared and agreed upon at implementation.

While eHealth Ontario does have the authority to assign object identifiers under their root object identifier, consuming systems that have an awareness of object identifiers can manage and assign their own object identifiers as appropriate.

11.1 OIDs Management

The eHealth Ontario Standards Program is responsible for providing OIDs management services for Ontario EHR Interoperability Standards for the following requestors;

- Projects and programs run by organizations external to the Agency, but funded by the Agency.
- All programs and projects within the Agency.

OID Request form: http://www.ehealthontario.on.ca/images/uploads/standards_docs/OID_Form_EN.pdf

12 Consumer Responsibilities

12.1 Schema Validation

The Consumer shall implement request messages that are well-formed and validate to the HL7 schemas. The HL7 schemas shall be provided in electronic format.

12.2 User Credentials

Where the consumer is required to specify user credentials by providing WS-TRUST and SAML assertions, the consumer shall reference the SAML ID token within the authorizationToken id in all HL7 request messages. The value is expected to match the Security/Assertion@id attribute as specified in the encompassing SOAP Header.

12.3 Null Flavors

For data elements that are identified with a conformance of Populated and where no data exists, a nullFlavor will be specified as an indication as to why the data does not exist. Where no code or identifier exists for a Populated element, only the nullFlavor shall be represented; no code, codeSystem, root, or extension attribute shall be represented.

The following table lists the null flavours that are supported by the eHealth Ontario Client Registry.

Table 60 Null Flavors

Code	Display Name	Definition
NI	No Information	No information whatsoever can be inferred from this exceptional value. This is the most general exceptional value. It is also the default exceptional value.
MSK	Masked	There is information on this item available but it has not been provided by the sender due to security, privacy or other reasons. There may be an alternate mechanism for gaining access to this information. Note: using this null flavor does provide information that may be a breach of confidentiality, even though no detail data is provided. Its primary purpose is for those circumstances where it is necessary to inform the receiver that the information does exist without providing any detail.
UNK	Unknown	A proper value is applicable, but not known.

12.4 Entitlements and Masking

Specific data attributes are not to be present in a message instance, based on user entitlements. The masking attribute shall be represented as a null flavor with a “MSK” code. Elements defined with a populated or required conformance are available to be masked. Elements with a mandatory conformance are not to be masked.

12.4.1 Examples

An example of a masked name pseudonym or alias:

```
<name use="P" nullFlavor="MSK"/>
```

An example of a masked home address:

```
<addr use="H" nullFlavor="MSK"/>
```

An example of a masked home telephone number:

```
<telecom specializationType="TEL.PHONE" use="H" nullFlavor="MSK"/>
```

12.5 ProfileId

All HL7 interactions shall align to and refer to both pan-Canadian Messaging profile MR2009 version “R02.04.03” and eHealth Ontario Messaging profile version “Vo3.00” in all messages. The expected representation in the HL7 message shall be:

```
<profileId use="BUS" root="2.16.840.1.113883.2.20.2" extension="R02.04.03"/>
```

```
<profileId use="BUS" root="2.16.840.1.113883.3.239.7" extension="Vo3.00"/>
```

Messages that do not comply to this reference shall fail business rule validation, and an HL7 exception shall be returned to the sender.

13 Provincial Client Registry Message Schemas and Samples

XML Schemas describe the structure of messages that conform to this specification. Interactions and triggers indicated by “ON” have been constrained or extended specifically for the Provincial CR specification. Files are located in the “Schemas” folder and distributed with this specification.

Sample Messages are created for each interaction described in this specification and can be found in the “Samples” folder.

14 Appendices

Glossary

Term	Definition	Reference
Application Role	A collection of interactions to be performed by the application in a specific role	
Capability	Capacity to exhibit a relevant behaviour	Privacy, Access and Security Services (PASS) Access Control Services Conceptual Model Draft Standard for Trial Use Ballot Release 1.0 January 2010
Cornerstone Services (CS)	eHealth Ontario foundation applications and datastores: (OLIS, Client Registry, Provider Registry, User Registry, Tactical Privacy Audit Solution)	
Enterprise Identifier (EID)	Enterprise Identifier, a unique health client identifier in the Provincial Client Registry	
IHE	Integrating the Health Care Enterprise IHE is an initiative by Health Care professionals and industry to improve the way computer systems in Health Care share information. IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical need in support of optimal patient care.	http://www.ihe.net
Informational Consent	Consent to the sharing of information for treatment (as opposed to consent to treatment).	Canada Health Infoway: An overview of the Electronic Health Record Privacy and Security Conceptual Architecture

Personal Health Information	Personal Health Information is identifying information about an individual that relates to the health of the individual or to the providing of health care to the individual, including the individual's health number and the identity of the individual's substitute decision maker.	Ontario Personal Health Information Protection Act S.O. 2004
Personal Information	Personal Information is recorded information about an identifiable individual, including demographic information, personal health information, private and confidential correspondence, opinions about the individual and the individual's name where the disclosure of the name would reveal other personal information.	Ontario Freedom of Information and Protection of Privacy Act R.S.O. 1990
Temporary Access	Access to the Client's information in the EHR during an episode of care, more than once, if necessary. Temporary access is differentiated from unrestricted access in that it is given for a specific instance of information sharing, defined by the implementation, as opposed to permanently granting a Provider with access to a Client's records.	Based upon MoHLTC DPV <i>Emergency Department Access to prescription Drug History</i> FAQ

14.1 HL7 Messaging Fundamentals

The Message Specifications have been developed following the HL7 v3 (Health Level 7 Version 3) Message Development Methodology (MDF). For those readers who do not have an understanding of the HL7 Reference Information Model (RIM), the HL7 methodology, the authors recommend that the reader refer to the HL7 Release documentation (available to HL7 members at www.hl7.org) to augment this document.

14.1.1 Message Wrappers and Payloads

Transactions consist of one or more messages to support both outbound and inbound communications (i.e. send/receive pairs). Every HL7Transport Wrapper: One can think of transport wrappers as being the equivalent of envelopes which describe where the message originated and where it is being sent, primarily in technical terms. For example, the transport wrapper indicates which system originated the message.

Message Content: The message content includes two components:

- Control Event Wrapper: One can think of control event wrappers as file folders which provide business information about the content. This wrapper contains information about the business event that precipitated the sending of this message, which sent it and other associated business information such as the facility from which it was sent. This wrapper will, for example, also include the Prescriber for a new prescription request;
- Payload: This consists of the core data attributes for the message such as a prescription order or dispense event.

It is the combination of each of these components that make up a valid HL7 interaction.

Of note, any particular message component (e.g. Rx Order Payload) may include nested message models (e.g. Patient). The use of multiple message models in a message allows message models to be reused multiple times to provide consistency throughout all domains in the HL7 standard. For example, the Patient message model can be used in an Rx Order message, in an Rx Dispense message as well as in a Lab or Claims related message.

14.1.2 Indicating Message Version in the Transport Wrapper

With multiple releases of pan-Canadian Specifications being implemented across Canada and with the possibility that a jurisdiction will support multiple releases, there is a need to identify in the message instance what release the instance conforms to.

HL7v3 messages have an attribute in the Transport Wrapper called profileID. The definition of this attribute in the MIF is “Identifies the conformance profile(s) this message complies with.”

To allow for implementations to indicate the Specification that they are conforming to, jurisdictions MUST define a release identifier for their constrained version of the pan-Canadian Specifications.

Every message instance that is created by an implementation will conform to at least one specification release. Some instances may be conformant to multiple specification releases – especially when the implementation is pan-Canadian in nature. For example, laboratory software used in Manitoba may be capable of sending messages that

conform to a version of the Manitoba constrained Specifications, to a version of the pan-Canadian Specifications, and to a version of the Saskatchewan constrained Specifications.

When the message instance is created, the profileID attribute MAY be populated with all the release identifiers of the specifications that the message is conformant to. At a minimum, the profileID attribute MUST be populated with the release identifier for the jurisdiction that the message is being sent to. In the example above, the laboratory software, when sending a Lab Order request, must include the release identifier for the Manitoba Specification, but may also include the pan-Canadian Specification release identifier, and the Saskatchewan Specification release identifier. By sending a release identifier, the sending system is indicating that they are conformant to that release of both the sending interaction and the receiving interaction.

When a message instance is received, the receiver will need to scan all of the profileID attributes to determine whether the message conforms to specifications that the receiver understands. Once the receiver has determined the appropriate profileID, the receiver MUST then ensure that the response conforms to that release identifier.

Along with identifying the Specification release identifier, it is possible to indicate the identifier of the pan-Canadian Conformance Profiles and the Implementation Conformance Profiles that a message instance is conforming to. Since the pan-Canadian Conformance Profiles (pCCP) are published in the Specification release, there is no need to indicate the version of the pCCPs since that is implied by the indicated pan-Canadian Specification release identifier. For example, indicating that a message instance is conformant to R02.04.03 implies the specific version of the pCCP, e.g. V2 of LAB-005. Similarly, an Implementation Conformance Profile SHOULD be associated with a specific release of a jurisdiction Specification. However, for clarity, an implementation can send the list of Conformance Profiles in the message instance.

Example of Use

Here is an example of how implementations will send the information in the transport wrapper, using the profileID attribute:

- <profileId root="Jurisdiction 1 Release OID" extension="Jurisdiction 1 Release identifier"> (the only mandatory identifier)
- <profileId root="Jurisdiction 2 Release OID" extension="Jurisdiction 2 Release identifier"> (optional but good to send if known)
- <profileId root="pan-Canadian HL7 v3 Specification OID" extension="pan-Canadian Release Identifier"/> (optional as the Jurisdictional identifier implies this)
- <profileId root="Implementation Conformance Profile OID" extension="XXX-XXX"/> (optional, included for documentation/future purposes)
- <profileId root="pan-Canadian Conformance Profile OID" extension="XXX-XXX"/> (optional as the ICP identifier implies this)

The diagram below helps to illustrate the wrapper and payload concept:

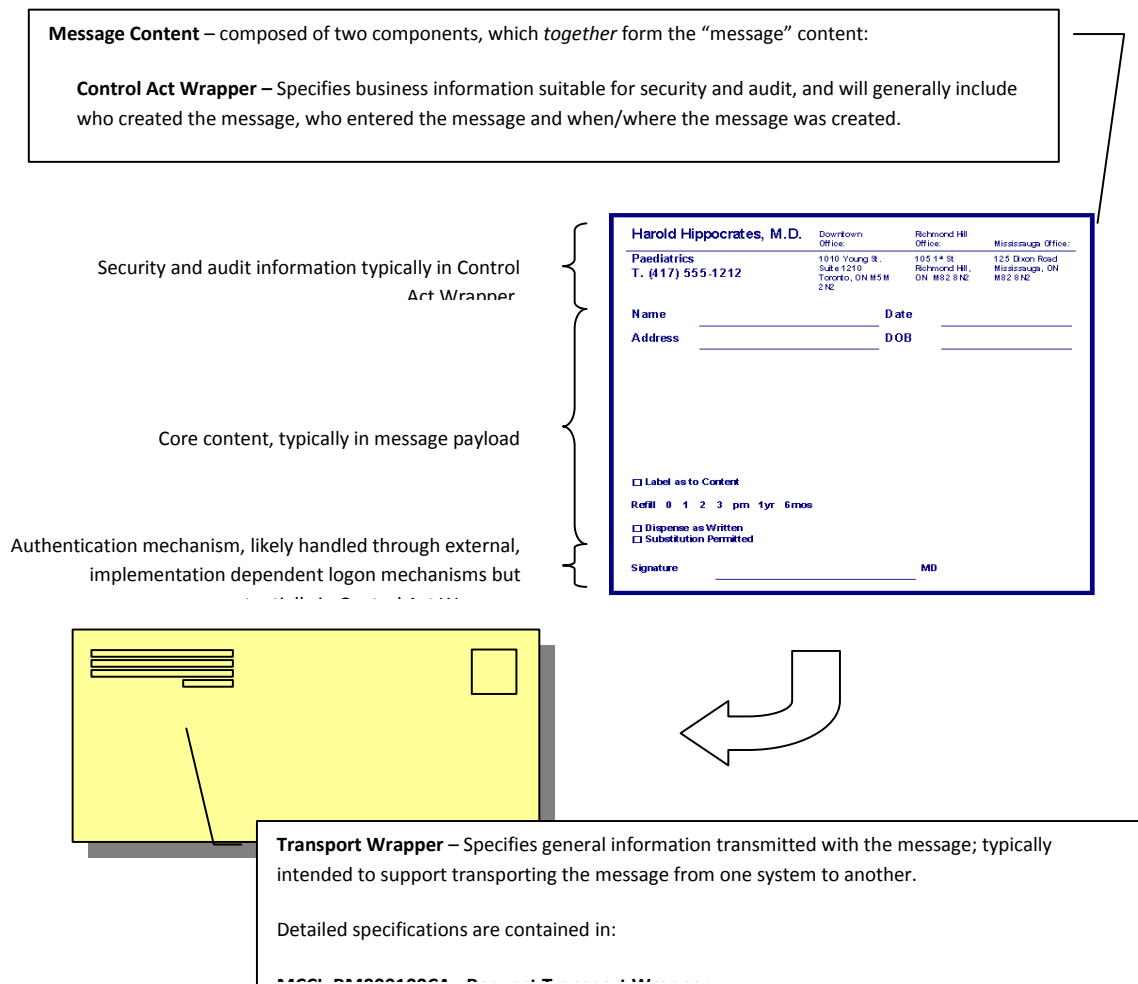


Figure 47 - HL7 Wrapper and Payload Concept

14.1.3 Message Flow

There are three styles of transactions:

1. A REQUEST transaction consists of the following types of messages:
 - a. REQUEST: This message (e.g. Rx Order) is sent by a sending system (e.g. EMR) to a receiving system (e.g. EHR);

- b. RESPONSE, one of:
 - i. RESPONSE (ACCEPT): If the intent of the request message was successful (e.g. Rx Order created), this message is returned to the requesting system;
 - ii. RESPONSE (REFUSE): If the intent of the request message was not successful but well formed (e.g. Rx Order had contraindications), this message is returned to the requesting system; or
 - iii. RESPONSE (REJECT): If the request message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned.
- 2. A NOTIFICATION transaction consists of the following types of messages:
 - a. NOTIFICATION: This message (e.g. Prescription Fulfillment Request (No Resp.)) is sent by a sending system (e.g. Pharmacy) to a receiving system (e.g. EHR) as a simple notification, with no application-level response message returned (but possibly with transport level acknowledgement);
 - b. RESPONSE (REJECT): If the notification message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned. Note that the details of this message are not specified in this document. Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.

Unlike the request messages, there is no opportunity in a notification to accept or refuse based on the content of the message i.e. contraindication checking. It is only possible to reject because it is malformed or to send a general acknowledgment of receipt of the notification.

- 3. A QUERY REQUEST transaction consists of the following types of messages:
 - a. QUERY REQUEST: This message (e.g. Prescription Query) is sent by a sending system (e.g. EMR) to a receiving system (e.g. EHR);
 - b. RESPONSE, one of:
 - i. QUERY RESPONSE (ACCEPT): If the intent of the query request message was successful, this message will contain the query results, which could include no records found;
 - ii. QUERY RESPONSE (REFUSE): If the intent of the query of the query request message was not successful, this message will indicate reasons why the query was refused (e.g. too many records, requestor not allowed to run this query, etc.); or
 - iii. RESPONSE (REJECT): If the query request message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned. Note that the details of this message are not specified in this document. Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.

14.1.4 Attribute Conformance

In order to provide clear direction to implementers as to which content elements (i.e. attributes or fields) in a message are to be filled in, HL7 V3 provides a rigorous conformance framework. Each content element is assigned a specific

conformance level that must be adhered to by software solutions claiming conformance to the Message Specifications. The framework defines the following levels:

- **Mandatory** (Must Exist) – A valid instance of this message must include all mandatory content elements.
- **Populated** (Expected to Exist) – Content elements in this category must be present in all circumstances. However, on occasion, values for these elements will not be present and a Null Flavour would be provided to indicate why the data is not being provided (e.g. masked for hidden/protected data, unable to send due to regulatory constraint). Implementers should note that Populated is not a currently accepted term by HL7. The equivalent HL7 representation is an attribute with a conformance of Required and an optionality of 1..1.
- **Required** (May Exist) – These content elements may or may not be present in the message but implementers are required to support the interchange of this information.
- **Optional** (May or May Not be Supported) – These content elements may or may not be present and there is no requirement for implementers to support the interchange of this information. Generally, categorizing attributes and attribute groups as optional has been avoided within the Message Specification and will be applied on an exception basis only.

Note that Message Specifications often reference information elements that are themselves complex structures of other attributes (or other structures). When such an “association” is present, it is important to note that it may also contain mandatory elements. However, these mandatory elements only come into play when such a required association is actually used in a message and therefore they should not be considered mandatory for the message as a whole.

For example, on an Rx Order, if Coverage Extension is specified in a message, then there may be some mandatory data elements such as a Coverage Extension Id and Payer Id.

14.2 Definitional and Informational Identifiers OIDs



It is anticipated that the list of definitional and informational identifiers OIDs will grow over time and may be better suited to be contained in an eHealth Ontario OID registry or separate spreadsheet that will be refreshed on a frequent basis.

Implementers should contact the eHealth Ontario Standards team at healthstandards@ehealthontario.on.ca to ensure they have the most up to date source of definitional and informational identifiers OIDs.

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Bluewater Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.1	2.16.840.1.113883.3.239.19.1	Bluewater Health MRN	2.16.840.1.113883.3.239.18.1	MRN
Brantford Community Healthcare System Person Identifier Domain	2.16.840.1.113883.3.239.21.12	2.16.840.1.113883.3.239.19.2	Brantford General MRN	2.16.840.1.113883.3.239.18.2	MRN
			Brantford Willett MRN	2.16.840.1.113883.3.239.18.3	MRN
Brockville General Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.66	2.16.840.1.113883.3.239.19.68	Brockville General MRN	2.16.840.1.113883.3.239.15.3	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Cambridge Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.33	2.16.840.1.113883.3.239.19.4	Cambridge Memorial MRN	2.16.840.1.113883.3.239.18.23	MRN
Cardiac Care Network Person Identifier Domain	2.16.840.1.113883.3.239.21.44	2.16.840.1.113883.3.239.19.5	N/A		
Champlain Regional EMPI Person Identifier Domain	2.16.840.1.113883.3.239.21.55	2.16.840.1.113883.3.239.19.6	CHM Queensway Carleton MRN	2.16.840.1.113883.3.239.18.17	MRN
			CHM Pembroke Regional MRN	2.16.840.1.113883.3.239.18.16	MRN
			CHM Childrens Hospital MRN	2.16.840.1.113883.3.239.18.8	MRN
			CHM Monfort MRN	2.16.840.1.113883.3.239.18.14	MRN
			CHM Almonte General MRN	2.16.840.1.113883.3.239.18.5	MRN
			CHM St Francis Memorial MRN	2.16.840.1.113883.3.239.18.21	MRN
			CHM Deep River and District MRN	2.16.840.1.113883.3.239.18.10	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			CHM Renfrew Victoria MRN	2.16.840.1.113883.3.239.18.18	MRN
			CHM Carlton Place and District Memorial MRN	2.16.840.1.113883.3.239.18.7	MRN
			CHM Kemptville District MRN	2.16.840.1.113883.3.239.18.13	MRN
			CHM Arnprior District MRN	2.16.840.1.113883.3.239.18.6	MRN
			CHM Glengarry Memorial MRN	2.16.840.1.113883.3.239.18.11	MRN
			CHM Winchester District Memorial MRN	2.16.840.1.113883.3.239.18.22	MRN
			CHM Hawkesbury and District MRN	2.16.840.1.113883.3.239.18.12	MRN
			CHM Cornawall Community MRN	2.16.840.1.113883.3.239.18.9	MRN
			CHM Sisters of Charity of Ottawa MRN	2.16.840.1.113883.3.239.18.20	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			CHM Royal Ottawa Hospital MRN	2.16.840.1.113883.3.239.18.19	MRN
			CHM Ottawa and U of O Heart Institute MRN	2.16.840.1.113883.3.239.18.15	MRN
Chatham-Kent Health Alliance Person Identifier Domain	2.16.840.1.113883.3.239.21.63	2.16.840.1.113883.3.239.19.7	Chatham-Kent Health MRN	2.16.840.1.113883.3.239.18.24	MRN
Collingwood General and Marine Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.64	2.16.840.1.113883.3.239.19.8	Collingwood General and Marine MRN	2.16.840.1.113883.3.239.18.25	MRN
Credit Valley Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.65	2.16.840.1.113883.3.239.19.9	Credit Valley MRN	2.16.840.1.113883.3.239.18.26	MRN
Grand River Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.2	2.16.840.1.113883.3.239.19.10	GRH Grand River MRN	2.16.840.1.113883.3.239.18.39	MRN
Grey Bruce Health Services Person Identifier Domain	2.16.840.1.113883.3.239.21.3	2.16.840.1.113883.3.239.19.11	GBH Durham MRN	2.16.840.1.113883.3.239.18.28	MRN
			GBH Kincardine MRN	2.16.840.1.113883.3.239.18.30	MRN
			GBH Walkerton MRN	2.16.840.1.113883.3.239.18.37	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			GBH Chesley MRN	2.16.840.1.113883.3.239.18.27	MRN
			GBH Owen Sound MRN	2.16.840.1.113883.3.239.18.34	MRN
			GBH Markdale MRN	2.16.840.1.113883.3.239.18.32	MRN
			GBH Meaford MRN	2.16.840.1.113883.3.239.18.33	MRN
			GBH Southampton MRN	2.16.840.1.113883.3.239.18.35	MRN
			GBH Wiarton MRN	2.16.840.1.113883.3.239.18.38	MRN
			GBH Hanover and District MRN	2.16.840.1.113883.3.239.18.29	MRN
			GBH Lions Head MRN	2.16.840.1.113883.3.239.18.31	MRN
			GBH Tobermory MRN	2.16.840.1.113883.3.239.18.36	MRN
Guelph Area Person Identifier Domain	2.16.840.1.113883.3.239.21.4	2.16.840.1.113883.3.239.19.12	GUELPH Guelph General MRN	2.16.840.1.113883.3.239.18.41	MRN
			GUELPH Palmerston and District MRN	2.16.840.1.113883.3.239.18.43	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			GUELPH Groves Memorial MRN	2.16.840.1.113883.3.239.18.40	MRN
			GUELPH Louise Marshall MRN	2.16.840.1.113883.3.239.18.42	MRN
Halton Healthcare Services Person Identifier Domain	2.16.840.1.113883.3.239.21.5	2.16.840.1.113883.3.239.19.13	Halton Oakville-Trafalgar MRN	2.16.840.1.113883.3.239.18.47	MRN
			Halton Milton District MRN	2.16.840.1.113883.3.239.18.46	MRN
			Halton Georgetown MRN	2.16.840.1.113883.3.239.18.45	MRN
Hamilton Health Sciences Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.6	2.16.840.1.113883.3.239.19.14	Hamilton General MRN	2.16.840.1.113883.3.239.18.48	MRN
			Hamilton Juravinski MRN	2.16.840.1.113883.3.239.18.49	MRN
			Hamilton McMaster MRN	2.16.840.1.113883.3.239.18.50	MRN
Headwaters Healthcare Person Identifier Domain	2.16.840.1.113883.3.239.21.7	2.16.840.1.113883.3.239.19.15	Headwaters MRN	2.16.840.1.113883.3.239.18.52	MRN
Hospital for Sick Children Person Identifier Domain	2.16.840.1.113883.3.239.21.8	2.16.840.1.113883.3.239.19.16	Sick Children MRN	2.16.840.1.113883.3.239.18.137	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Hotel Dieu Grace Windsor Person Identifier Domain	2.16.840.1.113883.3.239.21.9	2.16.840.1.113883.3.239.19.17	Hotel-Dieu Grace MRN	2.16.840.1.113883.3.239.18.53	MRN
Humber River Regional Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.10	2.16.840.1.113883.3.239.19.18	Humber River Regional MRN	2.16.840.1.113883.3.239.18.54	MRN
Huron Perth Healthcare Alliance Person Identifier Domain	2.16.840.1.113883.3.239.21.11	2.16.840.1.113883.3.239.19.19	Huron Perth Clinton Public MRN	2.16.840.1.113883.3.239.18.56	MRN
			Huron Perth Seaforth Community MRN	2.16.840.1.113883.3.239.18.57	MRN
			Huron Perth Alexandra Marine and General MRN	2.16.840.1.113883.3.239.18.55	MRN
			Huron Perth St Marys Memorial MRN	2.16.840.1.113883.3.239.18.58	MRN
			Huron Perth Stratford General MRN	2.16.840.1.113883.3.239.18.59	MRN
Joseph Brant Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.13	2.16.840.1.113883.3.239.19.20	Joseph Brant Memorial MRN	2.16.840.1.113883.3.239.18.60	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Kingston Area Person Identifier Domain	2.16.840.1.113883.3.239.21.14	2.16.840.1.113883.3.239.19.21	Kingston General MRN	2.16.840.1.113883.3.239.18.61	MRN
Lake of the Woods District Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.16	2.16.840.1.113883.3.239.19.23	Lake of the Woods District MRN	2.16.840.1.113883.3.239.18.89	MRN
Lakeridge Health Corporation Person Identifier Domain	2.16.840.1.113883.3.239.21.17	2.16.840.1.113883.3.239.19.24	Lakeridge Bowmanville MRN	2.16.840.1.113883.3.239.18.92	MRN
			Lakeridge Oshawa MRN	2.16.840.1.113883.3.239.18.93	MRN
			Lakeridge Port Perry MRN	2.16.840.1.113883.3.239.18.90	MRN
			Lakeridge Whitby MRN	2.16.840.1.113883.3.239.18.91	MRN
Leamington District Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.18	2.16.840.1.113883.3.239.19.25	Leamington District Memorial MRN	2.16.840.1.113883.3.239.18.94	MRN
Lennox and Addington County Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.19	2.16.840.1.113883.3.239.19.26	Lennox and Addington County General MRN	2.16.840.1.113883.3.239.18.95	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
LHIN14 - North West Person Identifier Domain	2.16.840.1.113883.3.239.21.15	2.16.840.1.113883.3.239.19.22	LHIN14 Thunder Bay Regional Centre MRN	2.16.840.1.113883.3.239.18.72	MRN
			LHIN14 Dryden Regional Health Centre MRN	2.16.840.1.113883.3.239.18.63	MRN
			LHIN14 Riverside Healthcare Facility MRN	2.16.840.1.113883.3.239.18.69	MRN
			LHIN14 Atikokan General MRN	2.16.840.1.113883.3.239.18.62	MRN
			LHIN14 Geraldton District MRN	2.16.840.1.113883.3.239.18.64	MRN
			LHIN14 Manitouwadge General MRN	2.16.840.1.113883.3.239.18.65	MRN
			LHIN14 Nipigon District MRN	2.16.840.1.113883.3.239.18.67	MRN
			LHIN14 Red Lake MRN	2.16.840.1.113883.3.239.18.68	MRN
			LHIN14 Sioux Lookout MRN	2.16.840.1.113883.3.239.18.70	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			LHIN14 McCausland MRN	2.16.840.1.113883.3.239.18.66	MRN
			LHIN14 Wilson Memorial MRN	2.16.840.1.113883.3.239.18.73	MRN
			LHIN14 St Josephs MRN	2.16.840.1.113883.3.239.18.71	MRN
London Area Person Identifier Domain	2.16.840.1.113883.3.239.21.20	2.16.840.1.113883.3.239.19.27	LND St Josephs Parkwood MRN	2.16.840.1.113883.3.239.18.82	MRN
			LND St Josephs Mount Hope MRN	2.16.840.1.113883.3.239.18.81	MRN
			LND Woodstock General MRN	2.16.840.1.113883.3.239.18.88	MRN
			LND Alexandra MRN	2.16.840.1.113883.3.239.18.74	MRN
			LND St Thomas Elgin General MRN	2.16.840.1.113883.3.239.18.84	MRN
			LND Tillsonburg District Memorial MRN	2.16.840.1.113883.3.239.18.86	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			LND Four Counties Health MRN	2.16.840.1.113883.3.239.18.75	MRN
			LND Strathroy Middlesex General MRN	2.16.840.1.113883.3.239.18.85	MRN
			LND St Josephs Grosvenor MRN	2.16.840.1.113883.3.239.18.79	MRN
			LND St Josephs MH MRN	2.16.840.1.113883.3.239.18.80	MRN
			LND St Josephs St Thomas MRN	2.16.840.1.113883.3.239.18.83	MRN
			LND London Health Science Centre MRN	2.16.840.1.113883.3.239.18.77	MRN
Markham Stouffville Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.21	2.16.840.1.113883.3.239.19.28	Markham Stouffville MRN	2.16.840.1.113883.3.239.18.96	MRN
Mount Sinai Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.22	2.16.840.1.113883.3.239.19.29	Mount Sinai MRN	2.16.840.1.113883.3.239.18.97	MRN
Muskoka Algonquin Healthcare Person Identifier Domain	2.16.840.1.113883.3.239.21.23	2.16.840.1.113883.3.239.19.30	Muskoka Algonquin MRN	2.16.840.1.113883.3.239.18.98	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Niagara Area Person Identifier Domain	2.16.840.1.113883.3.239.21.24	2.16.840.1.113883.3.239.19.31	NGR Welland County MRN	2.16.840.1.113883.3.239.18.111	MRN
			NGR Greater Niagara MRN	2.16.840.1.113883.3.239.18.105	MRN
			NGR St Catharines General MRN	2.16.840.1.113883.3.239.18.110	MRN
			NGR Port Colborne MRN	2.16.840.1.113883.3.239.18.109	MRN
			NGR Niagara on the Lake MRN	2.16.840.1.113883.3.239.18.107	MRN
			NGR Fort Erie Douglas MRN	2.16.840.1.113883.3.239.18.104	MRN
			NGR Hotel Dieu Shaver Health and Rehab MRN	2.16.840.1.113883.3.239.18.106	MRN
			NGR Ontario Street MRN	2.16.840.1.113883.3.239.18.108	MRN
Norfolk General Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.25	2.16.840.1.113883.3.239.19.32	Norfolk General MRN	2.16.840.1.113883.3.239.18.112	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
North Bay Regional Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.26	2.16.840.1.113883.3.239.19.33	North Bay Hospital MRN	2.16.840.1.113883.3.239.18.100	MRN
			Mattawa Hospital MRN	2.16.840.1.113883.3.239.18.99	MRN
North Eastern Ontario Network 1 Person Identifier Domain	2.16.840.1.113883.3.239.21.27	2.16.840.1.113883.3.239.19.34	NEON1 - Sudbury MRN	2.16.840.1.113883.3.239.18.101	MRN
North Eastern Ontario Network 2 Person Identifier Domain	2.16.840.1.113883.3.239.21.28	2.16.840.1.113883.3.239.19.35	NEON2 - Timmins MRN	2.16.840.1.113883.3.239.18.103	MRN
			NEON2 - Temiskaming MRN	2.16.840.1.113883.3.239.18.102	MRN
North Simcoe Hospital Alliance Person Identifier Domain	2.16.840.1.113883.3.239.21.29	2.16.840.1.113883.3.239.19.36	North Simcoe Alliance MRN	2.16.840.1.113883.3.239.18.113	MRN
North York General Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.30	2.16.840.1.113883.3.239.19.37	North York General MRN	2.16.840.1.113883.3.239.18.115	MRN
			North York Branson MRN	2.16.840.1.113883.3.239.18.114	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Northumberland Hills Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.31	2.16.840.1.113883.3.239.19.38	Northumberland Hills MRN	2.16.840.1.113883.3.239.18.116	MRN
Orillia Soldiers Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.36	2.16.840.1.113883.3.239.19.42	Orillia Soldiers Memorial MRN	2.16.840.1.113883.3.239.18.121	MRN
Perth Smiths Falls District Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.37	2.16.840.1.113883.3.239.19.43	Perth and Smiths Falls District MRN	2.16.840.1.113883.3.239.18.123	MRN
Peterborough Regional Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.38	2.16.840.1.113883.3.239.19.44	Peterborough Regional MRN	2.16.840.1.113883.3.239.18.124	MRN
Quinte Health Care Person Identifier Domain	2.16.840.1.113883.3.239.21.39	2.16.840.1.113883.3.239.19.45	Quinte Belleville MRN	2.16.840.1.113883.3.239.18.126	MRN
			Quinte Bancroft MRN	2.16.840.1.113883.3.239.18.125	MRN
			Quinte Trenton MRN	2.16.840.1.113883.3.239.18.128	MRN
			Quinte Picton MRN	2.16.840.1.113883.3.239.18.127	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Registration and Claims Branch Person Identifier Domain	2.16.840.1.113883.3.239.21.40	2.16.840.1.113883.3.239.19.46	Registration And Claim Branch Kingston MRN	2.16.840.1.113883.3.239.18.129	MRN
Ross Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.41	2.16.840.1.113883.3.239.19.47	Ross Memorial MRN	2.16.840.1.113883.3.239.18.130	MRN
Rouge Valley Health System Person Identifier Domain	2.16.840.1.113883.3.239.21.42	2.16.840.1.113883.3.239.19.48	Rouge Valley Centenary MRN	2.16.840.1.113883.3.239.18.132	MRN
			Rouge Valley Ajax MRN	2.16.840.1.113883.3.239.18.131	MRN
Royal Victoria Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.43	2.16.840.1.113883.3.239.19.49	Royal Victoria MRN	2.16.840.1.113883.3.239.18.133	MRN
Sault Area Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.45	2.16.840.1.113883.3.239.19.50	Sault Area Sault St Marie MRN	2.16.840.1.113883.3.239.18.134	MRN
Southlake Regional Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.46	2.16.840.1.113883.3.239.19.51	Southlake Regional Health Centre MRN	2.16.840.1.113883.3.239.18.138	MRN
St Josephs Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.47	2.16.840.1.113883.3.239.19.52	St Josephs Health Centre Toronto MRN	2.16.840.1.113883.3.239.18.140	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
St Josephs Healthcare Hamilton Person Identifier Domain	2.16.840.1.113883.3.239.21.48	2.16.840.1.113883.3.239.19.53	St Josephs Hamilton MRN	2.16.840.1.113883.3.239.18.139	MRN
St Marys General Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.49	2.16.840.1.113883.3.239.19.54	St Marys General MRN	2.16.840.1.113883.3.239.18.141	MRN
St Michaels Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.50	2.16.840.1.113883.3.239.19.55	St Michaels MRN	2.16.840.1.113883.3.239.18.142	MRN
Stevenson Memorial Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.51	2.16.840.1.113883.3.239.19.56	Stevenson Memorial Alliston MRN	2.16.840.1.113883.3.239.18.143	MRN
Sunnybrook Health Sciences Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.52	2.16.840.1.113883.3.239.19.57	Sunnybrook MRN	2.16.840.1.113883.3.239.18.144	MRN
The Scarborough Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.53	2.16.840.1.113883.3.239.19.58	Scarborough General MRN	2.16.840.1.113883.3.239.18.135	MRN
			Scarborough Grace MRN	2.16.840.1.113883.3.239.18.136	MRN
Toronto East General Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.54	2.16.840.1.113883.3.239.19.59	Toronto East General MRN	2.16.840.1.113883.3.239.18.145	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
Trillium Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.56	2.16.840.1.113883.3.239.19.60	Trillium Mississauga MRN	2.16.840.1.113883.3.239.18.146	MRN
			Trillium Queensway MRN	2.16.840.1.113883.3.239.18.147	MRN
University Health Network Person Identifier Domain	2.16.840.1.113883.3.239.21.57	2.16.840.1.113883.3.239.19.61	UHN MRN	2.16.840.1.113883.3.239.18.148	MRN
Wait Time Information System Person Identifier Domain	2.16.840.1.113883.3.239.21.58	2.16.840.1.113883.3.239.19.62	N/A		
West Parry Sound Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.59	2.16.840.1.113883.3.239.19.63	West Parry Sound MRN	2.16.840.1.113883.3.239.18.149	MRN
William Osler Health Centre Person Identifier Domain	2.16.840.1.113883.3.239.21.60	2.16.840.1.113883.3.239.19.64	William Osler Brampton MRN	2.16.840.1.113883.3.239.18.150	MRN
			William Osler Etobicoke MRN	2.16.840.1.113883.3.239.18.152	MRN
			William Osler Georgetown MRN	2.16.840.1.113883.3.239.18.153	MRN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			William Osler Civic MRN	2.16.840.1.113883.3.239.18.151	MRN
Windsor Regional Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.61	2.16.840.1.113883.3.239.19.65	Windsor Regional MRN	2.16.840.1.113883.3.239.18.154	MRN
York Central Hospital Person Identifier Domain	2.16.840.1.113883.3.239.21.62	2.16.840.1.113883.3.239.19.66	York Central MRN	2.16.840.1.113883.3.239.18.155	MRN
			Alberta ULI (Unique Lifetime Identifier)	2.16.840.1.113883.4.20	JHN
			Manitoba Health Personal Health Identification Number (PHIN)	2.16.840.1.113883.4.12	JHN
			Prince Edward Island, Canada Personal Health Number (PHN) Identifier	2.16.840.1.113883.4.13	JHN
			British Columbia Personal Health Number	2.16.840.1.113883.4.50	JHN
			New Brunswick, Canada Personal Health Number	2.16.840.1.113883.4.51	JHN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			Newfoundland and Labrador, Canada Personal Health Number	2.16.840.1.113883.4.52	JHN
			Nova Scotia, Canada Personal Health Number	2.16.840.1.113883.4.53	JHN
			Northwest Territories, Canada Personal Health Number	2.16.840.1.113883.4.54	JHN
			Nunavut, Canada Personal Health Number	2.16.840.1.113883.4.55	JHN
			Quebec, Canada Personal Health Number	2.16.840.1.113883.4.56	JHN
			Saskatchewan, Canada Personal Health Number	2.16.840.1.113883.4.57	JHN
			Yukon, Canada Personal Health Number	2.16.840.1.113883.4.58	JHN
			Ontario, Canada Personal Health Number	2.16.840.1.113883.4.59	JHN

Person Identifier Domain Name (PID, data source)	Person Identifier Domain (PID) OID – (HL7 Custodian /assignedDevice/ id @root)	Definitional Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Informational Source Name	Informational Identifier OID (HL7 Subject /identifiedEntity/ id@root)	Identifier Role Type
			US Social Security Number	2.16.840.1.113883.4.1	ALT
			US Center for Disease Control	2.16.840.1.113883.3.239.29.1	ALT
			US Healthcare Finance Authority	2.16.840.1.113883.3.239.29.2	ALT
			Australia Dept of Veterans Affairs	2.16.840.1.113883.3.239.29.3	ALT
			Australia Health Insurance Commission	2.16.840.1.113883.3.239.29.4	ALT
			NL Ministerie van Volksgezondheid	2.16.840.1.113883.3.239.29.5	ALT
eHealth Ontario Provincial Client Registry Domain	2.16.840.1.113883.3.239.24	2.16.840.1.113883.3.239.20 (EID)			