Canadian Clinical Drug (CeRx) Messaging Standard

Package #3 Overview (Medication Profile Support Subject Areas)

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Version Tracking

Version	Author(s)	Change Description	Date
1.00	Michael van Campen	Original version and framework	2005-May-03
1.01	Marc Koehn	• Removed detailed information in section 6.1, section 6.3, chapter VII and Appendix A without tracking. This information is non-package specific and has been included in the latest package (Package #4). It is expected that the 4 package overview documents will be collapsed into a single CeRx overview in a subsequent release.	2005-Jun-11

1.02	Michael van Campen	• Added clarity that compounds can be used for immunizations.
		• C8.1 - Get Patient Drug Contraindications
		  • Updated to include multiple drugs
		• C14.1 - Add Patient Immunization
		  • Drop “Immunization Course Complete” attribute.
		  • Add informer participation to include person who informed the health care provider about the immunization information (e.g. mother, who informed the public health nurse for their child). Only a personal relationship role (e.g.
			2005-Jun-11

Version	Author(s)	Change Description	Date
		mother, father) attribute is supported. No capability to update this information once entered, although Generic Undo is still available to back out transaction. • Add Next Planned Dose Date. • Add Renewal Date. • C14.2 - Patient Immunization Query • Add Immunization Period (date range) parameter. • Add Next Planned Dose Period (date range) parameter. • Add Renewal Period (date range) parameter. • C13.1 – Record Professional Service • Remove target record participation. Only patient is required • Add masking indicator	

Acknowledgments

N/A

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PREFACE – QUICK DOCUMENT OVERVIEW

Purpose	To provide a summary view of all of the artifacts included in a delivery package for the CeRx messaging standard.
Audience	CeRx-pCSG (Standards Working Group) and other interested stakeholders.
Instructions	Instructions have been provided for each element in this document. Use the Show/Hide button in Word to show the hidden text. 

Structure	In addition to the standard "Executive Summary" and "Appendix" sections, this document includes the following specific sections:	
	Introduction	Introduction to the Package Overview.
	Package Scope	The scope of the package is described by listing all included (and excluded) transactions. Interaction diagrams are used to help illustrate scope.
	Transaction Synopsis	A detailed synopsis which outlines the information exchanged, is provided for each transaction.
	Key Package Assumptions	Key package assumptions that were made during the development of the message specifications.
	Key Package Issues	Issues, outstanding questions or areas of clarification that require resolution to complete the package.
	Artifact Status	An enumeration of all artifacts included in the package, by subject area (*e.g.* prescribing). This section also outlines the current status.
	HL7 Context	General comments on the package and its context vis-à-vis the broader HL7 community.
	Appendix A - HL7 Methodology Background	Provides some basic background on the HL7 methodology.

Related documents	• Infoway Style Guide – June 17, 2003

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I EXECUTIVE SUMMARY

Specification materials for the Canadian Clinical Drug (CeRx) Messaging Standard are published for review by the CeRx Standards Working Group (CeRx-pCSG) and others in distinct packages. This document represents a summary overview for Package 3 – Medication Profile Support.

The main package elements include:

Package Artifacts

- PN502-2001-EN - Package Overview (this document)
  - Provides a framework for review of the package by summarizing the status of all key artifacts, by providing a message synopsis that lists the content of all messages, and by summarizing other key information pertaining to the package.
- PN502-2002-EN - Storyboards
  - These are intended to reflect current business practice with appropriate modifications to reflect the implementation of EHR/DIS and e-Prescribing (CeRx) messages.
  - Please note that updates have also been made to package #1 storyboards where these referred to content in this package. The associated updates will be included in the next release of package #1 materials.
- PN502-2004-EN - Interaction Models
  - These describe key interactions (message exchanges). These artifacts are thought not to include controversial items.
- PN502-2005-EN - Message Worksheets
  - A number of documents that specify the detailed data elements in CeRx messages, including definitions, rationale, code sets (if applicable), and conformance (*i.e*. whether an attribute is mandatory, populated, or required). Certain design decisions are based on assumptions that are listed in the Standards Development Tracking Logs; where these assumptions are considered controversial they have also been included in this summary.

Additional review artifacts include the following:

Project Artifacts

- PN502-0002-EN - Business Model
- PN502-0006-EN - Implementation Guide
- PN502-0003-EN - Glossary
- PN502-0004-EN - Standards Development Tracking Logs
- PN502-0008-EN - Scope & Package Tracking Framework

Cross-Package Artifacts

- No cross-package artifacts are highlighted for specific review. However, it should be noted that several models in the cross-package are referenced by the message models for this package. These include wrapper materials and other reusable model components (“CMETs”).

The following notes summarize the overall stability of this package through progressive releases:

Package Release	Stability Notes
2005-04-29	• The work products developed to date reflect the analysis from packages 1 and 2. • Several of the documents are at the ‘Team Draft’ status rather than Working Group Draft status.

Package Release	Stability Notes
	• Vocabulary work is pending. • CeRx-pCSG review is pending. • Public exposure, including HL7 community exposure is pending. • Identifiers might change prior to final publication based on a pending decision to use Canadian-specific ids or the international ones; similarly identifiers may shift from the current sequential approach to a more meaningful mechanism. • It is expected that the content for this package will only be marginally affected by the development of subsequent packages.

II INTRODUCTION

2.1 Scope

The scope of this document is limited to the content of Package 3 – Medication Profile Support. It includes all related message and business artifacts.

2.2 Purpose

The purpose of this document is to support review of the contents of the package by the CeRx-pCSG and other interested stakeholders. The document aims to achieve this as follows:

- A package synopsis is provided which outlines each transaction and describes the information interchanged. This is intended to offer sufficient information for reviewers to confirm that the messages meet the high level business requirements for e-Prescribing and Drug Information System implementation.
- Review guidance is provided for each deliverable (including the detailed message specification worksheets) to assist those reviewers interested in providing comment at a more detailed level

In addition, stability comments are provided (1) for each deliverable based on the development process as well as the level of core team review and QA; and (2) for the package overall based on the extent of pan-Canadian review and potential directions in the broader HL7 community.

Note that key elements of the package have been highlighted for review using green text/boxes.

2.3 Audience

CeRx-pCSG (Standards Working Group) and other interested stakeholders.

2.4 Assumptions

The following assumptions were made in this document:

- See Key Planning Assumptions section.

2.5 Related Documents

Author	Document Name	Comments
Michael van Campen	PN502-0001-EN - Standards Development Documentation Framework (SDDF)	Documents all key project deliverables into 5 categories, of which the following 3 are germane to this package: • Project Artifacts • Package Artifacts • Cross-Package Artifacts
CeRx Core Project Team	Package Documents	Suite of deliverables for the package, contained in a directory structure that corresponds to the 3 major document categories (Project Artifacts, Package Artifacts and Cross-Package Artifacts).

III PACKAGE SCOPE

3.1 Subject Areas

This package contains the following subject areas:

- Drug Queries (4)
- Professional Service (2)
- Immunization (3)
- Contraindications (2)
- Laboratory (2)

3.1.1 Drug Queries Subject Area (4)

Within this subject area, the following transactions (interaction pairs) are included:

- C2.1 - Get Drug Documentation Information
- C2.2 - Search Drug Products
- C2.3 - Search Clinical Formulary
- C2.8 - Query Drug Detail

Transactions noted in green below are high priority items that require detailed review.

#	Business Name	Description	Planning Note	Status
C2.1	Get Drug Documentation Information	Obtain current monograph(s), protocols and related drug information.		Team Draft
C2.2	Search Drug Products	Search for a medication based on available information such as name or partial name, strength, route, form, manufacturer, etc.		Team Draft
C2.3	Search Clinical Formulary	Search a clinical formulary (e.g. hospital formulary) to determine if a specific drug is available for use in a particular context (e.g. available for use in a country, available for dispensing in a hospital).		Team Draft

It is proposed that the following transactions be **ADDED** to this subject area:

#	Business Name	Description	Planning Note	Status
C2.8	Query Drug Detail	Requests detailed information about a single drug product by product code.		Team Draft

It is proposed that the following transactions be **DROPPED from** this subject area:

#	Business Name	Description	Planning Note	Status
C2.4	Get Drug Usage Regimen	Query a drug knowledge database, manufacturer or EHR Host for a particular drug dosage regimen.	2005-04-16 Core Team discussion: Decided to combine this into C2.2. What drug doses are associated with a drug will be retrievable by setting a parameter when retrieving general drug information	Canc
C2.6	Drug Equivalency Query	What drugs are therapeutically equivalent or substitutable to specified drug?	2005-04-16 Core Team discussion: Decided to combine this into C2.2. What category drugs fit in will be part of the general drug information	Canc
C2.7	Drug Protocol for Condition Query	What medications are appropriate for treatment of a specified condition (e.g. HIV)?	2005-04-16 Core Team discussion: Decided to combine this into C2.1. This is just another kind of document which can be returned.	Canc

3.1.2 Professional Service Subject Area (2)

Within this subject area, the following transactions (interaction pairs) are included:

- C13.1 – Record Professional Service
- C13.2 – Get Patient Professional Services

Transactions noted in green below are high priority items that require detailed review.

#	Business Name	Description	Planning Note	Status
C13.1	Record Professional Service	Record a service performed (e.g. education, training, smoking cessation) for the patient in their EHR.		Team Draft
C13.2	Get Patient Professional Services	Retrieve a list of the services performed for a specific patient.		Team Draft

It is proposed that the following transactions be **ADDED** to this subject area.

None.

It is proposed that the following transactions be **DROPPED** from this subject area:

None.

3.1.3 Immunization Subject Area (3)

Within this subject area, the following transactions (interaction pairs) are included:

- C14.1 – Add Patient Immunization
- C14.2 – Patient Immunization Query
- C14.5 – Update Patient Immunization

Transactions noted in green below are high priority items that require detailed review.

#	Business Name	Description	Planning Note	Status
C14.1	Add Patient Immunization	Record the immunization of a patient in their health record.		Team Draft
C14.2	Patient Immunization Query	Retrieves immunizations a patient has received and when.		Team Draft
C14.5	Update Patient Immunizations	Change information for an already-recorded immunization		Team Draft

It is proposed that the following transactions be **ADDED** to this subject area.

None.

It is proposed that the following transactions be **DROPPED** from this subject area:

None.

3.1.4 Contraindications Subject Area (2)

Within this subject area, the following transactions (interaction pairs) are included:

- C8.1 – Get Patient Drug Contraindications
- C8.2 – Contraindication Checking Against a Full Set of Drugs

Transactions noted in green below are high priority items that require detailed review.

#	Business Name	Description	Planning Note	Status
C8.1	Get Patient Drug Contraindications	Get a list of potential contraindications (allergies, drug-drug interactions, etc.) for a specific drug for a specific patient.		Team Draft
C8.2	Contraindication Checking Against a Full Set of Drugs	From a set of drugs that are individually entered, determine if there are any contraindications (allergies, drug-drug interactions, etc.).		Team Draft

It is proposed that the following transactions be **ADDED** to this subject area.

None.

It is proposed that the following transactions be **DROPPED** from this subject area:

None.

3.1.5 laboratory Subject Area (7)

Within this subject area, the following transactions (interaction pairs) are included:

- C21.4 – Record Basic Patient Observations
- C21.5 – Review Basic Patient Observations

Transactions noted in green below are high priority items that require detailed review.

#	Business Name	Description	Planning Note	Status
C21.4	Record Basic Patient Observations	Record a non-lab observation about a patient such as height, weight, blood pressure, etc.		Team Draft
C21.5	Review Basic Patient Observations	Retrieve the historical values for a particular non-lab observation type for a specific patient.		Team Draft

It is proposed that the following transactions be **ADDED** to this subject area.

None.

It is proposed that the following transactions be **DROPPED** from this subject area:

None.

3.2 Selected Interactions

There are no compound or chained interactions for this package. Therefore, there are no specific interactions highlighted in this section. Interaction diagrams are included in the detailed message specifications.

3.3 Key Package Design Concepts

This section of the document highlights some of the key design concepts used in constructing this package. They include:

- Immunization

3.3.1 Immunization

Immunizations are captured in the EHR as they can provide insights into a patient's health status. They are covered under CeRx as:

- There is a lot of similarity between immunizations and medications and some jurisdictions consider them the same; and
- It is unlikely another project would be struck to include them.

The CeRx immunization messages break from the normal pattern of CeRx messages in the following manner:

- Traditional CeRx messages deal in detail with prescribe and dispense activities, but only assume that the drug is consumed (administered);
- The CeRx immunization messages have been built to allow for the recording of individual doses of vaccine, the linking of doses into a course of treatment, recording of immunization reactions and to record a refusal for immunization; and
- Queries allow for the review of immunization history to determine how far the course of treatment has progressed.

Information for the CeRx immunization messages has been sourced from the HL7 Immunization Registry Message Gap Analysis – prepared for Health Canada. This gap analysis compared the Canadian Minimum Core Data Set, as defined at the CIRN Conference in Montreal July 16-17, 2003 against current HL7 v2.3.1 message set.

Message functionality supported through the CeRx messages include:

- Add, update and query (no removal);
    - Ability to update is because some information about their immunization may not be known at the time of recording the administration of the immunization (e.g. adverse reactions); and
    - Update only the adverse reaction flag/indicator, dose number, complete/active, immunization comment (annotation note text).
- Comments (vs note), which cannot be managed through the Notes messages;

Other considerations include:

- Each immunization record can indicate the dose number (e.g. 1 = initial, 2 or 3 = booster) and status (the immunization is complete or still active) for the course of treatment
    - Tetanus would likely never be complete, as it would only be completed by the sender of the information (e.g. doctor)
- Could be issues for the immunization.
- Compounds for vaccines (immunizations) can be specified, under rare circumstances.
- Individual immunizations can be masked (just like a prescription). See question to pCSG.

IV TRANSACTION SYNOPSIS

4.1 Overview

4.1.1 Message Wrappers and Payloads

Transactions consist of one or more messages to support both outbound and inbound communications (i.e. send/receive pairs). Every HL7 v3 message (send or receive) contains two major components:

- **Transport 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, who sent it and other associated business information such as the facility from which it was sent. Thjs wrapper will, for example, also include the Prescriber for a new prescription request;
  - **Payload:** This element contains 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 message.

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.

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

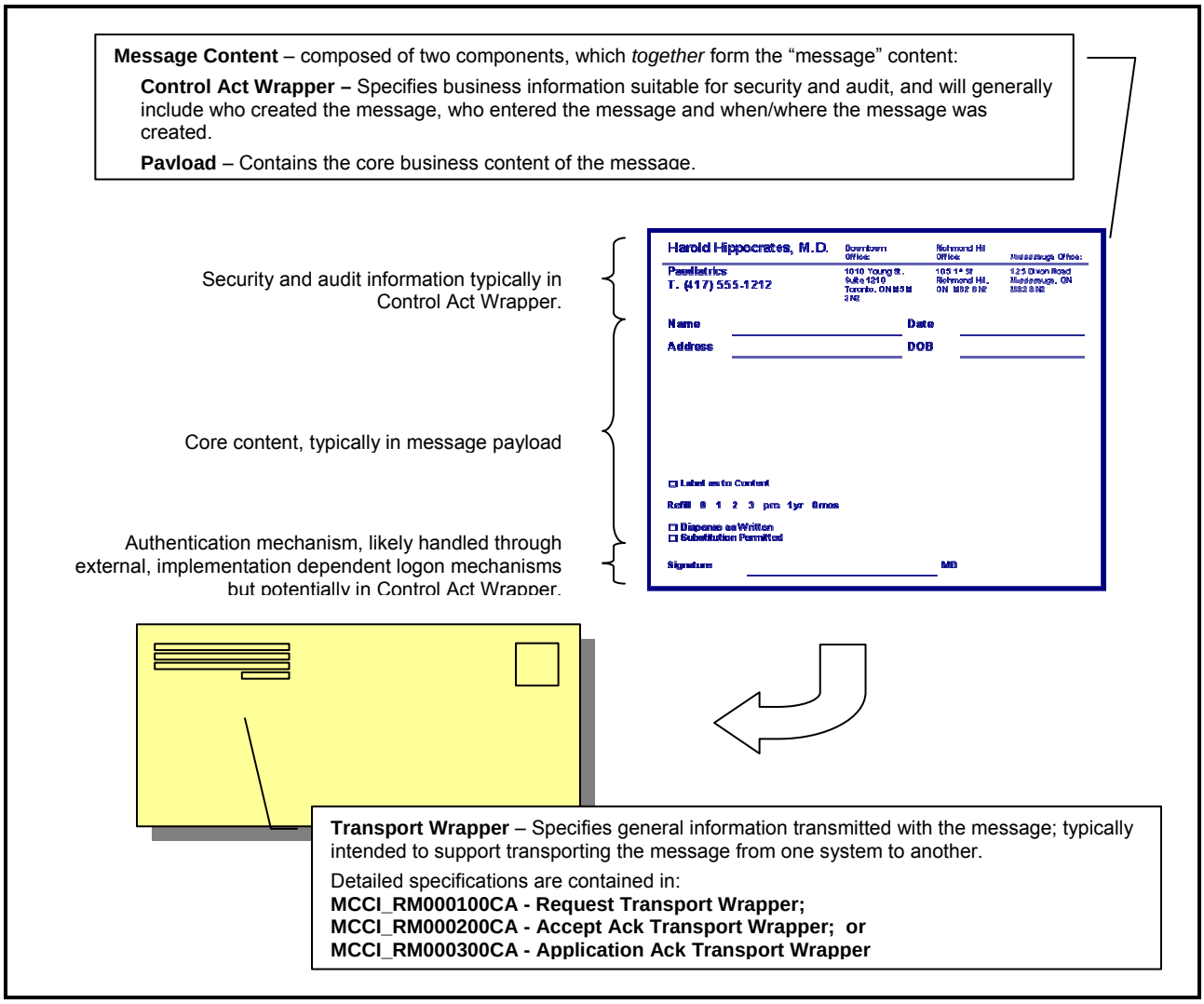

Figure 1 – Message Structure

4.1.2 Message Flow

There are three styles of transactions:

1. A REQUEST transaction consists of the following types of messages:
    - REQUEST: This message (*e.g*. Rx Order) is sent by a sending system (*e.g.* EMR) to a receiving system (*e.g*. EHR/DIS);
    - RESPONSE, one of:
        - RESPONSE (ACCEPT): If the intent of the request message was successful (*e.g*. Rx Order created), this message is returned to the requesting system;
        - 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
        - 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. 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.
2. A NOTIFICATION transaction consists of the following types of messages:
    - NOTIFICATION: This message (*e.g*. Dispense Pickup) is sent by a sending system (*e.g.* Pharmacy) to a receiving system (*e.g*. EHR/DIS) as a simple notification, with no response message returned (other than a message receipt acknowledgement);
    - 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.
3. A QUERY REQUEST transaction consists of the following types of messages:
    - QUERY REQUEST: This message (*e.g*. Prescription Query) is sent by a sending system (*e.g.* EMR) to a receiving system (*e.g*. EHR/DIS);
    - RESPONSE, one of:
        - 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;
        - 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
        - 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.

4.1.3 Conformance

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).

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.

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 too may 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 Payor Id.

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 CeRx standard and will be handled on an exception basis.

4.2 Transactions

This section describes each of the in-scope transactions included in this package at a level which is intended to facilitate a business review of the transaction's purpose and the content of associated messages.

4.2.1 C2.1 - Get Drug Documentation Information

4.2.1.1 Transaction Overview

This transaction can be used to get specific drug documentation (e.g. monograph) from a DIS or other knowledge base application, based primarily on one of three parameters, namely:

- Drug Code

  Allows for the retrieval of documentation about a specific drug (tangible/actual or virtual) within the drug identification hierarchy. For example specifying a code of a drug class such as NSAID will retrieve the necessary documentations (all documentations by all authors for all document types) about NSAID.
- Indication Code

  Allows for the retrieval of protocols, and drug monographs associated with a particular indication.
- Document Id

  Allows for the retrieval of specific version of a specific kind of documentation (e.g. DDI Monograph, Patient Education Monograph, Allergy Monograph, etc) created by a specific author organization (e.g. Health Canada, FDB, WHO, etc). Also, sspecifying an identifier which was returned when a Create Rx Order or Dispense Processing Request message included issues that provided additional documentation. See Key Design Elements below for more information.

4.2.1.2 Key Design Elements

Issues and Drug Documentation

If the new prescription or dispense had issues, the DIS may also include an identifier with those issues. This identifier can be used with this message to get any detailed drug documentation. The rational for this approach is that not all issues require the provider to obtain the detailed drug documentation.

4.2.1.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.1.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

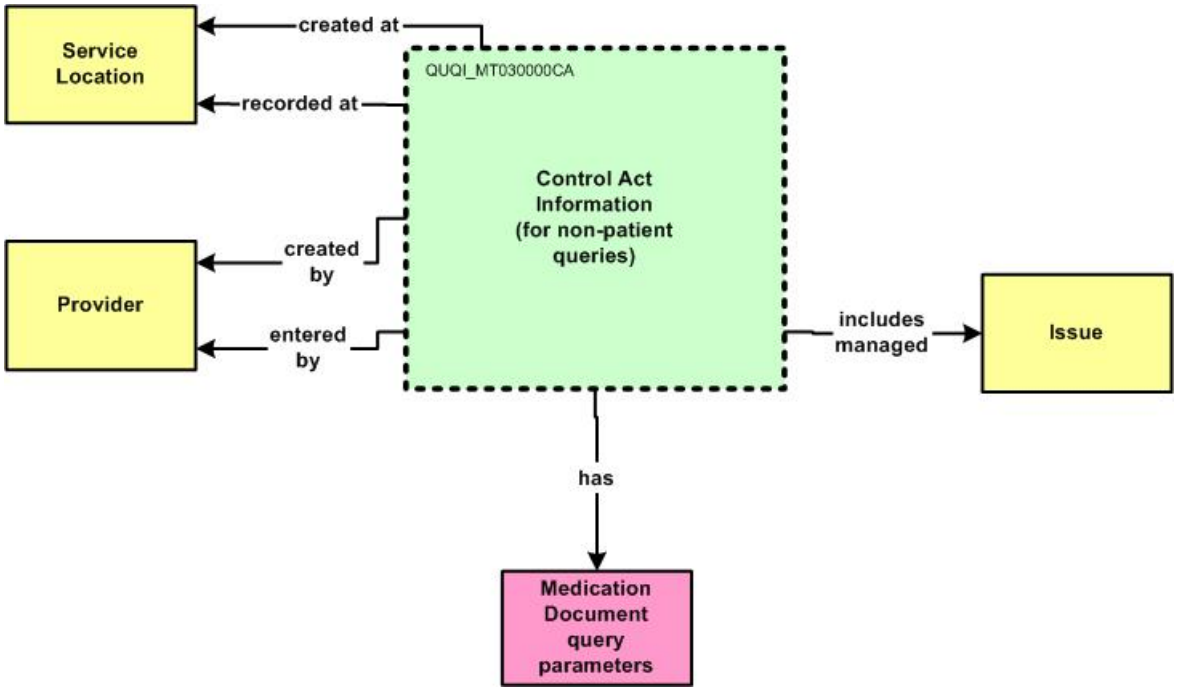

Figure 2 – C2.1 - Get Drug Documentation Information – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Drug Code	An identifier for a type of drug. Types of drugs include: Manufactured drug, generic formulation, generic, therapeutic class, etc. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be specified.
Indication Code	Indicates that the result set is to be filtered to include only those records pertaining to the specified indication code. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be specified.
Medication Document ID	Identifier of the medication document record for which detailed information is to be retrieved. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be specified.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which

Attribute/ Attribute Group	Notes
	interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Medication Document Type	Indicates that the result set is to be filtered to include only those medication documents pertaining to the specified document category. Valid medication document categories include: Drug Monograph, Contraindication Monograph, etc.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Created by Provider License Number (✉)(🗁)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the proposed prescription, along with how the issue has been managed by the query submitter;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.1.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

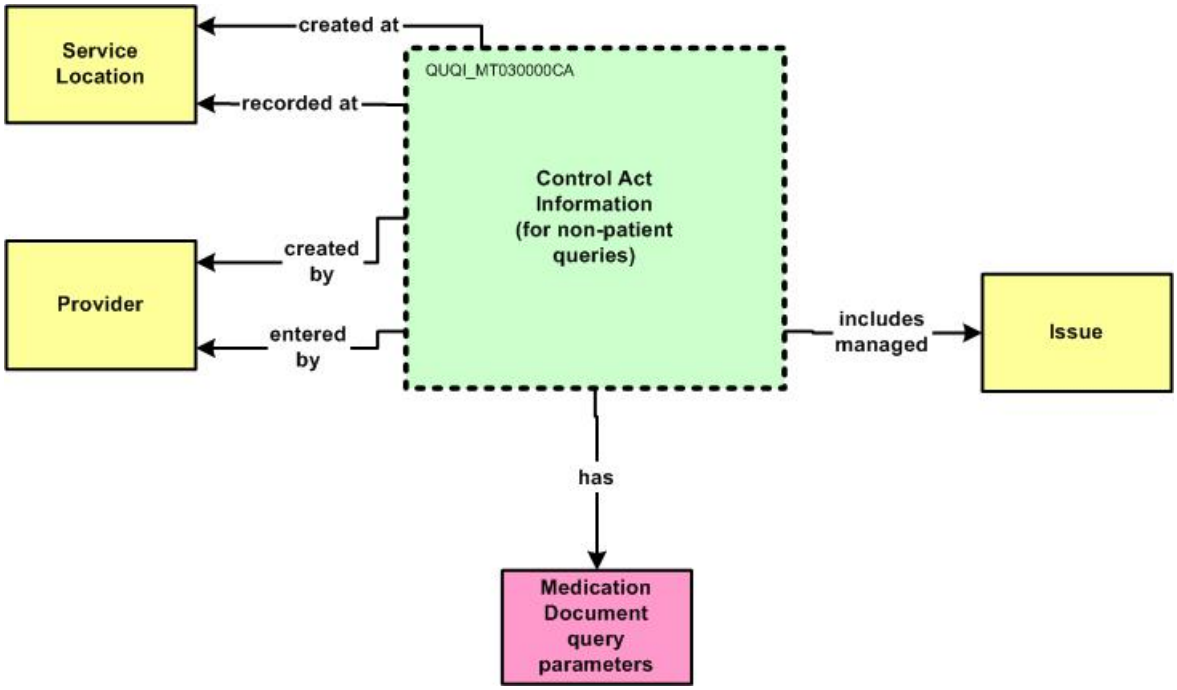

Figure 3 – C2.1 - Get Drug Documentation Information – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Drug Code	An identifier for a type of drug. Types of drugs include: Manufactured drug, generic formulation, generic, therapeutic class, etc. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be specified.
Indication Code	Indicates that the result set is to be filtered to include only those records pertaining to the specified indication code. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be specified.
Medication Document ID	Identifier of the medication document record for which detailed information is to be retrieved. This attribute is considered mandatory because there is a constraint that one of Drug Code, Indication Code or Medication Document Identifier must be

Attribute/ Attribute Group	Notes
	specified.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Medication Document Type	Indicates that the result set is to be filtered to include only those medication documents pertaining to the specified document category. Valid medication document categories include: Drug Monograph, Contraindication Monograph, etc.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Created by Provider License Number (✉)(🗁)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the proposed prescription, along with how the issue has been managed by the query submitter;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.1.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POME_MT120002CA - Medication Document Query**, Retrieves a specific monograph or set of monographs for a particular medication (specified by identifier) or indication. The type of monograph (provider, patient, long, short, etc.) may be specified; • (✉)**QUQI_MT030000CA – Trigger**	• (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;

Message	Core Models	Key Supporting Models
	Event Wrapper forNon-Patient Queries, describes the framework for tracking the responsibility for creating and entering the non-patient related query, and together with the query parameters, make up the definition of the query;	
Response (Accept)	• **POME_MT100002CA - Medication Document Response**, Returns one or more drug, protocol or contraindication monographs as text, HTML, PDF or CDA documents; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating the response to the query;	• **COCT_MT260002CA - Detected Issue**, to describe any detected issues;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.2 C2.2 - Search Drug Products

4.2.2.1 Transaction Overview

Search for a medication based on available information such as name or partial name, strength, route, form, manufacturer, etc. Information returned will be a list of drugs which may include drug dosage regimen and what drugs are therapeutically equivalent or substitutable to the specified drug.

The list of drugs returned will be in a summary format. If additional details about the listed drugs are required, then the C2.8 – Query Drug Detail transaction can be used with a specific drug id.

4.2.2.2 Key Design Elements

Summary/Detail

This query is part of a summary/detail transaction pair. The summary query returns summarized information over a range of records (e.g. drugs). If information is required for a specific record in the summary list (e.g. a specific drug), a detailed query is executed to retrieve this information.

4.2.2.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.2.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

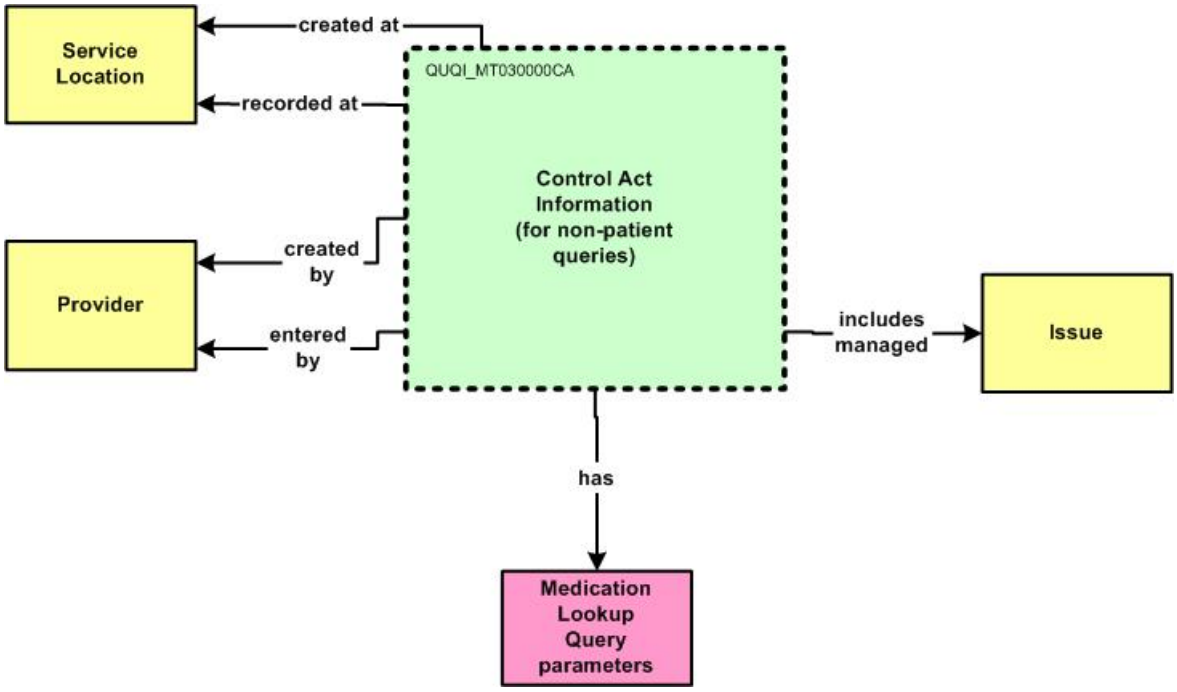

Figure 4 – C2.2 - Search Drug Products – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Drug Code	An identifier for a type of drug. Types of drugs include: Manufactured drug, generic formulation, generic, therapeutic class, etc. Note: This parameter item is specified as 'Required' but a constraint exists that either the Drug Code or Drug Name must be specified.
Drug Name(s)	The name assigned to a drug. If 2 drug names are specified then records will be filtered based on either name. Note: This parameter item is specified as 'Required' but a constraint exists that either the Drug Code or Drug Name must be specified.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';

Attribute/ Attribute Group	Notes
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Drug Form	Indicates the form in which the drug product must is manufactured.
Drug Route Code	A filter based on how the drug should be introduced into the patient's body (e.g. Oral, topical, etc.).

Attribute/ Attribute Group	Notes
Drug Manufacturer Name	The name of a drug manufacturer.
Drug Characteristic	Filters medications by their appearance. Though this parameter item is specified as 'Required', it is deemed mandatory if characteristic of a drug is to be used as search criteria.
Drug Characteristic Type Code	Information pertaining to a specific instance of drug characteristic (colour - red, shape - triangular, markings etc). Though this parameter item is specified as 'Required', it is deemed mandatory if characteristic of a drug is to be used as search criteria.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query provider;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.2.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

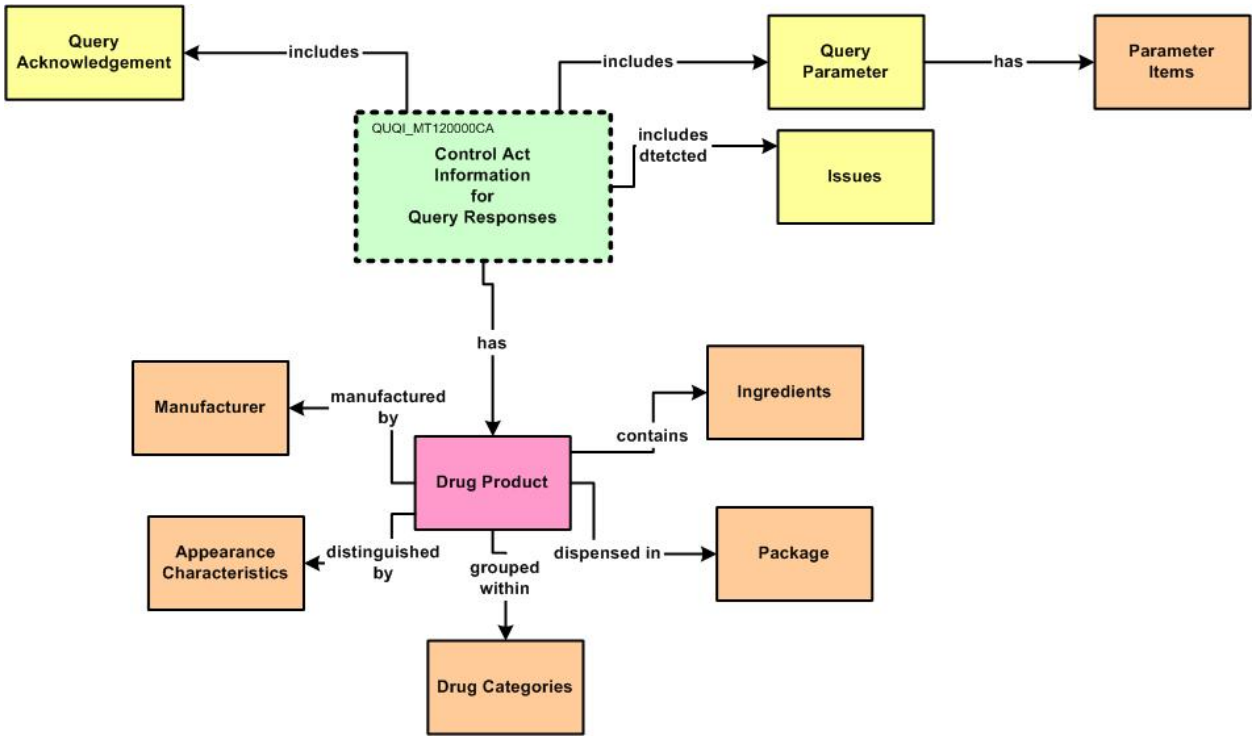

Figure 5 – C2.2 - Search Drug Products – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on other active medication records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective Period (✉)	Indicates when the query was performed;
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on other active medication records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Drug Code	An Identifier for a type of drug. Depending on where the drug is being referenced, the drug may be identified at different levels of abstraction. E.g. Manufactured drug, generic formulation, generic, therapeutic class, etc.
Drug Description	A free form textual description of a drug. This usually is only populated for custom compounds, providing instructions on the composition and creation of the compound.
Drug Cost	The average unit cost of the drug.
Drug Form	Indicates the form in which the drug must be, or has been manufactured or custom prepared.
Drug Name(s)	The name(s) assigned to a drug.
Strength Description	A free form textual specification of the quantity of each active ingredient in a drug.
Drug Package (✉) (🗁)	Information about how the manufactured drug product has been packaged for use.
Container Type	A coded value denoting a specific kind of a container. Used to identify a requirement for a particular type of compliance packaging.
Package Quantity	The quantity of the medication dosage form contained in the package given or to be given to the patient.
Drug Appearance Characteristics (✉) (🗁)	The characteristics of a manufactured product that visually distinguish it from other products.
Characteristic Type	A coded value denoting the type of physical characteristic being documented. Kinds of characteristics include: Color, Shape, Markings, Size.
Characteristic Value	Provides the 'value' part of the name-value pair describing the drug product appearance characteristic.
Drug Ingredients (✉) (🗁)	A list of drugs or raw chemicals that may be present in a manufactured drug or a custom compound.
Does Not Contain Indicator	An indication that a drug does not contain the specified ingredient (active or inactive).
Ingredient Identifier	The unique identifier for the drug or chemical. Allows un-ambiguous identification of the ingredients of a drug for performing various alert checking.

Attribute/ Attribute Group	Notes
Ingredient Name	The name of the contained drug or chemical.
Ingredient Quantity	The quantity of the ingredient in a drug. This is represented/measured in various forms/units including: mg, mg/vol, %, etc.
Drug Categorization (✉) (🗁)	A categorization system that shows where a drug fits into a hierarchy of drug classification. Examples include: therapeutic class, generic drug, generic formulation, and manufactured drug.
Drug category Code	A coded value denoting a specific level in the hierarchical definition of drugs. Describes the relationship between two levels of drug products (e.g. Drug A is the generic for Drug B).
Drug Code	A code that uniquely identifiers a drug within a specific drug identification scheme.
Drug Name	The name assigned to a drug within a specific drug identification scheme.
Recommended Dosage (✉) (🗁)	Indicates the dosage specification(s) which are appropriate for the drug.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.2.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POME_MT120001CA - Medication Lookup Query**, Retrieves a specific monograph or set of monographs for a particular medication (specified by identifier) or indication. The type of monograph (provider, patient, long, short, etc.) may be specified; • (✉)**QUQI_MT030000CA – Trigger Event Wrapper for Non-Patient Queries**, describes the framework for tracking the responsibility for creating and entering the non-patient related query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **POME_MT100004CA - Medication Lookup Response**, Returns one or more drug, protocol or contraindication	• **COCT_MT260002CA - Detected Issue**, to describe any detected issues;

Message	Core Models	Key Supporting Models
	monographs as text, HTML, PDF or CDA documents; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating the response to the query;	
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.3 C2.3 - Search Clinical Formulary

4.2.3.1 Transaction Overview

This transaction allows the search of a clinical formulary (e.g. hospital formulary) to determine if a specific drug is available for use in a particular context (e.g. available for use in a country, available for dispensing in a hospital).

Parameters would include a formulary id and drug code. This is more of a 'Get Formulary Information' than a search because the identifier for the formulary must be transmitted to the DIS as the primary parameter item. Response should be list of (possibly) available drug codes with optional comment.

4.2.3.2 Key Design Elements

None.

4.2.3.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
53	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.3.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

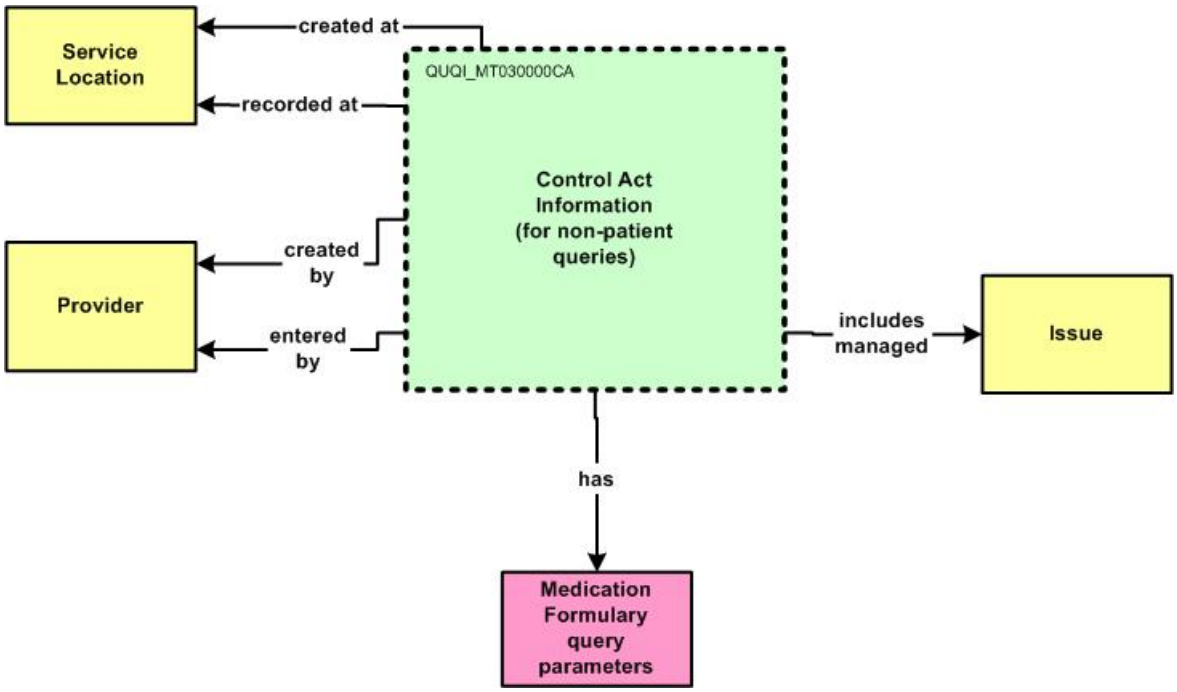

Figure 6 – C2.3 - Search Clinical Formulary – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Formulary ID	An identifier foe a specific formulary
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;

Attribute/ Attribute Group	Notes
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Drug Code	An identifier for a type of drug. Types of drugs include: Manufactured drug, generic formulation, generic, therapeutic class, etc.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query submitter;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.3.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

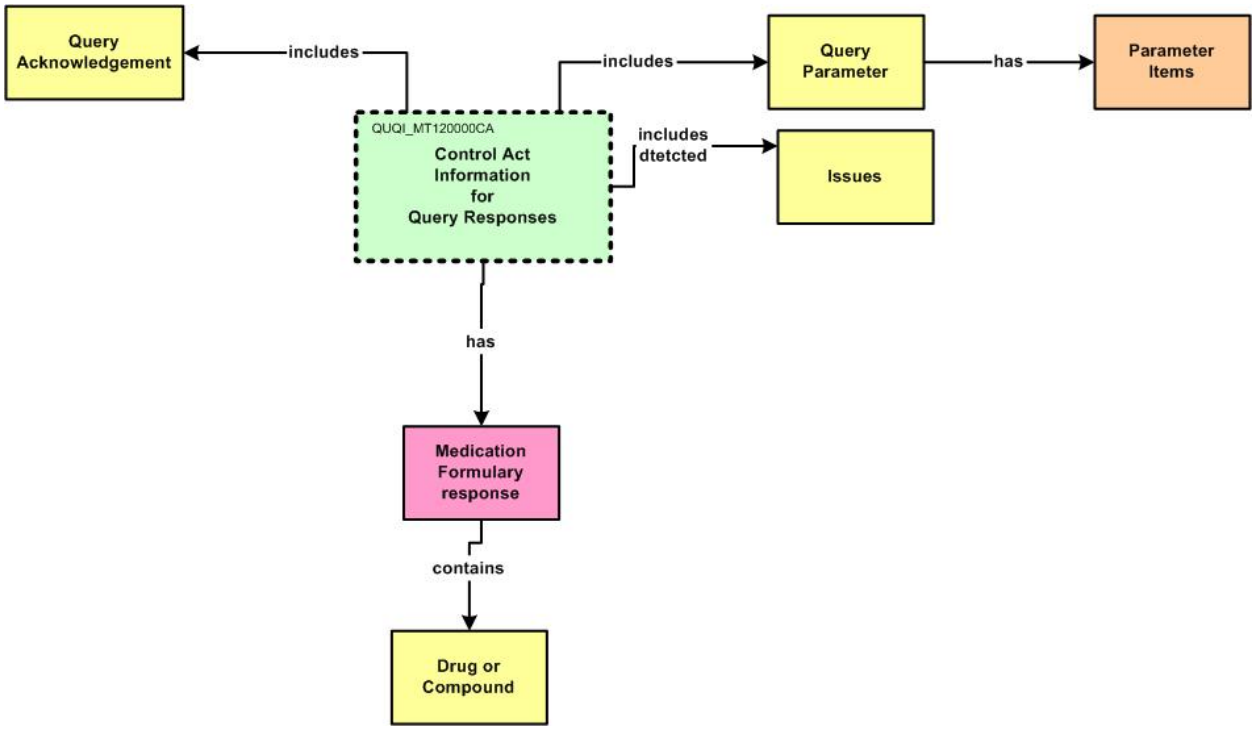

Figure 7 – C2.3 - Search Clinical Formulary – Accept Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on other active medication records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Formulary Id	Unique identifier of a formulary.
Formulary Owner	Indicates the name of the organization whose formulary a drug is part of.
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective	Indicates when the query was performed;

Attribute/ Attribute Group	Notes
Period (✉)	
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on other active medication records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Drug or Compound (🗁)	A catalogue of drugs (manufactured material) from which drugs may be selected for prescribing/dispensing. This includes: TC - Therapeutic Class; GD - Generic Drug; GF - Generic Formulation; MD - Manufactured Drug; and CMP - Compound.
Drug Id	An identifier for a type of drug. Depending on where the drug is being referenced, the drug may be identified at different levels of abstraction. E.g. Manufactured drug, generic formulation, generic, therapeutic class, etc.
Drug Name	The name assigned to a drug.
Issues & Managements (🗁)	Detailed information indicating issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) that were detected with the formulary request, along with how the issues might have been managed by the provider.
Issue Caused By (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue could have been caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;

Attribute/ Attribute Group	Notes
Observations (🗁)	
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.3.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POME_MT120003CA - Medication Formulary Query**, Retrieves a list of medications which are part of a formulary identified by id or by the id of the owning organization; • (✉)**QUQI_MT030000CA – Trigger Event Wrapper for Non-Patient Queries**, describes the framework for tracking the responsibility for creating and entering the non-patient related query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **POME_MT100003CA - Medication Formulary Response;** Provides a list of medications which are available from a particular formulary, optionally including notes describing restrictions on the availability of the medication; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating the response to the query;	• (✉)**COCT_MT260002CA – Detected Issues**, to note any medication issues that have been managed;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.4 C2.8 - Query Drug Detail

4.2.4.1 Transaction Overview

This transaction allows for retrieval of detailed drug information (e.g. monographs, formularies, gender applicability, monitoring programs, first fill & last fill requirements, protocols and other drug documentation) for a specific drug.

This transaction can be used as a detailed drill down from a summary list of drugs, which was returned from a C2.2 – Search Drug Products.

4.2.4.2 Key Design Elements

Summary/Detail

This query is part of a summary/detail transaction pair. The summary query returns summarized information over a range of records (e.g. drugs). If information is required for a specific record in the summary list (e.g. a specific drug), a detailed query is executed to retrieve this information.

4.2.4.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
53	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.4.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

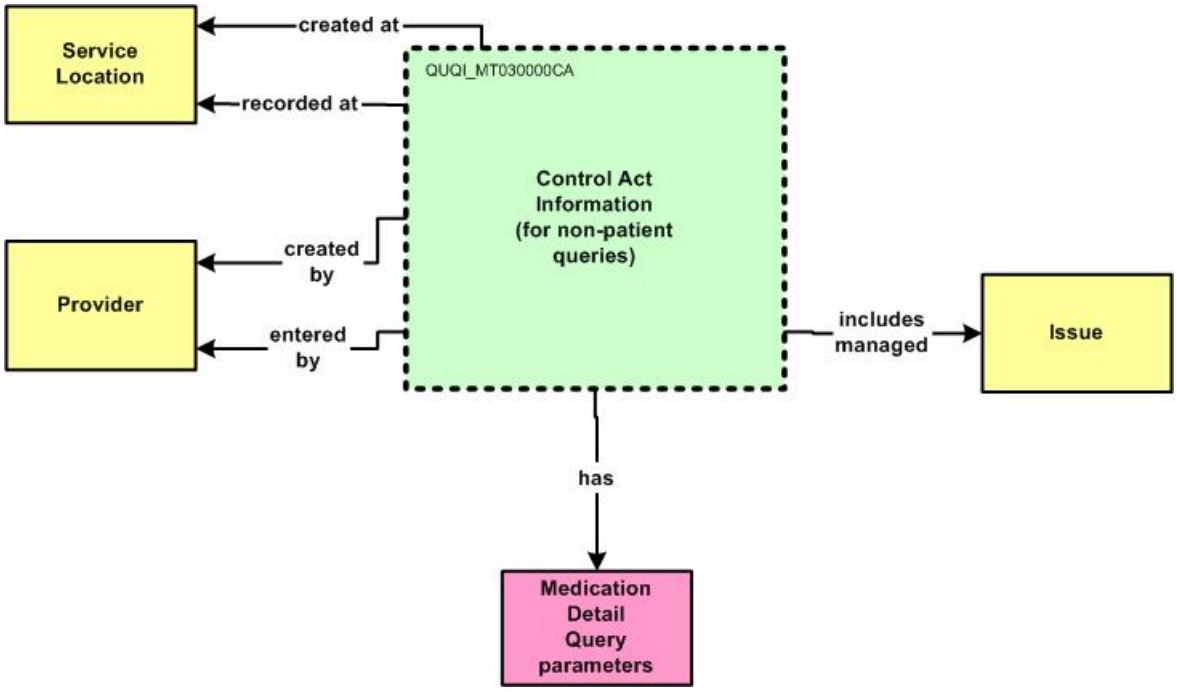

Figure 8 – C2.8 - Query Drug Detail – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Drug Code	An identifier for a specific drug product. Types of drugs identified by drug code include: Manufactured drug, generic formulation, generic, therapeutic class, etc.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at	Unique identifier for a healthcare Service Delivery Location;

Attribute/ Attribute Group	Notes
Service Delivery Location ID (✉)	
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;

Attribute/ Attribute Group	Notes
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query provider;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.4.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

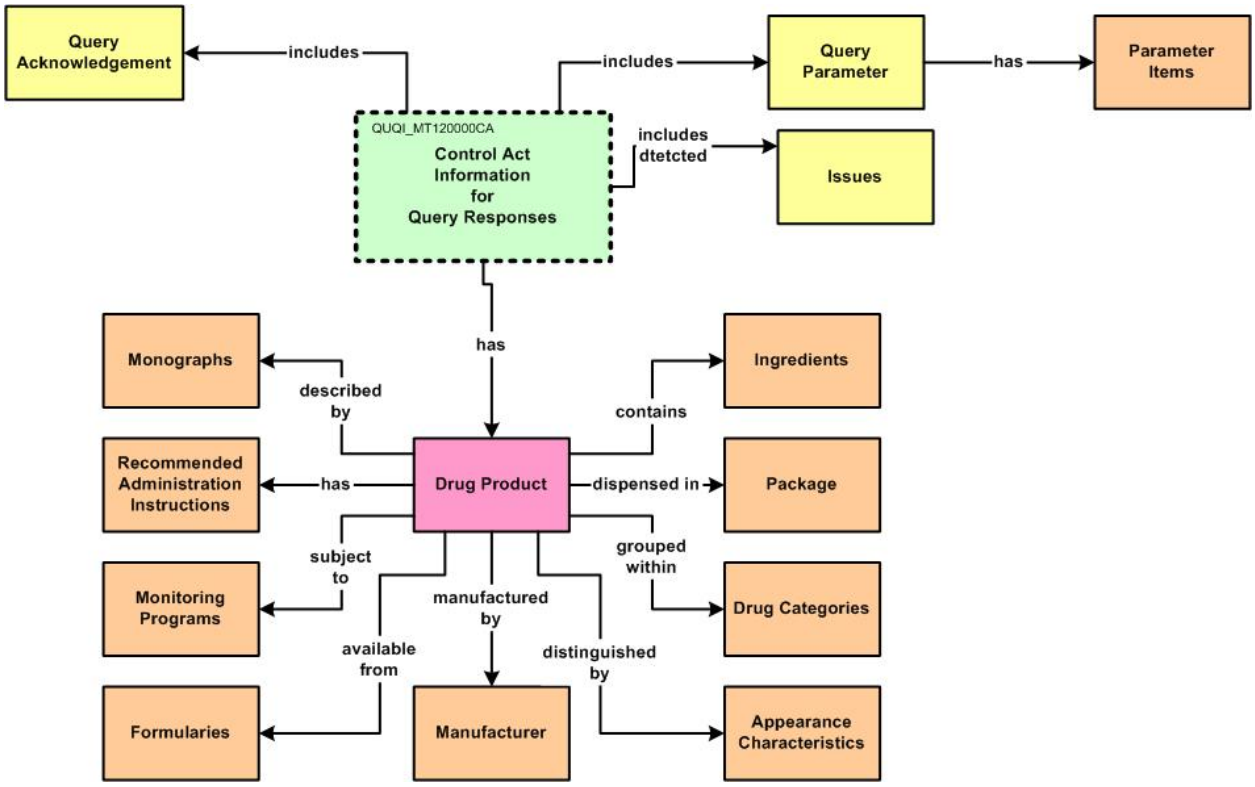

Figure 9 – C2.8 - Query Drug Detail – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on other active medication records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective Period (✉)	Indicates when the query was performed;

Attribute/ Attribute Group	Notes
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on other active medication records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Drug Code	An Identifier for a type of drug. Depending on where the drug is being referenced, the drug may be identified at different levels of abstraction. E.g. Manufactured drug, generic formulation, generic, therapeutic class, etc.
Drug Allergens	Identifies the allergen group(s) associated with a particular drug product.
Drug Description	A free form textual description of a drug. This usually is only populated for custom compounds, providing instructions on the composition and creation of the compound.
Drug Cost	The average unit cost of the drug.
Drug Form	Indicates the form in which the drug must be, or has been manufactured or custom prepared.
Drug Name(s)	The name(s) assigned to a drug.
Strength Description	A free form textual specification of the quantity of each active ingredient in a drug.
Drug Monograph(s) (✉) (🗁)	Provides detailed written information about the characteristics and use of the drug. Different types of monographs may be available, including patient monographs (providing guidance to a patient taking the medication), manufacturer's monographs (providing technical information to prescribers and pharmacists) and clinical practice guidelines providing recommendations from practice groups or regulatory bodies.
Monograph Type	Distinguishes between different kinds of documents and monographs. Kinds of monographs include: Clinical Monograph, Patient Education Monograph, etc.
Monograph Id	Unique identifier assigned to a monograph record.
Monograph Content	Includes either the full-blown content of the monograph (as a PDF, HTML or HL7 CDA document), or provides a reference to where the monograph can be accessed on the network via HTTP or FTP.

Attribute/ Attribute Group	Notes
Monograph Effective/Expiry Date	The date on which the information in the monograph became effective, and/or the date on which the information in the monograph was superseded.
Monograph Language	A coded value denoting the language in which the monograph is written.
Monograph Author Name	The name of the organization responsible for creating the monograph
Drug Package (✉) (🗁)	Information about how the manufactured drug product has been packaged for use.
Container Type	A coded value denoting a specific kind of a container. Used to identify a requirement for a particular type of compliance packaging.
Package Quantity	The quantity of the medication dosage form contained in the package given or to be given to the patient.
Drug Appearance Characteristics (✉) (🗁)	The characteristics of a manufactured product that visually distinguish it from other products.
Characteristic Type	A coded value denoting the type of physical characteristic being documented. Kinds of characteristics include: Color, Shape, Markings, Size.
Characteristic Value	Provides the 'value' part of the name-value pair describing the drug product appearance characteristic.
Drug Ingredients (✉) (🗁)	A list of drugs or raw chemicals that may be present in a manufactured drug or a custom compound.
Does Not Contain Indicator	An indication that a drug does not contain the specified ingredient (active or inactive).
Ingredient Identifier	The unique identifier for the drug or chemical. Allows un-ambiguous identification of the ingredients of a drug for performing various alert checking.
Ingredient Name	The name of the contained drug or chemical.
Ingredient Quantity	The quantity of the ingredient in a drug. This is represented/measured in various forms/units including: mg, mg/vol, %, etc.
Drug Categorization (✉) (🗁)	A categorization system that shows where a drug fits into a hierarchy of drug classification. Examples include: therapeutic class, generic drug, generic formulation, and manufactured drug.
Drug category Code	A coded value denoting a specific level in the hierarchical definition of drugs. Describes the relationship between two levels of drug products (e.g. Drug A is the generic for Drug B).
Drug Code	A code that uniquely identifiers a drug within a specific drug identification scheme.
Drug Name	The name assigned to a drug within a specific drug identification scheme.
Drug Recommended Administration Instructions (✉) (🗁)	This comprises the route of administration, maximum/minimum daily dose, and overall use instructions for the drug.

Attribute/ Attribute Group	Notes
Knowledgebase Source Organization Name	Indicates the name of the organization or agency who created the dosage recommendation.
Gender specific Code	Indicates the gender of patient to whom the dosage specification applies.
Recommended For (✉) (🗁)	Indicates a characteristic that should be possessed by the patient for the dose to be appropriate.
Patient Characteristic Type	Indicates the type of patient characteristic being expressed. E.g. Height, weight, age, lab values, etc. If negation indicator is true, then this indicates a characteristic the patient should *not* have.
Patient Characteristic Value	Indicates the specific value or range of values of the characteristic a patient should have for the dosage to be appropriate.
Approved Indications (✉) (🗁)	A list of indications for which a drug would be prescribed/dispensed to a patient. Indicates the dosage specification(s) which are appropriate for the medication.
Recommended Dosage (✉) (🗁)	Indicates the dosage specification(s) which are appropriate for the drug.
Supply/Dispense Requirements (✉) (🗁)	Information governing the validity of the drug when prescribed/dispensed. This includes: 'First Fill Period' – as the latest date on which the prescription can be initially dispensed and 'Refill Period' – as the latest date on which dispensing can be made against the prescription after the initial fill. These are generally jurisdictional business rules imposed on drug product as part of monitoring programs.
Manufacturer Information (✉) (🗁)	Associates a drug product with the organization responsible for producing it. Information on manufacturers include an identifier and a name.
Monitoring Program(s) Information (✉) (🗁)	A system of additional business rules, documentation or reporting associated with a particular drug or group of drugs. These are typically instituted to detect potential abuse, or to monitor prescribing and/or dispensing patterns of a sensitive class of medications. Examples include triplicate programs, antibiotic monitoring programs, etc.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.4.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POME_MT120004CA - Medication Detail Query**, retrieves detailed information about a specific drug. • (✉)**QUQI_MT020000CA – Trigger Event Wrapper for Non-Patient Queries**, describes the framework for tracking the responsibility for creating and entering the non-patient related query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **POME_MT100001CA - Medication Detail Response**, provides detailed information about a specific drug. The specific drug can be at any level of the drug hierarchy, from therapeutic class down to manufactured drug product. • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating the response to the query;	• (✉)**COCT_MT260002CA – Detected Issues**, to note any medication issues that have been managed;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.5 C13.1 - Record Professional Service

4.2.5.1 Transaction Overview

This transaction allows a provider to record a service performed (e.g. education, training, smoking cessation) for the patient in the EHR / DIS. Of note is that any healthcare provider (e.g. pharmacist, physician, nurse, dietician, etc.) can record a service.

4.2.5.2 Key Design Elements

Alignment with NeCST

This model has been aligned with the NeCST Billable Clinical Service CMET, which is used to support a clinical service in a claim. The vocabulary for what was performed has been defined by NeCST as CCI (Canadian Classification of Interventions), whereas the vocabulary for CeRx is quite restricted; a code set has not been confirmed for CeRx.

4.2.5.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
27	Erroneous Data	Some of the data added to the EHR will be added erroneously (e.g. recording wrong drug, recording information on the wrong patient). Other information will become less relevant as the health status of the patient evolves (e.g. Intolerance undergoes remission, general patient note posted talking about specific encounter, now ended, etc.). At the same time, for legal and record audit requirements it is generally not possible to actually remove data from the record. *[continued in the tracking log]*
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.
54	Vocabulary	CeRx will define a generic message for recording professional service which should be appropriate to recording most types of services, but will only identify coded vocabularies for services related to medications and pharmacy services.

4.2.5.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

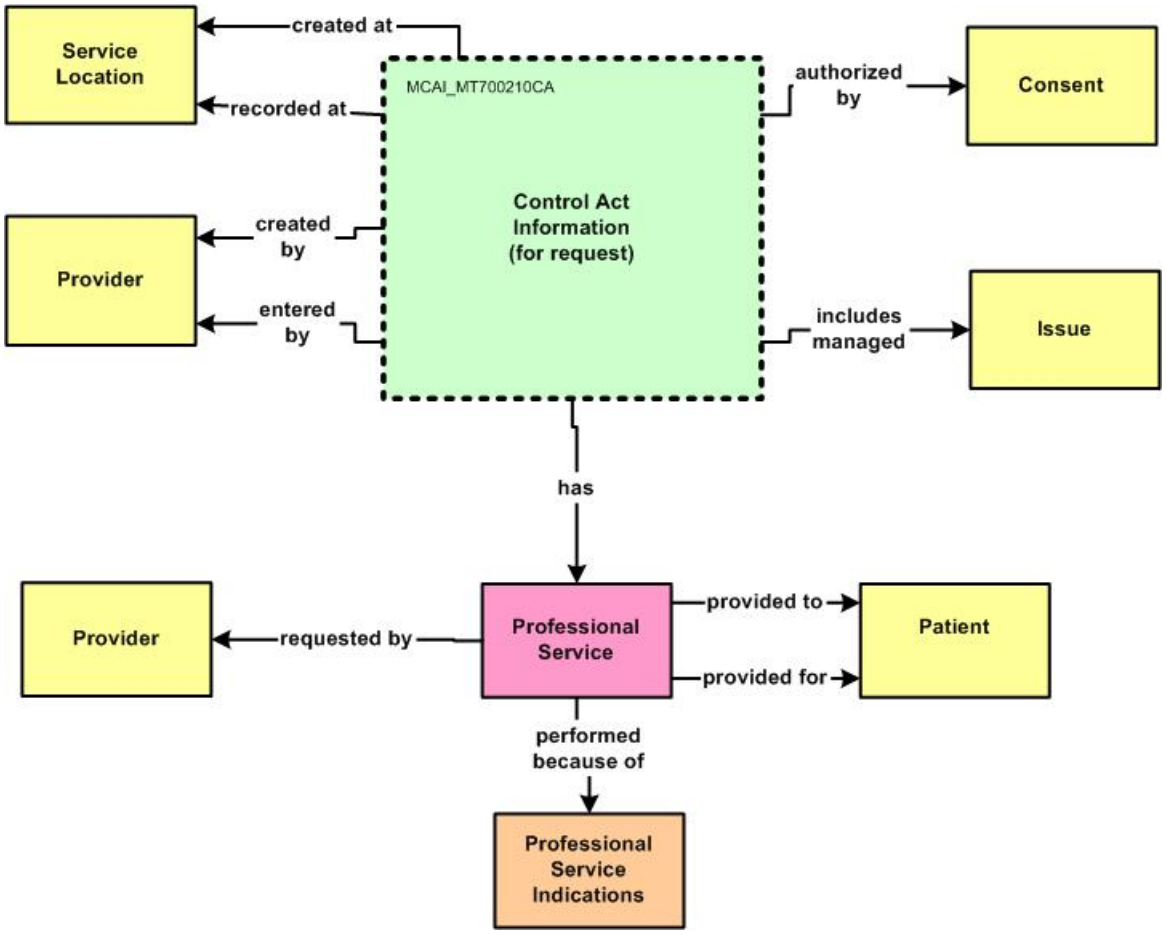

Figure 10 – C13.1 - Record Professional Service – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Service Code	Indicates the specific service that has been performed. This is obtained from the professional service catalogue pertaining to the discipline of the health service provider.
Patient (🗁)	Identifies the patient who received the professional service.
Patient Identifier	Unique identifier for the patient receiving the service;
Patient Name	Name by which the patient is known;

Attribute/ Attribute Group	Notes
Patient Gender	Communicates the gender of the patient to help confirm the identity of the patient;
Patient Birth Date	Communicates the birth date of the patient to help confirm the identity of the patient.
Event Type (✉)	Indicates what sort of action occurred. This will be echoed back when retrieving history. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber);
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Consultation Time and Length	The date and time on which the professional service was performed, as well as the duration of the service
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Professional Service Masking Indicator	Communicates the intent of the patient to restrict access to their professional service record
Professional Service Notes (🗁)	Additional comments entered by the provider or the data-enterer about the professional service;
Requested by Provider (✉) (🗁)	Indicates the provider who requested the service for the patient.
Requested Provider Id (✉)	Identifier of the provider who requested the service
Requested by Provider Name (✉)	The name by which the provider is known;
Requested by Provider License Number(✉)	The professional license number of the provider who requested the service;
Event Reason (✉)	Provides a reason for the requested change or addition;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the action;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the action;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event was electronically recorded (e.g. the pharmacy where a prescription was entered);
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the action electronically (e.g. the pharmacy technician who transcribed a faxed prescription into the system.);
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the action into the DIS (e.g. the pharmacist who supervised the pharmacy technician who transcribed a faxed prescription into the system.);
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider who recorded the information to place it in the DIS. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;

Attribute/ Attribute Group	Notes
Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access authority, identifier recognition, drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed request, along with how the issue has been managed by the submitter;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.5.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

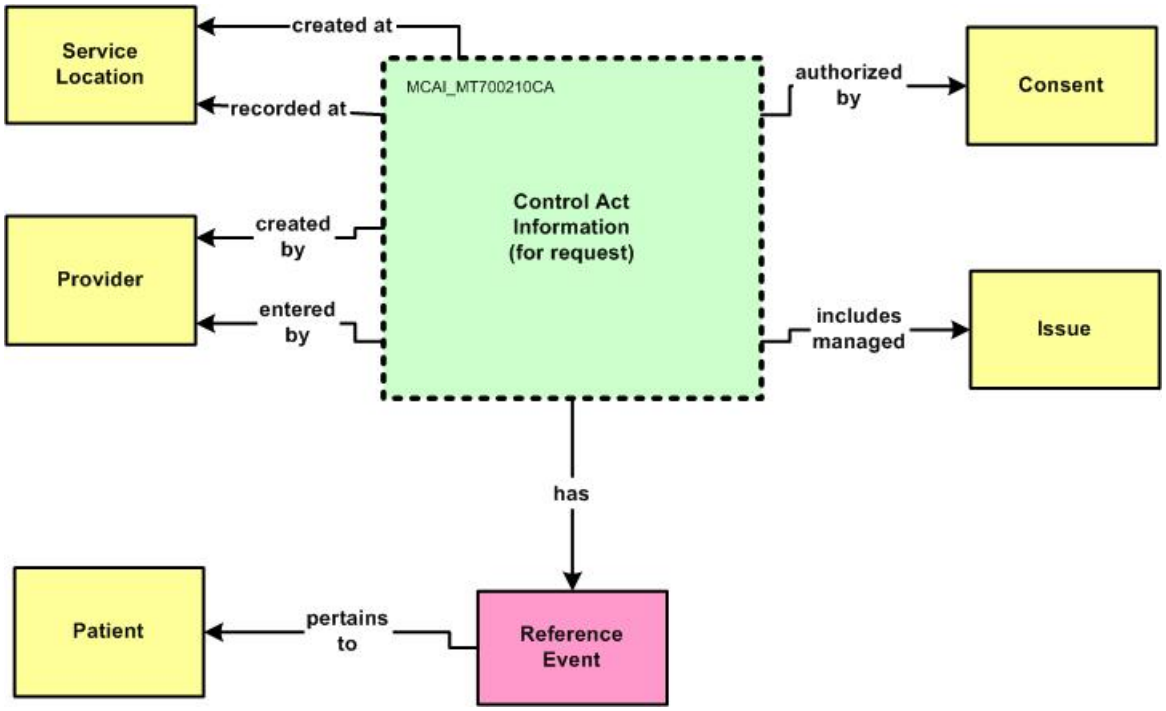

Figure 11 – C13.1 - Record Professional Service – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Record Id	Specifies the unique identifier of the record which has been successfully created
Patient (🗁)	Used to ensure linking of the identifier to the correct patient record;
Patient Identifier	Uniquely identifies the patient;
Patient Name	Indicates the name of the patient for cross-checking purposes;
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Event Reason	Provides a reason for the requested change or addition;

Attribute/ Attribute Group	Notes
(✉)	
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created at Service Delivery Location Type (✉)	A code identifying the kind of Service Delivery Location. Examples are: pharmacy, clinic, hospital, long term care, *etc;*
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber); **Note:** A constraint exists that either Created by Provider ID or Created by Provider Name must be specified;
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider ID (✉)	A unique identifier for a provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider Name is null;
Created by Provider Name (✉)	The name by which the provider is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider ID (✉)	A unique identifier for the provider who was supervising the actions of the Created by Provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider Name (✉)	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which a Service Delivery Location may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location;

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed prescription, along with how the issue has been managed by the prescriber;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.5.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POPS_MT000001CA - Professional Service**, Seeks to add a record of a professional service (training, counseling, medication reviews, etc.) which has been delivered to a patient; • (✉)**MCAI_MT700210CA - Trigger Event Wrapper for Acts from Clinical**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• **COCT_MT050002CA – Patient**, to identify the patient; • (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**,

Message	Core Models	Key Supporting Models
		to describe a provider;
Response (Accept)	• **COMT_MT000001CA - Event Id**, Indicates that a record of a professional service (training, counseling, medication reviews, etc.) which has been delivered to a patient has been successfully added • (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;;	• (✉)**COCT_MT260002CA – Detected Issues**, to note any medication issues that have been managed;
Response (Refuse)	• (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• (✉)**COCT_MT260001CA – Detected Issues**, to note any medication issues that have been managed;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.6 C13.2 - Get Patient Professional Services

4.2.6.1 Transaction Overview

The intention of this transaction is to retrieve a list of the services performed for a specific patient. Parameters include patient id (plus name, date of birth, gender for verification), date range, and service code.

4.2.6.2 Key Design Elements

Alignment with NeCST

This model has been aligned with the NeCST Billable Clinical Service CMET, which is used to support a clinical service in a claim. The vocabulary for what was performed has been defined by NeCST as CCI (Canadian Classification of Interventions), whereas the vocabulary for CeRx is quite restricted; a code set has not been confirmed for CeRx.

4.2.6.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
27	Erroneous Data	Some of the data added to the EHR will be added erroneously (e.g. recording wrong drug, recording information on the wrong patient). Other information will become less relevant as the health status of the patient evolves (e.g. Intolerance undergoes remission, general patient note posted talking about specific encounter, now ended, etc.). At the same time, for legal and record audit requirements it is generally not possible to actually remove data from the record. *[continued in the tracking log]*
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.
54	Vocabulary	CeRx will define a generic message for recording professional service which should be appropriate to recording most types of services, but will only identify coded vocabularies for services related to medications and pharmacy services.

4.2.6.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

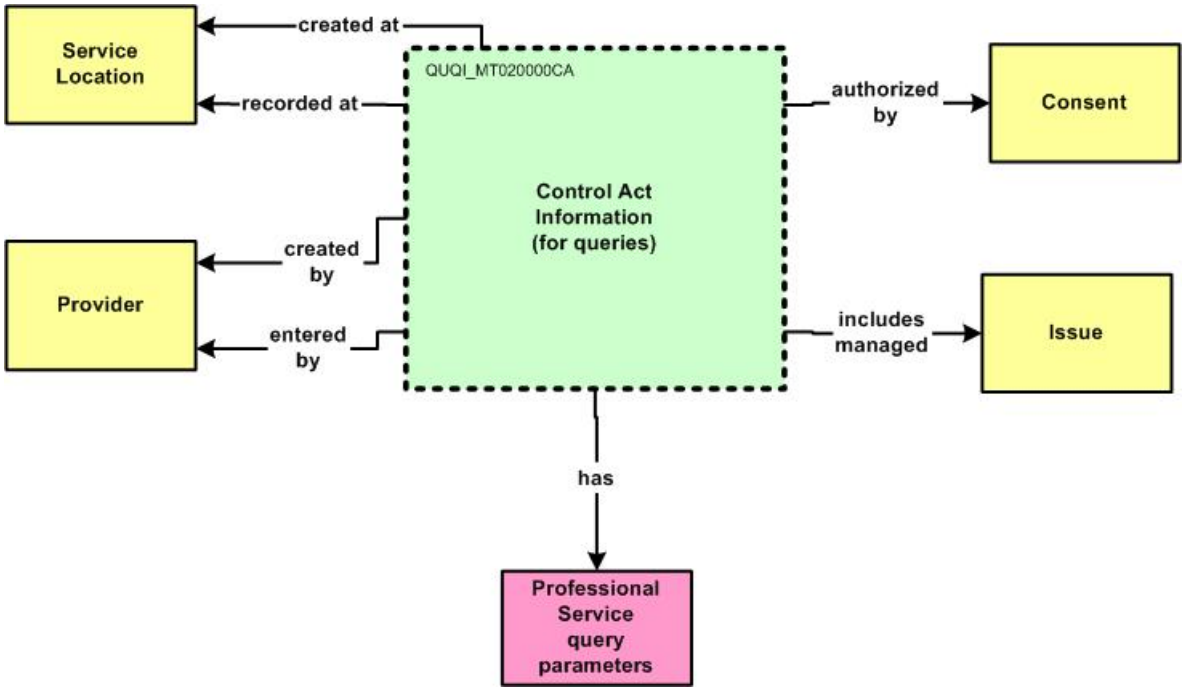

Figure 12 – C13.2 - Get Patient Professional Services – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Patient Id	Identifier of the patient whose professional service records are to be returned.
Patient Name	Name of the patient whose professional service records are be returned (for verification purposes).
Patient Gender	Indicates the gender (sex) of the patient. Used to confirm identity of the patient for the query
Patient Birth Date	Indicates the date the patient was born. Used to confirm identity of the patient for the query.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (ı)	Indicated the Service Delivery Location where the query occurred;

Attribute/ Attribute Group	Notes
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (ı)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)
The following table summarizes Minimum Populated attributes and/or attribute groups which are expected to be specified in every message.
Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Professional Service Code(s)	Indicates that the result set is to be filtered to include only those records pertaining to the specified professional service code. The service code may refer to a specific service or to a higher level classification professional service within the service hierarchy
Service Period	Indicates that the returned records should be filtered to only include those professional services rendered to the patient within the indicated time-period.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;

Attribute/ Attribute Group	Notes
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Created by Provider License Number (✉)(🗁)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider to access the information. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query provider;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.6.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

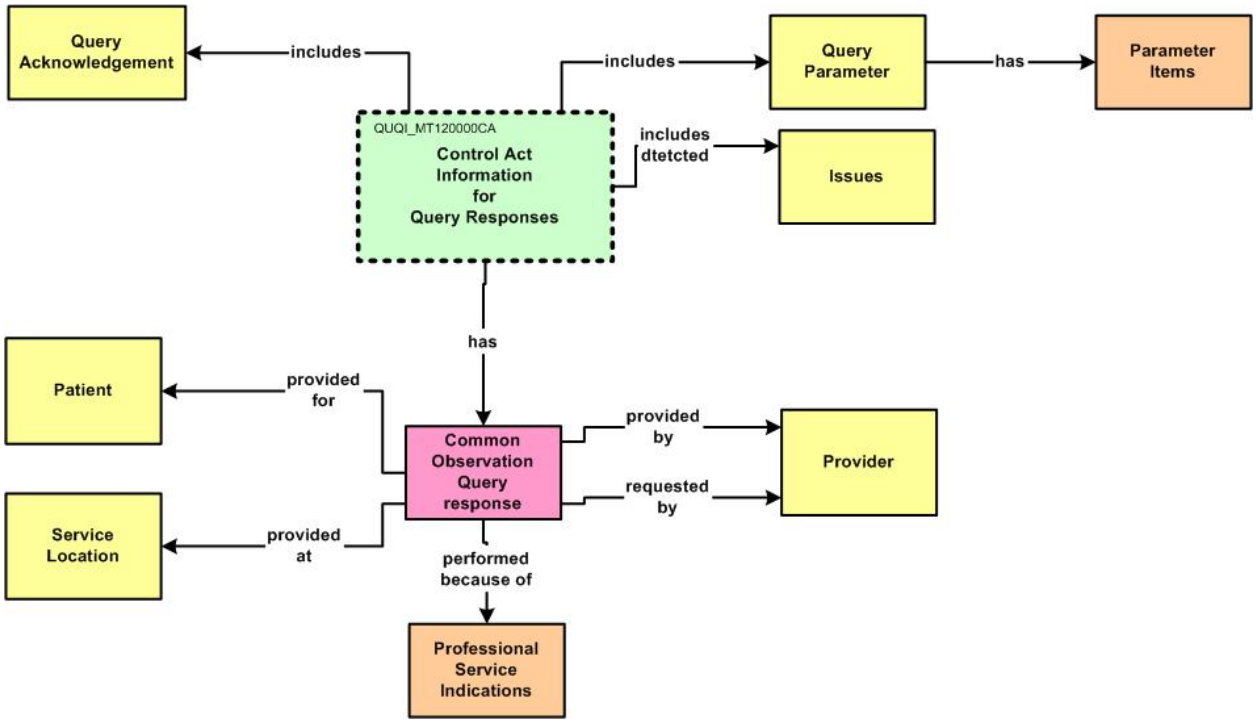

Figure 13 – C13.2 - Get Patient Professional Services – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on professional records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Service Record Id	A unique identifier for a professional service rendered to a patient.. Allows for the unique referencing of a specific professional record
Service Code	Indicates the specific service that has been performed. This is obtained from the professional service catalogue pertaining to the discipline of the health service provider.
Patient (🗁)	Identifies the person who the professional service.
Patient Identifier	Unique identifier for the patient receiving the service;
Patient Name	Name by which the patient is known;
Patient Gender	Communicates the gender of the patient to help confirm the identity of the patient;

Attribute/ Attribute Group	Notes
Patient Birth Date	Communicates the birth date of the patient to help confirm identity of the patient.
Creator (🗁)	Identification of the provider who recorded professional service.
Created by Provider ID	A unique identifier for the recorder of the professional service. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider Name is null.
Created by Provider Name	The name by which the recorder of the professional service is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider ID is null;
Responsible Provider(🗁)	Identification of the provider who supervised the recording of the professional service.
Responsible Provider ID	A unique identifier for the provider who was supervising the actions of the Created by Provider. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider Name is null;
Responsible Provider Name	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider ID is null;
Service Location(🗁)	Contact information for the service location where the professional service was recorded.
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective Period (✉)	Indicates when the query was performed;
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on professional records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Consultation Time and Length	The date and time on which the professional service was performed, as well as the duration of the service.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Professional Service Masking Indicator	Communicates the intent of the patient to restrict access to their professional service record
Professional Service Notes (🗁)	Additional comments entered by the provider or the data-enterer about the professional service;
Requested by Provider (✉) (🗁)	Indicates the provider who requested the service for the patient.
Requested Provider Id (✉)	Identifier of the provider who requested the service
Requested by Provider Name (✉)	The name by which the provider is known;
Requested by Provider License Number(✉)	The professional license number of the provider who requested the service;
Issues & Managements (🗁)	Detailed information indicating issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) that were detected with the recording of the common observation, along with how the issues might have been managed by the provider.
Issue Caused By (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue could have been caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;

Attribute/ Attribute Group	Notes
(🗁)	
Dispense (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.6.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POPS_MT120001CA - Professional Service Query**, A query for all professional services (training, counseling, medication reviews, etc.) provided to a patient, potentially filtered by the provider who delivered the service, the type of service provided, the time-range in which the service was provided, and/or the time-range in which information about the service was last updated (via adding an annotation); • (✉)**QUQI_MT020000CA - Trigger Event Wrapper for Queries**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• **COCT_MT050002CA – Patient**, to identify the patient; • (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **POPS_MT100001CA - Professional Service Response,** Returns detailed information about some or all professional services (training, counseling, medication reviews, etc.)	• (✉)**COCT_MT260002CA - Detected Issue**, to describe any detected issues;

Message	Core Models	Key Supporting Models
	delivered to a patient; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.7 C14.1 - Add Patient Immunization

4.2.7.1 Transaction Overview

The intention of this transaction is to record the immunization of a patient in their health record on the EHR / DIS. It may also be used to record the fact that the patient refused the immunization.

4.2.7.2 Key Design Elements

None.

4.2.7.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)

4.2.7.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

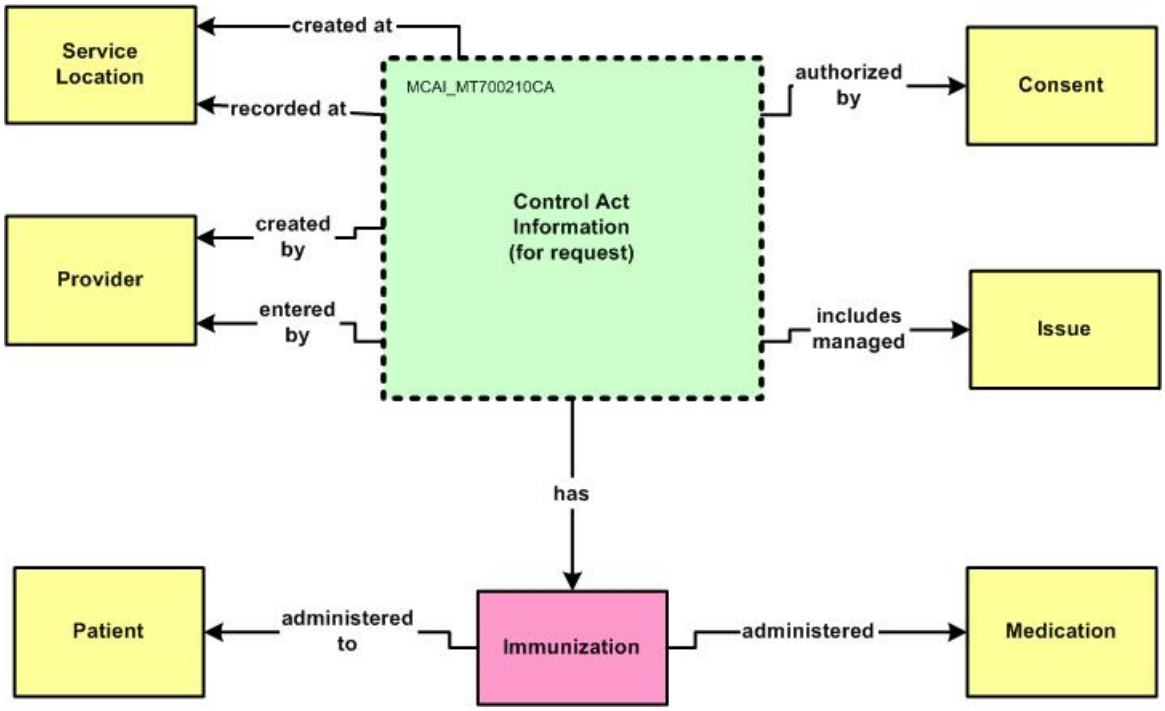

Figure 14 – C14.1 - Add Patient Immunization – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Immunization Record Id	This is an identifier assigned to a unique instance of an immunization record. Allows for the unique referencing of a specific immunization record.
Immunization Date	The date vaccination(s) was administered to the patient.
Immunization Masking Indicator	Communicates the intent that the immunization should be masked if it is created; Methods for accessing masked immunization records will be governed by each jurisdiction (e.g. court orders, shared secret/consent, etc.);
Not Immunized?	An explicit indication that a person has not been immunized with the specified vaccine at the time indicated
Administered Drug Product (🗁)	Identifies the drug being administered; **Note:** A constraint exists that either Drug Identifier or Drug Name must be specified;
Drug Identifier	Identifies the drug being prescribed; **Note:** This attribute has been noted in the message specification as Populated; however, this attribute should be considered mandatory, except where there are no assigned identifiers for the prescribed product (e.g. extemporaneous compounds);
Drug Name	Identifies the name of the drug being administered;
Patient (🗁)	Identifies the patient being immunized;
Patient Identifier	Unique identifier for the patient being immunization;
Patient Name	Name by which the patient is known;
Patient Gender	Communicates the gender of the patient to help confirm the identity of the patient;
Patient Birth Date	Communicates the birth date of the patient to help confirm the identity of the patient.
Event Type (✉)	Indicates what sort of action occurred. This will be echoed back when retrieving history. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber);
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Administration Site	A coded value denoting the body area where the immunization was administered.
Route of Administration	This is the means by which the drug was administered to the patient.
Quantity Administered	The amount of the vaccine administered to/by the patient.
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Adverse Reaction Indicator	Indicates whether there was an adverse event associated with the immunization;
Immunization Comment Text	Comments entered by the recorder or data-enterer about the immunization;
Immunization Refusal Reason	A coded value denoting a patient's reason for refusing to be immunized. Typical reasons include: Parental decision, Religious exemption, Patient decision, etc;
Immunization Course (🗁)	Information pertaining to the current immunization course and plans for future course.
Vaccine Dose Number	Indicates whether this is the initial immunization (Dose Number = 1) or a specific booster (Dose Number = 2 means first booster, 3 means 2nd booster, etc.).
Next Planned Dose date	Indicates the date on which the next dose is to be administered.
Renewal Date	Indicates the date on which the next course of immunization is to be undertaken.
Informant	A coded value denoting a patient, patient's agent, or a provider as the source of the recorded immunization information.
Event Reason (✉)	Provides a reason for the requested change or addition;

Attribute/ Attribute Group	Notes
Created by Provider License Number (✉)	The professional license number of the provider responsible for the action;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the action;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event was electronically recorded (e.g. the pharmacy where a prescription was entered);
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the action electronically (e.g. the pharmacy technician who transcribed a faxed prescription into the system.);
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the action into the DIS (e.g. the pharmacist who supervised the pharmacy technician who transcribed a faxed prescription into the system.);
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider who recorded the information to place it in the DIS. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access authority, identifier recognition, drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed request, along with how the issue has been managed by the submitter;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.7.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

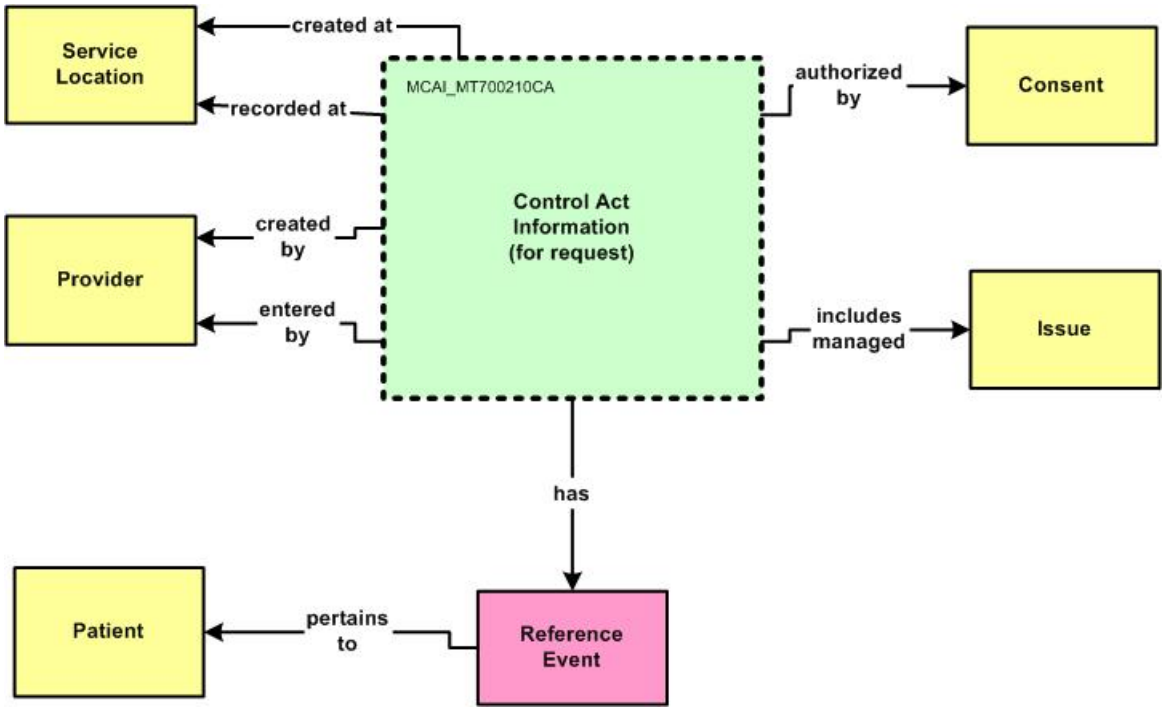

Figure 15 – C14.1 - Add Patient Immunization – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Record Id	Specifies the unique identifier of the record which has been successfully created
Patient (🗁)	Used to ensure linking of the identifier to the correct patient record;
Patient Identifier	Uniquely identifies the patient;
Patient Name	Indicates the name of the patient for cross-checking purposes;
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Event Reason	Provides a reason for the requested change or addition;

Attribute/ Attribute Group	Notes
(✉)	
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created at Service Delivery Location Type (✉)	A code identifying the kind of Service Delivery Location. Examples are: pharmacy, clinic, hospital, long term care, *etc;*
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber); **Note:** A constraint exists that either Created by Provider ID or Created by Provider Name must be specified;
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider ID (✉)	A unique identifier for a provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider Name is null;
Created by Provider Name (✉)	The name by which the provider is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider ID (✉)	A unique identifier for the provider who was supervising the actions of the Created by Provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider Name (✉)	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which a Service Delivery Location may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location;

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed prescription, along with how the issue has been managed by the prescriber;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.7.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **PORX_MT000017CA - Immunization**, requests that a particular immunization be added to a patient's record; • (✉)**MCAI_MT700210CA - Trigger Event Wrapper for Acts from Clinical**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• **COCT_MT050002CA – Patient**, to identify the patient; • **POME_MT000002CA – Administrable Medication**, to describe the drug prescribed; • (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided;

Message	Core Models	Key Supporting Models
		• (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **MFMT_MT000001CA – Event Id**, to identify the Immunization Record Number; • (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• (✉)**COCT_MT260002CA - Detected Issue**, to describe any detected issues;
Response (Refuse)	(✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	(✉)**COCT_MT260002CA - Detected Issue**, to describe any detected issues;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.8 C14.2 - Patient Immunization Query

4.2.8.1 Transaction Overview

This transaction is used to retrieve the list of immunizations a patient has received. Information retrieved may include all immunizations that the patient has ever had or may be limited to specific vaccine and/or dose number.

4.2.8.2 Key Design Elements

None.

4.2.8.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)

4.2.8.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

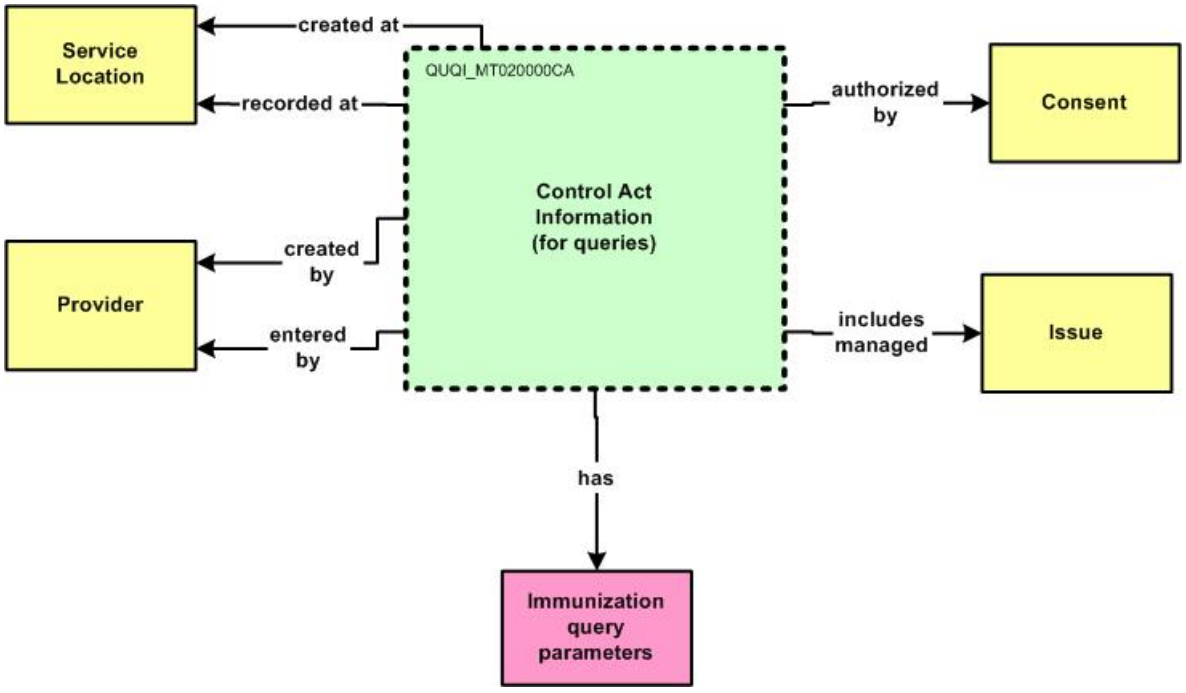

Figure 16 – C14.2 - Patient Immunization Query – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Patient Id	Identifier of the patient whose immunization records are to be returned.
Patient Name	Name of the patient whose immunization records are be returned (for verification purposes).
Patient Gender	Indicates the gender (sex) of the patient. Used to confirm the identity of the patient for the query.
Patient Birth Date	Indicates the date on which the patient was born. Used to confirm the identity of the patient for the query.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;

Attribute/ Attribute Group	Notes
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Vaccine Code	A coded value indicating a specific vaccine to be used in searching for patient immunization record. The result set will be filtered to only include immunization records involving the specific vaccine code.
Vaccine Dose Number	A number representing the vaccine booster order that must be used in searching for patient immunization record. The result set will be filtered to only include immunization records pertaining to specific booster number.
Immunization Period	Indicates that the returned records should be filtered to only include those immunizations that occurred within the indicated time-period. This will commonly be used to retrieve “all immunizations since xxx”.
Next Planned Dose Period	Indicates that the returned records should be filtered to only include those immunization records for which the next planned dose date falls within the indicated time-period.
Renewal Period	Indicates that the returned records should be filtered to only include those immunization records for which the renewal date falls within the indicated time-period.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider to access the information. Includes Consent form number, end time, override reason, keyword,

Attribute/ Attribute Group	Notes
	verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query provider;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.8.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

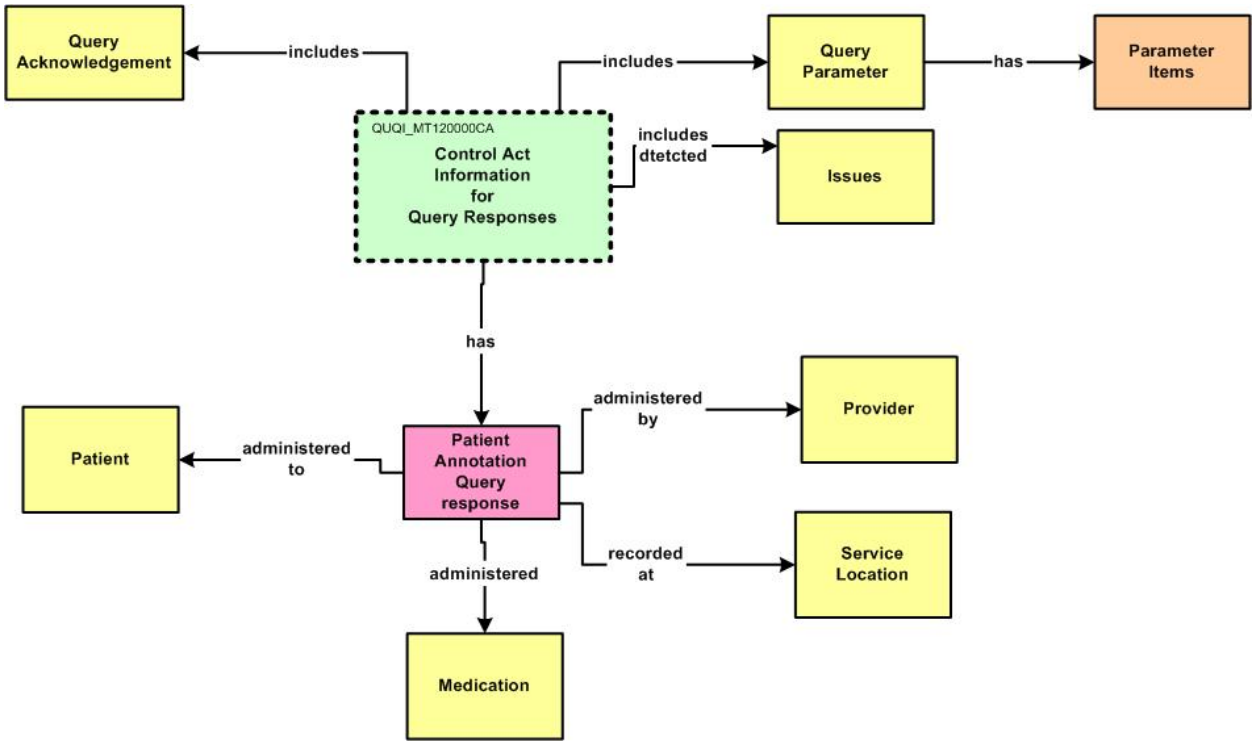

Figure 17 – C14.2 - Patient Immunization Query – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on other active medication records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Patient (🗁)	Identifies the patient for the immunization.
Patient Identifier	Identifies the patient for the immunization;
Patient Name	The various names by which the patient is known, including aliases;
Patient Gender	The gender (sex) of the patient. Used to confirm the identity of the patient.
Patient Birth Date	The date on which the patient. Used to confirm the identity of the patient.
Immunization Status	Indicates whether the immunization record is considered active or complete.
Immunization Date	The date vaccination(s) was administered to the patient.
Immunization Masking Indicator	Denotes whether or not the patient has put a restriction on access to his/her immunization information.
Not Immunized?	An explicit indication that a person has not been immunized with the specified vaccine at the time indicated
Immunization Record Identifier	Unique identifier of the immunization record as assigned by, and recorded on EHR/DIS.
Drug Product (🗁)	Identifies the drug that was administered to the patient.
Drug Identifier	Unique identifier of the drug that was administered to the patient.
Drug Name	Identifies the name of the drug that administered to the patient.
Creator (🗁)	Identification of the provider who recorded immunization.
Created by Provider ID	A unique identifier for the recorder of the immunization. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider Name is null.
Created by Provider Name	The name by which the recorder of the immunization is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider ID is null;
Responsible Provider(🗁)	Identification of the provider who supervised the immunization.
Responsible Provider ID	A unique identifier for the provider who was supervising the actions of the Created by Provider. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider Name is null;
Responsible Provider Name	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider ID is null;
Service Location(🗁)	Contact information for the service location where the immunization was recorded.
Created at Service Location Address	The information by which the recording service location may be contacted either physically or by mail;

Attribute/ Attribute Group	Notes
Created at Service Location Name	The name assigned to the recording service location;
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective Period (✉)	Indicates when the query was performed;
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on other active medication records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Route of Administration	This is the means by which the drug was administered to the patient.
Quantity Administered	The amount of the vaccine administered to/by the patient.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Adverse Reaction Indicator	Indicates whether there was an adverse event associated with the immunization;
Immunization Comment Text	Comments entered by the recorder or data-enterer about the immunization;
Immunization Refusal Reason	A coded value denoting a patient's reason for refusing to be immunized. Typical reasons include: Parental decision, Religious exemption, Patient decision, etc;
Immunization Course(🗁)	Information pertaining to the current immunization course and plans for future course.
Vaccine Dose Number	Indicates whether this is the initial immunization (Dose Number = 1) or a specific booster (Dose Number = 2 means first booster, 3 means 2nd booster, etc.).

Attribute/ Attribute Group	Notes
Next Planned Dose Date	Indicates the date on which the next dose is to be administered.
Renewal Date	Indicates the date on which the course of immunization is to be undertaken.
Informant	A coded value denoting a patient, patient's agent, or a provider as the source of the recorded immunization information.
Issues & Managements (🗁)	Detailed information indicating issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) that were detected with the recording of the immunization, along with how the issues might have been managed by the provider.
Issue Caused By (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue could have been caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.8.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **PORX_MT120016CA - Immunization Query**, retrieves detailed information about a patient's immunizations, potentially filtered by time range of the immunization, time range the immunization was last updated, and/or	• (✉)**COCT_MT260001CA – Managed Issue**, to note any medication issues that have been managed; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided;

Message	Core Models	Key Supporting Models
	type of immunization • (✉)**QUQI_MT020000CA - Trigger Event Wrapper for Queries**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **PORX_MT100016CA - Immunization query response**, returns detailed information about a patient's immunizations; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• **COCT_MT050002CA – Patient**, to identify the patient; • **POME_MT000002CA – Administrable Medication**, to describe the drug administered; • (✉)**COCT_MT260002CA – Detected Issue**, to note any issues that have been detected; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.9 C14.5 - Update Patient Immunization

4.2.9.1 Transaction Overview

This transaction allows the update of an immunization record on the EHR / DIS. The updateable pieces of information on the immunization is limited to three fields only namely: the textual comment, the vaccine dose number, and the 'immunization course complete?' indicator.

4.2.9.2 Key Design Elements

None.

4.2.9.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)

4.2.9.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

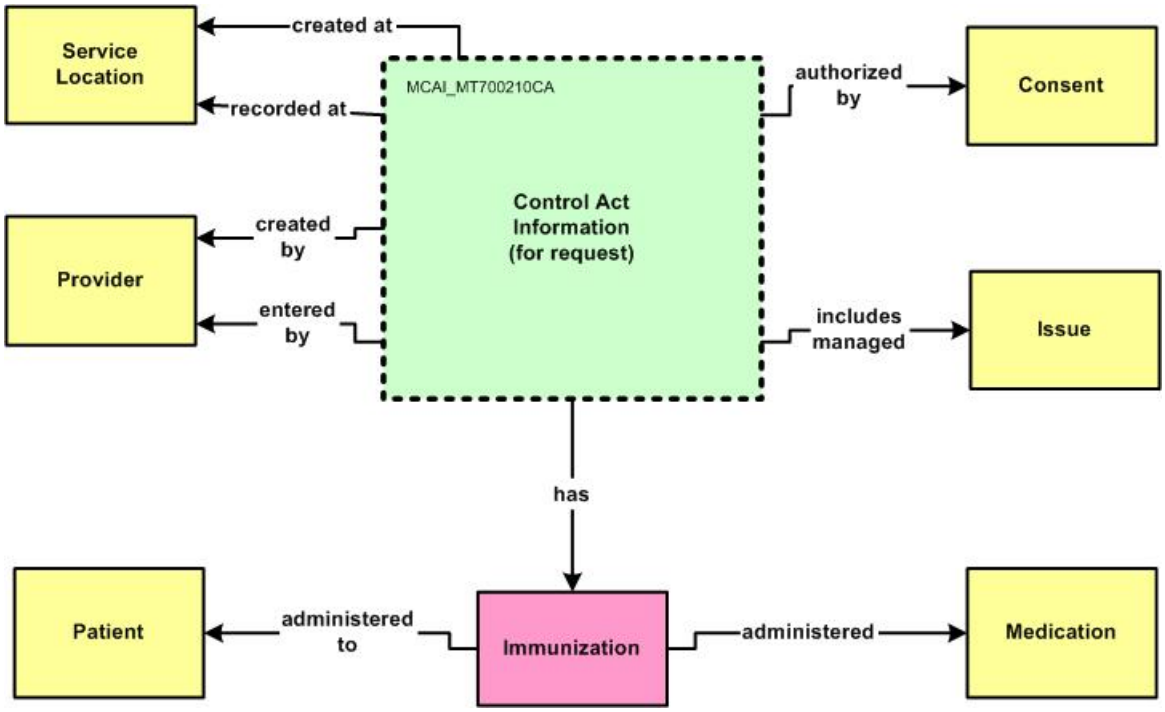

Figure 18 – C14.5 - Update Patient Immunization – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Immunization Record Id	This is an identifier assigned to a unique instance of an immunization record. Allows for the unique referencing of a specific immunization record.
Immunization Date	The date vaccination(s) was administered to the patient.
Immunization Masking Indicator	Communicates the intent that the immunization should be masked if it is created; Methods for accessing masked immunization records will be governed by each jurisdiction (e.g. court orders, shared secret/consent, etc.);
Not Immunized?	An explicit indication that a person has not been immunized with the specified vaccine at the time indicated
Administered Drug Product (🗁)	Identifies the drug being administered; **Note:** A constraint exists that either Drug Identifier or Drug Name must be specified;
Drug Identifier	Identifies the drug being prescribed; **Note:** This attribute has been noted in the message specification as Populated; however, this attribute should be considered mandatory, except where there are no assigned identifiers for the prescribed product (e.g. extemporaneous compounds);
Drug Name	Identifies the name of the drug being administered;
Patient (🗁)	Identifies the patient being immunized;
Patient Identifier	Unique identifier for the patient being immunization;
Patient Name	Name by which the patient is known;
Patient Gender	Communicates the gender of the patient to help confirm the identity of the patient;
Patient Birth Date	Communicates the birth date of the patient to help confirm the identity of the patient.
Event Type (✉)	Indicates what sort of action occurred. This will be echoed back when retrieving history. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber);
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Administration Site	A coded value denoting the body area where the immunization was administered.
Route of Administration	This is the means by which the drug was administered to the patient.
Quantity Administered	The amount of the vaccine administered to/by the patient.
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Adverse Reaction Indicator	Indicates whether there was an adverse event associated with the immunization;
Immunization Comment Text	Comments entered by the recorder or data-enterer about the immunization;
Immunization Refusal Reason	A coded value denoting a patient's reason for refusing to be immunized. Typical reasons include: Parental decision, Religious exemption, Patient decision, etc;
Immunization Course (🗁)	Information pertaining to the current immunization course and plans for future course.
Vaccine Dose Number	Indicates whether this is the initial immunization (Dose Number = 1) or a specific booster (Dose Number = 2 means first booster, 3 means 2nd booster, etc.).
Next Planned Dose date	Indicates the date on which the next dose is to be administered.
Renewal Date	Indicates the date on which the next course of immunization is to be undertaken.

Attribute/ Attribute Group	Notes
Informant	A coded value denoting a patient, patient's agent, or a provider as the source of the recorded immunization information.
Event Reason (✉)	Provides a reason for the requested change or addition;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the action;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the action;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event was electronically recorded (e.g. the pharmacy where a prescription was entered);
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the action electronically (e.g. the pharmacy technician who transcribed a faxed prescription into the system.);
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the action into the DIS (e.g. the pharmacist who supervised the pharmacy technician who transcribed a faxed prescription into the system.);
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider who recorded the information to place it in the DIS. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access authority, identifier recognition, drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed request, along with how the issue has been managed by the submitter;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;

Attribute/ Attribute Group	Notes
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.9.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

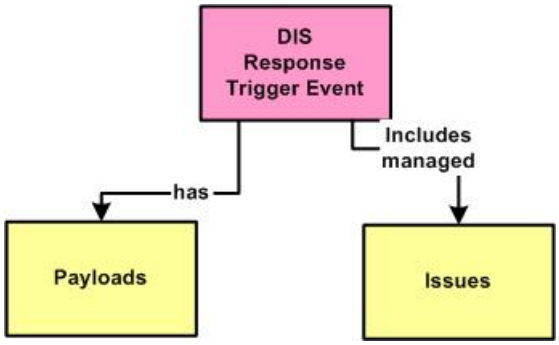

Figure 19 – C14.5 - Update Patient Immunization – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Event Type (✉)	Indicates what sort of action occurred. This will be echoed back when retrieving history. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction. Used for debugging only;
Event Effective Period (✉)	Indicates when the event was performed;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested action;
Issues & Managements (✉) (🗁)	Detailed information indicating detected issues (access authority, identifier issues, drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed action, along with how the issue might be managed by the requesting provider;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur and how it has been managed; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.9.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Notification	• **PORX_MT000019CA – Immunization Update**, Requests that information about a previously recorded immunization be changed; • (✉)**MCAI_MT700210CA - Trigger Event Wrapper for Acts from Clinical**, describes the framework for tracking the	• **COCT_MT050002CA – Patient**, to identify the patient; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information;

Message	Core Models	Key Supporting Models
	responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	(✉)**COCT_MT260002CA – Detected Issues**, to note any medication issues that have been managed;
Response (Refuse)	• **MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	(✉)**COCT_MT260001CA – Detected Issues**, to note any medication issues that have been managed;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.10 C8.1 - Get Patient Drug Contraindications

4.2.10.1 Transaction Overview

This transaction will retrieve a list of potential contraindications (allergies, drug-drug interactions, etc.) for a specific drug for a specific patient. This allows a provider to undertake a 'what if' exercise without prescribing and thus analogous to the Clinical Prescription Predetermination request, but without the onerous process of specifying prescription information.

4.2.10.2 Key Design Elements

None.

4.2.10.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.10.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

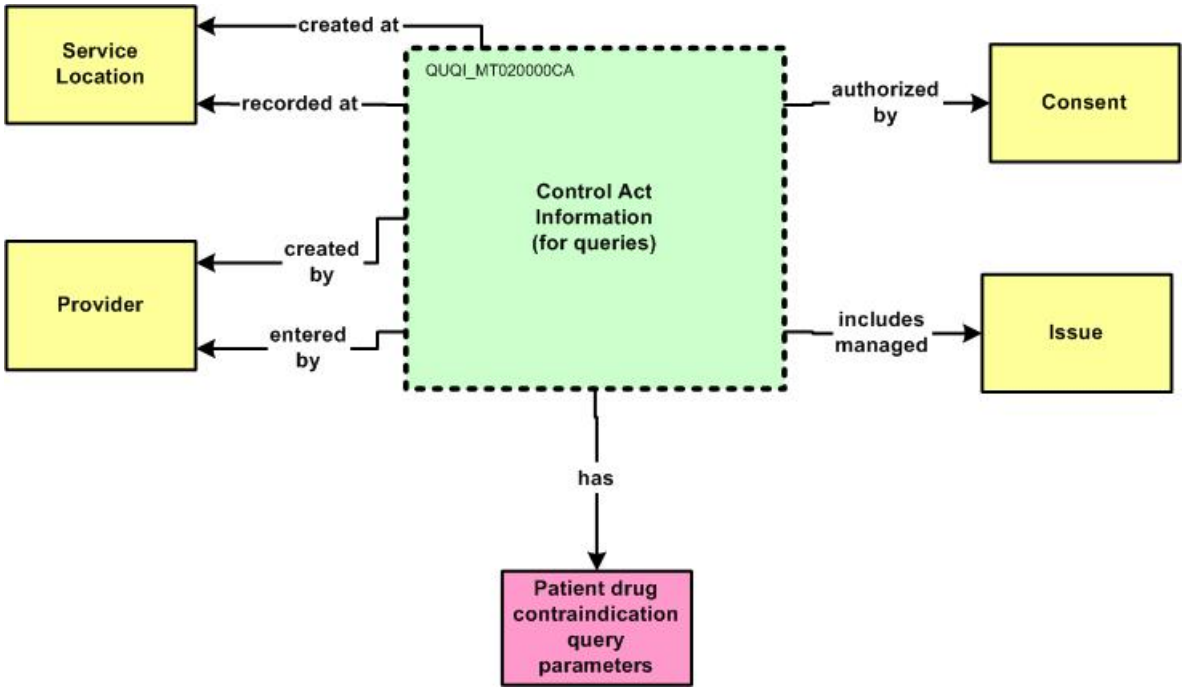

Figure 20 – C8.1 - Get Patient Drug Contraindications – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Patient Id	Identifier of the patient whose profile drugs contraindication results are to be returned.
Patient Name	Name of the patient whose profile drugs contraindication results are be returned (for verification purposes).
Patient Gender	Indicates the gender (sex) of the patient. Used to confirm the identity of the patient for the query.
Patient Birth Date	Indicates the date on which the patient was born. Used to confirm the identity of the patient for the query.
Drug Code	Indicates that the result set is to be filtered to include only those contraindication pertaining to the specified drug. The code may refer to an administrable medication, an orderable medication or a higher level drug classification. The contraindication records retrieve would comprise the drug-drug interactions between this specified and each of the drugs on the patient's profile, as well as drug-disease and drug-allergy contraindications that might result (based on the information on the patient's profile).
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider to access the information. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;

Attribute/ Attribute Group	Notes
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query provider;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.10.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

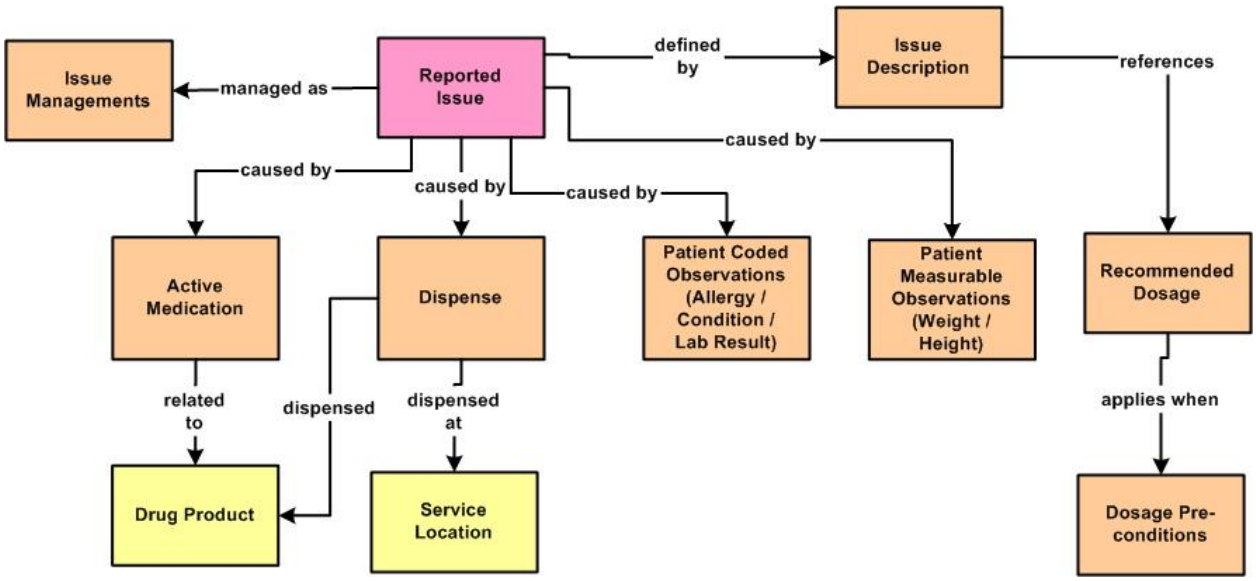

Figure 21 – C8.1 - Get Patient Drug Contraindications – Response (Accept) Message

<INSERT COCT_MT260003CA.doc>

4.2.10.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **PORX_MT120017CA - Patient drug contraindications query**, retrieves the potential contraindications associated with issuing a specified medication to a particular patient based on their existing medication and clinical profile; • (✉)**QUQI_MT020000CA - Trigger Event Wrapper for Queries**, describes the framework for tracking the	• (✉)**COCT_MT260001CA – Managed Issue**, to note any issues that have been managed or overridden; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**,

Message	Core Models	Key Supporting Models
	responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	to describe a provider;
Response (Accept)	• **COCT_MT260003CA - Reported Issue**, to indicate contraindications (if any) associated with placing a patient on a medication with a specified dose and timing based existing medication and clinical profile; • **PORX_MT120017CA - Patient drug contraindications query,** A copy of the original query parameters from the request; • (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• **COCT_MT260002CA - Detected Issue**, to describe any detected issues;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.11 C8.2 - Contraindication Checking Against a Full Set of Drugs

4.2.11.1 Transaction Overview

This transaction is used to retrieve potential contraindications that would result from a profile of 2 or more drugs. The contraindication information retrieved will comprise drug-drug interactions amongst the drugs, as well as other non drug-drug contraindications for each of the drugs, including drug-allergy, drug-disease, drug-gender, etc.

4.2.11.2 Key Design Elements

Done.

4.2.11.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)
52	Scope	All systems communicating with a DIS must synchronize their drug master files with the DIS, assuming the DIS is maintaining a current list of drugs. No specific CeRx messages are designed to support this functionality.

4.2.11.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

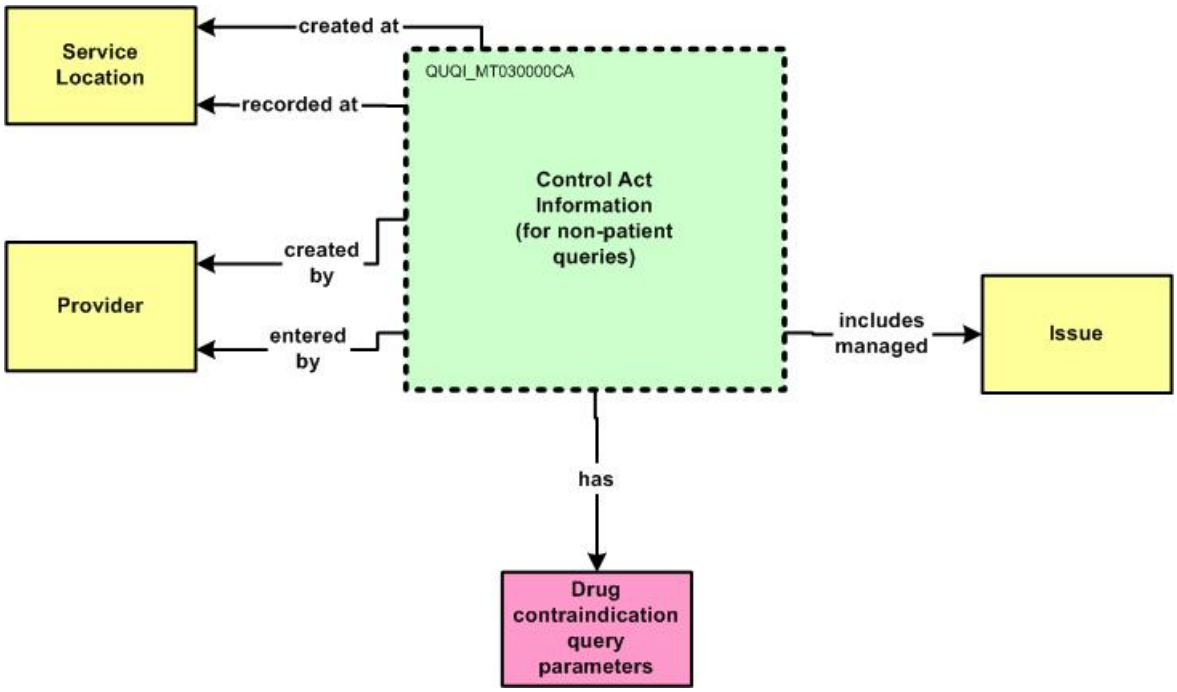

Figure 22 – C8.2 - Contraindication Checking Against a Full Set of Drugs – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Drug Code	Indicates that the result set is to be filtered to include only those contraindication involving the specified drugs. The codes may refer to administrable medications, orderable medications or higher level drug classifications. The set of contraindication records retrieved would include all potential DDI between and amongst the drugs.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉)	Indicated the Service Delivery Location where the query occurred;

Attribute/ Attribute Group	Notes
(🗁)	
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason	Provides a reason for the query;

Attribute/ Attribute Group	Notes
(✉)	
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Created by Provider License Number (✉)(🗁)	The professional license number of the provider responsible for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue has been managed by the query submitter;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.11.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

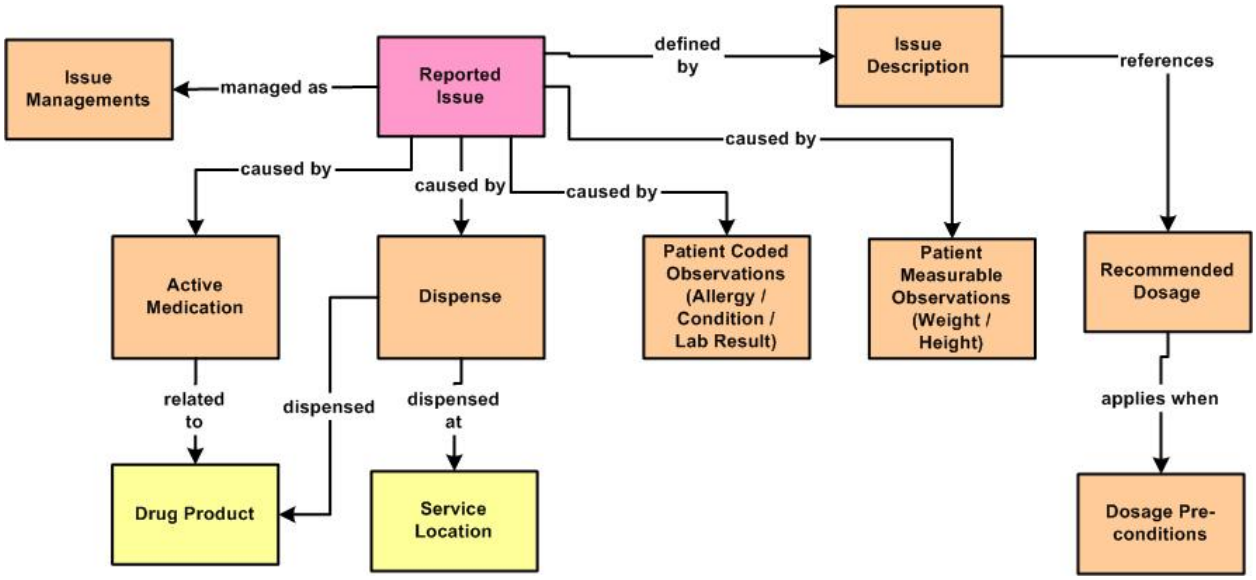

Figure 23 – C8.2 - Contraindication Checking Against a Full Set of Drugs – Response Message

<INSERT COCT_MT260003CA.doc>

4.2.11.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **PORX_MT120018CA - Drug Contraindications query**, retrieves the contraindications associated with issuing a particular combination of drugs based only on a list of concomitant medications; • (✉)**QUQI_MT020000CA - Trigger Event Wrapper for Non-Patient Queries**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT260001CA – Managed Issue**, to note any issues that have been managed or overridden; • (✉)**COCT_MT240003CA – Service Delivery Location**, to describe facilities; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **COCT_MT260003CA - Reported Issue**, Indicates the contraindications (if any) associated with a set of medications. Only includes drug-drug and duplicate therapy contraindications because that's all that is deducible based on a list of medications;	• (✉)**COCT_MT260002CA – Detected Issue**, to note any issues that have been detected;

Message	Core Models	Key Supporting Models
	• (✉)**QUQI_MT120000CA - Trigger Event Wrapper for Query Responses**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.12 C21.4 - Record Basic Patient Observations

4.2.12.1 Transaction Overview

This transaction is used to record a non-Lab and non-DI types of observation about a patient such as height, weight, blood pressure, etc.

4.2.12.2 Key Design Elements

None.

4.2.12.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)

4.2.12.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

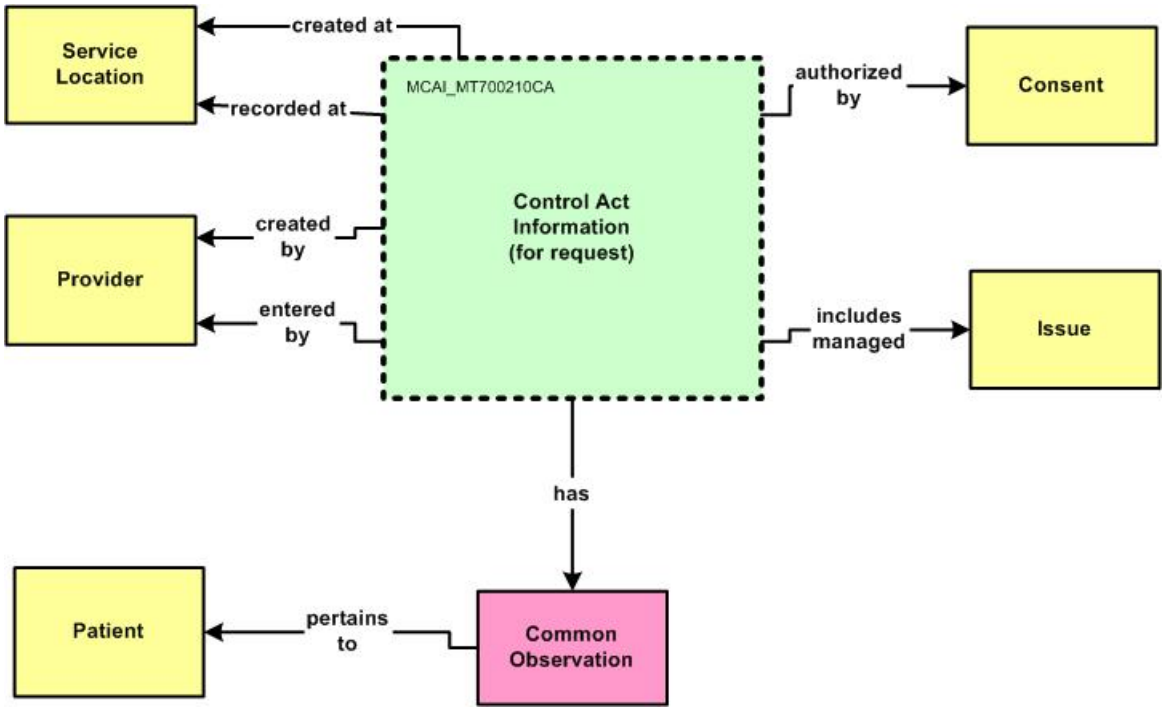

Figure 24 – C21.4 - Record Basic Patient Observations – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Observation Type	Identification of the type of measurement/observation that was made about the patient. Observation types include: height, weight, blood pressure, body mass, etc;
Observation Measurement Value	The amount (quantity and unit) that has been recorded for the specific type of observation. E.g. height in centimeters, weight in kilograms, etc. Valid observation unit types are: kg, cm, mmHg, mmol/mL, L/min, C, 1/min, etc;
Patient (🗁)	Identifies the patient being observed;
Patient Identifier	Unique identifier for the patient being observed;
Patient Name	Name by which the patient is known;
Patient Gender	Communicates the gender of the patient to help confirm the identity of the patient;
Patient Birth Date	Communicates the birth date of the patient to help confirm the identity of the patient.
Event Type (✉)	Indicates what sort of action occurred. This will be echoed back when retrieving history. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber);
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes

Attribute/ Attribute Group	Notes
Observation Timestamp	The date to which the observation applies. E.g., if blood was drawn two days ago and White Blood Count (WBC) was done today, then WBC observation date should reflect the date of two days ago;
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Observation Comment Text	Comments entered by the recorder or data-enterer about the common observation;
Event Reason (✉)	Provides a reason for the requested change or addition;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the action;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the action;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event was electronically recorded (e.g. the pharmacy where a prescription was entered);
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the action electronically (e.g. the pharmacy technician who transcribed a faxed prescription into the system.);
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the action into the DIS (e.g. the pharmacist who supervised the pharmacy technician who transcribed a faxed prescription into the system.);

Attribute/ Attribute Group	Notes
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider who recorded the information to place it in the DIS. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access authority, identifier recognition, drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed request, along with how the issue has been managed by the submitter;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.12.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

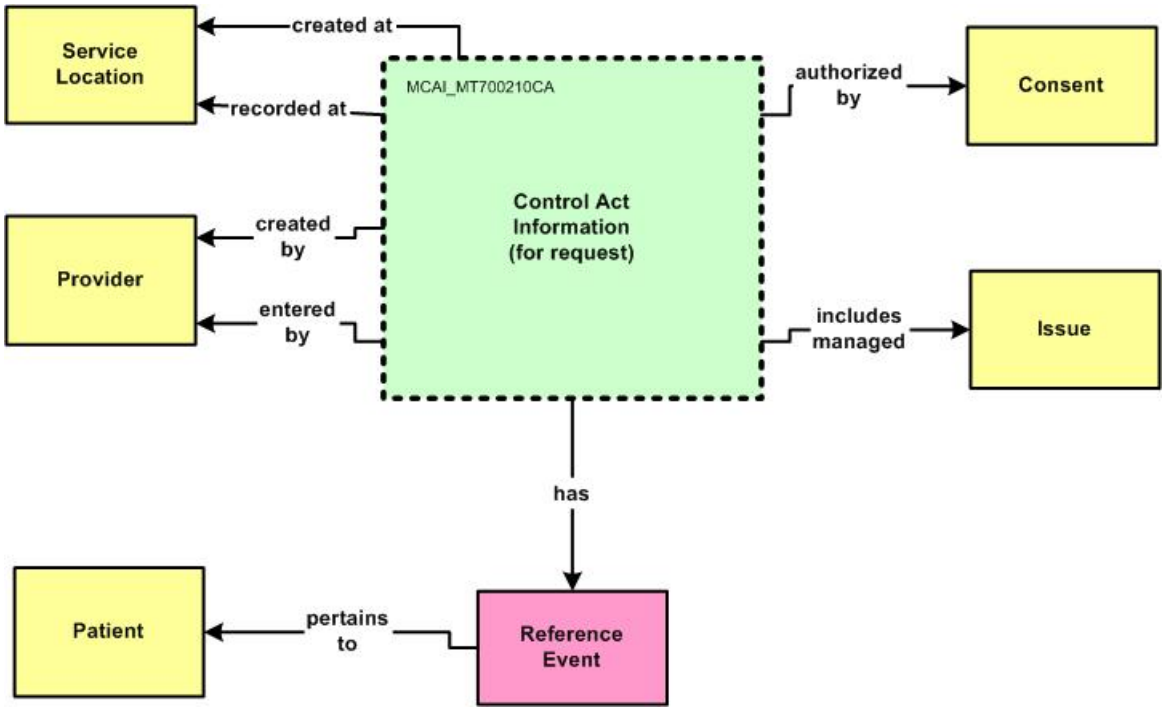

Figure 25 – C21.4 - Record Basic Patient Observations – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Record Id	Specifies the unique identifier of the record which has been successfully created
Patient (🗁)	Used to ensure linking of the identifier to the correct patient record;
Patient Identifier	Uniquely identifies the patient;
Patient Name	Indicates the name of the patient for cross-checking purposes;
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this change should come into effect. Usually left blank, defaulting to 'immediately';
Event Reason (✉)	Provides a reason for the requested change or addition;

Attribute/ Attribute Group	Notes
Created at (✉) (🗁)	Indicated the Service Delivery Location where the event occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created at Service Delivery Location Type (✉)	A code identifying the kind of Service Delivery Location. Examples are: pharmacy, clinic, hospital, long term care, *etc;*
Created by (✉) (🗁)	Indicates the person responsible for the event that caused this message (e.g. prescriber); **Note:** A constraint exists that either Created by Provider ID or Created by Provider Name must be specified;
Time of Creation (✉)	The time the person responsible for creating the event made the decision for it to occur;
Created by Provider ID (✉)	A unique identifier for a provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider Name is null;
Created by Provider Name (✉)	The name by which the provider is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider ID (✉)	A unique identifier for the provider who was supervising the actions of the Created by Provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;
Responsible Provider Name (✉)	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute must be specified if Provider ID is null;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which a Service Delivery Location may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location;

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the event occurred;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) with the proposed prescription, along with how the issue has been managed by the prescriber;
Issue Caused By (✉) (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue can be caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).
Active Medication (✉) (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (✉) (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (✉) (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.12.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POLB_MT000001CA - Common Observation**, requests that a basic observation (height, weight, blood-pressure, etc.) be recorded in a patient's record; • (✉)**MCAI_MT700210CA - Trigger Event Wrapper for Acts from Clinical**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• **COCT_MT050002CA – Patient**, to identify the patient; • (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **MFMT_MT000001CA – Event Id**, to identify the Common Observation Record Number; • (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating	• **COCT_MT260002CA - Detected Issue**, to describe any detected issues;

Message	Core Models	Key Supporting Models
	and entering the message, and together with the payload message, make up the clinical content of the message;	
Response (Refuse)	• (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses from EHR**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	• **COCT_MT260002CA - Detected Issue**, to describe any detected issues;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

4.2.13 C21.5 - Review Basic Patient Observations

4.2.13.1 Transaction Overview

This transaction is used to retrieve various measurements and other types of observations that have been recorded for a specific patient. The information retrieved covers those measurements and observations that are usually undertaken in a provider's office, such as weight, height, blood pressure measurements, and excludes Lab and DI type observations.

4.2.13.2 Key Design Elements

None.

4.2.13.3 Key Assumptions

The following key assumptions may affect final message content. Detailed descriptions of these assumptions are tracked in *PN502-0004-EN - Standards Development Tracking Logs - yyyymmdd.xls*.

#	Topic	Description (first 50 words only)

4.2.13.4 Request Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗀). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

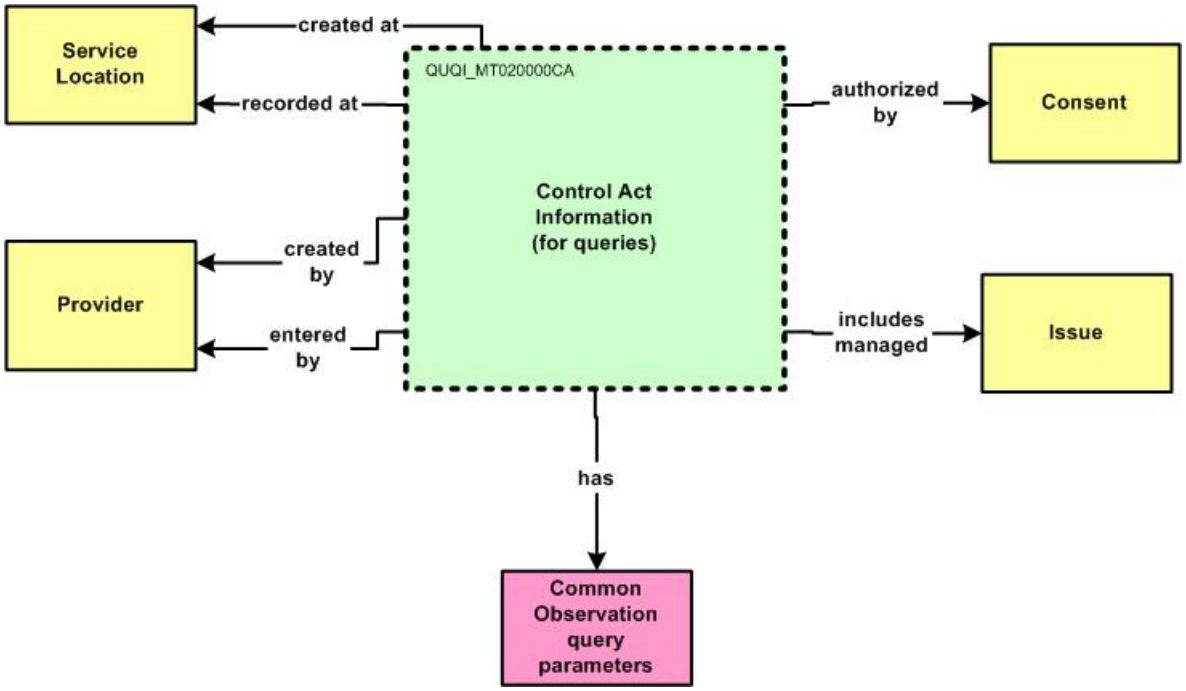

Figure 26 – C21.5 - Review Basic Patient Observations – Request Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Patient Id	Identifier of the patient whose common observation records are to be returned.
Patient Name	Name of the patient whose common observation records are be returned (for verification purposes).
Patient Gender	Indicates the gender (sex) of the patient. Used to confirm the identity of the patient for the query.
Patient Birth Date	Indicates the date on which the patient was born. Used to confirm the identity of the patient for the query.
Event Type (✉)	Indicates what sort of query is desired. The appropriate code is determined by which interaction is being sent.
Event Identifier (✉)	Unique identifier for this transaction, used in 'undos';
Event Effective Period (✉)	Indicates when this query should be performed. Usually left blank, defaulting to 'immediately';
Created at (✉) (🗁)	Indicated the Service Delivery Location where the query occurred;
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Created by (✉) (🗁)	Indicates the person responsible for the query;
Time of Creation (✉)	The time the person responsible for creating the query made the decision for it to occur;
Created by Provider Name (✉)	The name by which the provider is known;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be specified in every message.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the query may be contacted either physically or by mail;

Attribute/ Attribute Group	Notes
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the query;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the query
Created by Provider Id (✉)	The unique identifier of the provider responsible for the query. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups in the payload message. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Measurement Types	Indicates that only patient measurements of a specific type are to be included in the result set. If not specified, all measurement types will be included.
Measurement Effective Period	Indicates the measurement period for which the request/query applies. Filter the result set to include only those patient measurement that were taken within the specified period.
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the query;
Created by Provider License Number (✉)	The professional license number of the provider responsible for the query;
Creation Supervised by Responsible Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the query;
Recorded at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query was electronically recorded;
Entered by Provider (✉)(🗁)	Indicates the name, identifier, license number and phone/e-mail information of the provider who recorded the query electronically;
Entry Supervised by Provider (✉)(🗁)	Indicates the name, identifier and license number of the provider who accepts professional responsibility for the correct entry of the query into the DIS;
Consent (✉) (🗁)	Information documenting the consent which authorizes the provider to access the information. Includes Consent form number, end time, override reason, keyword, verbal vs. written indicator, consenting person, authorized person or facility;
Created at Service Location (✉)(🗁)	Indicates the Service Delivery Location where the query originated;
DUR Issues &	Detailed information indicating potential issues (access restrictions, etc.) with the

Attribute/ Attribute Group	Notes
Managements (✉) (🗁)	query, along with how the issue has been managed by the query submitter;
Issue Managements (✉) (🗁)	Indicates how the issue has been managed;

4.2.13.5 Response Message

Details for each attribute or attribute group can be found in the Design Models (PN502-2003 series documents). Attribute groups are marked with (🗁). Attributes or attribute groups marked with (✉) are specified in the wrapper for the specific message.

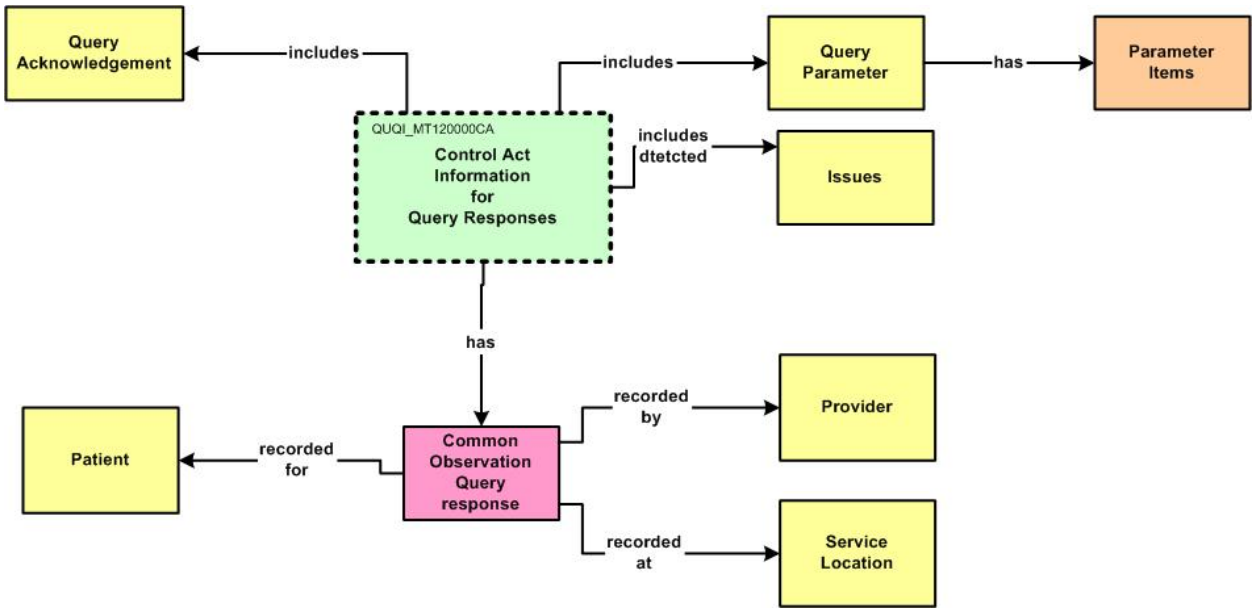

Figure 27 – C21.5 - Review Basic Patient Observations – Response Message

Minimum Mandatory Attributes/Attribute Groups (Must Exist)

The following table summarizes Minimum Mandatory attributes and/or attribute groups which *must* be present on other active medication records..

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Patient (🗁)	Identifies the patient for the common observation.
Patient Identifier	Unique identifier for the patient.
Patient Name	The names by which the patient is known, including aliases;
Patient Gender	The gender (sex) of the patient. Used to confirm identity of the patient.

Attribute/ Attribute Group	Notes
Patient Birth Date	The date on which the patient was born. Used to confirm identity of the patient.
Observation Type	Identification of the type of measurement/observation that was made about the patient. Observation types include: height, weight, blood pressure, body mass, etc;
Observation Measurement Value	The amount (quantity and unit) that has been recorded for the specific type of observation. E.g. height in centimeters, weight in kilograms, etc. Valid observation unit types are: kg, cm, mmHg, mmol/mL, L/min, C, 1/min, etc;
Creator (🗁)	Identification of the provider who recorded common observation.
Created by Provider ID	A unique identifier for the recorder of the common observation. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider Name is null.
Created by Provider Name	The name by which the recorder of the common observation is known; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Provider ID is null;
Responsible Provider(🗁)	Identification of the provider who supervised the recording of the common observation.
Responsible Provider ID	A unique identifier for the provider who was supervising the actions of the Created by Provider. **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider Name is null;
Responsible Provider Name	The name of the supervising provider; **Note:** Although this attribute has been defined as Populated, a constraint exists that this attribute will exist if Responsible Provider ID is null;
Service Location(🗁)	Contact information for the service location where the common observation was recorded.
Created at Service Delivery Location ID (✉)	Unique identifier for a healthcare Service Delivery Location;
Query Identifier (✉)	Unique identifier for this query. Allows for continuation of a query across multiple messages;
Query Result-set Size (✉)	Identifies the total number of rows which matched the query parameters;
Query Items Returned (✉)	Identifies the number of rows actually returned from the query result-set in this response message. This may be smaller than the total result set if query continuation is being used;
Event Effective Period (✉)	Indicates when the query was performed;
Event Reason (✉)	Provides a reason for the rejection or adjustment of the query;

Minimum Populated Attributes/Attribute Groups (Expected to Exist)

The following table summarizes Minimum Populated attributes and/or attribute groups which are *expected* to be on other active medication records; but which may only contain null flavours of the attribute.

Note that the table does not include mandatory or populated attributes and/or attribute groups from the Trigger Event Wrapper for Acts that are considered purely technical in nature. Technical audiences may wish to consult the detailed specifications for further information.

Attribute/ Attribute Group	Notes
Observation Timestamp	The date to which the observation applies. E.g., if blood was drawn two days ago and White Blood Count (WBC) was done today, then WBC observation date should reflect the date of two days ago;
Recording Datetime	The date and time on which the common observation was recorded.
Created at Service Delivery Location Address (✉)	The information by which the Service Delivery Location responsible for the action may be contacted either physically or by mail;
Created at Service Delivery Location Name (✉)	The name assigned to the Service Delivery Location responsible for the action;
Created at Service Location Phone and E-mails (✉)	The phone, fax and/or e-mail contact information that can be used to reach the service delivery location responsible for the action
Created by Provider Id (✉)	The unique identifier of the provider responsible for the action. This is only populated rather than mandatory because not all providers have identifiers.

Additional Attributes and/or Attribute Groups

The following table includes all top-level attributes and/or attribute groups that can be present on other active medication records. The table also includes selected attributes and attribute groups from any applicable wrappers.

Attribute/ Attribute Group	Notes
Common Observation Comment Text	Comments entered by the recorder or data-enterer about the common observation;
Issues & Managements (🗁)	Detailed information indicating issues (drug-drug interactions, dosage issues, duplicate therapy, drug-allergy, drug-lab, age appropriateness, *etc*.) that were detected with the recording of the common observation, along with how the issues might have been managed by the provider.
Issue Caused By (🗁)	Indicates the event/process that caused the issue to occur; **Note:** The issue could have been caused by Active Medication (🗁)and/or Dispense (🗁), and/or Patient Coded Observations (🗁) and/or Patient Measurable Observations (🗁).

Attribute/ Attribute Group	Notes
Active Medication (🗁)	Indicates an active medication (prescription or non-prescription medication) that is recorded in the patient's record and which contributed to triggering the issue;
Dispense (🗁)	Indicates a particular dispense event that resulted in the issue;
Patient Coded Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Patient Measurable Observations (🗁)	This is the recorded observation (e.g. allergy, medical condition, lab result, weight, pregnancy status, etc.) of the patient that contributed to the issue being raised;
Query Limit (✉)	Indicates the desired maximum number of rows to be returned;
Event Reason (✉)	Provides a reason for the refusal to act or for a variation in the requested query;
DUR Issues & Managements (✉) (🗁)	Detailed information indicating potential issues (access restrictions, etc.) with the query, along with how the issue might be managed;
Issue Managements (✉) (🗁)	Indicates how the issue can be managed;

4.2.13.6 Detailed Model References

This transaction references the following model components:

Message	Core Models	Key Supporting Models
Request	• **POLB_MT100001CA - Common Observation Query**, Retrieves the basic observations (height, weight, blood-pressure, etc.) which have been recorded for a particular patient, optionally filtered by the type of observation and/or by the date-range for which the observation was recorded. • (✉)**QUQI_MT020000CA - Trigger Event Wrapper for Queries**, describes the framework for tracking the responsibility for creating and entering the query, and together with the query parameters, make up the definition of the query;	• (✉)**COCT_MT240003CA – Service Location**, to describe the location where the service was provided; • (✉)**COCT_MT470000CA – Consent**, to describe consent information; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Accept)	• **POLB_MT100001CA - Common Observation Query Response**, returns one or more basic observations (height,	• **COCT_MT050002CA – Patient**, to identify the patient; • **COCT_MT260002CA - Detected**

Message	Core Models	Key Supporting Models
	weight, blood-pressure, etc.) associated with a patient; • **POLB_MT100001CA - Common Observation Query,** A copy of the original query parameters from the • (✉)**MCAI_MT700220CA - Trigger Event Wrapper for Act Responses**, describes the framework for tracking the responsibility for creating and entering the message, and together with the payload message, make up the clinical content of the message;	**Issue**, to describe any detected issues; • (✉)**COCT_MT240003CA – Service Delivery Location**, to describe facilities; • (✉)**COCT_MT090103CA – Provider**, to describe a provider;
Response (Reject)	Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	
Query Continuation	Please consult the query infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.	

V KEY PACKAGE ISSUES

This section describes key package issues that were uncovered during the development of the message specifications for this package. These require resolution in order to complete the package.

The source of truth for these issues is *PN502-0004-EN - Standards Development Tracking Logs*. Only key active issues have been extracted in this document. Readers are urged to read all issues contained in the aforementioned document.

In addition, some issues will have detailed issue papers, prefixed by PN502-0005-EN.

Issues noted in green below are high priority items that require detailed review.

#	Topic	Description	Current Notes/Resolution
5	General	Confirm the requirement with the CeRx-pCSG of whether dosage instructions, in coded form, are needed on drug master file.	Assume that a coded form is a vocablualry requirement. Needs to be added to P03 meeting or earlier to position for P04. [Old log reference #7] 2004-12-13 Sherry P: Could be NB (important) for DUR messaging, days supply etc.

VI ARTIFACT STATUS

This section of the document provides a summary of all package deliverables based on the Standards Development Documentation Framework (SDDF). The SDDF diagram is included here for reference purposes. Additional detail can be obtained by reviewing the SDDF document, *PN502-0001-EN - Standards Development Documentation Framework - 20041202.doc*.

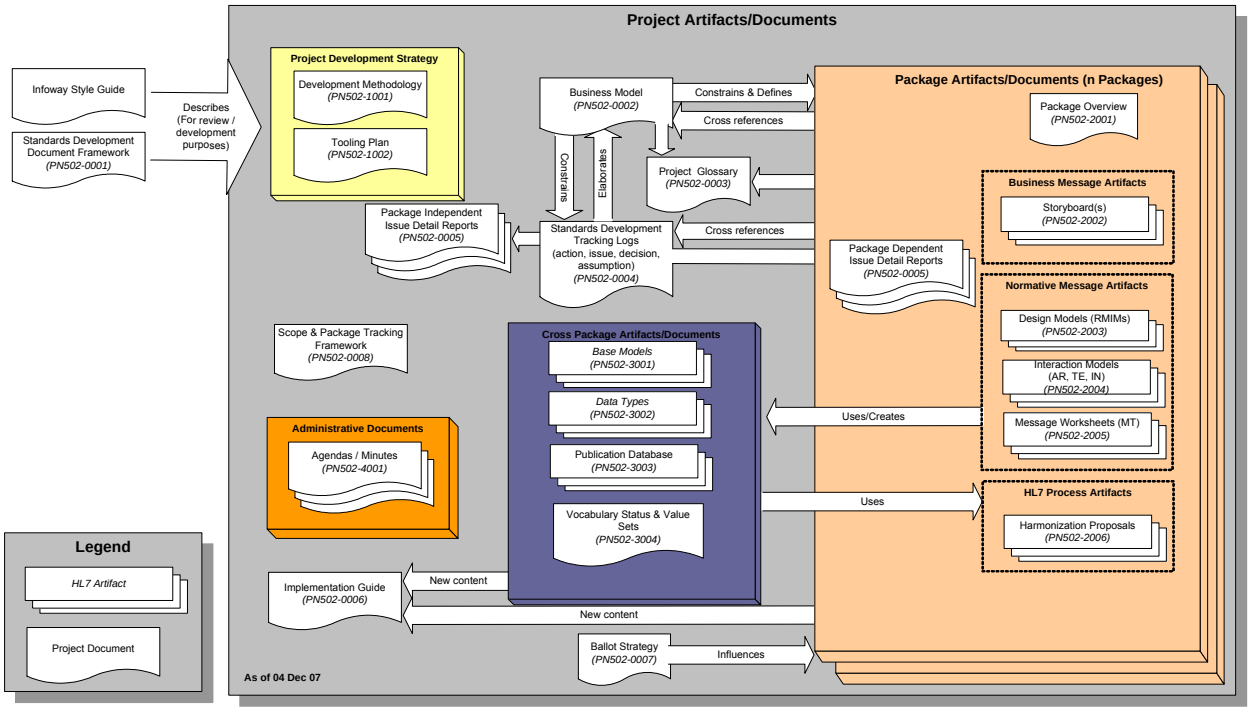

Figure 28 – Standards Development Documentation Framework (SDDF)

This package contains a number of deliverables, grouped into three major categories (Project Artifacts, Package Artifacts and Cross-Package Artifacts), as described below.

6.1 Project Artifacts / Documents

Please consult package 4 overview document.

6.2 Package Artifacts / Documents (n Packages)

This category contains the following deliverables:

- PN502-2001-EN - Package Overview (this document)
- PN502-2002-EN - Storyboards
- PN502-2003-EN - Design Models
- PN502-2004-EN - Interaction Models
- PN502-2005-EN - Message Worksheets
- PN502-2006-EN - Harmonization Proposals

Refer to the *Package-Artifacts* directory for a complete list of these deliverables.

Documents in green below are high priority items that require detailed review.

Doc #	Title	Review Guidance	Stability	Status
PN502-2001-EN	Package Overview (this document)	Review in detail to understand and confirm message content; use as a guide/roadmap for review of more detailed materials. Key package highlights are noted in this document. **Making Changes:** • Provide comments in Word using revision markers (accept any existing changes first). • Save file name with your initials or name at the end of the file name (just before the file extension). • Highlight areas of concern for the CeRx-pCSG using the CeRx Artifact Feedback Form.	Initial review of this document by pCSG pending.	Team Draft 2005-Apr-30
PN502-2002-EN	Storyboards	Each storyboard should be reviewed for accuracy and appropriateness. In addition, scope can be confirmed using storyboards. **Making Changes:** • Provide comments in Word using revision markers (accept any existing changes first). • Save file name with your initials or name at the end of the file name (just before the file extension). • Highlight areas of concern for the CeRx-pCSG using the CeRx Artifact Feedback Form.	Multiple CeRx core team reviews. May be adjusted with information from subsequent packages. Storyboards have not been put forward to HL7 for feedback.	WG Draft 2005-Apr-30

Doc #	Title	Review Guidance	Stability	Status
PN502-2003-EN	Design Models	Design models or message models describe the major categories of information in a particular message (a message is referenced in one or more interactions, which in turn is referenced in one or more transactions). Review should be focussed on the general categories to determine if there are major gaps. Understanding where a message model is used (see below) will help ensure that a complete review is undertaken. Review for this section should be restricted to the model diagrams in section 2. To determine which interaction and/or transaction a message model is used, use PN502-0008 Scope & Package Tracking Framework under Interactions & Triggers tab to find the interaction. Then use the Transactions tab to search for the transaction using the interaction name. **Making Changes:** • Provide comments in Word using revision markers (accept any existing changes first). • Save file name with your initials or name at the end of the file name (just before the file extension). • Highlight areas of concern for the CeRx-pCSG using the CeRx Artifact Feedback Form.	Initial CeRx core team reviews. May be adjusted with information from subsequent packages. Design Models have not been put forward to HL7 for feedback.	Team Draft 2005-Apr-30
PN502-2004-EN	Interaction Models	Interaction Models comprise 3 major components: [1] Interaction Summary Diagrams (blue diagrams) Sample interaction summary diagrams should be reviewed to confirm for business appropriateness and implement ability. [2] HL7 Ladder Diagrams Should be reviewed for completeness. [3] List of Application Roles, Trigger Events, Interactions. Should be reviewed for appropriateness and to determine if the lists of application roles are typical of current and/or planned CeRx implementations. The information for [3] can be found in PN502-0008-EN - Scope & Package Tracking Framework. **Making Changes:**	Multiple CeRx core team reviews. Interaction Models have not been put forward to HL7 for feedback. Application Roles need to be reconciled with a revised view of the EHR currently used in the Interaction Summary Diagrams. Also, need to be coordinated with other standards initiatives	Interaction Summary Diagrams (blue) [N/A for this package] HL7 Interaction / Ladder or Sequence Diagrams Team Draft 2005-Apr-30

Doc #	Title	Review Guidance	Stability	Status
		• For Interaction Summary Diagrams (blue) & HL7 Ladder Diagrams: • Highlight areas of concern for the CeRx-pCSG using the CeRx Artifact Feedback Form. • For List of App Roles, Triggers, Interactions • Highlight areas of concern for the CeRx-pCSG using the CeRx Artifact Feedback Form.	such as registries.	List of App Roles, Triggers, Interactions [see Scope & Package Tracking Framework]

PN502-2005-EN	Message Worksheets	**NOTE: These documents have been included in PN502-2003-EN as section 3.**
		Message worksheets are formally derived from the Design models or message models noted as PN502-2003-EN. Detail review is not required by the CeRx-pCSG other than to build an understanding of the more detailed modelling constructs.
		Each attribute (field) needs to be confirmed, including the appropriateness of the attribute for this particular message. Are there missing attributes?
		A number of key elements need to be confirmed, including:
		• Data type: Only review if you're interested ☺
		• Conformance: Choose between:
		  • Required (Implementers must support, but only populated when data is available),
		  • Populated (Implementers must support and must always send a value, however the value may be a null flavour), or
		  • Mandatory (Value must always be populated (no nulls))
		• Repetitions: How many times can the attribute repeat? For example, a name may repeat to support aliases.
		• Code Strength (for coded attributes): Choose between:
		  • CNE (coded with no extensions; Must be coded using 'official' codeset (no un-coded text or local codes), or
		  • CWE (coded with extensions; allows local extensions; should be discouraged except under special circumstances)
		• Code Domain (for coded attributes): This will be the official
			See PN502-2003-EN	See PN502-2003-EN

Doc #	Title	Review Guidance	Stability	Status
		HL7 domain name for the codes (value set) for a particular attribute. In most cases, no formal review is required. This will be a cross reference to the vocabulary spreadsheets that are included in PN502-3004-EN - Vocabulary. • Description: A description of the attribute. Wordsmith as appropriate. • Rationale: Reason why the attribute is included in a message. Wordsmith as appropriate. • Implementation: Notes for implementers of the attribute. Add to attributes where it is missing and adjust existing wording. • Used by: Indicates which standards use a particular attribute.		
PN502-2006-EN	Harmonization Proposals	Not currently available. These proposals are focused for HL7 ballot requirements and formal review by the CeRx-pCSG is not anticipated.	N/A	In Progress

6.3 Cross Project Artifacts / Documents

Please consult package 4 overview document.

VII HL7 CONTEXT

Please consult package 4 overview document.

Appendix A. HL7 METHODOLOGY BACKGROUND

Please consult package 4 overview document.