

HITSP Patient Level Quality Data Message Component

HITSP/C34



Healthcare Information Technology Standards Panel

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1.0 INTRODUCTION

1.1 OVERVIEW

This Healthcare Information Technology Standards Panel (HITSP) Component supports the process of sending patient data from a Quality Message Sender to a Quality Message Receiver for further analysis and aggregation. Patient data are captured as part of the normal process of care performed by healthcare providers such as hospitals, emergency departments and outpatient clinics.

1.2 COPYRIGHT PERMISSIONS

COPYRIGHT NOTICE

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1.3 REFERENCE DOCUMENTS

A list of key reference documents and background material is provided in the table below. HITSP-maintained reference documents can be retrieved from the [HITSP Web Site](#).

Table 1-1 Reference Documents

Reference Document	Document Description
HITSP Acronyms List	Lists and defines the acronyms used in this document
HITSP Glossary	Provides definitions for relevant terms used by HITSP documents
TN900 - Security and Privacy	TN900 is a reference document that provides the overall context for use of the HITSP Security and Privacy constructs
TN901 - Clinical Documents	TN901 is a reference document that provides the overall context for use of the HITSP Care Management and Health Records constructs
TN903 – Data Architecture	TN903 is a reference document that provides the overall context for use of the HITSP Data Architecture constructs
TN904 – Harmonization Framework and Exchange Architecture	TN904 is a reference document that provides the overall context for use of the HITSP Harmonization Framework and Exchange Architecture
Health Information Technology Automation of Quality Measurement: Quality Dataset and Data Flow	The Quality Data Set (QDS) provides a common technological framework for defining clinical data necessary to measure performance and accelerate improvement in patients' quality of care. By providing a common language to describe the information within quality measures, the QDS enables quality measurement from a variety of electronic sources, including electronic health records (EHRs), personal health records (PHRs), registries, and health information exchanges (HIEs). The QDS framework is applicable to all care settings a patient is likely to use in his or her lifetime. This QDS framework creates a dynamic product that will enable versioning, growth, and expansion to meet future needs for measurement and guideline implementation

1.4 CONFORMANCE

This section describes the conformance criteria, which are objective statements of requirements that can be used to determine if a specific behavior, function, interface, or code set has been implemented correctly.

1.4.1 CONFORMANCE CRITERIA

In order to claim conformance to this construct specification, an implementation must satisfy all the requirements and mandatory statements listed in this specification, the associated HITSP Interoperability



Specification or Capability, its associated construct specifications, as well as conformance criteria from the selected base and composite standards. A conformant system must also implement all of the required interfaces within the scope, subset or implementation option that is selected from the associated Interoperability Specification.

Claims of conformance may only be made for the overall HITSP Interoperability Specification or Capability with which this construct is associated.

1.4.2 CONFORMANCE SCOPING, SUBSETTING AND OPTIONS

A HITSP Interoperability Specification or Capability must be implemented in its entirety for an implementation to claim conformance to the specification. HITSP may define the permissibility for interface scoping, subsetting or implementation options by which the specification may be implemented in a limited manner. Such scoping, subsetting and options may extend to associated constructs, such as this construct. This construct must implement all requirements within the selected scope, subset or options as defined in the associated Interoperability Specification or Capability to claim conformance.



2.0 COMPONENT DEFINITION

2.1 CONTEXT OVERVIEW

As Quality is based upon the repurposing of clinical data, the processes and data capture options are somewhat opportunistic, and associated data mining processes have more latitude in translation and data preparation processes. Since it is important to maximize the data sources to contribute data to the Quality Information System, information exchange selections include options for data capture from both legacy environments and emerging environments. Vocabulary, message, and content standards have been selected in consideration of providing the most comprehensive, machine-processable fulfillment of the data requirements.

See Section 4.0 Appendix for additional informative details.

2.1.1 COMPONENT DEPENDENCIES

Table 2-1 Component Dependencies

Standard/HITSP Component	Depends On (Name of standard/HITSP Component that it depends on)	Dependency Type (Pre-condition, Post-condition, General)	Purpose (Reason for this dependency)
HITSP/C34 - Patient Level Quality Data Message	HITSP/C80 - Clinical Document and Message Terminology	General	Constraints on Vocabulary
HITSP/C34 - Patient Level Quality Data Message	HITSP/C154 - Data Dictionary	General	Alignment of data Elements

See Section 4.0 Appendix for additional informative details.

2.2 RULES FOR IMPLEMENTING

HITSP has applied constraints to message content. See Data Mapping constraints described in sections below. See Section 4.0 Appendix for additional informative details.

The template identifier for this message is 2.16.840.1.113883.3.88.11.34.1

- C34-[MSG-1] Implementations of this Component **SHALL** conform to the Version 2.5.1 of the Health Level Seven (HL7) Standard.
- C34-[MSG-1] All patient-based Quality messages **SHALL** include the: Message Header Segment (MSH), and Patient Identification Segment (PID)
- C34-[MSG-2] All patient-based Quality HL7v2.5.1 ADT Messages **SHALL** include the Event Segment (EVN),
- C34-[MSG-3] The patient-based Quality HL7v2.5.1 Message **MAY** include the following segments: :
Patient Visit 1 Segment (PV1),
Common Order Segment (ORC),
Common Order Segment (ORC) ,
Observation (OBX), Pharmacy/Treatment Order Segment (RXO),
Allergy Segment (AL1)
Diagnosis, Segment (DG1),
Procedure Segment (PR1),
Practitioner Detail Segment(PRA),
Role Segment(ROL),
General Clinical Order Message (OMG),
GOL Goal Detail Segment
Adverse Reaction Segment (IAM),
Pharmacy/Treatment Administration Segment (RXA)
Pharmacy Order (RDE)
Pharmacy/Treatment Route Segment (RXR)



	Problem Detail Segment (PRB) and Patient Problem Segment (PPR)
C34-[MSG-4]	The patient-based Quality HL7v2.5.1 Observation Request Segment (OBR) Message SHALL be included in both the Order and Result messages.
C34-[MSG-5]	The Procedure Ordered Data SHALL be transmitted using the HL7 ORU-OBX Message.
C34-[MSG-6]	The Diagnostic Study Ordered Data SHALL be transmitted using the HL7 ORU-OBX Message.
C34-[MSG-7]	The Diagnostic Study Result Data SHALL be transmitted using the HL7 ORU-OBX Message.
C34-[MSG-8]	The Laboratory Test Performed Data SHALL be transmitted using the HL7 ORU Message.
C34-[MSG-9]	The Risk Category Assessment Data SHALL be transmitted using the HL7 ORU-OBX Message.
C34-[MSG-10]	The Patient-based Quality HL7v2.5.1 Diagnosis (DG1), Procedures (PR1) SHALL be included only in ADT or DFT or BAR messages.
C34-[MSG-11]	The Patient-based Quality HL7v2.5.1 Allergy Information Segment (AL1) SHALL be included only in ADT messages
C34-[MSG-12]	The Substance Allergy SHALL be reported using AL1 Patient Allergy Information Segments in ADT messages.
C34-[MSG-13]	The Medication Allergy Data SHALL be reported using the AL1 Patient Allergy Segment in ADT Messages.
C34-[MSG-14]	The Patient-based Quality HL7v2.5.1 Adverse Reaction Segment (IAM) SHALL be included only in the ADT^60 message.
C34-[MSG-15]	The Medication Adverse Event SHALL be reported using IAM Adverse Reaction Information (Event A60)
C34-[MSG-16]	Substance Adverse Event SHALL be reported using IAM Adverse Reaction Information (Event A60)
C34-[MSG-17]	The Facility Location information SHALL be sent at startup and SHALL NOT be sent in every patient-level message.
C34-[MSG-18]	The HL7 ADT^01 message SHALL be the only message where Admission information MAY be provided.
C34-[MSG-19]	The HL7 ADT^03 message SHALL be the only message where Discharge information MAY be provided.
C34-[MSG-20]	The Clinical Problem data SHALL be transmitted using the HL7PPR Patient Problem Message.
C34-[MSG-21]	The Problem Active data SHALL be reported using HL7 PPR Patient Problem Message
C34-[MSG-22]	The Problem Risk data SHALL be reported using HL7 PPR Patient Problem Message
C34-[MSG-23]	The Problem Family History data SHALL be reported using HL7 PPR Patient Problem Message
C34-[MSG-24]	The Problem Past History data SHALL be reported using HL7 PPR Patient Problem Message
C34-[MSG-25]	The Medication Dispensed data SHALL be transmitted using the HL7 RDS^O13 Pharmacy Dispense Message.
C34-[MSG-26]	The Medication Discontinued data SHALL be transmitted using the HL7 RDS^O13 Pharmacy Dispense Message
C34-[MSG-27]	The Medication Administered data SHALL be transmitted using the HL7 RDS^O17 Pharmacy/Treatment Administration Message.
C34-[MSG-28]	The Discharge Medication Order data SHALL be transmitted using the HL7 RDE Pharmacy/Treatment Refill Authorization Request Message (Event O25).
C34-[MSG-29]	The Device Applied data SHALL be transmitted using the HL7 RXA Message.



C34-[MSG-30]	The Procedure Order SHALL be reported using the HL7 OMG Message.
C34-[MSG-32]	The Procedure History SHALL be reported using One or more PR1 Segments in ADT Messages
C34-[MSG-33]	The Provider Characteristics SHALL be reported in PRA Practitioner Detail Segment and ROL Role Segment
C34-[MSG-34]	The Discharge Instructions SHALL be reported using One or more PR1 Segments in ADT Messages
C34-[MSG-35]	The Care Goal Attributes SHALL be reported GOL Goal Detail Segment
C34-[MSG-36]	The Risk Category Assessment SHALL be reported using the HL7 ORU-OBX Message.
C34-[MSG-37]	The Physical Exam Finding SHALL be reported using the HL7 ORU-OBX Message

2.2.1 PATIENT LEVEL QUALITY DATA MESSAGE DATA SET

In fulfillment of Quality data and information requirements, the following provisional data dictionary was generated by HITSP based upon interpretation of measure requirements provided by the Health Information Technology Expert Panel (HITEP). This list is currently under review by the National Quality Forum (NQF) HITEP. Standards selected or under consideration by HITSP to constrain the vocabularies used for interoperability are provided.

In addition to the data elements listed below, Quality measures may rely on additional derived attributes that reflect interpretation or computation of information based upon the data elements listed below.

All Conditional Inclusion Requirements for this data element are specified by the measure.

HITSP/C154 Data Dictionary Section References within the table are Identifiers within the HITSP/C154 Data Dictionary document and do not reference sections within this document.

Table 2-2 Base Facility Message Control Mapping

HL7 Data Element	Data Source	Destination	Optionality	Additional Specification
MSH-4.1 – Sending Facility-Universal ID	Facility Identifier	N/A	R	C34-[MC-1-1] A Unique facility identifier SHALL be present using the numeric CMS IDs Hierarchical Designator.
MSH-4.2 – Sending Facility-Namespace	Name of facility	N/A	R	C34-[MC-1-2] A facility name SHALL be present using a string which represents the Hierarchical Designator

Optionality Legend: “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional

Table 2-3 Patient Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ¹
PID-3 Patient Identifier List	1.02 Person ID	C/Y	C34-[DE-1.02-1] The Identifier SHALL contain a Pseudoidentifier, when pseudoanonymizing is used C34-[DE-1.02-2] This Identifier MAY be populated with a Vendor-assigned ID which is a type of Pseudo-identifier
IN1-2 Insurance Plan ID	5.03 Health Plan Insurance Information Source ID	C/Y	
IN1 -15 Plan Type	5.02 Health Insurance Type	C/Y	
PID-7 Birth Date:	1.07 Person Date of Birth	C/N	

¹ May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions.”



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ¹
PID-8 Administrative Sex	1.06 Gender	C/N	C154-[DE-1.06-1] Gender SHALL be coded as specified in HITSP/C80 Section 2.2.1.2.1.2 V3 Administrative Gender
PID-5.1 Family Name PID-5.2 Given Name	1.05 Person Name	C/Y	
PID-22 Ethnicity	1.11 Ethnicity	CY	C154-[DE-1.11-1] Ethnicity SHALL be coded as specified in HITSP/C80 Section 2.2.1.2.2 Ethnicity
PID-10 Race :	1.10 Race	C/Y	C154-[DE-1.10-1] Race SHALL be coded as specified in HITSP/C80 Section 2.2.1.2.7 Race
PID-11 Patient Address:	1.03 Person Address	C/N	C154-[DE-1.03-1] The state part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.1 State C154-[DE-1.03-2] The postal code part of an address in the United States SHALL be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code C154-[DE-1.03-3] The country part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.3 Country
PID-16 Marital Status	1.08 Marital Status	C/N	C154-[DE-1.08-1] Marital Status SHALL be coded as specified in HITSP/C80 Section 2.2.1.2.3.2 Marital Status CDA and HLV3
PID-17 Religion	1.09 Religious Affiliation	C/Y	C154-[DE-1.09--1] Religious affiliation SHALL be coded as specified in HITSP/C80 Section 2.2.1.2.8 Religious Affiliation
PID-29 Patient Death Date and Time	7.09 Time of death	C/N	
PID-30 Patient Death Indicator	7.04 Problem Code	C/Y	
PDA-5 Death Certified By	7.05 Treating Provider	C/Y	C34-[DE-7.07-1] The Treating Provider ID SHALL be coded using NPI
PDA-1 Death Cause Code	7.07 Cause of death	C/Y	C34-[DE-7.07-1] The Death Cause Code SHALL be coded using ICD-10
OBX-3 is an observation value for "Age at death", and OBX-5 is a numeric field, and OBX-6 is units	7.08 Age at death	C/N	

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No

Table 2-4 Visit Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ²
PV1-6 Attending Doctor PV1-7 Referring Doctor PV1-8 Consulting Doctor	7.05 Treating Provider	C/Y	

² May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions."



PV1-6 Attending Doctor PV1-7 Referring Doctor PV1-8 Consulting Doctor	7.11 Treating Provider ID	C/Y	C34-[DE-7.11-1] The Treating Provider ID SHALL be coded using NPI
PV1 – 44 Admit Date/Time, PV1 – 45 Discharge Date/Time	4.01 Date Range	C/Y	
ROL-3 – Role-ROL	4.02 Provider Role Coded	C/Y	C154-[DE-4.02-1] Provider role SHALL be coded as specified in HITSP/C80 Section 2.2.3.8.1 Provider Role
ROL-3 – Role-ROL	4.03 Provider Role Free Text	C/Y	
ROL-9 – Provider Type PRA-3 - Practitioner Category	4.04 Provider Type	C/Y	C154-[DE-4.04-1] Provider type SHALL be coded as specified in HITSP/C80 Section 2.2.3.8.2 Provider Type
ROL-11- Office/Home Address/Birthplace	4.05 Provider Address	C/Y	C154-[DE-4.05-1] The state part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.1 State C154-[DE-4.05-2] The postal code part of an address in the United States SHALL be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code C154-[DE-4.05-3] The country part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.3 Country
ROL-12 - Phone	4.06 Provider Phone/Email/URL	C/Y	
ROL-4 - Role Person	4.07 Provider Name	C/Y	
PR1-3 Procedure Code	16.02 Encounter Type	C/N	C34-[DE-16.02-1] - Visit Data Billing Codes SHALL be coded as specified in HITSP/C80 Section 2.2.3.9.3 Encounter Type
PV1-2 Patient Class	16.10 Patient Class	C/N	C154-[DE-16.10-1] Patient Class SHALL be coded as specified in HITSP/C80 Section 2.2.3.9.5 Patient Class
PV1-14 Admit Source	16.06 Admission Source	CN	C154-[DE-16.06-1] Admission Source SHALL be coded as specified in HITSP/C80 Section 2.2.3.9.1 Admission Source
PV1-4 Admission Type	16.07 Admission Type	CN	C34-[DE-16.0271] Current Location (Admission Type) SHALL be coded using HITSP/C80 Section 2.2.3.9.2 Admission Type
PV1-3 Assigned Patient Location	16.11 In Facility Location	CN	C34-[DE-16.11-1] In Facility location SHALL be coded with HL7 ServiceDeliveryLocationCodes
PV1-45 Discharge Date/time	16.16 Discharge Date/time	C/N	
PV1-36 Discharge Disposition	16.09 Discharge Disposition	CN	C154-[DE-16.09-1] The Discharge Disposition SHALL be coded as specified in HITSP/C80 Section 2.2.3.9.4 Discharge Disposition
PV2-3 Admit Reason	16.13 Reason for Visit	CN	C34-[DE-16.13-1] The Admit Reason SHALL be coded using SNOMED-CT



OBX-3 Observation Identifier OBX-5 Observation Value	17.01 Procedure ID NOTE: This information is used to reflect the Discharge Instructions in the Plan of Care Section	C/Y	C34-[DE-17.01-1] All discharge instructions given throughout the hospitalization SHALL be coded as an observation value for "discharge Education" using OBX-3 and OBX-5 SHALL be coded as specified in HITSP/C80 Section 2.2.3.7 Procedures.. Education recorded can occur at any time. Must be noted that: 1) The patient has received a copy, OR 2) The patient has refused a copy, OR 3) Copy not given because patient is impaired and caregiver not present
OBX-3 Observation Identifier OBX-5 Observation Value	7.01 Problem Date NOTE: This information is used to reflect the Date/time last Known Well	C/N	C34-[DE-7.01-1] Date/time Last Known Well SHALL be coded as an observation value for "illness onset date" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment.
OBX-3 Observation Identifier OBX-5 Observation Value	16.20 In Facility Location Duration NOTE: This information is used to reflect the ED Departure Date/time	C/N	C34-[DE-16.20-1] ED Departure Date and Time SHALL be coded as an observation value for "ED Departure Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment, where the date/time populate is the time the patient PHYSICALLY departed the ED
OBX-3 Observation Identifier OBX-5 Observation Value	16.20 In Facility Location Duration NOTE: This information is used to reflect the ICU Admission Date/time	C/N	C34-[DE-16.20-2] ICU Admission Date/time SHALL be coded as an observation value for "ICU Admission Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment
OBX-3 Observation Identifier OBX-5 Observation Value	16.20 In facility Location Duration NOTE: This information is used to reflect the ICU Transfer Date/time	C/Y	C34-[DE-16.20-3] ICU Transfer Date/time SHALL be coded as an observation value for "ICU Transfer Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment
OBX-3 Observation Identifier OBX-5 Observation Value	16.20 In Facility Location - Duration NOTE: This information is used to reflect the ICU Discharge Date/time	C/Y	C34-[DE-16.20-4] ICU Discharge Date/time SHALL be coded as an observation value for "ICU Transfer Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment
OBX-3 Observation Identifier OBX-5 Observation Value	16.14 Order to Admit Date/time NOTE: This information is used to reflect the Order to Admit Date/time	C/Y	C34-[DE-16.14-1] Order to Admit Date/time SHALL be coded as an observation value for "Order to Admit Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment, where Order to Admit Date/time of record reflects the original order for admit by the physician



OBX-3 Observation Identifier OBX-5 Observation Value	16.12 Arrival Date/time NOTE: This information is used to reflect the actual time that the patient Arrives at the facility or ED	C/Y	C34-[DE-16.12-1] Arrival Date/time SHALL be SNOMED CT coded as an observation value for "Time of arrival at hospital" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment, where the arrival date/time is the actual date/time of the patient arrival to the facility
OBX-3 Observation Identifier OBX-5 Observation Value	16.10 Decision to Admit NOTE: This information is used to reflect the Decision to Admit Date/time	C/Y	C34-[DE-16.10-1] Arrival Date/time SHALL be SNOMED CT coded as an observation value for "Decision to Admit Date/time" using OBX-3 Observation Identifier and SHALL specify the date/time using the OBX-5 Observation Value section of the message segment, where the arrival date/time is the actual date/time of the patient arrival to the facility
MSH-4.1 Sending Facility - Universal ID PV1-3 Assigned patient location	16.17 Facility ID	C/N	
MSH-4.2 Sending Facility - Namespace PV1-3 Assigned patient location	16.18 Facility Name	C/N	
PV1-3 Assigned patient location	16.19 Facility Address	C/N	C154-[DE-4.05-1] The state part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.1 State C154-[DE-4.05-2] The postal code part of an address in the United States SHALL be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code C154-[DE-4.05-3] The country part of an address SHALL be recorded using HITSP/C80 Section 2.2.1.1.3 Country

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No

Table 2-5 Problem Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ³
PPR^PRB-16 Problem Date of Onset	7.01 Problem Date	C/Y	
PPR^PRB-10 Problem Classification PPR^PRB-11 Problem Management Discipline	7.02 Problem Type	C/Y	C34-[DE-7.02-1] Allergies/adverse reaction severity related to medications, food, or substances SHALL be coded as specified in HITSP/C80 Section 2.2.3.1.2 Problem Type
PPR^PRB-3 Problem ID	7.03 Problem Name	C/Y	

³ May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions."



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ³
PPR^PRB-3 Problem ID	7.04 Problem Code	C/Y	C34-[DE-7.04-1] Problem Active SHALL be reported using SNOMED CT codes reflecting active problems C34-[DE-7.04-2] Problem Risk SHALL be reported using SNOMED CT codes reflecting 'Risk' of problem C34-[DE-7.04-2] Problem Family History SHALL be reported using SNOMED CT codes reflecting 'Family History' of problem C34-[DE-7.04-2] Problem Past History SHALL be reported using SNOMED CT codes reflecting 'History' of problem
PPR^ROL-4 Role Person	7.05 Treating Provider	C/Y	C34-[DE-7.05-1] The Treating Provider SHALL be coded using the NPI
PPR^PRB-6	7.10 Diagnosis Priority	C/Y	C34-[DE-7.10-1] The Diagnosis Priority SHALL be encoded as specified in HITSP/C80 2.2.3.1.4 Diagnosis Priority
PV1-15 Ambulatory Status	Pending further HITSP modeling	C/Y	C34-[DE-functionalStatus-1] SHALL be populated with Patient Status
PV2-3 Admit Reason	7.04 - Problem Code	C/Y	C34-[DE-7.04-1] Active Symptom SHALL be reported using PV2-3 for Patient-reported symptoms
AL1-2 Allergen Type Code	6.02 Adverse Event Type NOTE: This information is used to reflect the Medication Allergy and to reflect the Substance Allergy	C/Y	C34-[DE-6.02-1] Allergies/adverse reaction type related to medications, food, substances, diagnostic study or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.2 Allergy/Adverse Event Type
AL1-3 Allergen Code/Mnemonic/Description	6.04 Product Coded NOTE: This information is used to reflect the Medication Allergy and to reflect the Substance Allergy	C/Y	C34-[DE-6.04-1] Allergies/adverse reaction product related to medications, food, substances, diagnostic study or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.4 Allergy/Adverse Event product
AL1-4 Allergy Severity Code	6.08 Severity Coded NOTE: This information is used to reflect the Medication Allergy and to reflect the Substance Allergy	C/Y	C34-[DE-6.08-1] Allergies/adverse reaction severity related to medications, food, substances, diagnostic study or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.3 Allergy/Adverse Event Severity
AL1-5 Allergy Reaction Code	6.06 Reaction Coded NOTE: This information is used to reflect the Medication Allergy and to reflect the Substance Allergy	C/Y	C34-[DE-6.06-1] Allergies/adverse reaction related to medications, food, substances, diagnostic study or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.1 Allergy/Adverse Event Reaction
AL1-6 Identification Date	6.01 Adverse Event Date NOTE: This information is used to reflect the Medication Allergy and to reflect the Substance Allergy	C/Y	



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ³
IAM-2 Allergen Type Code	6.02 Adverse Event Type NOTE: This information is used to reflect the Medication Adverse Event, to reflect the Substance Adverse Event, and to reflect Substance Intolerance	C/Y	C34-[DE-6.02-2] Allergies/adverse reaction type related to medications, substances, diagnostic study, procedure, or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.2 Allergy/Adverse Event Type
IAM-3 Allergen Code/Mnemonic/Description	6.04 Product Coded NOTE: This information is used to reflect the Medication Adverse Event, to reflect the Substance Adverse Event, and to reflect Substance Intolerance	C/Y	C34-[DE-6.04-2] Allergies/adverse reaction product related to medications, substances, diagnostic study, procedure, or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.4 Allergy/Adverse Event product
IAM-4 Allergy Severity Code	6.08 Severity Coded NOTE: This information is used to reflect the Medication Adverse Event, to reflect the Substance Adverse Event, and to reflect Substance Intolerance	C/Y	C34-[DE-6.08-2] Allergies/adverse reaction severity related to medications, substances, diagnostic study, procedure, or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.3 Allergy/Adverse Event Severity
IAM-5 Allergy Reaction Code	6.06 Reaction Coded NOTE: This information is used to reflect the Medication Adverse Event, to reflect the Substance Adverse Event, and to reflect Substance Intolerance	C/Y	C34-[DE-6.06-2] Allergies/adverse reaction related to medications, food, substances, diagnostic study, procedure, or devices SHALL be coded as specified in HITSP/C80 Section 2.2.3.4.1 Allergy/Adverse Event Reaction
IAM-11 Onset Date	6.01 Adverse Event Date NOTE: This information is used to reflect the Medication Adverse Event, to reflect the Substance Adverse Event, and to reflect Substance Intolerance	C/Y	

Optionality Legend: “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional. Repeatable = “Y” for Yes, “N” for No

Table 2-6 Discharge Diagnosis Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁴
DG1-5 Diagnosis Date/time	7.01 Problem Date	C/Y	
DG1-6 Diagnosis Type	7.02 Problem Type	C/Y	C34-[DE-7.02-1] The Diagnosis Type SHALL be reported using HL7 2.5.1 User-defined Table 0052 - Diagnosis Type, IS (coded)
DG1-4 Diagnosis Description	7.03 Problem Name	C/Y	

⁴ May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions.”



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁴
DG1-3 Diagnosis Code - DG1	7.04 Problem Code	C/Y	C34-[DE-7.04-1] Discharge Diagnosis Active SHALL be reported using SNOMED CT codes reflecting active problems C34-[DE-7.04-2] Discharge Diagnosis Risk SHALL be reported using SNOMED CT codes reflecting 'Risk' of problem C34-[DE-7.04-2] Discharge Diagnosis Family History SHALL be reported using SNOMED CT codes reflecting 'Family History' of problem C34-[DE-7.04-2] Discharge Diagnosis Past History SHALL be reported using SNOMED CT codes reflecting 'History' of problem
DG1-16 Diagnosing Clinician	7.05 Treating Provider	C/Y	C34-[DE-7.05-1] The Diagnosing Clinician SHALL be coded using the NPI
DG1-15 Diagnosis Priority	7.10 Diagnosis Priority	C/Y	C154-[DE-7.10-1] The Diagnosis Priority SHALL be coded as specified in HITSP/C80 Section 2.2.3.1.4 Diagnosis Priority

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No

The following data mapping will be used to present the vital signs for each of the following:

- Blood Pressure (BP Systolic and BP Diastolic)
- Pulse Oximetry (O2 % BldC Oximetry)

Table 2-7 Vital Signs Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁵
OBX-14 Date Time of the Observation	14.02 Vital Sign Result Date/Time	C/Y	
OBX-3 Observation Identifier	14.03 Vital Sign Result Type	C/Y	C34-[DE-14.03-1] Vital signs Result Type SHOULD be coded as specified in HITSP/C80 Section 2.2.3.6.5 Vital Sign Result Type.
OBX-5 Observation Value, OBX-6 Units	14.05 Vital Sign Result Value	C/Y	C34-[DE-1.14.05-1] Units MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.6.6 Units of Measurement

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No

Table 2-8 Procedures Data Mapping

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁶
OMG^OBR-4 Universal Service	17.02 Procedure Type	C/Y	C34-[DE-7.04-1] Procedure Ordered SHALL be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure
OMG^OBR-6 Requested Date/Time	Pending further HITSP modeling	C/Y	C34-[DE-7.04-1] Procedure Ordered Date/Time SHALL be specified using OBR-6

⁵ May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions."

⁶ May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions."



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁶
OMG^OBR-16 Ordering Provider	Pending further HITSP modeling	C/Y	C34-[DE-7.04-1] Ordering Provider SHALL be specified using OBR-16 using the NPI
PR1-3 Procedure Code	17.02 Procedure Type	C/Y	C34-[DE-7.04-1] Procedure SHALL be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure
PR1-4 Procedure Description	17.03 Procedure Free Text Type	C/Y	
PR1-5 Procedure Date/Time	17.04 Procedure Date/Time	C/Y	
PR1-11 Surgeon PR1-12 Procedure Practitioner	17.05 Procedure Provider	C/Y	C34-[DE-8.31-1] The Provider Identifier SHALL be coded using the NPI
PR1-5 Procedure Date/Time	Anesthesia: 8.03 Administration Timing	C/Y	C34-[DE-8.03-1] Anesthesia Start Date/Time shall be reported using PR1-5 Procedure Date/Time
PR1-5 Procedure Date/Time and PR1-10 Anesthesia Minutes	Anesthesia: 8.06 Duration 8.03 Administration Timing	C/Y	C34-[DE-8.03-2] Anesthesia End Date/Time shall be computed using PR1-5 Procedure Date/Time and PR1-10 Anesthesia Minutes

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No



Table 2-9 Medications Data Mapping

HITEP II Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁷
RDS^O13 Pharmacy Dispense Message RXO-1 Requested Give Code RXE-2 Give Code	8.13 Coded Product Name	C/Y	<p>C34-[DE-8.13-1] The Medication Ordered coded product name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names.</p> <p>C34-[DE-8.13-2] The Medication Ordered product name or brand name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.7 Medication Brand Name or 2.2.3.3.10 Medication Packaged Product.</p> <p>C34-[DE-8.13-3] When only the class of the drug is known (e.g., Beta Blocker or Sulfa Drug), it SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.9 Medication Drug Class.</p> <p>C34-[DE-8.13-4] The Medication Ordered Codes as specified in HITSP/C80 Section 2.2.3.3.11 Ingredient Name MAY be used when there are no suitable codes in the other vocabularies to identify the medication.</p> <p>C34-[DE-8.13-5] The Medication Ordered code for the product (generic) name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names. If the code for the generic product is unknown, the attributes may be omitted</p>
RDS^O13 Pharmacy Dispense Message RXE-32 Original Order Date/Time	8.30 Order Date/time	C/Y	
RDS^O13 Pharmacy Dispense Message ORC-12 Ordering Provider	8.31 Ordering Provider	C/Y	C34-[DE-8.31-1] The Medication Ordering Provider SHALL be coded using the NPI
HL7 RDS^O13 Pharmacy Dispense Message – ORC-1 Order Control value	8.02 Indicate Medication Stopped	C/Y	C34-[DE-8.02-1] The Medication Ordered code for the product (generic) name SHALL be coded as specified using coded - HL7 Table 0119 - Order control codes

⁷ May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions.”



HITEP II Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁷
HL7 RAS^O17 Pharmacy/Treatment Administration Message RXA-5 Administered Code	8.13 Coded Product Name	C/Y	<p>C34-[DE-8.13-1] The Medication Ordered coded product name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names.</p> <p>C34-[DE-8.13-2] The Medication Ordered product name or brand name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.7 Medication Brand Name or 2.2.3.3.10 Medication Packaged Product.</p> <p>C34-[DE-8.13-3] When only the class of the drug is known (e.g., Beta Blocker or Sulfa Drug), it SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.9 Medication Drug Class.</p> <p>C34-[DE-8.13-4] The Medication Ordered Codes as specified in HITSP/C80 Section 2.2.3.3.11 Ingredient Name MAY be used when there are no suitable codes in the other vocabularies to identify the medication.</p> <p>C34-[DE-8.13-5] The Medication Ordered code for the product (generic) name SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names. If the code for the generic product is unknown, the attributes may be omitted</p>
HL7 RAS^O17 Pharmacy/Treatment Administration Message RXR-1 Route	8.07 Route	C/Y	C34-[DE-8.07-1] Route MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.4.2 Medication Route
HL7 RAS^O17 Pharmacy/Treatment Administration Message RXA-3 Date/time Start of Administration RXA-4 Date/time End of Administration	8.03 Administration Timing	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message RXO-23 is Total Daily Dose RXO-11 Requested Dispense Amount/RXO-12 Requested Dispense Units	8.08 Dose	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message HL7 TQ1 -3-Repeat Pattern (Timing/Quantity segment usage) in either OMP or RDE message type	8.04 Frequency	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message RXO-13 Number of Refills attribute	8.27 Fills	C/Y	



HITEP II Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁷
HL7 RDS^O13 Pharmacy Dispense Message RXE-10 Dispense Amount or RXE-13 Initial Dispense Amount	8.38 Quantity Dispensed	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message TQ1-8 End Date/time	8.29 Order Expiration Date/Time	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message RXD-7 Prescription Number RXD-8 Number of Refills Remaining RXD-12 Total Daily Dose	8.33 Fulfillment History	C/Y	C34 -[DE-8.33-1]Fulfillment History SHALL be expressed using Loops of PVD (Prescriber), PVD (Pharmacy) and DRU (Drug) Segments to relay up to 300 history occurrences, within Medication History Response mapped to CDA
HL7 RDS^O13 Pharmacy Dispense Message RXD-3 Date/Time Dispensed	8.37 Dispense Date	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message RXD-4 Actual Dispense Amount RXD-5 Actual Dispense Units	8.38 Quantity Dispensed	C/Y	
HL7 RDS^O13 Pharmacy Dispense Message ORC-1 Order Control Codes such as "DF- Order/service refill request denied" "OF- Order/service refilled as requested" "UF- Unable to refill"	8.40 Fill Status	C/Y	C34 -[DE-8.40-1] Fill Status MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.3.1 Medication Fill Status
RDS^O13 Pharmacy Dispense Message – ORC-1 Order Control value	8.02 Indicate Medication Stopped	C/Y	

Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for Yes, "N" for No

Table 2-10 Study Findings/Test Results - Laboratory Data Mapping⁸

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁹
ORU^OBX-3 Observation Identifier	15.01 Result ID	C/Y	C35[DE-15.01-1] Result Value SHALL be coded using LAB LOINC
ORU^OBR-22 Results/Report Status Change Date/time	15.02 Result Date/Time	C/Y	
ORU^OBX-2 Value Type	15.03 Result Type	C/Y	
ORU^OBR-25 Result/Report Status	15.04 Result Status	C/Y	C34-[DE-15.04-1] Result Status for laboratory results SHALL be coded using HITSP/C80 2.2.3.6.4.1 Results Status

⁸ Not limited to that known at the end of encounter

⁹ May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions."



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ⁹
ORU^OBX-5 Observation Result ORU^OBX-6 Units	15.05 Result Value	C/Y	C35-[DE-15.05-1] Observation result value SHALL be coded using SNOMED-CT (non-numeric laboratory such as organisms and other coded results), SN or NM (Numeric) or Coded C154 -[DE-1.15.05-2] Units MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.6.6 Units of Measurement
ORU^ OBX-8 Abnormal Flags	15.06 Result Interpretation	C/Y	C34 -[DE-1.15.06-1] Abnormal Flags MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.6.3.1Result Normalcy Status
ORU^OBX-7 References Range	15.07 Result Reference Range	C/Y	

Optionality Legend: “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional. Repeatable = “Y” for Yes, “N” for No

Table 2-11 Study Findings/Test Results – Diagnostic Results Mapping¹⁰

HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ¹¹
OBR-2 Placer Order Number	17.01 Procedure ID		
OBR-4 Universal Service	17.02 Procedure Type	C/Y	C34-[DE-17.02-1] Procedure SHALL be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure
OBR-4 Universal Service	17.03 Procedure Free Text Type	C/Y	
OBR-7 Observation Date/time	17.04 Procedure Date/time	C/Y	
OBR-16 Ordering Provider	17.05 Procedure Provider	C/Y	C34-[DE-17.05-1] The Procedure Provider SHALL be coded using the NPI
ORU^OBX-3 Observation Identifier	15.01 Result ID	C/Y	
OBR-22 Result/Report Status Change Date/time	15.02 Result Date/time	C/Y	
OBX-3 Observation Identifier	15.03 Result Type	C/y	C34-[DE-15.03-1] In the case of Risk Assessment To reflect Risk Category Assessment interim Recommendation: Clinical procedure assessment use LOINC; for Result of procedure use SNOMED CT
OBR-25 Results/Report Status	15.04 Result Status	C/Y	C34-[DE-15.04-1] Result Status for laboratory results SHALL be coded using HITSP/C80 2.2.3.6.4.1 Results Status
OBX-2 Value Type OBX-5 Observation Value	15.05 Result Value	C/Y	C34-[DE-15.05-1] Result Type for laboratory results SHALL be coded using. DICOM (structured report), SNOMED-CT, ICD9-CM/ICD-10, CPT Category
ORU^ OBX-8 Abnormal Flags	15.06 Result Interpretation	C/Y	C34 -[DE-1.15.06-1] Abnormal Flags MAY be present when needed. If present it SHALL be coded as specified in HITSP/C80 Section 2.2.3.6.3.1Result Normalcy Status

¹⁰ Not limited to that known at the end of encounter

¹¹ May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions.”



HL7 Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ¹¹
ORU^OBX-7 References Range	15.07 Result Reference Range	C/Y	
OBX - Observation		C/Y	C34-[DE-6-1] Diagnostic Study intolerance SHALL be reported using IAM Adverse Reaction Information C34-[DE-6-2] Diagnostic Study intolerance SHALL be reported using IAM Adverse Reaction Information

Optionality Legend: “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional. Repeatable = “Y” for Yes, “N” for No

Table 2-12 Devices

HITSP II Identifier and Name	HITSP Data Element ID and Name	HITSP Opt/Repeat	Additional Constraints ¹²
RXA-5 Administered Code	NOTE: Further modeling Pending	C/Y	C34-[DE-deviceApplied-1] Device Applied SHALL be reported using RXA-5
Pharmacy/Treatment Administration Segment (RXA) NOTE: Used where treatment is a device	PROCEDURES 17.01 Procedure 17.02 Procedure Type 17.03 Procedure Free Text Type 17.04 Procedure Date/Time 17.05 Procedure Provider 17.06 Body Site ##	C/Y	C34-[DE-deviceApplied-1] Device Applied SHALL be reported using AL1 Pharmacy/Treatment Administration Segment (RXA)
OBX – Observation	ADVERSE EVENT ENTRY 6.01 Adverse Event Date 6.02 Adverse Event Type Product Product Detail 6.03 Product Free-Text 6.04 Product Coded Reaction 6.05 Reaction Free-Text 6.06 Reaction Coded Severity 6.07 Severity Free-Text 6.08 Severity Coded	C/Y	C34-[DE-deviceApplied-1] Device Intolerance SHALL be reported using OBX – Observation
RXO - Pharmacy/Treatment Order Segment Used for devices requiring a prescription GAP - Non-prescription devices	GAP	C/Y	C34-[DE-deviceApplied-1] Device Intolerance SHALL be reported using RXO - Pharmacy/Treatment Order Segment

Optionality Legend: “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional. Repeatable = “Y” for Yes, “N” for No

2.2.2 GUIDELINES AND EXAMPLES

This section provides additional guidelines and examples that support the underlying base or composite standards for this Component. It describes how these specifications differ from the underlying standards, and provides guidelines and examples for implementation.

¹² May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions.”



No additional information at this time.

2.3 STANDARDS

2.3.1 REGULATORY GUIDANCE

Table 2-13 Regulatory Guidance

Standard	Description
Health Information Technology Expert Panel Report Health IT Enablement of Quality Measurement – the Quality Data Set (QDS) and Dataflow	Data requirements for this document are provided by HITEP II. This reflects the Data Element name/identifier as listed by Health Information Technology Expert Panel of the National Quality Forum (NQF) for the Identification of Core Data Elements. http://www.qualityforum.org/Projects/h/Health_IT_Expert_Panel_I/txHITEP_finaldraft.pdf.aspx

2.3.2 SELECTED STANDARDS

Table 2-14 Selected Standards

Standard	Description
American Medical Association (AMA) Current Procedural Terminology (CPT®) Fourth Edition (CPT-4); CPT Evaluation and Management Codes	A uniform coding system used primarily to identify medical services and procedures furnished by physicians and other healthcare professionals. For more information visit www.ama-assn.org
Centers for Medicare and Medicaid Services (CMS) National Provider Identifier (NPI)	NPI is a unique 10-digit identification number issued to healthcare providers in the United States by the Centers for Medicare and Medicaid Services (CMS). All individual HIPAA covered healthcare providers (physicians, nurses, dentists, chiropractors, physical therapists, etc.) or organizations (hospitals, home healthcare agencies, nursing homes, residential treatment centers, group practices, laboratories, pharmacies, medical equipment companies, etc.) must obtain an NPI for use in all HIPAA standard transactions, even if a billing agency prepares the transaction. Once assigned, a provider's NPI is permanent and remains with the provider regardless of job or location changes. For more information visit www.cms.gov
Digital Imaging and Communications in Medicine (DICOM) - Part16: Content Mapping Resource	The Digital Imaging and Communications in Medicine (DICOM) standard was created by the National Electrical Manufacturers Association (NEMA) to aid the distribution and viewing of medical images, such as CT scans, MRIs and ultrasound. This Part specifies the DICOM Content Mapping Resource (DCMR) which defined templates, context groups and vocabulary codes used in the DICOM Standard. For more information visit http://medical.nema.org
Federal Information Processing Standards (FIPS) Codes for the Identification of the States, the District of Columbia and the Outlying Areas of the United States, and Associated Areas Publication # 5-2, May, 1987	A set of two-digit numeric codes and a set of two-letter alphabetic codes for representing the 50 states, the District of Columbia and the outlying areas of the United States, and associated areas. The standard covers all land areas under the sovereignty of the United States, the freely associated states of Federated States of Micronesia and Marshall Islands, and the trust territory of Palau. For more information visit www.itl.nist.gov NOTE: ASC X12 transactions and ASC X12N Implementation Guides do not allow use of this standard; instead they require use of the U.S. Postal Service's National Zip Code and Post Office Directory -- which provides similar alphabetic code values



Standard	Description
Federal Medication Terminologies	<p>A set of controlled terminologies and code sets developed and maintained as part of a collaboration between the Food and Drug Administration, National Library of Medicine, Veterans Health Administration, National Cancer Institute and Agency for Healthcare Research and Quality related to medications, including medication proprietary and nonproprietary names, clinical drug code (RxNorm); ingredient names and Unique Ingredient Identifiers (UNII); routes of administration, dosage forms, and units of presentation from the NCI Thesaurus (NCIt); and certain pharmacological drug classes from the National Drug File Reference Terminology (NDF-RT)</p> <p>The Federal Medication Terminology leverages medication models maintained by the Food and Drug Administration (ex. UNII, NDC Codes), National Library of Medicine (RxNorm), the Veterans Health Administration (NDF-RT), and the National Cancer Institute (NCIt)</p> <p>Information on the Federal Medication Terminologies may be found and downloaded from the NCI Web portal terminology resources page at www.cancer.gov/cancertopics</p>
Health Level Seven (HL7) Version 2.5.1	The HL7 Version 2.5.1 Messaging Standard is an application protocol for electronic data exchange in healthcare. It and prior versions have widespread use in the U.S. and internationally. Both message formats and value sets/code tables (e.g., diagnosis type, gender, patient class, result status, specimen collection method, abnormal flags, observation result status codes interpretation, and timestamp format) are contained in the standard. Of particular focus for HITSP Interoperability Specifications are message formats described in Chapters 2, 3, 5, and 7 including patient demographic (ADT) and lab result reporting. These are also used within composite standards from IHE for Patient Identity Cross-Referencing and Feed (PIX), Patient Demographics Query (PDQ), and Acknowledgements. Visit www.hl7.org for more information
Health Level Seven (HL7) Version 3.0	The HL7 Version 3.0 Messaging Standard is an application protocol for electronic data exchange in healthcare. Version 3.0 is based on a Reference Information Model (RIM); which is used to instantiate various message formats. Value sets/code tables are contained in the standard. Visit www.hl7.org for more information
International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS)	<p>The International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS), describes the classification of inpatient procedures for statistical purposes and for the indexing of healthcare records by procedures. ICD-10-PCS is a procedural coding system managed by the Centers for Medicare and Medicaid Services (CMS). For more information visit www.cms.hhs.gov</p> <p>Note: While ICD-10 is not deployed in U.S. installations, we recognize the need to move toward new releases of coded values</p>
International Classification of Diseases, 9th Revision, Clinical Modifications (ICD-9-CM)	The International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), Volumes I, II (diagnoses) and III (procedures) describes the classification of morbidity information for statistical purposes and for the indexing of healthcare records by diseases and procedures. For more information visit www.cdc.gov/nchs
International Health Terminology Standards Development Organisation (IHTSDO) Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®)	SNOMED CT consists of a technical design, core content architecture, and Core content. SNOMED CT Core content includes the technical specification of SNOMED CT and fully integrated multi-specialty clinical content. The Core content also includes a concepts table, description table, relationships table, history table, ICD-9-CM mapping, and Technical Reference Guide. Additionally, SNOMED CT provides a framework to manage language dialects, clinically relevant subsets, qualifiers and extensions, as well as concepts and terms unique to particular organizations or localities. Visit www.ihtsdo.org for more information
Logical Observation Identifiers Names and Codes (LOINC®)	A database of universal identifiers for laboratory and other clinical observations. The laboratory portion of the LOINC database contains the usual categories of chemistry, hematology, serology, microbiology (including parasitology and virology), and toxicology; as well as categories for drugs and the cell counts typically reported on a complete blood count or a cerebrospinal fluid cell count. Antibiotic susceptibilities are a separate category. The clinical portion of the LOINC database includes entries for vital signs, hemodynamics, intake/output, EKG, obstetric ultrasound, cardiac echo, urologic imaging, gastroendoscopic procedures, pulmonary ventilator management, selected survey instruments, and other clinical observations. Visit www.loinc.org for more information



Standard	Description
National Library of Medicine (NLM) Unified Medical Language System (UMLS) RxNorm	Provides standard names for (1) clinical drugs and (2) drug dose forms as administered to a patient. Also provides links from clinical drugs, both branded and generic, to their active ingredients, drug components (active ingredient + strength), and related brand names. Food and Drug Administration (FDA) National Drug Codes (NDCs) for specific drug products and many of the drug vocabularies commonly used in pharmacy management and drug interaction software are additionally linked to RxNorm. RxNorm is a part of the Federal Medication Terminologies. For more information visit www.nlm.nih.gov
National Uniform Billing Committee (NUBC) Uniform Bill Version 2007 (UB-04) Current UB Data Specification Manual Field 22, Patient Discharge Status, Codes	A code set identifying status of patient discharge on an institutional claim (e.g., inpatient, outpatient, hospice, home care). For more information visit www.nubc.org
Unified Code for Units of Measure (UCUM)	A code system intended to include all units of measures being contemporarily used in international science, engineering, and business. The purpose is to facilitate unambiguous electronic communication of quantities together with their units. The focus is on electronic communication, as opposed to communication between humans. Visit aurora.regenstrief.org for more information

2.3.3 INFORMATIVE REFERENCE STANDARDS

Table 2-15 Informative Reference Standards

Standard Name	Description/Reason for Use
Department of Veterans Affairs (VA) National Drug File Reference Terminology (NDF-RT)	It is a description logic-based resource created to support clinical operations at one of the largest healthcare providers in the U.S., and is part of the Federal Medication Terminologies. The NDF-RT codes can be found on the NCI Web Site at: www.cancer.gov



3.0 APPENDIX

The following sections include relevant materials referenced throughout this document.

Informative details regarding the contextual use of this construct:

This Component provides the messaging solution for both a Messaging Source and Clinical Repository Source of data. The Messaging Source uses a number of HL7 trigger events to capture Quality data from ADT, order, result, and medication administration messages. The Clinical Repository Source will use a single ORU^R01 (Unsolicited Observation Message) to convey the data elements for Quality as they are queried out of the repository.

NOTE: This construct must be reviewed in the context of the Interoperability Specification for dependencies and restrictions that may impose Anonymization and Pseudonymization privacy enhancement constraints and resulting construct dependencies on the information content.

3.1 HITSP CONSTRAINTS DEFINED IN THIS DOCUMENT

- C34-[MSG-1] Implementations of this Component **SHALL** conform to the Version 2.5.1 of the Health Level Seven (HL7) Standard.
- C34-[MSG-1] All patient-based Quality messages **SHALL** include the: Message Header Segment (MSH), and Patient Identification Segment (PID)
- C34-[MSG-2] All patient-based Quality HL7v2.5.1 ADT Messages **SHALL** include the Event Segment (EVN),
- C34-[MSG-3] The patient-based Quality HL7v2.5.1 Message **MAY** include the following segments: : Patient Visit 1 Segment (PV1), Common Order Segment (ORC), Common Order Segment (ORC), Observation (OBX), Pharmacy/Treatment Order Segment (RXO), Allergy Segment (AL1) Diagnosis, Segment (DG1), Procedure Segment (PR1), Practitioner Detail Segment(PRA), Role Segment(ROL), General Clinical Order Message (OMG), GOL Goal Detail Segment Adverse Reaction Segment (IAM), Pharmacy/Treatment Administration Segment (RXA) Pharmacy Order (RDE) Pharmacy/Treatment Route Segment (RXR) Problem Detail Segment (PRB) and Patient Problem Segment (PPR)
- C34-[MSG-4] The patient-based Quality HL7v2.5.1 Observation Request Segment (OBR) Message **SHALL** be included in both the Order and Result messages.
- C34-[MSG-5] The Procedure Ordered Data **SHALL** be transmitted using the HL7 ORU-OBX Message.
- C34-[MSG-6] The Diagnostic Study Ordered Data **SHALL** be transmitted using the HL7 ORU-OBX Message.
- C34-[MSG-7] The Diagnostic Study Result Data **SHALL** be transmitted using the HL7 ORU-OBX Message.
- C34-[MSG-8] The Laboratory Test Performed Data **SHALL** be transmitted using the HL7 ORU Message.
- C34-[MSG-9] The Risk Category Assessment Data **SHALL** be transmitted using the HL7 ORU-OBX Message.
- C34-[MSG-10] The Patient-based Quality HL7v2.5.1 Diagnosis (DG1), Procedures (PR1) **SHALL** be included only in ADT or DFT or BAR messages.
- C34-[MSG-11] The Patient-based Quality HL7v2.5.1 Allergy Information Segment (AL1) **SHALL** be included only in ADT messages
- C34-[MSG-12] The Substance Allergy **SHALL** be reported using AL1 Patient Allergy Information Segments in ADT messages.
- C34-[MSG-13] The Medication Allergy Data **SHALL** be reported using the AL1 Patient Allergy Segment in ADT Messages.



- C34-[MSG-14] The Patient-based Quality HL7v2.5.1 Adverse Reaction Segment (IAM) **SHALL** be included only in the ADT^60 message.
- C34-[MSG-15] The Medication Adverse Event **SHALL** be reported using IAM Adverse Reaction Information (Event A60)
- C34-[MSG-16] Substance Adverse Event **SHALL** be reported using IAM Adverse Reaction Information (Event A60)
- C34-[MSG-17] The Facility Location information **SHALL** be sent at startup and **SHALL NOT** be sent in every patient-level message.
- C34-[MSG-18] The HL7 ADT^01 message **SHALL** be the only message where Admission information **MAY** be provided.
- C34-[MSG-19] The HL7 ADT^03 message **SHALL** be the only message where Discharge information **MAY** be provided.
- C34-[MSG-20] The Clinical Problem data **SHALL** be transmitted using the HL7PPR Patient Problem Message.
- C34-[MSG-21] The Problem Active data **SHALL** be reported using HL7 PPR Patient Problem Message
- C34-[MSG-22] The Problem Risk data **SHALL** be reported using HL7 PPR Patient Problem Message
- C34-[MSG-23] The Problem Family History data **SHALL** be reported using HL7 PPR Patient Problem Message
- C34-[MSG-24] The Problem Past History data **SHALL** be reported using HL7 PPR Patient Problem Message
- C34-[MSG-25] The Medication Dispensed data **SHALL** be transmitted using the HL7 RDS^O13 Pharmacy Dispense Message.
- C34-[MSG-26] The Medication Discontinued data **SHALL** be transmitted using the HL7 RDS^O13 Pharmacy Dispense Message
- C34-[MSG-27] The Medication Administered data **SHALL** be transmitted using the HL7 RDS^O17 Pharmacy/Treatment Administration Message.
- C34-[MSG-28] The Discharge Medication Order data **SHALL** be transmitted using the HL7 RDE Pharmacy/Treatment Refill Authorization Request Message (Event O25).
- C34-[MSG-29] The Device Applied data **SHALL** be transmitted using the HL7 RXA Message.
- C34-[MSG-30] The Procedure Order **SHALL** be reported using the HL7 OMG Message.
- C34-[MSG-32] The Procedure History **SHALL** be reported using One or more PR1 Segments in ADT Messages
- C34-[MSG-33] The Provider Characteristics **SHALL** be reported in PRA Practitioner Detail Segment and ROL Role Segment
- C34-[MSG-34] The Discharge Instructions **SHALL** be reported using One or more PR1 Segments in ADT Messages
- C34-[MSG-35] The Care Goal Attributes **SHALL** be reported GOL Goal Detail Segment
- C34-[MSG-36] The Risk Category Assessment **SHALL** be reported using the HL7 ORU-OBX Message.
- C34-[MSG-37] The Physical Exam Finding **SHALL** be reported using the HL7 ORU-OBX Message
- C34-[MC-1-1] A Unique facility identifier **SHALL** be present using the numeric CMS IDs Hierarchical Designator.
- C34-[MC-1-2] A facility name **SHALL** be present using a string which represents the Hierarchical Designator
- C34-[DE-1.06-1] Gender **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.1.2 V3 Administrative Gender? Otherwise we does HL7v2 already constrain it to the HL7v2 Administrative Sex?
- C34-[DE-1.11-1] Ethnicity **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.2 Ethnicity
- C34-[DE-1.10-1] Race **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.7 Race



C34-[DE-1.03-1] The state part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.1 State

C34-[DE-1.03-2] The postal code part of an address in the United States **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code

C34-[DE-1.03-3] The country part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.3 Country

C34-[DE-1.08-1] Marital Status **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.3.2 Marital Status CDA and HLV3

C34-[DE-1.09--1] Religious affiliation **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.8 Religious Affiliation

C34-[DE-4.02-1] Provider role **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.8.1 Provider Role

C34-[DE-4.04-1] Provider type shall be coded as specified in HITSP/C80 Section 2.2.3.8.2 Provider Type

C34-[DE-4.05-1] The state part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.1 State

C34-[DE-4.05-2] The postal code part of an address in the United States **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code

C34-[DE-16.09-1] The Discharge Disposition **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.9.4 Discharge Disposition

C34-[MC-1-1] A Unique facility identifier **SHALL** be present using the numeric CMS IDs Hierarchical Designator.

C34-[MC-1-2] A facility name **SHALL** be present using a string which represents the Hierarchical Designator

C34-[DE-1.02-1] The Identifier **SHALL** contain a Pseudoidentifier, when pseudoanonymizing is used

C34-[DE-1.02-2] This Identifier **MAY** be populated with a Vendor-assigned ID which is a type of Pseudo-identifier

C154-[DE-1.06-1] Gender **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.1.2 V3 Administrative Gender

C154-[DE-1.11-1] Ethnicity **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.2 Ethnicity

C154-[DE-1.10-1] Race **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.7 Race

C154-[DE-1.03-1] The state part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.1 State

C154-[DE-1.03-2] The postal code part of an address in the United States **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code

C154-[DE-1.03-3] The country part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.3 Country

C154-[DE-1.08-1] Marital Status **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.3.2 Marital Status CDA and HLV3

C154-[DE-1.09--1] Religious affiliation **SHALL** be coded as specified in HITSP/C80 Section 2.2.1.2.8 Religious Affiliation

C34-[DE-7.07-1] The Treating Provider ID **SHALL** be coded using NPI

C34-[DE-7.07-1] The Death Cause Code **SHALL** be coded using ICD-10

C34-[DE-7.11-1] The Treating Provider ID **SHALL** be coded using NPI

C154-[DE-4.02-1] Provider role **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.8.1 Provider Role

C154-[DE-4.04-1] Provider type **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.8.2 Provider Type

C154-[DE-4.05-1] The state part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.1 State

C154-[DE-4.05-2] The postal code part of an address in the United States **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code



C154-[DE-4.05-3] The country part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.3 Country

C34-[DE-16.02-1] - Visit Data Billing Codes **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.9.3 Encounter Type

C154-[DE-16.10-1] Patient Class **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.9.5 Patient Class

C154-[DE-16.06-1] Admission Source **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.9.1 Admission Source

C34-[DE-16.0271] Current Location (Admission Type) **SHALL** be coded using HITSP/C80 Section 2.2.3.9.2 Admission Type

C34-[DE-16.11-1] In Facility location **SHALL** be coded with HL7 ServiceDeliveryLocationCodes

C154-[DE-16.09-1] The Discharge Disposition **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.9.4 Discharge Disposition

C34-[DE-16.13-1] The Admit Reason **SHALL** be coded using SNOMED-CT

C34-[DE-17.01-1] All discharge instructions given throughout the hospitalization **SHALL** be coded as an observation value for “discharge Education” using OBX-3 and OBX-5 **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.7 Procedures.. Education recorded can occur at any time. Must be noted that:

- 1) The patient has received a copy, OR
- 2) The patient has refused a copy, OR
- 3) Copy not given because patient is impaired and caregiver not present

C34-[DE-7.01-1] Date/time Last Known Well **SHALL** be coded as an observation value for “illness onset date” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment.

C34-[DE-16.20-1] ED Departure Date and Time **SHALL** be coded as an observation value for “ED Departure Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment, where the date/time populate is the time the patient PHYSICALLY departed the ED

C34-[DE-16.20-2] ICU Admission Date/time **SHALL** be coded as an observation value for “ICU Admission Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment

C34-[DE-16.20-3] ICU Transfer Date/time **SHALL** be coded as an observation value for “ICU Transfer Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment

C34-[DE-16.20-4] ICU Discharge Date/time **SHALL** be coded as an observation value for “ICU Transfer Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment

C34-[DE-16.14-1] Order to Admit Date/time **SHALL** be coded as an observation value for “Order to Admit Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment, where Order to Admit Date/time of record reflects the original order for admit by the physician

C34-[DE-16.12-1] Arrival Date/time **SHALL** be SNOMED CT coded as an observation value for “Time of arrival at hospital” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment, where the arrival date/time is the actual date/time of the patient arrival to the facility

C34-[DE-16.10-1] Arrival Date/time **SHALL** be SNOMED CT coded as an observation value for “Decision to Admit Date/time” using OBX-3 Observation Identifier and **SHALL** specify the date/time using the OBX-5 Observation Value section of the message segment, where the arrival date/time is the actual date/time of the patient arrival to the facility

C154-[DE-4.05-1] The state part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.1 State

C154-[DE-4.05-2] The postal code part of an address in the United States **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.2 Postal Code



C154-[DE-4.05-3] The country part of an address **SHALL** be recorded using HITSP/C80 Section 2.2.1.1.3 Country

C34-[DE-7.02-1] Allergies/adverse reaction severity related to medications, food, or substances **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.1.2 Problem Type

C34-[DE-7.04-1] Problem Active **SHALL** be reported using SNOMED CT codes reflecting active problems

C34-[DE-7.04-2] Problem Risk **SHALL** be reported using SNOMED CT codes reflecting 'Risk' of problem

C34-[DE-7.04-2] Problem Family History **SHALL** be reported using SNOMED CT codes reflecting 'Family History' of problem

C34-[DE-7.04-2] Problem Past History **SHALL** be reported using SNOMED CT codes reflecting 'History' of problem

C34-[DE-7.05-1] The Treating Provider **SHALL** be coded using the NPI

C34-[DE-7.10-1] The Diagnosis Priority **SHALL** be encoded as specified in HITSP/C80 2.2.3.1.4 Diagnosis Priority

C34-[DE-functionalStatus-1] **SHALL** be populated with Patient Status

C34-[DE-7.04-1] Active Symptom **SHALL** be reported using PV2-3 for Patient-reported symptoms

C34-[DE-6.02-1] Allergies/adverse reaction type related to medications, food, substances, diagnostic study or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.2 Allergy/Adverse Event Type

C34-[DE-6.04-1] Allergies/adverse reaction product related to medications, food, substances, diagnostic study or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.4 Allergy/Adverse Event product

C34-[DE-6.08-1] Allergies/adverse reaction severity related to medications, food, substances, diagnostic study or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.3 Allergy/Adverse Event Severity

C34-[DE-6.06-1] Allergies/adverse reaction related to medications, food, substances, diagnostic study or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.1 Allergy/Adverse Event Reaction

C34-[DE-6.02-2] Allergies/adverse reaction type related to medications, substances, diagnostic study, procedure, or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.2 Allergy/Adverse Event Type

C34-[DE-6.04-2] Allergies/adverse reaction product related to medications, substances, diagnostic study, procedure, or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.4 Allergy/Adverse Event product

C34-[DE-6.08-2] Allergies/adverse reaction severity related to medications, substances, diagnostic study, procedure, or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.3 Allergy/Adverse Event Severity

C34-[DE-6.06-2] Allergies/adverse reaction related to medications, food, substances, diagnostic study, procedure, or devices **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.4.1 Allergy/Adverse Event Reaction

C34-[DE-7.02-1] The Diagnosis Type **SHALL** be reported using HL7 2.5.1 User-defined Table 0052 - Diagnosis Type, IS (coded)

C34-[DE-7.04-1] Discharge Diagnosis Active **SHALL** be reported using SNOMED CT codes reflecting active problems

C34-[DE-7.04-2] Discharge Diagnosis Risk **SHALL** be reported using SNOMED CT codes reflecting 'Risk' of problem

C34-[DE-7.04-2] Discharge Diagnosis Family History **SHALL** be reported using SNOMED CT codes reflecting 'Family History' of problem

C34-[DE-7.04-2] Discharge Diagnosis Past History **SHALL** be reported using SNOMED CT codes reflecting 'History' of problem

C34-[DE-7.05-1] The Diagnosing Clinician **SHALL** be coded using the NPI



C154-[DE-7.10-1] The Diagnosis Priority **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.1.4 Diagnosis Priority

C34-[DE-14.03-1] Vital signs Result Type **SHOULD** be coded as specified in HITSP/C80 Section 2.2.3.6.5 Vital Sign Result Type.

C34-[DE-1.14.05-1] Units **MAY** be present when needed. If present it **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.6.6 Units of Measurement

C34-[DE-7.04-1] Procedure Ordered **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure

C34-[DE-7.04-1] Procedure Ordered Date/Time **SHALL** be specified using OBR-6

C34-[DE-7.04-1] Ordering Provider **SHALL** be specified using OBR-16 using the NPI

C34-[DE-7.04-1] Procedure **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure

C34-[DE-8.31-1] The Provider Identifier **SHALL** be coded using the NPI

C34-[DE-8.03-1] Anesthesia Start Date/Time shall be reported using PR1-5 Procedure Date/Time

C34-[DE-8.03-2] Anesthesia End Date/Time shall be computed using PR1-5 Procedure Date/Time and PR1-10 Anesthesia Minutes

C34-[DE-8.13-1] The Medication Ordered coded product name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names.

C34-[DE-8.13-2] The Medication Ordered product name or brand name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.7 Medication Brand Name or 2.2.3.3.10 Medication Packaged Product.

C34-[DE-8.13-3] When only the class of the drug is known (e.g., Beta Blocker or Sulfa Drug), it **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.9 Medication Drug Class.

C34-[DE-8.13-4] The Medication Ordered Codes as specified in HITSP/C80 Section 2.2.3.3.11 Ingredient Name **MAY** be used when there are no suitable codes in the other vocabularies to identify the medication.

C34-[DE-8.13-5] The Medication Ordered code for the product (generic) name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names. If the code for the generic product is unknown, the attributes may be omitted

C34-[DE-8.31-1] The Medication Ordering Provider **SHALL** be coded using the NPI

C34-[DE-8.02-1] The Medication Ordered code for the product (generic) name **SHALL** be coded as specified using coded - HL7 Table 0119 - Order control codes

C34-[DE-8.13-1] The Medication Ordered coded product name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names.

C34-[DE-8.13-2] The Medication Ordered product name or brand name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.7 Medication Brand Name or 2.2.3.3.10 Medication Packaged Product.

C34-[DE-8.13-3] When only the class of the drug is known (e.g., Beta Blocker or Sulfa Drug), it **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.9 Medication Drug Class.

C34-[DE-8.13-4] The Medication Ordered Codes as specified in HITSP/C80 Section 2.2.3.3.11 Ingredient Name **MAY** be used when there are no suitable codes in the other vocabularies to identify the medication.

C34-[DE-8.13-5] The Medication Ordered code for the product (generic) name **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.8 Medication Clinical Drug Names. If the code for the generic product is unknown, the attributes may be omitted

C34-[DE-8.07-1] Route **MAY** be present when needed. If present it **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.4.2 Medication Route

C34-[DE-8.33-1] Fulfillment History **SHALL** be expressed using Loops of PVD (Prescriber), PVD (Pharmacy) and DRU (Drug) Segments to relay up to 300 history occurrences, within Medication History Response mapped to CDA

C34-[DE-8.40-1] Fill Status **MAY** be present when needed. If present it **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.3.1 Medication Fill Status

C34-[DE-17.02-1] Procedure **SHALL** be coded as specified in HITSP/C80 Section 2.2.3.7.1 Procedure



C34-[DE-17.05-1] The Procedure Provider **SHALL** be coded using the NPI
C34-[DE-15.03-1] In the case of Risk Assessment To reflect Risk Category Assessment interim
Recommendation: Clinical procedure assessment use LOINC; for Result of procedure
use SNOMED CT
C34-[DE-15.04-1] Result Status for laboratory results **SHALL** be coded using **HITSP/C80**
2.2.3.6.4.1 Results Status
C34-[DE-15.05-1] Result Type for laboratory results **SHALL** be coded using. DICOM (structured
report), SNOMED-CT, ICD9-CM/ICD-10, CPT Category
C34-[DE-1.15.06-1] Abnormal Flags **MAY** be present when needed. If present it
SHALL be coded as specified in HITSP/C80 Section 2.2.3.6.3.1 Result Normalcy Status
C34-[DE-6-1] Diagnostic Study intolerance **SHALL** be reported using IAM Adverse Reaction
Information
C34-[DE-6-2] Diagnostic Study intolerance **SHALL** be reported using IAM Adverse Reaction
Information
C34-[DE-deviceApplied-1] Device Applied **SHALL** be reported using RXA-5
C34-[DE-deviceApplied-1] Device Applied **SHALL** be reported using AL1 Pharmacy/Treatment
Administration Segment (RXA)
C34-[DE-deviceApplied-1] Device Intolerance **SHALL** be reported using OBX – Observation



4.0 CHANGE HISTORY

The following sections provide the history of all changes made to this document since the last publication.

4.1 DECEMBER 5, 2007

The changes in this cycle address the following:

Section 2.2.1:

- Updated list of triggers to accommodate additional medication data elements

Section 2.3:

- Tables in Section 2.3: added new column to identify the HITEP or Harmonization Request derived concept mapping to the HITEP Data Element
- Data element Cross Reference: renamed data element reference from AHIC Data Element to HITEP Data Element
- Updated table numbers
- Updated Sex Selected standard to reflect HL7 V3 administrative Gender Code set in anticipation of alignment with the Foundations Committee recommendations for administrative sex
- Added Admission Source to Patient Data Elements
- Added Admission Type to Patient Data Elements
- Added Number of doses prescribed to Clinical Data Elements
- Added Dose frequency to Clinical Data Elements
- Added Refills to Clinical Data Elements
- Added Days Supplied to Clinical Data Elements
- Added Order Control to Clinical Data Elements
- Specified CVX for immunizations

Section 2.4:

- Updated Sex Selected standard to reflect HL7 V3 administrative Gender Code set in anticipation of alignment with the Foundations Committee recommendations for administrative sex
- Added Admission Source to Patient Data Mapping
- Added Admission Type to Patient Data Mapping
- Added Number of doses prescribed to Clinical Data Mapping
- Added Dose frequency to Clinical Data Mapping
- Added Refills to Clinical Data Mapping
- Added Days Supplied to Clinical Data Mapping
- Added Order Control to Clinical Data Mapping

4.2 DECEMBER 13, 2007

Upon approval by the HITSP Panel on December 13, 2007, this document is now Released for Implementation.

4.3 AUGUST 20, 2008

This document has been modified to reflect the updated HITSP approach to categorizing standards as Regulatory Guidance, Selected Standards, and Informative References.

The following standards have been removed:

- Consolidated Health Informatics (CHI)



- Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 3.0
- Digital Imaging and Communications in Medicine (DICOM) Attribute Level Confidentiality Supplement: # 55

The following standard was added as Selective:

- Digital Imaging and Communications in Medicine (DICOM) - Part16: Content Mapping Resource

The following was designated as Informative Reference:

- Department of Veterans Affairs (VA) National Drug File Reference Terminology (NDF-RT)

4.4 AUGUST 27, 2008

Upon approval by the HITSP Panel on August 27, 2008, this document is now Released for Implementation.

4.5 JUNE 30, 2009

Revised the document based on TN903 HITSP Data Architecture

Section 2.2.3:

- Update Quantity dispensed data element to reference HITSP/C80 vocabulary for Units of Measure and Medication Product Form
- Updated Medication-inpatient administered data element to reference HITSP/C80 vocabulary for: product name, brand name, drug class, medication ingredient name, clinical drug names
- Update Discharge Disposition data element to reference HITSP/C80 vocabulary for Discharge Disposition
- Update Admission Type data element to reference HITSP/C80 vocabulary for Admission Type
- Update physical exam-vitals, laboratory-result, data element to reference HITSP/C80 vocabulary for Units of Measure

Section 2.2.4:

- Update Quantity dispensed data element to reference HITSP/C80 vocabulary for Units of Measure and Medication Product Form
- Updated Medication administered data element to reference HITSP/C80 vocabulary for: product name, brand name, drug class, medication ingredient name, clinical drug names
- Update Discharge Disposition data element to reference HITSP/C80 vocabulary for Discharge Disposition
- Update Admission Type data element to reference HITSP/C80 vocabulary for Admission Type
- Update Blood Pressure – Diastolic, Blood Pressure – Systolic, Result unit data element to reference HITSP/C80 vocabulary for Units of Measure
- HITSP/C154-[DE-2.01-2] Sign language

4.6 SEPTEMBER 30, 2009

This document has been modified to reflect the Population Quality Measures and HITEP II definition updates made to align with the Quality IS and supporting Constructs including HITSP/C105 and this document. Further revisions have been made to reflect HITSP/TN903 Data Architecture.

This document has been modified to reflect the guidelines provided by HITSP/TN903 Data Architecture.

The following Section changes have been made:



- Section 1.3 Table 1-1 Addition of HITSP/TN903 as a reference
- Section 2.1.1 Table 2-1 update of Component Constraints
- Section 2.2.2.2. Formatting of Message Data Mapping requirements to Message Constraints. (Including the removal of bullets in Section 2.2 and addition of new Message Constraints to support description of the data element constraints required to support the concepts to be communicated for Quality Measures

Removal of Section 2.2.2 Cross Reference Table key and 2.2.3 Patient Level Quality Data message Set including Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for

Conditional. Repeatable = "Y" for Yes, "N" for No

- Table 2-6 through Tables 2-18. HITEP II mapping to HITSP Data Elements supporting HITSP/C34 is now covered in HITSP/IS06
- Section 2.2.4 Data Mappings has been updated to reflect the HITEP II Data Element/Constraint requirements in the new HITSP/TN903 format
- Addition of Base Facility Message Control Mapping Table 2-3 based upon existing data mapping

Re-work of Optionality Legend: "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for

Conditional. Repeatable = "Y" for Yes, "N" for No

- Table 2-4 through Table 2-13 to reflect the HITEP II HL7 required attributes, map them to the HITSP Data Elements and constrain them based upon HITSP Constraints and/or specific constraints required to support Quality Measures
- Section 4.0 Addition of HITSP Constraints in this document as a reference

The changes in this cycle address the following comments:

- 7522, 7530, 7531, 7213, 7214, 7216, 7217, 7219

The full text of the comments along with the Technical Committee's disposition can be reviewed on the [HITSP Public Web Site](#).

4.7 NOVEMBER 9, 2009

Provided additional data mapping for HITEP II concepts:

- Intolerance (Substance, Device, Diagnostic Study)
- Allergy (Substance, Device)
- Adverse Reaction (Substance, Device)

4.8 JANUARY 18, 2010

Continued providing additional data mapping for HITEP II concepts:

- Intolerance (Substance, Device, Diagnostic Study)
- Allergy (Substance, Device)
- Adverse Reaction (Substance, Device)

4.9 JANUARY 25, 2010

Upon approval by the HITSP Panel on January 25, 2010, this document is now Released for Implementation.

