May 11, 2007
Version 2.0

HITSP Patient ID Cross-Referencing Transaction Package

HITSP/TP22

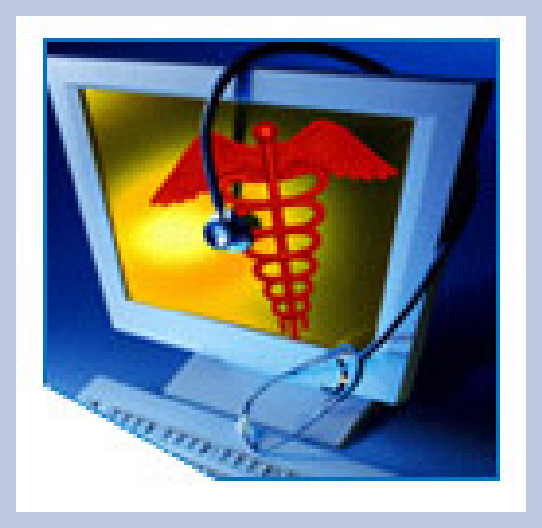

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TABLE OF CONTENTS

FIGURES AND TABLES

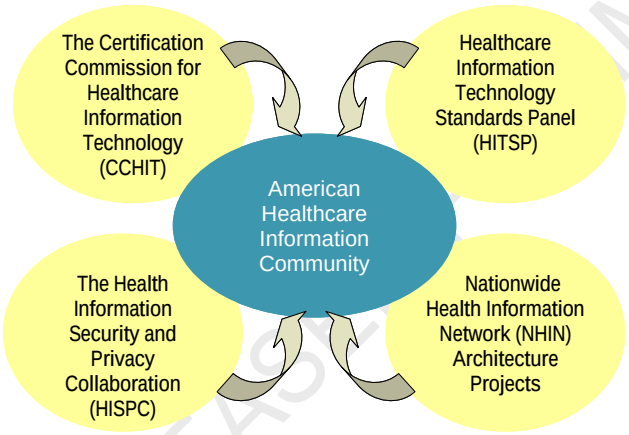
1.0 FOREWORD

This document is referred to as a Transaction Package and is an artifact of the Healthcare Information Technology Standards Panel (HITSP).

The following paragraphs provide background information about the HITSP and its role in the overall U.S. efforts to realize large scale interoperability of health information. It also describes the HITSP process for healthcare standards harmonization and explains how to use this document and other related documents to inform your health IT product development or product refinement. If you are familiar with HITSP and HITSP artifacts, please proceed to Section 2.0.

U.S. Nationwide Health Information Interoperability

Studies published by the Institute of Medicine and others have raised awareness of the extent to which the fragmented nature of clinical information adversely impacts the quality of care across the U.S. Health Information Technology (IT) can be used to enable better integration of clinical information. However, as of 2007, only a small number of U.S. healthcare providers have fully adopted health IT due, in part, to technical barriers associated with a lack of unambiguous and nationally recognized interoperability standards.



The American Health Information Community[1] (AHIC), a 2005 federally-chartered commission made up of leaders from public and private health sectors, was formed to provide recommendations on how to make health records digital and interoperable, and assure that the privacy and security of those records are protected, in a smooth, market-led way. At the same time, the Department of Health and Human Services, through the Office of the National Coordinator for Health IT (ONC) awarded contracts to 1) identify Interoperability Standards to facilitate the exchange of patient data (HITSP), 2) define a process for certifying that health IT products comply with appropriate standards through the Certification Commission for Healthcare Information Technology (CCHIT), and 3) develop a series of prototypes to establish the requirements of a Nationwide Health Information Network (NHIN). Under a renewed second year contract, HITSP scheduled activities will include identifying and constraining the standards needed for a standards-based security framework that provides the mechanisms needed to protect patient privacy and maintain confidentiality of information about the patient, as well as further work in additional Use Case priority areas recommended by AHIC. This year, CCHIT is expanding its certification efforts to inpatient, or hospital, electronic health record

[1] http://www.hhs.gov/healthit/ahic.html

products. In January 2007, four NHIN prototypes were delivered based on the requirements for health information exchange. The next phase will be to connect the prototypes and state and regional health information exchange efforts in trial implementations. These activities share the goal of widespread adoption of interoperable electronic health records within 10 years through public-private collaboration.

HITSP's Role within Nationwide Interoperability Efforts

The HITSP[2] is a multi-stakeholder coordinating body designed to provide the process within which affected parties can identify, select, and harmonize standards for communicating healthcare information throughout the healthcare spectrum. As used by HITSP, the term "standard" refers, but is not limited to Specifications, Implementation Guides, Code Sets, Terminologies, and Integration Profiles. A standard should be produced through a well defined approach that supports a business process and

1. has been agreed upon by a group of experts
2. has been publicly vetted
3. provides rules, guidelines, or characteristics
4. helps to ensure that materials, products, processes, and services are fit for their intended purpose
5. is available in an accessible format
6. is subject to an ongoing review and revision process

HITSP functions as a partnership of the public and private sectors and operates with a neutral and inclusive governance model administered by the American National Standards Institute. The goal of the Panel is to:

- Facilitate the development of harmonized Interoperability Specifications and information policies, including Standards Development Organization (SDO) work products (e.g. standards, technical reports). These policies, profiles and work products are essential for establishing privacy, security and interoperability among healthcare software applications
- Coordinate, as appropriate, with other national, regional and international groups addressing healthcare information to ensure that the resulting standards are globally relevant
- Be Use Case driven, using information from stakeholders and basing decisions on industry needs

The work of the HITSP is conducted through formally chartered Technical Committees and Work Groups. The artifact of the Technical Committee and Work Group activities is an Interoperability Specification (IS) and related constructs referred to as Transaction Packages, Transactions, or Components. For additional information on these constructs, please refer to the HITSP Harmonization Framework.

This HITSP document pertains to the Interoperability Specification for the following:

[2] www.hitsp.org

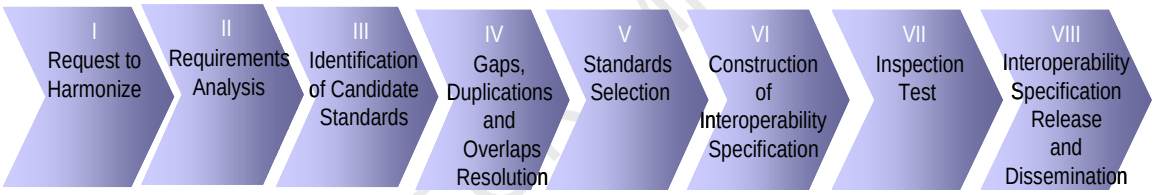
Use Case	Specific Scope of this Use Case
Biosurveillance	Transmit essential ambulatory care and emergency department visit, utilization, and laboratory result data from electronically enabled healthcare delivery and public health systems in standardized and anonymized format to authorized Public Health Agencies with less than one day lag time.
Consumer Empowerment	Allow consumers to establish and manage permissions, access rights, and informed consent for authorized and secure exchange, viewing, and querying of their linked patient registration summaries and medication histories between designated caregivers and other health professionals.
Electronic Health Record	Allow ordering clinicians to electronically access laboratory results, and allow non-ordering authorized clinicians to electronically access historical and other laboratory results for clinical care.

In its final state, this Interoperability Specification provides unambiguous instructions for how two or more systems should exchange information within this specific context of the Use Case.

How Use Cases and HITSP Interoperability Specifications are Developed

The American Health Information Community, as the representative of public and private health sector stakeholders, identified three Use Cases (available at hitsp.org) that drove the initial efforts of the HITSP. Nationwide public and private health sector priorities continue to focus the efforts of the HITSP. The Use Case driven HITSP harmonization process is implemented by formally chartered Technical Committees. The volunteers that comprise a Technical Committee followed an 8 step process, depicted below.

Figure 1.0-1 HITSP Harmonization Process Steps



How to Read this Interoperability Specification

Each Interoperability Specification (IS) is actually a suite of documents that, taken as a whole, provide a detailed map to existing standards and specifications that will satisfy the requirements imposed by a given Use Case. It identifies and constrains standards where necessary, and creates groupings of specific actions and actors to further describe the relevant contexts. Where gaps and overlaps are identified, the Interoperability Specification provides recommendations and a roadmap for corrections to be made. This Interoperability Specification includes the Transaction Packages, Transactions, and Components.

2.0 INTRODUCTION

As an introduction to the Patient ID Cross - Referencing Transaction Package, this section provides a high level overview of an information sharing scenario enabled by following this specification, outlines the technical scope of the specification, describes the intended audience for the technical content of the document, acknowledges the copyright protections that pertain, provides Internet links to the HITSP Acronyms List and an explanation of the conventions we use to convey the full descriptions and usage of standards. If you are already familiar with this information, proceed to Section 3.0 Referenced Standards.

2.1 OVERVIEW

The Patient ID Cross-Referencing (PIX) and Patient Identity Feed Transaction Package is a portion of the Interoperability Specifications that deals with identifying and cross-referencing different patient attributes for the same patient.

This specification includes by reference the transactions and components that comprise the Patient ID Cross-Referencing Transaction Package. It describes the processes supported by these structures and the work that is accomplished by implementing this Transaction Package. Source material is from the IHE IT Infrastructure (ITI) Technical Framework (TF), Volume 2 (ITI TF-2). Constraints to the IHE specifications are shown in Section 4.

The PIX transaction is intended to provide an identify patient query / patient(s) identified response message pair for use wherever such needs exist.

The Patient Identity Feed transaction is intended to allow sending of patient identification information from one system to another.

The PIX and Patient Identity Feed transactions, as described in this document, do not include messages for other purposes; e.g., patient enrollment / identification, patient visit / encounter, obtain detailed patient demographics. Messages for such other purposes are provided by other specifications in the suite.

The PIX Transaction portion of this document extracts the Health Level Seven (HL7) version 2.5 Query and Response data mapping. The underlying basis for this extraction can be found in the Integrating Healthcare Enterprise IT Infrastructure Technical Framework, Volume 2 (ITI TF-2), Revision 3.0, dated December 2006, §3.9: “PIX Query”.[3]

The Patient Identity Feed Transaction portion of this document extracts the Health Level Seven (HL7) version 2.5 ADT data mapping. The underlying basis for this extraction can be found in the Integrating

[3] IHE-ITI TF-2 §3.9.1

the Healthcare Enterprise IT Infrastructure Technical Framework, Volume 2 (ITI TF-2), Revision 3.0, dated December 2006, §3.8: "Patient Identity Feed".[4]

2.2 TECHNICAL ASSUMPTIONS AND SCOPE

This Interoperability Specification focuses on a set of constrained standards for information interchange that address the core requirements of the Use Case described above. It may not define all functions, constructs and standards necessary to implement a conforming system in a real world environment. The following paragraphs provide the HITSP principles with regard to several critical topics to ensure consistent interpretation of the Interoperability Specifications.

2.2.1 INTEROPERABILITY SPECIFICATIONS NOT FUNCTIONAL SPECIFICATIONS

The HITSP Interoperability Specification defines how two or more systems exchange standard data content in a standardized manner. Interoperability Specifications define the necessary business and technical actors, the transactions between them including the message, content and terminology standards for the actual information exchange. Interoperability Specifications do not specify the functional requirements or behaviors of the systems or applications.

2.2.2 ARCHITECTURAL NEUTRALITY

HITSP Interoperability Specifications, unless otherwise noted, are not intended to define or prescribe any system architecture or implementation. At the most basic level, the Interoperability Specifications define specific information exchange standards that are to be used by any two systems. Information exchange must be placed within the context of a transaction between defined technical actors which fulfill higher level business requirements derived from the Use Case. In some cases the necessary technical actors may require some architectural structure or make some assumptions involving synchronous or asynchronous data exchanges, or require specific type of exchange, such as a message or document. These requirements may constrain to some degree the total range of choices regarding system architectures. When constraints are necessary to meet the Use Case requirements, the Interoperability Specification will note this and will retain as much architectural neutrality as possible. When appropriate, the Interoperability Specifications may provide architectural examples and discuss considerations of such examples.

2.2.3 THE USE OF MESSAGES AND DOCUMENTS AS APPROPRIATE

Within healthcare information there is an ongoing debate concerning the proper role of messages and documents as methods of exchanging data. Messages are typically non-persistent encapsulations of highly structured data that require external context. Documents are persistent encapsulations of both data and context which may be authenticated to insure non-repudiation. Persistence as defined by HL7 means that a clinical document continues to exist in an unaltered state for a time period defined by local and regulatory requirements. Non-repudiation, as defined by ISO adapted from ASTM E31, means a

[4] IHE-ITI TF-2 §3.8.1

service that provides proof of the integrity and origin of data, which can be verified by any party. HITSP recognizes that requirements for both messages and documents exist and where consistent with harmonization will support both. For example, depending on specific phases of the workflow, a laboratory result might be exchanged as a message, as a document, or both. Business requirements may define which format is more effective.

2.2.4 IMPLEMENTATION TESTING

The 2006 set of Interoperability Specifications were evaluated by inspection testers (desktop review) and reviewed by HITSP members prior to HITSP approval. Although the Interoperability Specifications are based on approved standards, when published, they represent combinations and constraints that have not been tested in actual implementations. HITSP enlisted partners to develop test plans, data and suites to test the implementation and then to support a program for progressive testing, feedback and deployment of implementations. Feedback from test implementers has been used in the revisions in Version 2.0.

2.2.5 SECURITY AND PRIVACY

The Health Insurance Portability and Accountability Act (HIPAA) and its Administrative Simplification sections establish the minimum federal requirements for security and privacy of individually identifiable health information (IIHI). HIPAA requires that “covered entities” establish and maintain secure systems that protect IIHI from unauthorized disclosures while ensuring its availability for authorized uses. Most providers, health plans and intermediaries, and by contract their business associates, are covered by HIPAA regulation. However, HIPAA does not cover personal health records unless they are held by a covered entity, nor an individual’s use of their own health information.

Currently, HITSP is charged by ONC to harmonize standards based on Use Cases derived from AHIC requirements and priorities. Implicitly and in some cases explicitly, the Use Cases require a secure infrastructure and certain security or privacy functions. Because of time and resource constraints and the need for further information as described below, HITSP has decided to defer specifying most security requirements, instead treating these as a pre-condition for implementing the core information exchanges. The underlying premise is that HITSP**,** based upon prioritization by AHIC and ONC, will in the future identify and constrain the standards needed for a standards-based security framework that provides the mechanisms needed to protect patient privacy and maintain confidentiality of information about the patient. This standards-based security framework will need to accommodate federal, state, local, and healthcare enterprise security and privacy policies and processes. Exceptions to the deferred requirements that are addressed in this first release are secure web-based messaging, pseudonymization and anonymization.

There is a special case for the Consumer Empowerment (CE) Use Case. In the first year of HITSP's work, the Consumer Empowerment TC is to provide an Interoperability Specification for sharing of demographic data, medication lists, and allergies *based on patient consent*. Patient consent is clearly within the scope of the CE Use Case. However, HITSP requires further guidance on patient consent,

particularly since patient consent is not addressed by HIPAA in the case of a personal health record (PHR) nor is it established within widely accepted PHR standards. Therefore HITSP identifies patient consent as a necessary pre-condition for successful implementation of a PHR that contains personal demographic data and medication histories. Patient consent will be documented as a pre-condition in the CE Interoperability Specification. Work on patient consent has been deferred until the second year of HITSP work.

2.3 AUDIENCE

The Interoperability Specification is designed to be used by analysts who need to understand the interoperability requirements for the described Use Case, and by implementers working to develop interoperable applications. Understanding and using the relevant interoperability set of specifications is a key requirement for establishing interoperability compliance.

2.4 COPYRIGHT PERMISSIONS

2.5 ACRONYMS

The acronyms used in this document are contained in the HITSP Acronyms List.

2.6 CONVENTIONS

Conventions are used to convey the full descriptions and usage of standards in the Interoperability Specification and are contained in the HITSP Conventions List.

3.0 REFERENCED STANDARDS

It is HITSP's policy to incorporate only standards that have been approved according to the formal policy of standards organization, as defined by HITSP, which publishes the standard. HITSP interprets approval to include Draft Standards for Trial Use. The objective is to incorporate only standards that are managed within a formal life cycle process as defined by the standards organization. In some cases, where we believe a standard that is not yet approved may best meet the requirements of an Interoperability Specification, HITSP may provide a roadmap of its future intent conditional on future actions by either or both the standards organizations and the HITSP Technical Committee. Thus there are four classes of HITSP-committed standards.

- Approved for Use – standards included for unconditional use within a HITSP construct
- Interim – standards included for use now within a HITSP construct but for a defined time period or conditional on future actions, e.g., "Intended for Use" standard is available
- Provisional - standards that are not yet but are expected to be approved by the Standards Organization by the time the Interoperability Specification is released by HITSP. A "Provisional" standard becomes an "Approved for Use" standard only if:
  - It is approved by the Standards Organization by the time that the Interoperability Specification is released by HITSP and
  - It is substantially the same as it was when it was provisionally used and
  - It requires no further action by the Technical Committee
- Intended for Use – proposed standards that are road mapped for future use pending actions by the TC and/or the standards organization. Therefore a standard is defined as "Intended for Use" because it will not be approved by the time that the HITSP construct is released but is sufficiently defined to enable detailed evaluation of how well it will meet technical and business requirements

HITSP may continue to use "Provisional" or "Interim" standards as they existed when incorporated into the HITSP construct if the expected conditions are not satisfied until such time as HITSP can replace it with a more suitable standard. In this circumstance, the Standards Organization would have no responsibility to maintain or correct this artifact. If a standard "Intended for Use" is not developed and approved in terms of time frame or content as expected by the TC at the time of its initial selection, it may be replaced. All standards used by HITSP must meet the HITSP selection criteria. The use of "Interim" and "Intended for Use" standards will be weighed against the alternative of simply declaring a gap for HITSP and the Standards Organizations to resolve.

3.1 LIST OF STANDARDS

It is important to understand that the standards selected here are within the context of the specific Use Case requirements and do not necessarily reflect selection in other contexts. The following standards are used to implement this Interoperability Specification Transaction Package:

Table 3.1-1 List of Standards

Standard	Description
Health Level Seven (HL7) Version 2.5[5]	The HL7 Version 2.5 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, 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.
Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Revision 3.0	The IHE IT Infrastructure Technical Framework defines specific implementations of established standards to achieve integration goals that promote appropriate sharing of health information to support optimal patient care. IHE Integration Profiles, offer a common language that healthcare professionals and vendors may use in communicating requirements for the integration of products. The current version of the ITI-TF, rev. 3.0 for Final Text, specifies the IHE transactions defined and implemented as of December 9, 2006. The latest version of the IHE Technical Framework is available at www.ihe.net.

3.2 LIST OF TRANSACTIONS

The following list of transactions and their definitions are used by the Transaction Package specification.

Table 3.2-1 List of Transactions

Transaction Name	Description	Document Name
ITI-8: Patient Identity Feed	Communicates patient information, including corroborating demographic data, after a patient's identity is established, modified or merged or after the key corroborating demographic data has been modified.	Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (TF) Volume 2
ITI-9: Pix Query	Requests for a list of patient identifiers that correspond to a patient identifier known by the consumer. The request is processed and returns a response in the form of a list of corresponding patient identifiers, if any.	Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (TF) Volume 2

3.2.1 DEPENDENCIES

None

[5] HITSP references HL7 2.5.1 messaging for lab results reporting and HL7 2.5 for other messages. Future maintenance work will move toward referencing a single HL7 version across HITSP documents.

3.2.2 CONSTRAINTS

Constraints for this Transaction Package are defined for both transactions of this package. They are documented within Section 4.

4.0 TRANSACTION PACKAGES

Transaction Packages define how two or more transactions are used to support a stand-alone information exchange within a defined context between two or more systems. This specification includes by reference the transactions and components that comprise the Patient ID Cross-Referencing Transaction Package. The two transactions within this package are:

- The IHE Patient ID Cross-Referencing (PIX) transaction is described in IHE-ITI TF-2 §3.9.1
- The IHE Patient Identity Feed transaction is described in IHE-ITI TF-2 §3.8.1

4.1 CONTEXT OVERVIEW

The PIX Query and Patient Identity Feed transactions are intended for use wherever Health Level Seven (HL7) messages are suitable to identify patients from a list of potentials and/or patient demographic data needs to be communicated.

4.1.1 CONTEXTUAL CONSTRAINTS

The PIX Query and Patient Identity Feed transactions may be used by any system capable of performing real-time HL7 query and response and/or unsolicited patient demographic feed transactions.

The Patient Identifier Cross-Reference consumer actor must store and be able to communicate the data elements necessary for the Patient Identifier Cross-Reference manager to be able to process the received query and return a list of matching patient identifiers.

The Patient Identifier Cross-Reference manager actor must be able to create a, possibly empty, list of matching patient identifiers solely based on the data elements received in the query message from the patient identifier cross-reference consumer. Additionally, the patient identifier cross-reference manager must be able to receive patient demographic data from the patient identity source actor to maintain its database of patient information.

The patient identity source actor must be able to send patient demographic data to the patient identifier cross-reference manager when new or changed information is captured.

4.1.2 BUSINESS ACTORS

This Transaction Package defines no Business Actors.

4.1.3 TECHNICAL ACTORS

The technical actors in the PIX transaction are shown in the following list:

Table 4.1.3-1 Technical Actors in the PIX Transaction

Actor	Description
Patient Identifier Cross-Reference Consumer	Queries the Patient Identifier Cross-Reference Manager for a list of corresponding patient identifiers, if any. Receives a list of corresponding patient identifiers from the Patient Identifier Cross-Reference Manager.
Patient Identifier Cross-Reference Manager	Receives the query for a list of corresponding patient identifiers from the Patient Identifier Cross-Reference Consumer. Sends a list of corresponding patient identifiers to the Patient Identifier Cross-Reference Consumer.

The technical actors in the Patient Identity Feed transaction are shown in the following list:

Table 4.1.3-2 Technical Actors in the Patient Identity Feed Transaction

Actor	Description
Patient Identity Source	Sends patient demographic information to the Patient Identifier Cross-Reference Manager
Patient Identifier Cross-Reference Manager	Receives patient demographic information from the Patient Identity Source

4.1.4 ACTOR INTERACTIONS

Actor interactions in the PIX Query transaction are shown in IHE-ITI TF-2 §3.9.2.

Actor interactions in the Patient Identity Feed transaction are as shown in IHE-ITI TF-2 §3.8.2.

HITSP Constraint: The Document Registry described in IHE-ITI TF-2 §3.8.2 is not applicable.

4.2 PROCESS FLOWS

The PIX transaction involves a request by a Patient Identifier Cross-Reference Consumer for a list of patient identifiers that correspond to a patient identifier known by the Consumer. The request is sent as a Get Corresponding Identifiers query and received by a Patient Identifier Cross-Reference Manager. The Patient Identifier Cross-Reference Manager immediately processes the query and sends a Return Corresponding Identifiers response to the Patient Identifier Cross-Reference Consumer that originated the query.[6] This response contains a list of corresponding patient identifiers if any were found.
The process flows in the PIX transactions are shown in IHE-ITI TF-2 §3.9.4.

The Patient Identity Feed transaction sends patient identity and other demographic information from an Patient Identity Source to a Patient Identifier Cross-Reference Manager whenever relevant patient data are created or updated.[7]

[6] IHE-ITI TF-2 §3.9.1
[7] IHE-ITI TF-2 §3.8.1

The process flows in the Patient Identity Feed transaction are shown in IHE-ITI TF-2 §3.8.4.

4.2.1 PROCESS PRE-CONDITIONS

Patient Identifier Cross-Reference Consumer: contains patient identification numbers based on at least one patient identification domain / assigning authority known to the Patient Identifier Cross-Reference Manager.

Patient Identifier Cross-Reference Manager: maintains a list of patient identification numbers from and correlated with that sent by Patient Identifier Cross-Reference Consumers and additional domains / assigning authorities.

Patient Identity Source: maintains patient demographic information for at least one patient identification domain / assigning authority known to the Patient Identifier Cross-Reference Manager.

4.2.1.1 PROCESS TRIGGERS

Patient Identifier Cross-Reference Consumer: as described in IHE-ITI TF-2 §3.9.4.1.1
Patient Identifier Cross-Reference Manager: as described in IHE-ITI TF-2 §3.9.4.2.1.
Patient Identity Source: as described in IHE-ITI TF-2 §3.8.4.1.1.

4.2.2 PROCESS POST-CONDITIONS

Patient Identifier Cross-Reference Consumer: a list, where found by the Patient Identifier Cross-Reference Manager, of one or more patient identification numbers from domains / assigning authorities beyond those for which patient identification numbers were previously available.

Patient Identifier Cross-Reference Manager: creation or updating of patient identification information received.

Patient Identity Source: none beyond providing outputs related to this Transaction.

4.2.2.1 PROCESS OUTPUTS

Patient Identifier Cross-Reference Consumer: none specifically related to this Transaction.

Patient Identifier Cross-Reference Manager: a Return Corresponding Identifiers message containing, where applicable, a list of one or more patient identification numbers from domains / assigning authorities beyond those for which patient identification numbers were requested; where no list of applicable patient identification numbers is possible, indicators in the message as to the reason no list was provided.

Patient Identity Source: none beyond sending a Patient Identity Feed message.

4.3 DATA FLOWS

Consistent with the process flows discussed above, there are two data flows for the PIX transaction:

- Query to Get Corresponding Identifiers from Patient Identifier Cross-Reference Consumer to Patient Identifier Cross-Reference Manager, and
- Response to a query to Return Corresponding Identifiers from Patient Identifier Cross-Reference Manager to Patient Identifier Cross-Reference Consumer

Details of these two data flows are contained in the following two subsections.

Only one data flow, sending demographic data from the Patient Identity Source to the Patient Identifier Cross-Reference Manager, exists for the Patient Identity Feed transaction; although there are two variants depending on whether patient merging is performed or not. Details of this data flow and its variants are contained in subsection 4.3.3.

4.3.1 QUERY – CONSUMER TO CROSS-REFERENCE MANAGER

The Get Corresponding Identifiers query portion of the Patient ID Cross-Referencing Transaction is described in IHE-ITI TF-2 §3.9.4.1.2. It consists of three segments: MSH, QPD, and RCP.

Use of the QPD segment is described in IHE-ITI TF-2 §3.9.4.1.2.2. A HITSP Constraint on this usage is that data element QPD-3.4.2 must be an ISO object identifier (OID) and QPD-3.4.3 must contain “ISO“.

Note: For an example of encoding a patient ID using an OID, see IHE ITI TF-2 Version 3.0 table 3.14.4.1-3 (see CX data type). Management of OIDs is illustrated in the IHE ITI TF-2, Appendix B.

4.3.2 RESPONSE – CROSS-REFERENCE MANAGER TO CONSUMER

The Return Corresponding Identifiers response portion of the Patient ID Cross-Referencing Transaction is described in IHE-ITI TF-2 §3.9.4.2.2. It consists of up to six segments: MSH, MSA, ERR, QAK, QPD, and PID.

Use of the QPD segment is described in IHE-ITI TF-2 §3.9.4.2.2.4. Given the fact that QPD-3 must echo QPD-4, QPD-3.4.2 must be an ISO object identifier (OID) and QPD-3.4.3 must contain “ISO”.

Use of the PID segment is described in IHE-ITI TF-2 §3.9.4.2.2.5. The table 4.3.2-1 shows additional HITSP Constraints on this usage.

Table 4.3.2-1 HITSP Additional PID Segment Constraints

HL7 Segment - PID - Patient Identification							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
1	4	SI	R			Set ID - PID	Shall only contain the value 1

HL7 Segment - PID - Patient Identification							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
3	250	CX	R	Y		Patient Identifier List	
3.1		ST	R			ID Number	
3.4		HD	R			ID Number Assigning Authority	
3.4.2		ST	R			Assigning Authority's Universal ID	Shall only contain an ISO Object Identifier (OID)
3.4.3		ID	R			Assigning Authority's Universal ID Type	Shall only contain "ISO" Note: "ISO" is the code that means "OID"

4.3.3 FEED – SOURCE TO CROSS-REFERENCE MANAGER

The Patient Identity source is responsible to map their internal patient identification information as specified by this section, such as Patient ID, Patient Name, etc.

The Patient Identity Feed is described in IHE-ITI TF-2 §§3.8.4.1.2 and 3.8.4.2.2. It consists of up to four segments: MSH, EVN, PID, and sometimes MRG.

Use of the PID segment is described in IHE-ITI TF-2 §§3.8.4.1.2.3 and 3.8.4.2.2.3. The table 4.3.3-1 shows additional HITSP Constraints on this usage.

Table 4.3.3-1 HITSP Additional PID Segment Constraints

HL7 Segment - PID - Patient Identification							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
1	4	SI	R			Set ID - PID	Shall only contain the value 1
3	250	CX	R	Y		Patient Identifier List	
3.1		ST	R			ID Number	
3.4		HD	R			ID Number Assigning Authority	
3.4.2		ST	R			Assigning Authority's Universal ID	Shall only contain an ISO Object Identifier (OID)
3.4.3		ID	R			Assigning Authority's Universal ID Type	Shall only contain "ISO" Note: "ISO" is the code that means "OID"
5	250	XPN	R	Y		Patient Name	
5.1		FN	R			Family Name	
5.1.1		ST	R			Surname	
5.2		ST	RE			Given Name / First Name	
5.3		ST	RE			Middle Names	If more than one middle name is available, all available middle names shall be concatenated with separating spaces in this component
5.4		ST	RE			Name Suffix	

HL7 Segment - PID - Patient Identification							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
5.5		ST	RE			Name Prefix / Title	
5.7		ID	R		0200	Name Type Code	
6	250	XPN	RE	Y		Mother's Maiden Name	
6.1		FN	RE			Family Name	
6.1.1		ST	RE			Surname	
7	26	TS	RE			Date/Time of Birth	
8	1	IS	RE		0001	Administrative Sex	
10	250	CE	O	Y		Race	
11	250	XAD	O	Y		Patient Address	
11.1		SAD	O			Street Address	
11.1.1		ST	O			Street or Mailing Address	Though not required by HL7 standard, use of national postal service standardized values is strongly recommended
11.1.2		ST	O			Street Name	
11.1.3		ST	O			Dwelling Number	
11.2		ST	O			Other Designation	May be used for second line of Street Address
11.3		ST	O			City	Though not required by HL7 standard, use of national postal service standardized values is strongly recommended
11.4		ST	O			State / Province	
11.5		ST	O			ZIP / Postal Code	
11.6		ST	O			Country	
	Though not required by HL7 standard, use of the International Standards Organization Codes for Representation of Names and Countries, ISO-3166, is required; available from American National Standards Institute 25 West 43rd Street, Fourth Floor New York, NY 10036 Note: This is a requirement on an optional field						
11.7		ID	O		0190	Address Type	
13	250	XTN	O	Y		Phone Number - Home	If repetition occurs, then first occurrence shall be the primary telephone number used for patient contact. [8]
13.5		NM	O			Country Code	Though not required by HL7 standard, use of international and national standardized values is strongly recommended. For Country Code, if no value is present, 1 assumed for United States and Canada
13.6		NM	O			Area / City Code	
13.7		NM	O			Local Number	

[8] HL7 version 2.5 §3.4.2.13

HL7 Segment - PID - Patient Identification							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
13.8		NM	O			Extension	
13.9		ST	O			Any other text	
18	250	CX	O			Patient Account Number	
22	250	CE	O	Y		Ethnic Group	

Use of the PID segment is described in IHE-ITI TF-2 §3.8.4.2.2.4 and IHE-ITI TF-2 Table 3.8-4. The table 4.3.3-2 shows additional HITSP Constraints on this usage.

Table 4.3.3-2 HITSP Additional MRG Segment Constraints

HL7 Segment - MRG - Merge Patient Information							
SEQ	LEN	DT	OPT	RPT	TBL	Data Element Name	Description / Comments
1	250	CX	R	Y		Prior Patient Identifier List	
1.1		ST	R			ID Number	
1.4		HD	R			ID Number Assigning Authority	
1.4.2		ST	R			Assigning Authority's Universal ID	Shall only contain an ISO Object Identifier (OID)
1.4.3		ID	R			Assigning Authority's Universal ID Type	Shall only contain "ISO" Note: "ISO" is the code that means "OID"
7	250	XPN	O	Y		Prior Patient Name	
7.1		FN	R			Family Name	
7.1.1		ST	R			Surname	
7.2		ST	RE			Given Name / First Name	
7.3		ST	RE			Middle Names	If more than one middle name is available, all available middle names shall be concatenated with separating spaces in this component
7.4		ST	RE			Name Suffix	
7.5		ST	RE			Name Prefix / Title	
7.7		ID	R		0200	Name Type Code	

5.0 TECHNICAL IMPLEMENTATION

5.1 CONFORMANCE

A system conforming to this specification must implement this complete specification. Conformance also includes supporting the pre and post-conditions and implementing the constraints to the standards specified in the component, transaction and transaction package.

5.2 SUPPORTING DOCUMENTS

See Volume 1 and 2 of the IHE IT Infrastructure Technical Framework Release 3.0 specification.

6.0 CHANGE HISTORY

6.1 MAY 11, 2007

This document is now Released for Implementation.