MASTER PATIENT INDEX (MPI)

HL7 INTERFACE SPECIFICATIONS

Version 1.0

April 1999

Revised February 2014

Department of Veterans Affairs
Office of Information Technology
Product Development

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Revision History

Date	Description	Author
2/2014	(ClearQuest Request MVI 3038), Patch DG*5.3*874 • The ***active*** Veteran's Health Identity Card (VHIC) number was added to the list of identifiers in the PID segment (PID-4) on the VistA side. • Format: [VIC Card #]~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L • Example of VHIC number in PID-4 repeated twice for interoperability between DoD and VA because this patient has two active VHIC numbers: 999~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L|999999~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L	Master Patient Index development team: • Gregory St. Julien, Project Manager • Ed Zeigler, Lead Developer • Susan Strack, Technical Writer
5/2013	(ClearQuest Request MVI 1544), Patch MPI*1.0*92 • Added field: PID-25 Birth order (NM) 00128. This is the Multiple Birth Order, which is a number other than zero. This data only comes from DoD. • Updated organizational references in documentation.	Master Patient Index development team: • Gregory St. Julien, Project Manager • Chris Chesney, Lead Developer • Susan Strack, Technical Writer
5/2012	IMPORTANT NOTE: The Version number 2.21 as it appeared on the title page and in the filename of this manual was removed. The correct version number of the MPI HL7 Interface Specification is v1.0, which is the same version number Master Patient Index software. This will only change if the software versioning is upgraded.	Master Patient Index development team: • Gregory St. Julien, Project Manager • Chris Chesney, Lead Developer • Susan Strack, Technical Writer
5/2012	(ClearQuest Request MVI 789) HL7 message MFN~M05 updates: • Assigning Authority and ID Type are parsed from MFE Segment for HL7 MFN~M05 v2.4 and v3. • Code modified to handle more than 245 characters in MFE segment. • Examples: – Figure 2-92. MFN-M05—Update Treating Facility msg: Assigning Authority and Id Type	Master Patient Index development team: • Gregory St. Julien, Project Manager • Chris Chesney, Lead Developer • Chintan Naik, Developer • Michael Ogi, Developer • Susan Strack, Technical

Date	Description	Author
	are parsed from MFE segment for HL7 MFN~M05 v2.4 and v3. – Figure 2-93. MFN-M05—Update Treating Facility msg: Assigning Authority and Id Type are parsed from MFE segment, more than 245 characters long, for HL7 MFN~M05 v2.4 and v3. HL7 segment updates: • (ClearQuest Request MVI 789) MFE: Updated to handle HL 3.0 format for ID data. Examples in documentation. • (ClearQuest Request MVI 937) PID 3: Added TIN and FIN fields to the Seq #3. • (ClearQuest Request MPI_CR989 [MPI_CodeCR2338] -- correction from previous release) PID 32: Added catastrophic and non-catastrophic entries. • (ClearQuest Request MVI 799) OBX Segment in A08 and A31 from VistA side (File #799) may include: OBX^^CE^OLDER RECORD^^Y	Writer
10/2011	ClearQuest requests MVI_531 and MVI_533 for Patch MPI*1*89: Added the values: • ROI SIGNED • IPP LEVEL to the OBX segment's: • #3 "Observation Identifier" • #5 "Observation Value" and to the example in the HL7 message A31, *"ADT/ACK—Update Person Information."*	Naik, Chintan, Birmingham OIFO; Susan Strack, Oakland OIFO; Gregory St. Julien, Project Manager
6/2011	Reviewed document then converted this document to a Section 508 compliant PDF.	Donnie Canham
6/2011	MPI_CR2420 (MPI_CodeCR2437) Patch MPI*1*86—Headline: "Match and potential match thresholds returned in K22 query response" • Updated example in the QBP/RSP—Find Candidates (QBP) and Response (RSP) (events Q22 and K22) HL7 msg • Sequence QRI-3 Algorithm descriptor: – Updated User-defined Table 0393 – Match algorithms w/entry for INTIATE 7.5.	Chris Chesney, Birmingham OIFO; Naik, Chintan, Birmingham OIFO; Susan Strack, Oakland OIFO; Gregory St. Julien, Project Manager

Date	Description	Author
	– Added example of QRI Segment showing AUTO-LINK THRESHOLD and TASK THRESHOLD field values from the MPI PARAMETER file (#985.1) for sequence 3. Example: 102-145~INITIATE	
3/2011	MPI_CR2342—Headline: "Add specific text to cover the RCP-2 Attended and Unattended expected values." The RCP-2 Quantity limited request field has been updated with the following explanation: "The RCP-2 [Quantity limited request (CQ) 00031] field should be passed with a value of 1 for all unattended searches so that there will be one and only one matched record return. For attended searches that desire matched record and potential match record(s), the value of RCP-2 should be greater than 1."	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Gregory St. Julien, Project Manager
9/2010	MPI_CR1772 (MPI_CodeCR1932)—Patch MPI*1*77: Changes have been made to VistA Health Level Seven (HL7) messaging to support a new process format for the Update Treating Facility (MFN~M05) HL7 message and for updating fields in the VistA TREATING FACILITY LIST file (#391.91) Updates to new MFN~M05 message examples: • Retain old MFN~M05 message examples for My HealtheVet. • Include updated MFN~M05 message examples for all other applications. Updated the Master File Entry Segment: • MFE-1: Added new value “MDC” in the Record-level Event Code Table 0180 for sending deactivated entries. • MFE-2: Explained and provided example of the use of incremental numbers used to define unique occurrences of the same Station Number when sent multiple times in the same HL7 message. • MFE-4: Included HL7 Table 0363 – for Assigning authority. Updated table with new entries USDOD and USVBA. • PID-3: Updated HL7 Table 0203 to include USDOD. NOTE: The Master File Update Acknowledgment (MFK~M05) response builder code has been modified to generate a response using the new format.	Chintan Naik; Susan Strack; Danila Manapsal, Project Manager, Oakland OIFO

Date	Description	Author
5/2010	MPI_CR1716 (MPI_CodeCR1761): The PID builder in VistA was modified to include confidential phone number. Confidential phone number is being added with Patch DG*5.3*754. This is needed for the VOA effort.	Paulette Davis, Birmingham OIFO; Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
11/2009	Final updates to documentation in preparation for national release via Patches MPI*1*62 and MPI*1*71.	Susan Strack, Oakland OIFO; Danila Manapsal, Oakland OIFO, Project Manager
10/05/09	Updated the VA008─Religion Table adding the remainder of the entries included in the HL7 2.4 Standard.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
8/17/09	MPI_CodeCR1708: Healthcare Identity Management (HC IdM) name change to Healthcare Identity Management (HC IdM).	Susan Strack, Oakland OIFO; Danila Manapsal, Oakland OIFO, Project Manager
12/30/08	MPI_CR960(MPI_CodeCR1474): PID segment in HL7 spec for ethnicity is not documented correctly in PID-22 Ethnic group (CE) 00125. This is being released with Patch MPI*1*62. Correction as follows: H Hispanic or Latino N Not Hispanic or Latino U Unknown by Patient D Declined to Answer	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
11/01/08	MPI_CR1264 (MPI_CodeCR1274): New values and updated value in File #13 Religion for released with Patch MPI*1*62. NOTE: Patch DG*5.3*782 modified the entries in the Religion file (#13) and added new fields.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
10/30/08	MPI_CR1362(MPI_CodeCR1473): Corrected the field name listed below. Released with Patch MPI*1*62. • **From:** ZPD-10 POW Status Indicated? • **To:** ZPD-17 POW Status Indicated?	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
10/30/08	MPI_CR1361(MPI_CodeCR1472): Update OBX Segment, Seq #5 SSN VERIFICATION values to add codes listed below. Released with Patch MPI*1*62. 0-New Record	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO

Date	Description	Author
	1-In-Process 2-Invalid Per SSA 3-Resent to SSA, 4-Verified	
10/06/08	Updates submitted by Danny Reed released with Patch MPI*1*62: • Change Request MPI_CR1038(MPI_CodeCR1469): 3.1.1.1.3 - Enhancement to MPI VQQ Interface Specification • Change Request MPI_CR1039(MPI_CodeCR1470): 3.1.1.1.4 - Enhancement to MPI QBP/Q22 FindCandidate Interface Specification • Change Request MPI_CR1041(MPI_CodeCR1471): 3.1.1.2.1 - Enhancement to MPI RSP/K22 FindCandidate Interface Specification	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO; Danila Manapsal, Project Manager, Oakland OIFO
12/13/07	Updated A08 description to show PV1 as a required segment. Update PV1 description to show that VistA sends no value to patient class but MPI will send N. Update examples for A19 and A31 to show PV1 segment being sent. QRD, seq 7 in A19 (RD and 1) were reversed.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO
10/12/07	Updated PID segment, Seq 32 to reflect that "N" is mapped to "R" before sending to PSIM	Chris Chesney, Birmingham OIFO
8/7/07	Updated the MSA and ERR segments to note PSIM difference. Including an example A31 application ack with an ERR segment.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO
7/20/07	Updated the OBX segment, sequence #2 and the PV2 segment, sequences #8, #14, and #46. Also added field definition for PV2, sequence #46.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO
6/25/07	Added PID example. Re-introduced pink font to show changes. Previously content marked for deletion was deleted as per Danny Reed. Reformatted examples. Recompiled TOC and Index entries. Made other content changes based on feedback from Cindy Heuer.	Danny Reed, Birmingham OIFO; and Thom Blom and Susan Strack, both from Oakland OIFO
6/22/07	In Chapter 2, Trigger Events and Definitions, item "Update to fields on an existing MPI entry" (4th row in the first table), please change (RSA will still get the A08 message for these processes) to (RSA will still get the A08 message for **their** processes)	Danny Reed

Date	Description	Author
6/22/07	Section 2.12 has Example 2, then Example 3, but no Example 1 preceding them. Changed Example 2 to be 1 and 3 to be 2	Danny Reed
6/22/07	Adding the following statement to the introduction paragraph. There are references in this document to the VistA HL7 package enhancement known as HLO which stands for HL7 Optimized, so from this point forward this will be referenced with the acronym HLO.	Danny Reed
6/22/07	Changed the following references: In section 2.4 example #5 and in section 2.7 example #2 changed the reference to HLO to be via HLO instead of HLO Message. Example: Message FROM the MPI TO PSIM via HLO	Danny Reed
6/22/07	Added additional information in the table of identifiers in Section 3.15 PID-3 to identify the Temporary, Permanent and Deactivated ICN ID State difference based on effective and expiration dates	Danny Reed, Birmingham OIFO
1/19/07	Updating Chapter 2 table and examples of messages.	Chris Chesney, Birmingham OIFO
11/13/06	Adding HLO differences to the MSH segment. Providing HLO examples for the A43, A24 and A31 messages	Chris Chesney, Birmingham OIFO
7/27/06	Making changes to support primary view: EVN segment for A31 messages will have Seq #2 be the date last updated from 985 or 985.5 depending upon the type of update (primary view or correlation) OBX segment added to A31 message for the sending of the SSN Verification Status field. PID segment, adding ID State for the ICN will be passed in PID 3 by populating the effective date to indicate Permanent, by populating the expiration date to indicate Deactivated and with neither effective or expiration date to indicate that the ID State is Temporary.	Chris Chesney, Birmingham OIFO
5/15/06	Q22 query updated to include additional parameters for searching	Chris Chesney, Birmingham OIFO
4/24/06	Implemented feedback based on a review of the VA HL7 Tables (Chapter 4 in the documentation) by HSD&D Message Administration, M&IS. Also, general edits to grammar, punctuation, formatting, captions, and re-indexed the manual.	Susan Strack, Oakland OIFO; Chris Chesney, Birmingham OIFO; Donald Creaven, Message Administration, M&IS, Oakland OIFO; Dan

Date	Description	Author
		Soraoka, Project Manager, Oakland OIFO
4/04/06	Updated OBX segment field 5 Observed Value for changes to SSN Verification Status values.	Chris Chesney, Birmingham OIFO
4/04/06	Section 2.4 1. Updated Example 3 ADT-A24 description to include reference to the local ID and ICN in the captured message Section 2.6 1. Updated the A40 Capture to include the DFN in the MRG segment as well as 200M when referencing a National ICN. Section 2.8 1. Updated the A04 captured with 200M when referencing National ICN Section 2.9 1. Updated the A08 captured with 200M when referencing National ICN Section 2.12 1. Updated the A31 captured with 200M when referencing National ICN Section 2.14 1. Updated the A40 captured with 200M when referencing National ICN 2. Updated Example 1 and 2 to include a valid ICN, it appeared that the ICN that was in the capture had been scrubbed erroneously. Section 3.10 1. Removed note on MSA-3 2. Updated description on MSA-1 to include when an AA, AE and AR should be passed. Section 3.13 1. Replaced OBX-5 table description t reference to the VUID to internal value Section 3.15 1. Updated the PID-3 table to separate Deprecated ICN reference to local and national 2. Updated table PID-11 to include VAB4 in the table listing.	Danny Reed, Birmingham OIFO

Date	Description	Author
3/31/06	Updating PID Segment for inclusion of SSN Verification Status, Pseudo SSN Reason. Including a note about encoding characters and HL7 delimiters being included in the HL7 messages. Updating examples to ensure that Place of Birth State and the State address fields are shown as the state code and not completely spelt out, to be in line with the standard. 200M is listed as the authoritative source when the National ICN is passed in the PID segment. Updating PID to include field 32 for Identity Reliability Code.	Chris Chesney, Birmingham OIFO
1/23/06	Updating PID segment for inclusion of bad address indicator, foreign address, confidential address and category, alias SSN, and change assigning authority on national ICNs. Add Pager #, cell phone #, and e-mail address and work phone into PID-13. These are related to the MPI Changes 3 project.	Chris Chesney, Birmingham OIFO
11/18/05	Updated all examples for messaging. Added appendix for subscribing applications. Updated section 1.1 Edits to grammar, punctuation, and formatting.	Chris Chesney, Birmingham OIFO; Susan Strack, Oakland OIFO
9/26/05	Add Section 2.16 and to the trigger events table ADT-A37 to support the Unlink of the MyHealtheVet project Removed the sections column in the messages and trigger events table in section 2.	Danny Reed, Birmingham OIFO
6/10/05	Update the ADT-A24 messages figure 2.9, 2.13 and 2.14 to move the PD1 segment between PID1 and PID2 This correction was made as part of the MPI*1*35 patch Modified the MFN-M05 figure 2-37 to pass the AL instead of NE in the MFI segment. Also updated Figure 1-1 "A24—Link Patient Information message example" to include the ICN history entries with the date (not the time) that ICN became inactive.	Danny Reed, Birmingham OIFO; Susan Strack, Oakland OIFO; Chris Chesney, Birmingham OIFO
6/01/05	Updated references of the national ICN to use the MPI's station# of 200M. Also removed the repeatable symbols off of the ADT-A43 message.	Danny Reed, Birmingham OIFO
5/31/05	Included ADT-A24 examples of the resolution of an MPI duplicate: • First form w/top level ICN value • Second form w/all identifiers Also corrected the A28 Add Patient msg example to delete some repeated ICNs in the PID^1 and PID^2	Susan Strack, Oakland OIFO; Danny Reed, Birmingham OIFO

Date	Description	Author
	segments.	
5/06/05	Updated the QPD segment table to include sequence QPD-6.	Susan Strack, Oakland OIFO; Danny Reed, Oakland OIFO
4/15/05	Updated the ZCT, ZEL, ZEM, and ZPD segments, and corrected the patient DFN to "271" in the QPD^Q22 sequence of Figure 2-31.	Susan Strack, Oakland OIFO; Chris Chesney, Birmingham OIFO
4/13/05	Updated sequences 2, 3, and 4 in the ZEL—VA Specific Patient Eligibility segment.	Susan Strack, Oakland OIFO
4/13/05	Incorporated the dfn changes to the ADT-A43 messaging	Danny Reed, Birmingham OIFO
2/04/05	Accepted past updates. In section 2.0 added hyperlinks to the messages. Also change the heading on the different ADT-A31 message constructs so that each implementation can be easily identified.	Danny Reed, Birmingham OIFO
12/17/04	Incorporated all feedback from developers (Danny Reed and Chris Chesney) and make final edits for release to the VistA Documentation Library (VDL).	Susan Strack, Oakland OIFO
10/28/04	Review and update	Danny Reed, Birmingham OIFO
10/27/04	Updated to include PIMS segments (i.e. AL1, NK1, OBX & Z* (ZCT, ZEL, ZEM, ZFF, ZPD, ZSP), including sequence translations for each. (Changes still pending.)	Susan Strack, Oakland OIFO
10/30/03	ZPD segments added to messages. Segments sent with messages updated to include all Z-Segments.	Chris Chesney, Birmingham OIFO
8/01/03	Updated PID segment.	Chris Chesney, Birmingham OIFO
5/14/03	No content changes; made minor format changes only (e.g., table/figure numbering scheme, format of "VistA").	Thom Blom, Oakland OIFO
2/04/03	Reformatted document to follow the SS Technical Writers Style Guide & SOP. Also, updated broken links and clarified text/reference ambiguities.	Thom Blom, Oakland OIFO
10/29/02	Made minor modifications and formatting on message examples.	Danny Reed, Birmingham OIFO
10/29/02	Formatting changes to document.	L. Hardeen, Bay Pines OIFO
10/21/02	Made some adjustments to the ADT-A19 QRD	Danny Reed, Birmingham

Date	Description	Author
	information.	OIFO
10/15/02	Final revisions, organization, and adding of CMOR Change messages and Query messages.	Chris Chesney, Birmingham OIFO
10/07/02	Adding MFN-M05.	Danny Reed, Birmingham OIFO
7/19/02	Added ADT-A01, A03, and A37 HL7 Messages.	Danny Reed, Birmingham OIFO
3/18/02	Create Interface Analysis document and begin process of gathering "raw materials" for specifications.	John Derderian, Albany OIFO

Table i. Documentation revision history

Patch Revisions

For a complete list of patches related to this software, please refer to the Patch Module on FORUM.

Contents

Figures

Tables

Orientation

How to Use this Manual

Throughout this manual, advice and instructions are offered regarding the use of the Veterans Health Information Systems and Technology Architecture (VistA) Master Patient Index (MPI)/Patient Demographics (PD) Health Level Seven (HL7) specifications.

This manual uses several methods to highlight different aspects of the material:

- Various terms are used throughout the documentation to alert the reader to special information. The following table gives a description of each:

Term	Description
CAUTION	Used to caution the reader to take special notice of critical information.
NOTE	Used to inform the reader of additional noteworthy or related information for a topic or subject.
REF	Refers the reader to additional reading material.

Table ii. Documentation symbol descriptions

- Descriptive text is presented in a proportional font (as represented by this font).
- Example HL7 messages are shown in a *non*-proportional font and enclosed within a box.
- "Snapshots" of computer online displays (i.e., character-based screen captures/dialogs) and computer source code are shown in a *non*-proportional font and enclosed within a box. Also included are Graphical User Interface (GUI) Microsoft Windows images (i.e., dialogs or forms).
    - User's responses to online prompts will be boldface type.
    - The "<**Enter**>" found within these snapshots indicate that the user should press the Enter or Return key on their keyboard.
- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field and file names, and security keys (e.g., the XUPROGMODE key).
- Conventions for displaying TEST data in this document are as follows:
    - The first three digits (prefix) of any Social Security Numbers (SSN) will begin with either "000" or "666".
    - Patient and user names will be formatted as follows:

      [Application Name] PATIENT, [fictitious given name] and [Application Name] USER, [fictitious given name] respectively.

      The "Fictitious given name" represents a fabricated given name for the patient or user. This is done to more clearly represent patient and user names used in descriptive text in this documentation. For example, for the Master Patient Index (MPI) test patient and user names would be documented as follows: MPIPATIENT,NANCY; MPIPATIENT,SAM; MPIPATIENT,DEBRA; etc. and MPIUSER,RICH; MPIUSER,JOHN; etc.

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.

NOTE: Methods of obtaining specific technical information online will be indicated where applicable under the appropriate topic. Please refer to the *Master Patient Index (MPI) VistA Technical Manual* for further information.

Help at Prompts

VistA software provides online help and commonly used system default prompts. In character-based mode, users are encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of VistA software.

To retrieve online documentation in the form of Help in any VistA character-based software:

- Enter a single question mark ("**?**") at a field/prompt to obtain a brief description. If a field is a pointer, entering one question mark ("**?**") displays the HELP PROMPT field contents and a list of choices, if the list is short. If the list is long, the user will be asked if the entire list should be displayed. A YES response will invoke the display. The display can be given a starting point by prefacing the starting point with an up-arrow ("^") as a response. For example, **^M** would start an alphabetic listing at the letter M instead of the letter A while **^127** would start any listing at the 127th entry.
- Enter two question marks ("**??**") at a field/prompt for a more detailed description. Also, if a field is a pointer, entering two question marks displays the HELP PROMPT field contents and the list of choices.
- Enter three question marks ("**???**") at a field/prompt to invoke any additional Help text stored in Help Frames.

Obtaining Data Dictionary Listings

Technical information about files and the fields in files is stored in data dictionaries. You can use the List File Attributes option on the Data Dictionary Utilities submenu in VA FileMan to print formatted data dictionaries.

REF: For details about obtaining data dictionaries and about the formats available, please refer to the "List File Attributes" chapter in the "File Management" section of the *VA FileMan Advanced User Manual*.

Assumptions About the Reader

This manual is written with the assumption that the reader is familiar with the following:

- VistA computing environment
- VA FileMan data structures and terminology
- Microsoft Windows
- M programming language

It provides an overall explanation of the MPI/PD HL7 interface specifications contained in MPI/PD VistA software, version 1.0. However, no attempt is made to explain how the overall VistA programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA home pages for a general orientation to VistA. For example, go to the OIT Product Development Web Page at the following address:

http://vista.med.va.gov/

Reference Materials

Readers who wish to learn more about the Master Patient Index (MPI) / Patient Demographic (PD) software should consult the following Web sites:

- VA Software Document Library at the following address:

  http://www.va.gov/vdl/application.asp?appid=16

  The MPI/PD VistA product documentation, as found at the link above, includes the following manuals:

  – *Master Patient Index/Patient Demographics (MPI/PD) VistA User Manual*

  – *Master Patient Index/Patient Demographics (MPI/PD) VistA HL7 Interface Specifications*

  – *Master Patient Index/Patient Demographics (MPI/PD) VistA Technical Manual*

  – *Master Patient Index/Patient Demographics (MPI/PD) VistA Exception Handling*

  – *Master Patient Index/Patient Demographics (MPI/PD) VistA Programmer Manual*

  – *Master Patient Index (MPI) VistA Monograph*

- Master Patient Index (MPI):

  http://vista.med.va.gov/mpi/index.asp

- Healthcare Identity Management (HC IdM) team

  http://vaww.vhadataquality.va.gov/index.php?lang=en

- All VistA documentation is made available online in both Microsoft Word format and Adobe Acrobat Portable Document Format (PDF). It can be downloaded from the VHA Software Document Library Web site at:

  http://www.va.gov/vdl/

- The HL7 Standard documentation for current and previous versions is available at the following web address:

  http://vista.med.va.gov/messaging/msgadmin/hl7_specifications.asp

- VistA documentation is made available online in Microsoft Word format and Adobe Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe Systems Incorporated at the following web address:

  http://www.adobe.com/

REF: For more information on the use of the Adobe Acrobat Reader, please refer to the *Adobe Acrobat Quick Guide* at the following web address:

http://vista.med.va.gov/iss/acrobat/index.asp

CAUTION: This is a disclaimer indicating that the appearance of any external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this Web site or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of this VA Intranet Service.

1 Introduction

Overview of Master Veteran Index (MVI)

The Master Veteran Index (MVI) is the authoritative source for *person identity data*. It maintains identity data for persons across VA systems, provides a unique universal identifier for each person, stores identity data as correlations for each system where a person is known, provides a probabilistic matching algorithm, and includes the Master Patient Index (MPI), Person Service Identity Management (PSIM), and Toolkit (TK). It maintains a "gold copy" known as a "Primary View" of the person's identity data. Broadcasts identity trait updates to systems of interest.

The MPI is the data store of patient records and one of the component pieces of the Master Veteran Index. It is a cross-reference or index of patients that includes the patient's related identifiers and other patient identifying information. The MPI is used to associate a patient's identifiers among multiple ID-assigning entities, possibly including a Health Data Repository, to support the consolidation and sharing of a patient's health care information across VHA. The MPI is the authoritative source for *patient identity*.

REF(S): For more information on the Master Veteran Index (MVI):

- See the Identity Services TSPR Project Notebook at the following address:

  http://tspr.vista.med.va.gov/warboard/anotebk.asp?proj=1385&Type=Active
  NOTE: *This is an internal VA Web site and is not available to the public.*

- See the "Glossary" in this manual, specifically the entries for Person Service Identity Management (PSIM), Master Patient Index (MPI), and Toolkit (TK).

Overview Of the Master Patient Index Hl7 Interface Specifications

This interface specification is intended to identify the VistA information that will be shared as part of the MPI/PD. The sharing of this information will be triggered by specific VistA events. Both the exact events and the messages used to share this data will be reviewed.

MPI/PD makes use of and creates messages using the abstract message approach and encoding rules specified by the HL7 standard. The HL7 VistA application will be used for communicating data associated with various events that occur in health care environments.

The formats of these messages conform to HL7 interface standards, Version 2.4.

NOTE: There are references in this document to the VistA HL7 package enhancement known as HLO which stands for HL7 Optimized (HLO). HLO is a tool available to developers and is used on the MPI to speed up outbound messages to PSIM.

REF: For more information on why a patient doesn't have an ICN, please refer to the Appendix "Why Doesn't a Patient Have a National ICN?" located in the *Master Patient Index/Patient Demographics (MPI/PD) VistA User* or *Exception Handling* Manuals and found on the VA Software Documentation Library at the following address:

http://www.va.gov/vdl/application.asp?appid=16

1.1 HL7 Commit Acknowledgement and Application Level Acknowledgements Requirements

An HL7 Commit and Application Level Acknowledgement are required for the majority of messages document here. Each message details whether or not each is expected and the format for these acknowledgements.

The HL7 Commit Acknowledgement is required for ALL messages. It allows the sender to know that the message has been successfully received. The commit acknowledgement is not for anything more than that. The Commit ACK is expected back over the same socket connection as the original message was sent. For those applications using VistA HL7, the commit ACK is generated and processed by VistA HL7.

The Application Level Acknowledgement is required for most all messages. It allows the sender to know how the processing of this specific message went. Was it was successful or was there a problem. For a number of messages sent by the MPI, it is the Application Level Acknowledgement that triggers the completion of the event that resulted in the original message. Without the receipt of that application acknowledgement, the process remains incomplete. The application level acknowledgement is not to be sent back over the same socket as the commit acknowledgement but rather over a subsequent connection.

1.2 HL7 Delimiter(s) Included Data in Field Value

It is possible to have HL7 delimiters are part of a data field within a given segment. To avoid issues with the parsing of the message these delimiters are encoded. Below is taken from Section 2.10 of the 2.4 HL7 Standards:

2.10 Use of escape sequences in text fields

2.10.1 Formatting codes

When a field of type TX, FT, or CF is being encoded, the escape character may be used to signal certain special characteristics of portions of the text field. The escape character is whatever display ASCII character is specified in the <escape character> component of *MSH-2-encoding characters*. For purposes of this section, the character \ will be used to represent the character so designated in a message. An **escape sequence** consists of the escape character followed by an escape code ID of one character, zero (0) or more data characters, and another occurrence of the escape character. The following escape sequences are defined:

\H\	start highlighting
\N\	normal text (end highlighting)
\F\	field separator
\S\	component separator
\T\	subcomponent separator
\R\	repetition separator
\E\	escape character
\Xdddd...\	hexadecimal data
\Zdddd...\	locally defined escape sequence

The **escape sequences** for field separator, component separator, subcomponent separator, repetition separator, and escape character are also valid within an ST data field.

No escape sequence may contain a nested escape sequence.

1.3 Background Jobs

UPDATE BATCH JOB FOR HL7 v2.3 [VAFC BATCH UPDATE]

Updates to specific patient demographic data will trigger the broadcasting of a HL7 ADT-A08 message. Because there is no set way of identifying when an edit to patient information is complete, these edit events are marked as needing to be transmitted in the ADT/HL7 PIVOT file (#391.71). The background job VAFC BATCH UPDATE (scheduled TaskMan job) periodically broadcasts the HL7 ADT-A08 message, containing any changes to data, to the MPI.

LOCAL/MISSING ICN RESOLUTION BACKGROUND [MPIF LOC/MIS ICN RES]

The Local and Missing ICN background process looks at the Local ICN ("AICNL") and Missing ICN ("AMPIMIS") cross-references and sends batch messages to the MPI requesting an ICN (100 patients per message). How do patients receive a Local ICN? Patients can receive a Local ICN if an attempt to contact the MPI fails. How does a patient get the Missing ICN cross-reference set? The Missing ICN cross-reference is set when a package adds a patient to the PATIENT file (#2), but does not communicate with the MPI.

NOTE: Options that add patients to the PATIENT file (#2) AND communicate with the MPI are:

- Load/Edit Patient Data [DG LOAD PATIENT DATA]
- Register a Patient [DG REGISTER PATIENT]
- Electronic 10-10EZ Processing [EAS EZ 1010EZ PROCESSING]

The following option communicates with the MPI and can obtain ICNs for patients in PATIENT file (#2), but does not add patients to the MPI:

- Local/Missing ICN Resolution background job

REF: For more information on why a patient doesn't have an ICN, please refer to the Appendix "Why Doesn't a Patient Have a National ICN?" located in the Master Patient Index/Patient Demographics (MPI/PD) VistA User and Exception Handling Manuals and found on the VA Software Documentation Library at the following address:

http://www.va.gov/vdl/application.asp?appid=16

1.4 Direct Connect

The Direct Connect is a real-time Transmission Control Protocol/Internet Protocol (TCP/IP) connection to the Master Patient Index to allow for an immediate request for an ICN. It is activated during the Register A Patient, Load/Edit Patient Data, and Electronic 10-10EZ Processing processes when:

1. A new patient is added to the system, or
2. A patient exists but doesn't have an ICN.

In addition, by utilizing the Potential Match Review (PMR) action within the MPI/PD EXCEPTION HANDLING option, for Potential Match exceptions, the TCP/IP direct connection with the MPI will occur. This event causes creation of a VQQ-Q02 and is sent to the MPI to find out if the patient is known.

The Display Only Query option, used to view the data the MPI knows about a patient, also utilizes the TCP/IP direct connect with the MPI. A VQQ-Q02 query is sent to the MPI. If the MPI knows the patient or finds a list of potential matches, the data is displayed to the users. No data is updated at the site or the MPI. If the MPI does not know the patient, a message is displayed stating so.

1.5 VistA References

The MPI/PD software maintains the following VistA fields in the PATIENT (#2) file:

- INTEGRATION CONTROL NUMBER (#991.01),
- ICN CHECKSUM (#991.02),
- COORDINATING MASTER OF RECORD (#991.03),
- LOCALLY ASSIGNED ICN (#991.04),
- CMOR ACTIVITY SCORE (#991.06),
- ICN HISTORY {multiple} (#992),
- and CMOR HISTORY {multiple} (#993),

as well as the list of systems that know this patient by this ICN, in the TREATING FACILITY file [#391.91] at all VistA sites.

The MPI/PD software also maintains the integrity of patient identity at all other known systems via the HL7 ICN maintenance messages listed below. VistA software can obtain an ICN or retrieve a list of associated system via the supported VistA references listed below (more information can be obtained through the FORUM DBA menu):

NOTE: SUBSCRIPTION CONTROL NUMBER (#991.05) is no longer utilized by the MPI/PD software in the PATIENT (#2) file.

Name	IA	Reference Type	Custodial Package	Description
MPIF001	2701	Supported	Master Patient Index—VistA	Function APIs to return values on the MPI node in the PATIENT file. This DBIA documents some entry points for accessing the MPI node in the PATIENT file for use by VistA packages.
MPIFAPI	2702	Supported	Master Patient Index—VistA	Functions to return the MPI node, the name of the HL7 Logical Link for the MPI, and to return the next Local Integration Control Number. These APIs are provided for VistA packages.
VAFCTFU1	2990	Supported	Registration	Function API's that will return a list of systems associated with a specific ICN or DFN.
VAFCQRY	3630	Private	Registration	Function API's used to build generic PID, EVN, and PD1 segments in the new HL7 2.4 format that will include all of the Patient identifiers (ICN(s), SSN, Claim Number and DFN).

Table 1-1. MPI-related Integration Agreement (IA) references

2 Trigger Events & Message Definitions

This section describes the MPI trigger events as well as the HL7 messages that help to establish and maintain the integrity of the unique identification of a patient throughout the VHA Enterprise.

REF: For more information on which HL7 messages apply specifically to non-VistA systems see "Appendix A" in this documentation.

NOTE: Primary View Initialization, as reference in Table 2-1, Trigger Event "Update to fields on an existing MPI entry", is a process that occurs on the MPI. This process applies significant enhancements to the MPI business logic to support a more centralized approach to creating and maintaining an Enterprise "Primary View" of the Patient record based on Business Rules instead of CMOR values. "Primary View" is the centralized enterprise "View" of a patient on the MPI after the initialization process has been executed, making existing patients on the MPI "Primary View Initialized."

Trigger Event	Event Supported HL7 V2.4 Message	Description
Query MPI for match	VTQ-Q02	The MPI will accept a query for patient information. The current search algorithm uses Name, DOB, and SSN (if available) for its search. Results are returned in an ACK/Q02 (changed from ADT-A31 in patches MPI*1.0*32 and MPIF*1.0*38) **NOTE:** supported for internal VistA VAMC messaging).
	QBP-Q22/RSP-K22	This find Candidates query is used to return a list of one ICN candidates for a given local identifier (i.e. dfn/station#). The query can also be used to establish a correlation to an ICN and/or an association to an existing correlated id (i.e. dfn/station#). **NOTE:** Supported for external VistA VAMC messaging.
Add new patient to the MPI	ADT-A28	The MPI will accept new patient adds via ADT-A28 (add person or patient information). The MPI will in-turn broadcast back an ADT-A24 (link patient information) message.
	VQQ-Q02 (via Local/Missing ICN Resolution Job)	The MPI will add a new patient if the VQQ-Q02 is sent in the form of the Local/Missing ICN Resolution Job and the patient is not found. The MPI will return the ICN in the ACK/Q02 Local/Missing ICN Resolution job response.
Link to an existing patient on the MPI	ADT-A24	The MPI will accept an ADT-A24 (link patient information) message for the purpose of matching a sites patient to an existing ICN. The sites current demographic values will also be stored as a result.
Update to fields on an existing MPI entry	ADT-A04, ADT-A08	The MPI will accept patient updates via ADT-A04 (register a patient) or ADT-A08 (update patient information) and will broadcast out to the authoritative source system if the update came from a non-authoritative source system and

Trigger Event	Event Supported HL7 V2.4 Message	Description
		to all systems if it came from the authoritative source system for all patients that haven't been Primary View Initialized. Once a patient has been Primary View Initialized the updates will be sent out to all systems in need of the update via an ADT-A31 message. (RSA will still get the A08 message for their processes.)
Update Person Information outside of an event	ADT-A31	The MPI will accept an ADT-A31 (update person information) and update the appropriate entry on the MPI depending on if the message is from the CMOR (MPI VETERAN/CLIENT file [#985]) or a treating facility (ASSOCIATED FACILITY file [#985.5]). The MPI also broadcast out an ADT-A31 message to synchronize the identity management elements to the MPI Patient "primary view".
Update to date last treated	ADT-A01, ADT-A03	The MPI will accept updates to date last treated and event reason via ADT-A01 (admit/visit notification) and/or ADT-A03 (Discharge and/or clinic checkouts). If the update changes the sites current MPI date last treated or event reason the MPI will broadcast a MFN-M05.
Resolution of duplicates at the site where both entries exist on the MPI	ADT-A40	The MPI will accept a resolution of a duplicate from a site via ADT-A40 (merge patient - patient identifier list). The MPI will in-turn broadcast out an ADT-A24 (link patient information).
Resolution of duplicates on the MPI	ADT-A24	The MPI will notify sites of a duplicate resolution via ADT-A24 (link patient information).
Identification and resolution of a mismatched patient	ADT-A43	The MPI will notify sites of a mismatched patient via ADT-A43 (move patient - patient identifier list). This maintenance message is used to update a record's ICN (i.e. enterprise ID trait).
Change of CMOR assignment	ADT-A31	The MPI will accept a change in CMOR assignment via an ADT-A31 from the current CMOR via ADT-A31 (update person information).
Patient Query	QRY/ADR-A19	The sending site is requesting patient demographic information to be returned for a specific ICN via the QRY-A19 (patient query) message. The data is returned in an ADR message to the requesting site.
Unlink Patient	ADT-A37	The sending site is requesting to unlink its patient record from an ICN. This action reverses the Link.
Treating Facility List Update	MFN-M05	The MPI will send out an MFN-M05 if the treating facility list is modified or if the date last treated or event reason changes. This message can be generated as a result of another message being processed on the MPI or maybe triggered manually.

Table 2-1. Trigger events and message definitions

HL7 Messages

Each HL7 message is composed of segments. Segments contain logical groupings of data. Segments can be optional or repeatable. In the HL7 Standard documentation, square brackets (**[]**) indicate segments are optional, curly brackets (**{}**) indicate segments are repeatable. For each message type there is a list of HL7 standard segments. This section describes the HL7 messages that help to establish and maintain the integrity of the unique identification of a patient throughout the VHA Enterprise.

NOTE: The VistA data is mapped to fields within these segments. The elements/contents of each of these message segments is defined in the section titled "Message Segments" in this manual.

2.1 ADT/ACK—Add Person or Patient Information (Event A28)

The purpose of this message is to establish a patient on the Master Patient Index so that the patient record can be viewed across the enterprise and to allow multiple systems and respective master patient databases to communicate activity related to a person regardless of whether that person is currently a patient on each system. Each system has an interest in the database activity of the others in order to maintain data integrity across an enterprise. To the enterprise systems, the person may be a current patient, a potential future patient, or never be needed. These events can be used to also maintain another MPI (master patient index) or enterprise database.

The person whose data is being sent should be identified in the PID segment using the PID-3 - patient identifier list. An A28 requests the establishment of an ICN and stores the person identifiers (e.g., social security number, claim#, or other unique identifiers) as passed in the PID-3 - patient identifier list. Other identifiers such as deprecated identifiers (i.e., local ICN) can be sent in the PID-4 -alternate patient identifier list, which will also be stored as an alternate id on the MPI for that system to be included in subsequent communicates from the MPI. Each new system will need to register their identifier list and assigning authority with the MPI development group.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A28^ADT_A28	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Additional Demographics	3
PV1	Patient Visit	3
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A28^ACK	Application Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Message Sent TO the MPI FROM VistA

NOTE: Only VistA systems can add patients to the MPI at this time.

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20021003100450-0500^^ADT~A28^000167546^P^2.4^^^AL^AL^
EVN^^^^^12556~MPIUSER~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^^500000558V314240~~~USVHA&&0363~NI~VA FACILITY
ID&500&L~~20021003|000777765~~~USSSA&&0363~SS~VA FACILITY
ID&500&L|100000088~~~USVHA&&0363~PI~VA FACILITY ID&500&L^^MPIPATIENT~ELEVEN
~L~~~~L^""^19230807^F^^^""~""~""~""~""~~P~""|~~""~""~~~N^""^""^""^^""^""^^^^^^^^^^^^
""^^
PD1^^^ALBANY~D~500
ZPD^1^^^^^^^^^^^^^^^^Y^^^^
```

Figure 2-1. ADT-A28—Add Person or Patient Information msg: Sent from VistA to MPI

Commit Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051020050056-0500^^ACK^2001653335787^P^2.4
MSA^CA^000167546
```

Figure 2-2. ADT-A28—Add Person or Patient Information msg: Commit acknowledgement sent from MPI to sending system

Application Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20041206112926-0500^^ACK~A28^200895618^P^2.4^^^AL^NE^
MSA^AA^000167546^^^^DFN=100000088
```

Figure 2-3. ADT-A28—Add Person or Patient Information msg: Application acknowledgement sent from MPI to sending system

Commit Level Acknowledgement Returned TO the MPI FROM the Sending System

```
MSH^~|\&^MPIF TRIGGER^553~TSTCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051109124639-0400^^ACK^55385465^P^2.4
MSA^CA^200895618
```

Figure 2-4. ADT-Add Person or Patient Information msg: Commit acknowledgement returned to MPI

2.2 ADT/ACK—Admit/Visit Notification (Event A01)

An A01 event is intended to be used for "Admitted" patients only. An A01 event is sent as a result of a patient undergoing the admission process. It signals the beginning of a patient's stay in a healthcare facility. This information is entered in the primary Patient Administration system (VistA PIMS Admit a Patient option [DG ADMIT PATIENT])**.** It includes short stay and "John Doe" (e.g., patient name is unknown) admissions. It will be sent to the MPI to update the Patient Master File fields date last treated and event reason.

NOTE: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A01^ADT_A01	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Additional Demographics	3
PV1	Patient Visit	3
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A01^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Message Sent TO the MPI FROM VistA

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-AUSTIN.MED.VA.
GOV~DNS^20021004111252-0500^^ADT~A01^5000167926^P^2.4^^^AL^AL^US
EVN^A1^20021004111123-0500^^A1^12564~MPIUSER~TWO~~~~~~USVHA&&0363~L~~~NI~VA FACILITY
ID&500&L^20021004111123-0500^500
PID^1^1004902722V121387^1004902722V121387~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|500000564V890138~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20021004105118-
0500^^MPIPATIENT~THREE WEEK~TWO~~~~L^MPIMAIDEN~~~~~~M^19540430^
F^^^""~""~""~""~""~~P~""|~~PROVIDENCE~RI~~~N^""^""^""^^M^0^^^^^^^^^^^^""^^
PD1^^^ALBANY~D~500
PV1^1^I^10B MED~""~""~&500^^^""~""~""^623~MPIDOCTOR~ONE^^^2^^^^^^^^SC
VETERAN^^^2^^^^^^^^^^^^^^^^^500A^^^^^20021004111123-0500^""
ZPD^1^^^^^^^^^^^^^^^Y^^^^
```

Figure 2-5. ADT-A01—Admit/Visit Notification msg: Sent from VistA to MPI

Commit Level Acknowledgement Sent FROM MPI TO the Sending System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051020060001-0500^^ACK^2001653344643^P^2.4
MSA^CA^5000167926
```

Figure 2-6. ADT-A01—Admit/Visit Notification msg: Commit acknowledgement sent from MPI to sending system

Application Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021004111258-0500^^ACK~A01^200101854^P^2.4^^^AL^NE^USA
MSA^AA^500167926^0
```

Figure 2-7. ADT-A01—Admit/Visit Notification msg: Application acknowledgement sent from MPI to sending system

Commit Level Acknowledgement Returned TO the MPI FROM the Sending System

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051114103124-0500^^ACK^50027446^P^2.4
MSA^CA^500167926
```

Figure 2-8. ADT-A01—Admit/Visit Notification msg: Commit acknowledgement returned to MPI

2.3 ADT/ACK—Discharge/End Visit (Event A03)

An A03 event signals the end of a patient's stay in a healthcare facility. It signals that the patient's status has changed to "discharged" and that a discharge date has been recorded. (VistA PIMS Discharge a Patient option [DG DISCHARGE PATIENT]). It is also captured when the patient checks out of a non-stop code clinic. (VistA PIMS Appointment Check-in/Check-out option [SDAM APPT CHECK IN/OUT]—checkout action.) The MPI will capture this event in order to update the following:

- On the MPI: Fields DATE LAST TREATED (#29) and ADT/HL7 EVENT REASON (#30) located in the MPI FACILITY ASSOCIATION file (#985.5).
- In VistA: Fields DATE LAST TREATED (#.03) and ADT/HL7 EVENT REASON (#.07) located in the TREATING FACILITY LIST file (#391.91).

For non-admitted patients, an A03 event signals the end of a patient's visit to a healthcare facility. It could be used to signal the end of a visit for a one-time or recurring outpatient who is not assigned to a bed. It could also be used to signal the end of a visit to the Emergency Room.

NOTE: The only data updated on the MPI from the ADT-A03 message is the Date Last Treated and Event Reason. No other demographic fields are reviewed or updated.

REF: The "Chapter" references below refer to the HL7 Standard Version 2.4 documentation.

ADT^A03^ADT_A03	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Additional Demographics	3
PV1	Patient Visit	3
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A03^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Message Sent TO the MPI FROM a VistA System

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-AUSTIN.MED.VA.
GOV~DNS^20021003121509-0500^^ADT~A03^000167794^P^2.4^^^AL^AL^US
EVN^A2^20021003121048-0500^^A2^12564~MPIUSER~TWO~~~~~~USVHA&&0363~L~~~NI~VA FACILITY
ID&500&L^20021003121048-0500^500
PID^1^1001170703V285248^1001170703V285248~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|500000561V641849~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20021003113450-
0500|500000562V707794~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20021003120852-
0500^^MPIPATIENT~THIRTEEN~~TST~~~L^""^19370525^M^^^""~""~""~""~""~~P~""|~~""~""~~~N^
""^""^""^^""^""^^^^^^^^^^^^""^^
PD1^^^ALBANY~D~500
PV1^1^I^10B MED~""~""~&500^^^10B MED~""~""^623~MPIDOCTOR~ONE^^^2^^^^^^^^SC
VETERAN^^^2^^^^^^^^^^^^^^17^^^^^^^^20021003120920-0500^20021003121048-0500
ZPD^1^^^^^^^^^^^^^^^Y^^^^
```

Figure 2-9. ADT-A03—Discharge/End Visit msg: Sent to MPI from VistA

Commit Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051020060001-0500^^ACK^2001653344643^P^2.4
MSA^CA^000167794
```

Figure 2-10. ADT-A03—Discharge/End Visit msg: Commit acknowledgement sent from MPI to sending system

Application Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021003121526-0500^^ACK~A03^200101662^P^2.4^^^AL^NE^USA
MSA^CA^000167794^
```

Figure 2-11. ADT-A03—Discharge/End Visit msg: Application acknowledgement sent from MPI to sending system

Commit Level Acknowledgement Returned TO the MPI FROM the Sending System

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051114103124-0500^^ACK^50027446^P^2.4
MSA^CA^200101662
```

Figure 2-12. ADT-A03—Discharge/End Visit msg: Commit acknowledgement returned to MPI

2.4 ADT/ACK—Link Patient Information (Event A24)

The A24 event is used when the patient in the first PID segment needs to be linked to the patient in the second PID segment and when both patient identifiers identify the same patient. Linking two or more patients does not require the actual merging of patient information; following a link event, the affected patient data records should remain distinct. For example, hospital A, hospital B, and hospital C would each keep their own records on a patient, but an A24 link event would be sent to the VHA MPI to enable the coupling of ID information with the Enterprise ID number (ICN or VPID). This event is not meant to link mothers and babies since a field exists (PID-21 - mother's identifier) for that purpose. This event is a bi-directional event it is used to link a hospital record ID to the Enterprise ID (ICN or VPID) as identified above or from the MPI out to signal either the linking of two hospital records or two enterprise id's. When the A24 event involves two different ICNs, the first ICN replaces the second ICN.

NOTE: VistA MPI/PD Business Rule for DUPLICATE ICNs

This business rule prevents two different patient records from having the same ICN value. More than one patient in a single PATIENT file (#2) cannot have the same ICN. For example, let's say that the MPI returned an ICN to your local PATIENT file (#2) for a patient who previously did not have one assigned. If that same ICN is currently assigned to a different patient in your PATIENT file (#2), an exception (problem) message is sent to the MPIF EXCEPTIONS mail group, and the patient is sent to the MPI to be added as a new ICN entry. [Change made with MPIF*1.0*43, RG*1.0*43 and MPI*1.0*38, prior to these patches, the patient would have received a Local ICN].

When this message is sent, the fields included should be pertinent to communicate this event. When other important fields change, it is recommended that the A08 (update patient information) event be used in addition.

NOTE: Other demographic fields are not updated from the A24. If there are other data changes an ADT-A31 message should be triggered.

REF: The "Chapter" references below refer to the HL7 Standard Version 2.4 documentation.

ADT^A24^ADT_A24	ADT Message	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient (1) Identification	3
[PD1]	Patient (1) Additional Demographics	3
[PV1]	Patient (1) Visit	3
PID	Patient (2) Identification	3
[PD1]	Patient (2) Additional Demographics (Not sent)	3
[PV1]	Patient (2) Visit (Not Sent)	3
[ZPD]	VA Specific Patient Information Segment (Not sent from the MPI; however, this segment is sent from VistA.)	

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2

MSA	Message Acknowledgement	2

ACK^A24^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ADT-A24 Example 1

The example message below is an ADT-A24 message sent from the VAMC (identified by station# 500) to the MPI. The key pieces of information is PID-3 in both PID segments which contain the ICN that the system is requesting that its source ID (100000082) be linked to ICN 1001170560V235869. This same message example would be used by a non-VistA system to request linkage of the non-VistA system to the ICN specified in the 1st PID segment.

ADT-A24 Message Sent TO the MPI FROM the Sending System Attempting to Subscribe to the ICN

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921203833-0500^^ADT~A24^000167165^P^2.4^^^AL^AL^
EVN^^^^^12556~MPIUSER~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^1001170560V235869^1001170560V235869~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|
000064567~~~USSSA&&0363~SS~VA FACILITY ID&500&L|100000082~~~USVHA&&0363~PI~VA
FACILITY ID&500&L^^MPIPATIENT~TEN~~~~~L^MPIMAIDEN~~~~~~M^19780303^M^^^876 TIGER
DRIVE~""~BIRMINGHAM~AL~35209~~P~""|~~TUSCALOOSA~AL~~~N^073^(876)987-
9987^""^^M^0^^^^^^^^^^^^""^^
PD1^^^BPMARION~D~998
PID^2^1001170560V235869^1001170560V235869~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|
000064567~~~USSSA&&0363~SS~VA FACILITY ID&500&L|100000082~~~USVHA&&0363~PI~VA
FACILITY ID&500&L^^MPIPATIENT~TEN~~~~~L^MPIMAIDEN~~~~~~M^19780303^M^^^876 TIGER
DRIVE~""~BIRMINGHAM~AL~35209~~P~""|~~TUSCALOOSA~AL~~~N^073^(876)987-
9987^""^^M^0^^^^^^^^^^^^""^^
ZPD^1^^^^^^^^^^^^^^^Y^^^^
```

Figure 2-13. ADT-A24—Link Patient Information msg: message sent to MPI

Commit Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051024133014-0500^^ACK^2001661670143^P^2.4
MSA^CA^000167165
```

Figure 2-14. ADT-A24—Link Patient Information msg: Commit acknowledgement sent from MPI to sending system

Application Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020921203840-0500^^ACK~A24^200100069^P^2.4^^^AL^NE^
MSA^AA^000167165^^^^DFN=100000082
```

Figure 2-15. ADT-A24—Link Patient Information msg: Application acknowledgement sent from MPI to sending system

Commit Level Acknowledgement Returned TO the MPI FROM the Sending System

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^MPI-
AUSTIN.MED.VA.GOV~DNS^20051109124551-0500^^ACK^500917674^P^2.4
MSA^CA^200100069
```

Figure 2-16. ADT-A24—Link Patient Information msg: Commit acknowledgement returned to MPI

ADT-A24 Example 2

The example message below is an ADT-A24 message sent from the MPI to a subscribing system to tell them of a change in ICN assignment. The key piece of information is in PID-3 in the PID segments, which contain the ICN that the subscribing system is to update. The ICN value in PID2 is being updated to the ICN value in PID1.

NOTE: When the MPI initiates the ADT-A24 to tell a subscriber that a change to ICN has happened, until the Application Level Acknowledgement is returned, the subscriber is not moved to the ICN in the 1st PID segment. It is part of the complete processing of the ADT-A24 event.

NOTE: Fewer fields are populated in the ADT-A24 message when it originates on the MPI and is sent to VistA and non-VistA systems. This is because the MPI doesn't store all the fields that VistA does.

ADT-A24 Message Sent FROM the MPI TO the Sending System, Notifying Sending System of Change to ICN Assignment

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^553~TSTCRN.FO-
ALBANY.MED.VA.GOV~DNS^20041110132901-0500^^ADT~A24^200890416^P^2.4^^^AL^AL^
EVN^A24^20041110132901-0500
PID^1^^1008520398V272129~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|036664114~~~USSSA&
&0363~SS~VA FACILITY ID&553&L|7171324~~~USVHA&&0363~PI~VA FACILITY ID&553&L^^
MPIPATIENT~ELEVEN~~~~~L^MPIMAIDEN~~~~~~M^19690303^F^^^~~NEW YORK CITY~36~~~N^^^^^^
PD1^^^DETROIT,MI~D~553
PID^2^^100852999V383128~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|036664114~~~USSSA&
&0363~SS~VA FACILITY ID&553&L|7171324~~~USVHA&&0363~PI~VA FACILITY ID&553&L^^
MPIPATIENT~ELEVEN~~~~~L^MPIMAIDEN~~~~~~M^19690303^F^^^~~NEW YORK CITY~36~~~N^^^^^^
```

Figure 2-17. ADT-A24—Link Patient Information msg: Sent from MPI to sending system

Commit Level Acknowledgement Sent TO the MPI FROM the Sending System

```
MSH^~|\&^MPIF TRIGGER^553~TSTCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^
200M~MPI-AUSTIN.MED.VA.GOV~DNS^20051024133014-0500^^ACK^2001661670143^P^2.4
MSA^CA^2000890416
```

Figure 2-18. ADT-A24—Link Patient Information msg: Commit acknowledgement sent to MPI from sending system

Application Level Acknowledgement Returned to MPI FROM the Sending System

```
MSH^~|\&^MPIF TRIGGER^553~TSTCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^
200M~MPI-AUSTIN.MED.VA.GOV~DNS^20041110132914-0400^^ACK~A24^55370230^P^2.4^^^AL^NE^
MSA^AA^200890416^^^^ICN=1008520398V272129
```

Figure 2-19. ADT-A24—Link Patient Information msg: Application acknowledgement returned to MPI

Commit Level Acknowledgement Returned FROM the MPI TO Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^553~TSTCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051109124551-0500^^ACK^200917675^P^2.4
MSA^CA^55370230
```

Figure 2-20. ADT-A24—Link Patient Information msg: Commit acknowledgement returned from MPI to sending system

ADT-A24 Example 3

The example message below is an ADT-A24 message sent from the MPI to a subscribing system to tell them of a change in the local identifier. The key piece of information is in PID-3 in the PID segments, which contain the local identifier. The local identifier value in PID2 (5000) is being updated to the local identifier value in PID1 (100000087).

The ADT-A24 is sent from the MPI to sites after a local duplicate record merge has occurred, notifying the subscriber(s) of the change to the local identifier (DFN).

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020921203833-0500^^ADT~A24^200167165^P^2.4^^^AL^AL^
EVN^^^^^12556~MPIUSER~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^1001170566V325869^1001170566V325869~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|
000064567~~~USSSA&&0363~SS~VA FACILITY ID&500&L|100000087~~~USVHA&&0363~PI~VA
FACILITY ID&500&L^^MPIPATIENT~TEN~~~~~L^MPIMAIDEN~~~~~~M^19780303^M^^^876 TIGER
DRIVE~""~BIRMINGHAM~AL~35209~~P~""|~~TUSCALOOSA~AL~~~N^073^(876)987-
9987^""^^M^0^^^^^^^^^^^^""^^
PD1^^^BPMARION~D~998
PID^2^1001170565V325869^1001170565V325869~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|000064567~~~USSSA&&0363~SS~VA FACILITY ID&500&L|5000~~~USVHA&&0363~PI~VA
FACILITY ID&500&L^^MPIPATIENT~TEN~~~~~L^MPIMAIDEN~~~~~~M^19780303^M^^^876 TIGER
DRIVE~""~BIRMINGHAM~AL~35209~~P~""|~~TUSCALOOSA~AL~~~N^073^(876)987-
9987^""^^M^0^^^^^^^^^^^^""^^
```

Figure 2-21. ADT-A24—Link Patient Information msg: Sent from MPI to sites after local merge notifying subscriber(s) of change to DFN

Commit Level Acknowledgement Sent TO the MPI FROM Sending System

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051024133014-0500^^ACK^50016616^P^2.4
MSA^CA^200167165
```

Figure 2-22. ADT-A24—Link Patient Information msg: Commit acknowledgement sent to MPI from sending system

Application Level Acknowledgement Sent TO the MPI FROM Sending System

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921203840-0500^^ACK~A24^500111069^P^2.4^^^AL^NE^
MSA^AA^200167165^^^^DFN=100000087
```

Figure 2-23. ADT-A24—Link Patient Information msg: Application acknowledgement sent to MPI from sending system

Commit Level Acknowledgement Returned FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^553~TSTCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051109124551-0500^^ACK^200917333^P^2.4
MSA^CA^500111069
```

Figure 2-24. ADT-A24—Link Patient Information msg: Commit acknowledgement returned from MPI to sending system

ADT-A24 Example 4

The example message below is an ADT-A24 message sent from the VistA site to tell them MPI that they just linked to another ICN during the Potential Match Review process. The key piece of information is in PID-3 in the PID segments, which contain the Primary ICN (1008520566V385026) and Deprecated ICN (1008520577V394026). The Deprecated ICN value in PID2 (1008520577V394026) is being updated to the Primary ICN value in PID1 (1008520566V385026).

Message Sent TO the MPI FROM VistA to Link PID2 ICN to PID1 ICN

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921203833-0500^^ADT~A24^5000167165^P^2.4^^^AL^AL
EVN^A24^20050401125324-0500
PID^1^^1008520566V385026~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|112233445~~~USSSA&&
0363~SS~VA FACILITY ID&200M&L|100000549~~~USVHA&&0363~PI~VA FACILITY ID&500&L
1008520577V394026~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~20020207^^DRI~FRIDAY~
AFTERNOON~~~~L^FOOL~APRIL~~~~~M^19610401^M^^^~~BUTLER~42~~~N^^^^^^^^^^^^^^^^^^^
PID^2^^1008520577V394026~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|112233445~~~USSSA&&
0363~SS~VA FACILITY ID&200M&L|100000549~~~USVHA&&0363~PI~VA FACILITY ID&500&L^^DRI~
FRIDAY~AFTERNOON~~~~L^FOOL~APRIL~~~~~M^19610401^M^^^~~BUTLER~42~~~N^^^^^^^^^^^^^^^^
^^^
PD1^^^ALBANY~D~500
```

Figure 2-25. ADT-A24—Link Patient Information msg: Sent to the MPI from VistA to Link PID2 ICN to PID1 ICN

Application Level Acknowledgement Sent FROM the MPI TO Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020921203840-0500^^ACK~A24^200100069^P^2.4^^^AL^NE^
MSA^AA^5000167165^^^^DFN=10000549
```

Figure 2-26. ADT-A24—Link Patient Information msg: Application acknowledgement sent from MPI to sending system

Commit Level Acknowledgement Returned FROM the MPI TO the Sending System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051024133014-0500^^ACK^2001661670143^P^2.4
MSA^CA^5000167165
```

Figure 2-27. ADT-A24—Link Patient Information msg: Commit acknowledgement sent from MPI to sending system

ADT-A24 Example 5 – Message FROM the MPI TO PSIM via HLO

The example message below is an ADT-A24 message sent from the MPI to tell PSIM that they need to link two ICNs together. The key piece of information is in PID-3 in the first PID segments, which contain the Primary ICN (1001170877V600753) and Deprecated ICN (1008521212V088641). The Deprecated ICN value in PID2 (1008521212V088641) is being updated to the Primary ICN value in PID1 (1001170877V600753).

Message FROM the MPI TO PSIM via HLO

```
MSH^~|\&^MPI^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^PSIM^
HL7.200PS~TSTCRN.FO-ALBANY.MED.VA.GOV:5027~DNS^
20061107082414-0500^^ADT~A24~^200M 780^P~^2.4^^^AL^AL^USA
EVN^A24^20061107082414-0500^^^^^500
PID^1^^1001170877V600753~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~
20040915114610~|888888889~~~USSSA&&0363~SS~VA FACILITY ID&200M&L^
^MARTIAN~MARV~~~~~L^^19900303^M^^^^^^^^3^^^^^^^^^^^^^^^^
 PID^2^^1008521212V088641~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~
|888888889~~~USSSA&&0363~SS~VA FACILITY ID&200M&L^
^MARTIAN~MARVIN~~~~~L^^19900303^M^^^^^^^^^^^^^^^^^^^^^^^^|
PD1^^^DETROIT,MI~D~553
```

Figure 2-28. Message sent FROM the MPI to PSIM via HLO

Accept ACK:

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082419-0400||ACK |553 354|P^|2.4|||AL|NE|
MSA|AA|200M 780||
```

Figure 2-29. Message FROM the MPI TO PSIM via HLO—Accept ACK

Application ACK:

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082419-0400||ACK^A24^ACK|553 355|P^|2.4|||AL|NE|
MSA|AA|553 355|
```

Figure 2-30. Message FROM the MPI TO PSIM via HLO—Application ACK

2.5 QBP/RSP—Find Candidates (QBP) and Response (RSP) (events Q22 and K22)

This query/response returns list of candidates matching demographic data specified by the input parameters. This HL7 message is designed for interaction between a client system and the MPI. The query consists of a set of demographics for a person, and the response is the list of candidates considered by the MPI to match that set.

Each returned person, specified by a PID segment, can also have an optional *QRI - Query Response Instance* segment containing information about the quality of the match.

The RSP-K22 message is the application level acknowledgement to the QBP-Q22 message and must be processed at the non-VistA system. The RSP-K22 message tells the QBP-Q22 sender the results of processing said message.

NOTE: At this time the MPI only supports queries by DFN/Site pair.

QBP^Q22^QBP_Q21	**Query By Parameter**	**Chapter**
MSH	Message Header	2
QPD	Query Parameter Definition Segment	5
RCP	Response Control Parameters	5
[DSC]	Continuation Pointer	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

RSP^K22^RSP_K22	**Segment Pattern Response**	**Group Control**	**Chapter**
MSH	Message Header		2
MSA	Message Acknowledgement		2
[ERR]	Error		2
QAK	Query Acknowledgement		5
QPD	Query Parameter Definition Segment		5
	Query Result Cluster,		
{	Begin PID Group		
[PID	Patient Identification		3
[PD1]]	Additional Demographics		5
QRI	Query Response Instance		5
}	End PID Group,		
	End Query Results		
[DSC]	Continuation Pointer		2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Groups of Q22/K22 Query and Response Message Pairs

The following are example groups of Q22/K22 query and response message pairs. In each group, the first message is the QBP-Q22 query sent to the MPI and the second message is the RSP-K22 response sent back to the sending system resulting from the query. These example scenarios show:

1. Site/DFN pair is found on the MPI—Query processed.
2. Sending site is not found in the MPI SITE MONITOR file—Query rejected.
3. Site/DFN pair is not known to the MPI—No match found on the MPI.

Depending on the value passed in the QPD segment, for the User Parameter field (sequence #6) the query may also add an Association of the sending site to the DFN/Site pair, and/or add the sending site as a system of interest for the ICN associated with this DFN/Site pair or if the DFN/Site pair isn't known create a record of interest so that when it does become known to the MPI it can associate the sending site with it and inform the sending site of the ICN.

Figure 2-31 shows a QBP-Q22 query sent TO the MPI

```
MSH^~|\&^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^200412091430-0500^^QBP~Q22^888387888^P^2.4^^^AL^AL^
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~271|@PID.3.2~""|@PID.3.3~""|
@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^BT
RCP^I^1~RD^R^^N^
```

Figure 2-31. QBP-Q22—Find Candidates query message sent to MPI

Commit Level Acknowledgement Sent FROM the MPI TO the Sending System

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS
^20051028060001-0500^^ACK^2001672355556^P^2.4
MSA^CA^888387888
```

Figure 2-32. QBP-Q22—Find Candidates query msg sent to MPI: Commit acknowledgement sent from MPI to sending system

This query, Figure 2-31, is asking both (BT) a treating facility entry and a site association to be created for sending station 888 for patient with a DFN equal to 271 at Station Number 500. If that DFN/Site pair is found, add the sending site to the site association for the treating facility for station 500 *and* add the sending site as its own treating facility. Returning RSP-K22 message with the PID segment containing the information regarding this patient, indicating that the patient was found. (Figure 2-16).

NOTE: If a treating facility entry is created for an ICN as a result of the QBP~Q22 query, that will trigger back out to all systems subscribing to that ICN a treating facility update message (MFN-M05).

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^
20041210123536-0500^^RSP~K22^200896113^P^2.4^^^AL^NE^
MSA^AA^888387888
QAK^888387888^OK^Q22~FIND CANDIDATES~HL72.4^1
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~271|@PID.3.2~""|@PID.3.3~""|
@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^BT
PID^1^^1001168794V381470~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|000456780~~~USSSA&&
0363~SS~VA FACILITY ID&500&L|271~~~USVHA&&0363~PI~VA FACILITYID&500&L^^MPIPATIENT
~ONE~~~~~L^^19810808^M^^^^^^^^^^^^^^^^^^^^198705211140-0500^^
```

Figure 2-33. RSP-K22—Response msg from QBP-Q22 back to sending system: Site/DFN pair found on MPI

NOTE: Notice in Figure 2-33 that the number 1 at the end of the QAK segment signifying the number of matches. This will correspond to the number of PID segment(s) returned as matches to the query criteria. Since we are working just with Site/DFN at this time the response will either contain no matches or 1 match.

Commit Level Acknowledgement Returned FROM the MPI TO the Sending System

```
MSH^~|\&^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS
^20051028060001-0500^^ACK^2001672355647^P^2.4^^|
MSA^CA^200896113^Message Processed
```

Figure 2-34. RSP-K22—Commit acknowledgement: Response msg from QBP-Q22 back to sending system

Messaging Example when Sending Facility is Unknown to MPI

This query, Figure 2-17, is asking both (BT) a treating facility entry and a site association to be created for sending station 777 for patient with a DFN equal to 22710 at Station Number 500. If that DFN/Site pair is found, add the sending site to the site association for the treating facility for station 500 *and* add the sending site as its own treating facility. Returning RSP-K22 message with the PID segment containing the information regarding this patient, indicating that the patient was found.

```
MSH^~|\&^MPI^777~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^
200410140939-0500^^QBP~Q22^7777387888^P^2.4
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~22710|@PID.3.2~""|@PID3.3~""|
@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^BT
RCP^I^1~RD^R^^N^
```

Figure 2-35. QBP-Q22—Find Candidates query msg sent to MPI

Commit Level Acknowledgement Sent TO the MPI FROM the Sending System

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^777~MPIDEVELOPER.MED.VA.GOV~DNS
^20051028060001-0500^^ACK^2001672355646^P^2.4
MSA^CA^7777387888
```

Figure 2-36. QBP-Q22—Find Candidates query msg sent to MPI: Commit acknowledgement sent to the MPI from sending system

The RSP-K22 response message, Figure 2-37, shows that the sending site was not found in the MPI SITE MONITOR file. Hence, the QBP-Q22 message is rejected by sending back the RSP-K22 message as follows.

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^777~MPIDEVELOPER.MED.VA.GOV~DNS^
20050215082223-0500^^RSP~K22^200899812^P^2.4^^^AL^NE^
MSA^AR^7777387888^System isn't in MPI Site Monitor file - rejected
QAK^7777387888^AR^Q22~FIND CANDIDATES~HL72.4^0
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~22710|@PID.3.2~""|@PID3.3~""
|@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^BT
```

Figure 2-37. RSP-K22—Response msg from QBP-Q22 back to sending system: sending site not found on MPI

Commit Level Acknowledgement Returned FROM the MPI TO the Sending System

```
MSH^~|\&^MPI^777~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^
20051028060001-0500^^ACK^2001672355777^P^2.4
MSA^CA^200899812
```

Figure 2-38. RSP-K22—Response msg from QBP-Q22—Commit acknowledgement

This query, Figure 2-19, is asking for a site association (AS) to be created for sending station 888 for patient with a DFN equal to 22710 at Station Number 500. If that DFN/Site pair is found, add the sending site to the site association for the treating facility for station 500. Returning RSP-K22 message with the QAK segment containing 0 match notation and no PID segment (Figure 2-20).

Figure 2-39 Shows a QBP-Q22 Query Sent TO the MPI FROM the Sending System

```
MSH^~|\&^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^
200412091430-0500^^QBP~Q22^888387888^P^2.4
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~22710|@PID.3.2~""|@PID3.3~""|
@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^AS
RCP^I^1~RD^R^^N^
```

Figure 2-39. QBP-Q22—Find Candidates query msg sent to MPI

Commit Level Acknowledgement Sent TO the MPI FROM the Sending System

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^
20051028060001-0500^^ACK^2001672355807^P^2.4
MSA^CA^888387888
```

Figure 2-40. QBP-Q22—Find Candidates query msg: Commit acknowledgement sent to MPI

Figure 2-41, shows an example RSP-K22 response when a Site/DFN pair is not found (no match found) on the MPI.

```
MSH^~|\&^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^
20050215081307-0500^^RSP~K22^200899809^P^2.4^^^AL^NE^
MSA^AA^888387888
QAK^888387888^NF^Q22~FIND CANDIDATES~HL72.4^0
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.3.1~22710|@PID.3.2~""|@PID3.3~""|
@PID.3.4~USVHA&&0363|@PID.3.5~PI|@PID.3.6~VA FACILITY ID&500&L^VHA MPI^1.0^AS
```

Figure 2-41. RSP-K22—Response msg from QBP-Q22 back to sending system: Site/DFN pair not known to MPI

Commit Level Acknowledgement Returned FROM the MPI TO the Sending System

```
MSH^~|\&^MPI^888~MPIDEVELOPER.MED.VA.GOV~DNS^MPI^200M~MPI-AUSTIN.MED.VA.GOV~DNS^
20051028060001-0500^^ACK^2001672355887^P^2.4
MSA^CA^200899809
```

Figure 2-42. RSP-K22—Response msg from QBP-Q22: Commit acknowledgement

Figure 2-43 shows an example of the QBP-Q22 message sent from the MPI to PSIM to search for match(es) or potential match(es) for the traits passed.

```
MSH^~|\&^MPI APP^200M~HL7.MPI.FO-ALBANY.MED.VA.GOV:5026~DNS^PSIM^200PS~ps-
dev.commserv.healthevet.va.gov:8090~DNS^20090105104810-0500^^QBP~Q22~^200M
110659^T~^2.4^^^AL^AL^USA
QPD^Q22~Find Candidates~HL72.4^1^@PID.3~666456789~~~USSSA&&0363~SS~VA FACILITY ID
&553&L|@PID.3~~~~USVBA&&0363~PN~VA FACILITY ID&553&L|@PID.5~ONE~MPIPATIENT~~~~~~
L|@PID.11~Street line1~Street line2~Albany~NY~12144~~P~Street line3|@PID.7~1955
0722|@PID.13~(518)477-6764~PRN~PH|@PID.8~F|@PID.24~N|^INITIATE^7.5
RCP^I^100~RD^R^^N^^
```

Figure 2-43. QBP-Q22—msg sent from MPI to PSIM to search for match(es) based on traits passed

Figure 2-44 shows an example of the RSP-K22 response from PSIM when the MPI has sent a QBP-Q22 to search for match(es) or potential match(es) for the traits passed.

```
MSH^~|\&^PSIM^200PS~200PS.FO-BAYPINES.MED.VA.GOV~DNS^MPI APP^200M~TLMPI.FO-
BAYPINES.MED.VA.GOV~DNS^20090106082334.975-
0500^^RSP~K22^123124821497509065629l5^T^2.4^^^AL^NE
MSA^AA^200M 110659
QAK^1^OK^Q22~Find Candidates~HL72.4^4
QPD^Q22~Find Candidates~HL72.4^1^@PID.3~666456789~~~USSSA&&0363~SS~VA FACILITY
ID&553&L|@PID.3~~~~USVBA&&0363~PN~VA FACILITY
ID&553&L|@PID.5~ONE~MPIPATIENT~~~~~~L|@PID.11~Street line1~Street
line2~Albany~NY~12144~~P~Street line3|@PID.7~19550722|@PID.13~(518)477-
6764~PRN~PH|@PID.8~F|@PID.24~N|^INITIATE^7.5
PID^1^^1008520921V771535~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|100000702~~~USVHA&&0363~PI~VA FACILITY ID&500&L^^ONE~MPIPATIENT~~~~~L
QRI^86^^102-145~INITIATE
PID^2^^1008520921V771535~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L^^ONE~MPIPATIENT~~~~~L
QRI^86^^102-145~INITIATE
PID^3^^1008520438V882204~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|7171584~~~USVHA&&0363~PI~VA FACILITY ID&553&L^^ONE~MPIPATIENT~~~~~L
QRI^23^^102-145~INITIATE
PID^4^^1008520438V882204~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L^^ONE~MPIPATIENT~~~~~L
QRI^23^^102-145~INITIATE
```

Figure 2-44. Example query for list of persons matching the name MPIPATIENT,ONE with the gender Male, SSN 666456789, and other traits noted

Two candidates were returned. Notice the number 2 at the end of the QAK segment signifying the number of matches. Each has a PID and QRI segment, and the QRI segment in each case gives a confidence factor for each of the candidates

Figure 2-45, shows an example of the QBP-Q22 and the responding RSP-K22 when no match was found for the patient being searched for.

```
MSH^~|\&^MPI APP^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^PSIM^200PS~ps-
dev.commserv.healthevet.va.gov:8090~DNS^20081031093516-0500^^QBP~Q22~^200M
109030^P~^2.4^^^AL^AL^USA
QPD^Q22~Find Candidates~HL72.4^1^@PID.3~666542849~~~USSSA&&0363~SS~VA FACILITY ID
&500&L|@PID.5~MPINAIK~ALIAS~TOM~~~~~L|@PID.11~~~~~~~~~P|@PID.7~19700202|@PID.13~|@PI
D.8~M|^INITIATE^7.5
RCP^I^100~RD^R^^N^^

MSH^~|\&^PSIM^200PS~200PS.FO-BAYPINES.MED.VA.GOV~DNS^MPI APP^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20081031093529.963-
0500^^RSP~K22^122546012997602676215555^P^2.4^^^AL^NE
MSA^AA^200M 109030
QAK^1^NF^Q22~Find Candidates~HL72.4^0
QPD^Q22~Find Candidates~HL72.4^1^@PID.3~666542849~~~USSSA&&0363~SS~VA FACILITY ID
&500&L|@PID.5~MPINAIK~ALIAS~TOM~~~~~L|@PID.11~~~~~~~~~P|@PID.7~19700202|@PID.13|@PID
.8~M|^INITIATE^7.5
```

Figure 2-45. Example of QBP-Q22 and the responding RSP-K22 when no match was found for the patient being searched for.

2.6 ADT/ACK—Merge Patient—Patient Identifier List (Event A40)

A merge has been done at the patient record level (i.e., DFN and/or record ID on the Associated System). That is, two PID-3 - patient identifier list identifiers have been merged into one.

An A40 event is used to signal a merge of records for a patient that was incorrectly filed under two different identifiers. The "incorrect source identifier", identified in the MRG segment (MRG-1 - prior patient identifier list) is to be merged with the required "correct target identifier" of the same "identifier type code" component identified in the PID segment (PID-3 - patient identifier list). The "incorrect source identifier" would then logically never be referenced in future transactions. It is noted that some systems may still physically keep this "incorrect identifier" for audit trail purposes or other reasons associated with database index implementation requirements. However, the current VHA MPI implementation does not support the referencing of the merged record id but identify that there are potential benefits to supporting that functionality so future implementation will support that function.

The result of the ADT-A40 message being processed at the MPI is an ADT-A24 Link Patient message sent to each site in the treating facility list and any sites in the site association list for those treating facilities (including the site that did the merge), not including the site that the ADT-A40 message was received from, with the "FROM" ICN/DFN in MRG-1 (1001170164V123456/112978) to change the "TO" ICN/DFN in PID-3 (1001169886V995666/7169971).

The ADT-A40 message is sent during the special processing routine section of the VistA Duplicate Record Merge software, which happens before the actual merging of the PATIENT (#2) file entries has happened. Once the merge has successfully completed, an ADT-A31 message is sent to the MPI with the current view of the TO record, which may contain different information for other fields stored on the MPI as a result of the merge.

The MFN-M05 message may also be triggered if the result of the linking of the two ICNs resulted in a new treating facility list.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A40^ADT_A40	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
{ PID	Patient Identification	3
[PD1]	Additional Demographics	3
MRG	Merge Information	3
[PV1] }	Patient Visit	3

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A40^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2

MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Message Sent to the MPI From VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20021015094425-0500^^ADT~A40^5000168695^P^2.4^^^AL^AL^
EVN^^^^^12564~MPIUSER~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^1001169886V995666^1001169886V995666~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|000094344~~~USSSA&&0363~SS~VA FACILITY ID&500&L|7169971~~~USVHA&&
0363~PI~VA FACILITY ID&500&L|1000094344~~~USVBA&&0363~PN~VA FACILITY ID&500&L|
666600373V383422~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20011005120510-0500|
1001169143V626477~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~20020611130452-
0500|1001169878V490521~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~20020611152848-
0500^^MPIPATIENT~ELEVEN~MIDDILE NAME~~~~L^MPIMAIDEN~~~~~~M^19690303^F ^^^500 MAIN
STREET~NOT USED~JACKSONVILLE~NC~28546~~P~NOT USED|~~PROVIDENCE~RI~~~N^""^555-555-
5555^""^^""^""^^^^^^^^^^^^20020506^^
PD1^^^ALBANY~D~500
MRG^1001170164V123456~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|112978~~~USVHA&&0363~PI~VA FACILITY ID&500&L^^^^^^MPIPATIENT~TWELEVE~
MIDDLE~~~~L
```

Figure 2-46. ADT- A40—Merge Patient—Patient Identifier List msg: Sent to MPI from VistA

Commit Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001672355997^P^2.4
MSA^CA^5000168695
```

Figure 2-47. ADT-A40—Merge Patient—Patient Identifier List msg: Commit acknowledgement sent from MPI to VistA

Application Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021015094438-0500^^ACK~A40^200103350^P^2.4^^^AL^NE^
MSA^AA^5000168695^^^^DFN=7169971
```

Figure 2-48. ADT-A40—Merge Patient—Patient Identifier List msg: Application acknowledgement sent from MPI to VistA

Commit Level Acknowledgement Returned to the MPI From VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051028060001-0500^^ACK^500167235^P^2.4
MSA^CA^200103350
```

Figure 2-49. ADT-A40—Merge Patient—Patient Identifier List msg: Commit acknowledgement returned to MPI

2.7 ADT/ACK—Move Patient Information—Patient Identifier List (Event A43)

A move has been done at the patient record id level (i.e., a records ID moves from one ICN to another ICN) on the MPI. Identifier to be moved in the PID-3 - Patient identifier list and MRG-1 - prior patient identifier list will have the same value. The "from" (incorrect source patient ID) and "to" (correct target patient ID) identifiers have different values. All subordinate data sets associated with the identifier in MRG-1 - prior patient identifier list are moved along with the identifier, from the "incorrect source patient ID" to the "correct target patient ID".

This event and the message syntax do, however, allow for the specification of a "new identifier" (PID-3 - Patient identifier list), which may be application and/or implementation specific and therefore require site negotiation.

The fields included when this message is sent should be pertinent to communicate this event. When demographic data in other fields change, it is recommended that the A08 (update patient information) event be used in conjunction with this message. Since every system handles merges differently, an ADT-A31 (update person information) message could also be used instead of the ADT-A08 (update patient information). The HL7 2.4 specification documents the following usage: *The fields included when this message is sent should be the fields pertinent to communicate this event. When other fields change, it is recommended that the A31 (update person information) event be used for person level updates and A08 (update patient information) event for patient level updates.* However, all PID data associated with the "correct target identifier" (PID-3 - Patient identifier list) are treated as updated information.

The "incorrect source identifier" would then logically never be referenced in future transactions. It is noted that some systems may still physically keep this "incorrect identifier" for audit trail purposes or other reasons associated with database index implementation requirements. However, currently within the VHA MPI implementation we do not support the referencing of the merged records but identify that there are potential benefits to supporting that reference and plan to support them in future releases.

NOTE: ADT-A43 messages are only supported as an outbound message from the MPI. Inbound ADT-A43 messages will be negatively acknowledged.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A43	ADT Message	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Additional Demographics	3
MRG	Merge Information	3

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A43^ACK	Application Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example 1: Message Sent FROM MPI TO Receiving System

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020921204232-0500^^ADT~A43^200100101^P^2.4^^^AL^AL^
EVN^A43^20020921204232-0500^20020921204232-0500^^12556~MPIUSER~FOUR~~~~~~USVHA&&
0363~L~~~NI~VA FACILITY ID&200M&L
PID^1^^1008520572V991480~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|100000551~~~USVHA
&&0363~PI~VA FACILITY ID&500&L^^MPIPATIENT~ONE~E~~~~L^MPIMAIDEN~~~~~~M^2780203^M
^^^^^^^^^^000064567^^^^^^^^^^
MRG^1001170560V235869~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|100000551~~~USVHA
&&0363~PI~VA FACILITY ID&500&L^^^^^^MPIPATIENT~ONE~E~~~~L
```

Figure 2-50. ADT-A43—Move Patient Information—Patient Identifier List msg: Sent from MPI to subscribing system

Commit Level Acknowledgement Sent TO the MPI FROM Receiving System

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001672355997^P^2.4
MSA^CA^200100101
```

Figure 2-51. ADT-A43—Move Patient Information—Patient Identifier List msg: Commit acknowledgement sent to MPI

Application Level Acknowledgement Sent TO the MPI FROM the Receiving System

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921204250-0500^^ACK~A43^500167189^P^2.4^^^AL^NE^
MSA^AA^200100101^
```

Figure 2-52. ADT-A43—Move Patient Information—Patient Identifier List msg: Application acknowledgement sent to MPI

Commit Level Acknowledgement Returned TO the Receiving System FROM the MPI

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001672355997^P^2.4
MSA^CA^500167189
```

Figure 2-53. ADT-A43—Move Patient Information—Patient Identifier List msg: Commit acknowledgement returned from MPI to sending system

Example 2: Message Sent FROM MPI TO PSIM via HLO

```
MSH^~|\&^MPI^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^
PSIM^HL7.200PS~TSTCRN.FO-ALBANY.MED.VA.GOV:5027~DNS^
20061107082545-0500^^ADT~A43~^200M 782^P~^2.4^^^AL^AL^USA
EVN^A43^20061107082545-0500^^^^^200M^20061107082545-0500^^12564~CHESNEY~CHRISTI
NE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&200M&L
PID^1^^1008521514V195551~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~20061107082545~
|100000107~~~USVHA&&0363~PI~VA FACILITY ID&500&L|888888889~~~USSSA&&0363~SS~VA F
ACILITY ID&200M&L^^MARTIAN~MARVIN~~~~~L^^19900303^M^^^^^^^^^^^^^^^^^^^^^^^^
PD1^^^ALBANY~D~500
MRG^1001170877V600753~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|
100000107~~~USVHA&&0363~PI~VA FACILITY ID&500&L|888888889
~~~USSSA&&0363~SS~VA FACILITY ID&500&L^^^^^^MARTIAN~MARV~~~~~L
```

Figure 2-54. Message Sent FROM MPI TO PSIM via HLO

Commit ACK:

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082419-0400||ACK |553 354|P^|2.4|||AL|NE|
MSA|CA|200M 782||
```

Figure 2-55. Message Sent FROM MPI TO PSIM via HLO—Commit ACK

Application Level ACK:

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5
027^DNS|MPI|200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS
|20061107082549-0400||ACK^A43^ACK|553 357|P^|2.4|||AL|NE|
MSA|AA|200M 782
```

Figure 2-56. Message Sent FROM MPI TO PSIM via HLO—Application Level ACK

2.8 ADT/ACK—Register a Patient (Event A04)

An A04 event signals that the patient has been registered via the Register a Patient option [DG REGISTER A PATIENT]. It does not indicate that the person actually had a treatment session at that time, just that the registration event happened.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A04^ADT^A04	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Patient Additional Demographics	3
PV1	Patient Visit	3
[PV2]	Patient Visit – additional information	3
[{OBX}]	Observation/Result	7
[ZPD]	VA Specific Patient Information Segment	
[ZSP]	VA Specific Service Period Segment (Passed but not used by MPI)	
[ZEL]	VA Specific Patient Eligibility Segment (Passed but not used by MPI)	
[ZCT]	VA Specific Emergency Contact Segment (Passed but not used by MPI)	
[ZEM]	VA Specific Employment Information Segment (Passed but not used by MPI)	
[ZFF]	VA Specific File/Field Segment (Passed but not used by MPI)	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A04^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example Message Sent TO the MPI FROM VistA

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20021015084748-0500^^ADT~A04^500168673^P^2.4^^^AL^AL^US
EVN^^^^^12564~MPIUSER~TWO~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^1001169886V995666^1001169886V995666~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|000094344~~~USSSA&&0363~SS~VA FACILITY
ID&500&L|7169971~~~USVHA&&0363~PI~VA FACILITY ID&500&L|000094344~~~USVBA&&0363~PN~VA
FACILITY ID&500&L|
666600373V383422~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20011005120510-0500|
1001169143V626477~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~20020611130452-0500|
1001169878V490521~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~~20020611152848-0500^
^MPIPATIENT~TWO~MIDDLE NAME~~~~L^MPIMAIDEN~~~~~~M^19690303^F^^^500 MAIN STREET~NOT
USED~JACKSONVILLE~NC~99999~~P~NOT USED|~~PROVIDENCE~RI~~~N^""^555-555-5555^
""^^""^""^^^^^^^^^^^^20020506^^
PD1^^^ALBANY~D~500^""
PV1^1^O^""^^^^^^^^^^^^^^^SC VETERAN^^^^^^^^^^^^^^^^^^^^500A^^^^^^^^^^15403
OBX^1
ZPD^1^^PROVIDENCE^RI^""^MPIFATHER,ONE^MPIMOTHER,TWO^""^20020506^""^0^""^""^6^""^""^"
"^0^""^""^""
ZSP^1^1^^""^""^""^""^""
ZEL^1^3^036-99-4344~~^4344^""^000094344^""^1^SC VETERAN^""^""^""^""^""^""^""^""^
""^""^""^""^""
ZCT^1^1^MPISPOUSE,FOUR^""^""^""^""^""^""
ZEM^1^1^""^""^""^""^""^""
ZFF^2^
```

Figure 2-57. ADT-A04—Register a Patient msg: Sent to MPI from VistA

Commit Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051020060001-0500^^ACK^2001653355533^P^2.4
MSA^CA^500168673
```

Figure 2-58. ADT-A04—Register a Patient msg: Commit acknowledgement sent from MPI to VistA

Application Level Acknowledgement Sent FROM MPI TO VistA

NOTE: Error message returned as an example, this does not indicate that there is a need to resend the message. This actually generated a data quality exception on the MPI for the HC IDM team to address.

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021015084805-0500^^ACK~A04^200103324^P^2.4^^^AL^NE^USA
MSA^AA^500168673^ Unable to update field 48 in MPI FACILITY ASSOCIATION (   #985.5)
file due to: The value '1' for field POW STATUS INDICATED? in file MPI FACILITY
ASSOCIATION is not valid.
```

Figure 2-59. ADT-A04—Register a Patient msg: Application acknowledgement sent from MPI to VistA

Commit Level Acknowledgement Returned TO the MPI FROM VistA

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTING.MED.VA.GOV~DNS^20051020060001-0500^^ACK^5004563^P^2.4
MSA^CA^200103324
```

Figure 2-60. ADT-A04—Register a Patient msg: Commit acknowledgement returned to MPI from VistA

2.9 ADT/ACK—Update Patient Information (Event A08)

This trigger event is used when any patient information has changed but when no other trigger event has occurred. For example, an A08 event can be used to notify the receiving systems of a change of address or a name change. We recommend that the A08 transaction be used to update fields that are not related to any of the other trigger events. The A08 event can include information specific to an episode of care, but it can also be used for demographic information only.

NOTE: Updates to specific patient demographic data will trigger the broadcasting of a HL7 ADT-A08 message. Because there is no set way of identifying when an edit to patient information is complete, these edit events are marked as needing to be transmitted in the ADT/HL7 PIVOT file (#391.71). The background job VAFC BATCH UPDATE (scheduled TaskMan job) periodically broadcasts the HL7 ADT-A08 message, containing any changes to data, to the MPI.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A08^ADT_A08	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Patient Additional Demographics	3
PV1	Patient Visit	3
[PV2]	Patient Visit – additional information	3
[{OBX}]	Observation/Result	7
[ZPD]	VA Specific Patient Information Segment	
[ZSP]	VA Specific Service Period Segment (Passed but not used by MPI)	
[ZEL]	VA Specific Patient Eligibility Segment (Passed but not used by MPI)	
[ZCT]	VA Specific Emergency Contact Segment (Passed but not used by MPI)	
[ZEM]	VA Specific Employment Information Segment (Passed but not used ")	
[ZFF]	VA Specific File/Field Segment (Passed but not used by MPI)	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A08^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Message Sent TO the MPI FROM VistA

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921133629-0500^^ADT~A08^500167099^P^2.4^^^AL^AL^US
EVN^A1^20020913112211-0500^^A1^12584~MPIUSER~FIVE~~~~~~USVHA&&0363~L~~~NI~VA
FACILITY ID&500&L^20020913112211-0500^500
PID^1^10000170555V123442^10000170555V123442~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|
666645123~~~USSSA&&0363~SS~VA FACILITY ID&500&L|000000050~~~USVHA&&0363~PI~VA
FACILITY ID&500&L|5678923~~~USVBA&&0363~PN~VA FACILITY ID&500&L|500000524V103809~~
~USVHA&&0363~NI~VA FACILITY ID&500&L~~20020913110104-0500|5000170419V238836
~~~USVHA&&0363~NI~VA FACILITY ID&500&L~~20020920181506-0500^^MPIPATINET~
SIX~MIDDLE~~~~L^MPIMAIDEN ~~~~~~M^19400423^M^^2106-3-SLF~~0005~2106-3~~CDC^TE
STING\E\\E\~TREAT\E\\E\~AVERILL PARK~NY~12018~""~P~TREATT\E\\E\~083|~~JACKSONVIL
LE~NC~~~N|STREET1\E\\E\~STREET2\E\\E\~JACKSONVILLE~NC
~28546~""~VACAM~STREET3\E\\E\\E\~133~~~20060123&|STREET1\E\\E\~STREET2\E\\E\~JAC
KSONVILLE~NC~28546~""~VACAO~STREET3\E\\E\\E\~133~~~20060123&^083^(910)777-7777~P
RN~PH|(910)888-8888~WPN~PH|(910)333-333~ORN~CP|~BPN~BP|~NET~INTERNET~BCDEFR@EC.RR.CO
M^(910)888-8888^^""^""^^171042340P^^^2186-5-SLF~~0189~2186-5~~CDC^JACKSONVILLE N
C^N^^^^^""^^
PD1^^^DETROIT~D~553^""
PV1^1^I^11E REHAB~1102~10^^^""~""~""^623~MPIDOCTOR~ONE^^^15^^^^^^^^NON-VETERAN
(OTHER)^^^12^^^^^^^^^^^^^^^^^500A^^^^^20020913112211-0500^""
PV2^^^^^^^^^200702020800-0500^^^^^^20060919093712-
0500^^^^^^^^^CR^^^^^^^^^^^^^^^^^^^^^200609221451-0500
OBX^1^CE^~SECURITY LEVEL^""^0^""^""^""^""^F^""^""
^20020918095831-0500^""^""^""
OBX^^^LAST RADIOLOGY EXAM DATE/TIME^^^^^^^^F^^^20060920095712-0500
OBX^^^LAST LAB TEST DATE/TIME^^^^^^^^F^^^20061021092712-0500
OBX^^^ACTIVE PRESCRIPTIONS^^Y
ZPD^1^^^^^^^^^^^^^^^Y^^^^""^^^^^^^^^^^^^R
ZSP^1^0^""^""^""^""^""^""
ZEL^1^""^""^""^""^""^""^""^1^SC VETERAN^""^""^""^""^""^""^""^""^""^1^1^""^""^""
ZEL^2^6^012-26-7845~~^7845^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""
ZEL^3^9^012-26-7845~~^7845^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""^""
ZCT^1^1^""^""^""^""^""^""^""
ZEM^1^1^""^""^""^""^""^""
ZFF^2^.08;
```

Figure 2-61. ADT-A08—Update Patient Information msg: Sent to MPI from VistA

Commit Level Acknowledgement Sent FROM the MPI TO Receiving System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051020060001-0500^^ACK^2001688355533^P^2.4
MSA^CA^500167099
```

Figure 2-62. ADT-A08—Update Patient Information msg: Commit acknowledgement sent from MPI to VistA

Application Level Acknowledgement Sent FROM the MPI TO Receiving System

```
MSH^~|\&^RG ADT^200M~MPI-AUSTIN.MED.VA.GOV~DNS^RG ADT^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020921133639-0500^^ACK~A08^20099963^P^2.4^^^AL^NE^USA
MSA^AA^500167099
```

Figure 2-63. ADT-A08—Update Patient Information msg: Application acknowledgement sent from MPI

Commit Level Acknowledgement Returned TO the MPI FROM Receiving System

```
MSH^~|\&^RG ADT^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^RG ADT^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051020060001-0500^^ACK^2001688355533^P^2.4
MSA^CA^20099963
```

Figure 2-64. ADT-A08—Update Patient Information msg: Commit acknowledgement returned to MPI

2.10 ADT/ACK—Update Person Information (Event A31)

An A31 event can be used to update person information on an MPI. It is similar to an A08 (update patient information) event, but an A08 (update patient information) event should be used to update patient information for a current episode. An A31 can also be used for back loading MPI information for the person, or for back loading person and historical information.

To maintain backward compatibility with previous releases, the PV1 segment is required.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A31^ADT_A31	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Patient Additional Demographics	3
PV1	Patient Visit	3
[{PV2}]	Patient Visit - Additional Information	3
[{OBX}]	Observation/Result	7
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A31^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example 1 Message Sent TO the MPI FROM VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20021015081501-0500^^ADT~A31^500168669^P^2.4^^^AL^AL^
EVN^^^^^12564~MPIUSER~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L^^500
PID^1^1008520438V882204^1008520438V882204~~~USVHA&&036
3~NI~VA FACILITY ID&200M&L|100000511~~~USVHA&&0363~PI~VA FACILITY ID&500&L|01299
9888~~~USSSA&&0363~SS~VA FACILITY ID&500&L|""~~~USSSA&&0363~SS~VA FACILITY ID&50
0&L~~20070119|012888999~~~USSSA
&&0363~SS~VA FACILITY ID&500&L~~20070119|500001172V334232~~~USVHA&&0363~NI~VA FA
CILITY ID&500&L~~20041119|500001171V156387~~~USVHA&&0363~NI~VA FACILITY ID&500&L
~~20041119|1001169748V365863~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L~~20020919|500000677V794406~~~USVHA
&&0363~NI~VA FACILITY ID&500&L~~20030428|500001144V475995~~~USVHA&&0363
~NI~VA FACILITY ID&500&L~~20041029|1008520379V265382~~~USVHA&&0363~NI~VA FACILIT
Y ID&200M&L~~20050202^^PATIENTONE~BEN THUR~TWO~~~~L|CHES~~~~~~A|
PATIENTONE~BENSIX~~~~~A|PATIENTONE~BENSEVEN~~~~~A|PATIENTONE
~BENEIGHT~~~~~A|PATIENTONE~BENTEN~~~~~A|PATIENTONE~BENEE~~~
~~A|PATIENTONE~BENELEVEN~~~~~A|^JONES~~~~~~M^18701231^M^^2106-3-SLF~~0005~2106-
3~~CDC^TESTING\E\\E\~TREAT\E\\E\~AVERILL PARK~NY~12018~""~P~TREATT\E\\E\~083|~~JACKS
ONVILLE~NC~~~N|STREET1\E\\E\~STREET2\E\\E\~JACKSONVILLE~NC~28546~""~VACAE~STREET
3\E\\E\\E\~133~~~20060123&|STREET1\E\\E\~STREET2\E\\E\~JACKSONVILLE~NC~28546~""~
VACAA~STREET3\E\\E\\E\~133~~~20060123&|STREET1\E\\E\~STREET2\E\\E\~JACKSONVILLE~NC~2
8546~""~VACAC~STREET3\E\\E\\E\~133~~~20060123&|STREET1\E\\E\~STREET2\E\\E\~JACKSO
NVILLE~NC~28546~""~VACAM~STREET3\E\\E\\E\~133~~~20060123&|STREET1\E\\E\~STREET2\
E\\E\~JACKSONVILLE~NC~28546~""~VACAO~STREET3\E\\E\\E\~133~~~20060123&^083^(518)777-
8789~PRN~PH|(910)888-8888~WPN~PH|(910)333-3333~ORN~CP|~NET~INTERNET~BCDEFR@EC.RR.C
OM^(910)888-8888^^S^""^^012999888^^^2186-5-SLF~~0189~2186-5~~CDC^JACKSONVILLE NC
^N^^^^^""^^
PD1^^^ALBANY~D~500
PV1^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^20060919093712-0500
PV2^^^^^^^^^200702020800-0500^^^^^^20060919093712-
0500^^^^^^^^^CR^^^^^^^^^^^^^^^^^^^^^^200609221451-0500
OBX^^^LAST RADIOLOGY EXAM DATE/TIME^^^^^^^^F^^^20060920095712-0500
OBX^^^LAST LAB TEST DATE/TIME^^^^^^^^F^^^20061021092712-0500
OBX^^^ACTIVE PRESCRIPTIONS^^Y
ZPD^1^^^^^^^^^^^^^^^Y^^^^GREEN^^^^^^^^^^^^^""
```

Figure 2-65. ADT-A31—Update Person Information msg: Sent from VistA to MPI

Commit Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001699955997^P^2.4
MSA^CA^5000168669
```

Figure 2-66. ADT-A31—Update Person Information msg: Commit acknowledgement sent from MPI to VistA

Application Level Acknowledgement Sent From the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021015081512-0500^^ACK~A31^200103314^P^2.4^^^AL^NE^
MSA^AA^500168669^^^^DFN=7169807
```

Figure 2-67. ADT-A31—Update Person Information msg: Application acknowledgement sent from MPI

Commit Level Acknowledgement Returned TO the MPI FROM VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051028060001-0500^^ACK^5005997^P^2.4
MSA^CA^200103314
```

Figure 2-68. ADT-A31—Update Person Information msg: Commit acknowledgement returned to MPI

Example 2: Message Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI.FO-ALBANY.MED.VA.GOV~DNS^
MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^20070119131025-0500^^ADT~A31^20
0958862^T^2.4^^^AL^AL^
EVN^A31^20070119131025-0500^^^^^200M
PID^1^^1008520438V882204~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L~20041202~|100000511~~~USVHA&&0363~PI~VA FACILITY ID&500&L|012999888~~
~USSSA&&0363~SS~VA FACILITY ID&200M&L|123456789~~~USSSA&&0363~SS~VA FACILITY ID&
200M&L~~20070119^^CHESNEY~BENJAMIN~TWO~TWO~~~L|TESTING~JUNKIE~~~~~A^JONES~~~~~~M^187
01231^M^2106-3~~0005~2106-3~~CDC^^~~JACKSONVILLE~NC~~~N^^(518)777-8789~PRN~PH^^^S
^^^^^^2186-5~~2186~2186-5~~CDC^^N^^^^^^^^^
PD1^^^ALBANY~D~500
PV1^^N
OBX^1^CE^SSN VERIFICATION STATUS^^4~VERIFIED~L
ZPD^1^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^""
```

Figure 2-69. ADT-A31—Update Person Information msg: Sent to VistA from MPI

Commit Level Acknowledgement Sent FROM the MPI to VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20060327154529-0500^^ACK^50034892^P^2.4
MSA^CA^200168669
```

Figure 2-70. ADT-A31—Update Person Information msg: Commit acknowledgement sent to VistA from MPI

Application Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20060327154531-0500^^ACK~A31^50034893^P^2.4^^^AL^NE^
MSA^AA^200168669
```

Figure 2-71. ADT-A31—Update Person Information msg: Commit acknowledgement sent to VistA from MPI

Example 3: Message Sent FROM the MPI TO PSIM

```
MSH^~|\&^MPI^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^PSIM^
HL7.200PS~TSTCRN.FO-ALBANY.MED.VA.GOV:5027~DNS^
20061107082515-0500^^ADT~A31~^200M 781^P~^2.4^^^AL^AL^USA
EVN^A31^20060310110609-0500^^^^^500
PID^1^^1001170877V600753~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~
20040915114610~|100000107~~~USVHA&&0363~PI~VA FACILITY ID&500&L|
888888889~~~USSSA&&0363~SS~VA FACILITY ID&500&L^
^MARTIAN~MARVIN~~~~~L^^19900303^M^^^^^^^^^^^^^^^^^^^^^^^^
PD1^^^DETROIT,MI~D~553
PV1^N
OBX^1^CE^SSN VERIFICATION STATUS^^~""~L
OBX^1^CE^ROI SIGNED^^YES~ROI SIGNED~L
OBX^2^CE^IPP LEVEL^^4~VERY HIGH CONFIDENCE~L
ZPD^1^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^""
```

Figure 2-72. Message Sent FROM the MPI TO PSIM

Commit ACK

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082519-0400||ACK |553 356|P^|2.4|||AL|NE|
MSA|CA|200M 781||
```

Figure 2-73. Message Sent FROM the MPI TO PSIM—Commit ACK

Application Level ACK

```
MSH|^~\&|MPI|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082519-0400||ACK^A31^ACK|553 356|P^|2.4|||AL|NE|
MSA|AA|200M 781
```

Figure 2-74. Message Sent FROM the MPI TO PSIM—Application Level ACK

Example of PSIM Sending Application Level Acknowledgment with Error Condition Reported

```
MSH^~|\&^PSIM^200PS~HL7.200PS.AUSTIN.MED.VA.GOV:8090~DNS^MPI^200M~MPI-
AUSTIN.MED.VA.GOV:15026~DNS^20070807083138.839-0600^^ACK^1186493498839130265-
9715^P^2.4^^^AL^NE^USA
MSA^AE^200M 1259620
ERR^~~~&Cannot locate VPID 0000001011191168V130766000000
```

Figure 2-75. Message Sent FROM PSIM with Error Condition Reported—Application Level ACK

2.11 ADT/ACK—Update CMOR (Event A31)

NOTE: The second occurrence of this message is included specifically to document the VHA MPI/PD implementation of the CMOR functionality and is not to be used by external MPI/PD applications.

An A31 event can be used to update person information on an MPI. It is similar to an A08 (update patient information) event, but an A08 (update patient information) event should be used to update patient information for a current episode. For this particular instance of A31, it is being used to request a change of CMOR, approve/disapprove a change of CMOR and actually change the CMOR.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

Example: Message Sent Requesting Change of CMOR

ADT^A31^ADT_A31	ADT Message	Chapter
MSH	Message Header	2
PID	Patient Identification	2
NTE	Notes and Comments segment	2
EVN	Event Type	3

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

Message Sent TO the MPI FROM VistA

```
MSH^~|\&^RG CIRN^500^RG CIRN^500^20021015131109-0500^^ADT~A31^500168699^P^2.3^^
^AL^NE^USA
PID^1^1001169749V410755^100000017~2~M10^3124^MPIPATIENT~SEVEN~J~JR^""^19240601^M^^^"
"~""~""~""~""~~~""~""^^""^""^^""^29^^666623124^^^^^^^^^
NTE^^P^555-555-5555^CAPTURES OF MESSAGES^^500-39^500
EVN^A31^3021015^^^MPIUSER,ONE M
```

Figure 2-76. ADT-A31—Update Person Information msg: Sent to the MPI requesting CMOR change

NOTE: There is not an application level acknowledgement sent for this message.

Commit Level Acknowledgement Message Sent TO the MPI FROM VistA

```
MSH^~|\&^RG CIRN^500^RG CIRN^500^20051114114456-0500^^ACK^200917720^P^2.3
MSA^CA^500168699
```

Figure 2-77. ADT-A31—Update Person Information msg: Commit acknowledgement

Example: Message Received at CMOR for Approving/Disapproving CMOR Change Request

ADT^A31^ADT_A31	ADT Message	Chapter
MSH	Message Header	2
EVN	Event Type	3
NTE	Notes and Comments segment	2
PID	Patient Identification	2

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

```
MSH^~|\&^MPIF CMOR CHNG^999^MPIF CMOR CHNG^999^20021015133724^^
ADT~A31^99978507^P^2.3^^^AL^NE^
EVN^A31^3021015^^^MPIUSER,ONE M
NTE^^P^910-353-7455^OKAY^4^500-39
PID^1^1001169749V410755^57295~8~M10^3124^PATIENT~SEVEN~J~JR^""^19240601^M^^^""~""~""
~""~""~~~""~""^^""^""^^""^29^^666623124^^^^^^^^^^
```

Figure 2-78. ADT-A31—Update Person Information msg: Received regarding CMOR change

NOTE: There is not an application level acknowledgement sent for this message.

Commit Level Acknowledgement Sent TO the MPI FROM the CMOR

```
MSH^~|\&^MPIF CMOR RSLT^999^MPIF CMOR RSLT^999^20051114114511-0500^^ACK^
200917724^T^2.3
MSA^CA^99978507
```

Figure 2-79. ADT-A31—Update Person Information msg: Commit acknowledgement sent from CMOR

Example: Message Sent Changing CMOR

ADT^A31^ADT_A31	ADT Message	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	2
PV1	Patient Visit	3

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

```
MSH^~|\&^MPIF CMOR RSLT^999^MPIF CMOR RSLT^999^20021015133722^^ADT~A31^
99978505^P^2.3^^^AL^NE^USA
EVN^A31^3021015^^^Automatic Processing
PID^1^1001169749V410755^57295~8~M10^^MPIPATIENT~SEVEN~J~JR^""^19240601^M^^^""~""~""~
""~""~~~""~""^^""^""^^""^29^^666623124^^^^^^^^^^
PV1^^^500^^^999
```

Figure 2-80. ADT-A31—Update Person Information msg: Sent to MPI changing CMOR

NOTE: There is not an application level acknowledgement sent for this message.

Commit Level Acknowledgement Sent FROM the MPI TO Requesting VistA System

```
MSH^~|\&^MPIF CMOR RSLT^^MPIF CMOR RSLT^553^2005111411451
7-0500^^ACK^50027450^P^2.3
MSA^CA^200917727
```

Figure 2-81. ADT-A31—Update Person Information msg: Commit acknowledgement sent to requesting VistA site

2.12 ADT/ACK—Enterprise Update Person Information (Event A31)

NOTE: The third occurrence of this message is included specifically to document the ADT-A31 message being triggered from the MPI Austin side.

An A31 event can be used to update person information on VistA. It is similar to an A08 (update patient information) event, but an A08 (update patient information) event should be used to update patient information for a current episode. For this particular instance of A31, it is being used to synchronize the treating facilities with the CMOR's data as it exists on the MPI or the Primary View data once the patient has been primary view initialized on the MPI.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A31^ADT_A31	**ADT Message**	**Chapter**
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Patient Additional Demographics	3
PV1	Patient Visit	3
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A31^ACK	**Application Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example 1: Message Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^200M~MPI.FO-ALBANY.MED.VA.GOV~DNS^
MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^20070119131025-0500^^ADT~A31^20
0958862^T^2.4^^^AL^AL^
EVN^A31^20070119131025-0500^^^^^200M
PID^1^^1008520438V882204~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L~20041202~|100000511~~~USVHA&&0363~PI~VA FACILITY ID&500&L|012999888~~
~USSSA&&0363~SS~VA FACILITY ID&200M&L|123456789~~~USSSA&&0363~SS~VA FACILITY ID&
200M&L~~20070119^^CHESNEY~BENJAMIN~TWO~TWO~~~L|TESTING~JUNKIE~~~~~A^JONES~~~~~~M^187
01231^M^2106-3~~0005~2106-3~~CDC^^~~JACKSONVILLE~NC~~~N^^(518)777-8789~PRN~PH^^^S
^^^^^^2186-5~~2186~2186-5~~CDC^^N^^^^^^^^^^
PD1^^^ALBANY~D~500
PV1^^N
OBX^1^CE^SSN VERIFICATION STATUS^^4~VERIFIED~L
ZPD^1^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^""
```

Figure 2-82. ADT-A31—Update Person Information msg: Sent to VistA from MPI

Commit Level Acknowledgement Sent FROM the MPI to VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20060327154529-0500^^ACK^50034892^P^2.4
MSA^CA^200168669
```

Figure 2-83. ADT-A31—Update Person Information msg: Commit acknowledgement sent to VistA from MPI

Application Level Acknowledgement Sent FROM the MPI TO VistA

```
MSH^~|\&^MPIF TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20060327154531-0500^^ACK~A31^50034893^P^2.4^^^AL^NE^
MSA^AA^200168669
```

Figure 2-84. ADT-A31—Update Person Information msg: Commit acknowledgement sent to VistA from MPI

Example 2: Message Sent FROM the MPI TO PSIM

```
MSH^~|\&^MPI^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^PSIM^
HL7.200PS~TSTCRN.FO-ALBANY.MED.VA.GOV:5027~DNS^
20061107082515-0500^^ADT~A31~^200M 781^P~^2.4^^^AL^AL^USA
EVN^A31^20060310110609-0500^^^^^500
PID^1^^1001170877V600753~~~USVHA&&0363~NI~VA FACILITY ID&200M&L~
20040915114610~|100000107~~~USVHA&&0363~PI~VA FACILITY ID&500&L|
888888889~~~USSSA&&0363~SS~VA FACILITY ID&500&L^
^MARTIAN~MARVIN~~~~~L^^19900303^M^^^^^^^^^^^^^^^^^^^^^^^^
PD1^^^DETROIT,MI~D~553
PV1^N
OBX^1^CE^SSN VERIFICATION STATUS^^~""~L
ZPD^1^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^""
```

Figure 2-85. ADT-A31—Update Person Information msg: Sent FROM the MPI TO PSIM

Commit ACK

```
MSH|^~\&|PSIM|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082519-0400||ACK |553 356|P^|2.4|||AL|NE|
MSA|CA|200M 781||
```

Figure 2-86. ADT-A31—Update Person Information msg: Sent FROM the MPI TO PSIM—Commit ACK

Application Level ACK

```
MSH|^~\&|MPI|553^HL7.TSTCRN.FO-ALBANY.MED.VA.GOV:5027^DNS|MPI|
200M^HL7.MPI-AUSTIN.MED.VA.GOV:5026^DNS|
20061107082519-0400||ACK^A31^ACK|553 356|P^|2.4|||AL|NE|
MSA|AA|200M 781
```

Figure 2-87. ADT-A31—Update Person Information msg: Sent FROM the MPI TO PSIM—Application Level ACK

NOTE: This ADT-A31 message is sent from the MPI to VistA. Fewer fields are populated in the ADT-A31 message when it originates on the MPI and is sent to VistA. This is because the MPI doesn't store all the fields that VistA does.

2.13 MFN—Update Treating Facility (Event M05)

The treating facility list is a list of systems that know a specific Integration Control Number (ICN). The list can contain systems that are not VAMC like FHIE or HDR. The list is built and updated as a result of systems identifying the system knows a particular ICN either via the MPI approved query and subsequent ADT-A28 Add patient or ADT-A24 Link HL7 message.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

MFN^M05	**Master File update**	**Chapter**
MSH	Message Header	2.24.1
MFI	Master File Identification Segment	8.4.1
{MFE	Master File Entry Segment	8.4.2
ZET}	ZET is the event reason for date of last treatment	N/A

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

MFK^M05	**Master File update Acknowledgement**	**Chapter**
MSH	Message Header	2.24.1
MFI	Master File Identification Segment	8.4.1
{MFE	Master File Entry Segment	8.4.2
MFA}	Master File Acknowledgement Segment	8.4.3

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

NOTE: My HealtheVet Applications must continue using the original format of the MFN^M05 HL7 Message. An example of the original HL7 message is shown a few pages following titled "MFN^M05 HL7 Message Examples for My HealtheVet Applications."

Example: Message Received FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020916085620-0500^^MFN~M05^20096036^P^2.4^^^AL^AL^US
MFI^TFL^^REP^^^AL^500~ALBANY
MFE^MAD^500-1^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|123~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
ZET^A1
MFE^MDC^500-2^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
MFE^MAD^553-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&553&L^CX
ZET^^
MFE^MAD^998-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&998&L^CX
MFE^MAD^200DOD-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|1234567890~~~USDOD&&0363~PI~VA FACILITY ID&200DOD&L^CX
MFE^MDC^200DOD-2^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|1234567899~~~USDOD&&0363~PI~VA FACILITY ID&200DOD&L^CX
ZET^^
```

Figure 2-88. MFN-M05—Update Treating Facility msg: Received from MPI

Commit Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051111094136-0400^^ACK^673105227963^P^2.4
MSA^CA^20096036
```

Figure 2-89. MFN-M05—Update Treating Facility msg: Commit acknowledgement sent to MPI

Application Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051111094130-0500^^MFK~M05^5008304^P^2.4^^^AL^NE^US
MSA^AA^500164930^0
MFI^TFL^^REP^^^AL^500~ALBANY
MFE^MAD^500-1^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|123~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
MFE^MDC^500-2^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
MFE^MAD^553-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&553&L^CX
MFE^MAD^998-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&998&L^CX
MFE^MAD^200DOD-1^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|1234567890~~~USDOD&&0363~PI~VA FACILITY ID&200DOD&L^CX
MFE^MDC^200DOD-2^^1001170419V238836~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|1234567899~~~USDOD&&0363~PI~VA FACILITY ID&200DOD&L^CX
```

Figure 2-90. MFN-M05—Update Treating Facility msg: Application acknowledgement sent to MPI

Commit Level Acknowledgement Returned FROM MPI to Sending System

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051111084137-0500^^ACK^2001705747823^P^2.4
MSA^CA^5008304
```

Figure 2-91. MFN-M05—Update Treating Facility msg: Commit acknowledgement sent from MPI

Assigning Authority and Id Type are parsed from MFE Segment for HL7 MFN~M05 v2.4 and v3

As of Patch DG*5.3*837 changes were made to the HL7 MFN~M05 Treating Facility List Update message to parse MFE segments that can be more than 245 characters long. Assigning Authority and Id Type are parsed from the MFE segment of the message for both HL7 v2.4 and v3.0. Also, the existing deletion logic for removing Treating Facility entries in the TREATING FACILITY LIST file (#391.91) while processing the MFN~M05 message was modified. The following are examples of the updates.

```
MSH^~|\&^VAFC TRIGGER^200M~MPI.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20120105095556-0500^^MFN~M05^200NKPTFUPD^T^2.4^^^AL^AL^USA
MFI^TFL^^REP^^^NE^500~ALBANY
MFE^MAD^500-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|100003470~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
ZET^^
MFE^MAD^200PS-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|~~~USVHA&&0363~PI~VA FACILITY ID&200PS&L^CX
ZET^^
MFE^MAD^200NKP-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|KP99123456789~~~&1.3.6.1.4.1.26580&ISO~~&1.3.6.1.4.1.26580&ISO^CX
ZET^
```

Figure 2-92. MFN-M05—Update Treating Facility msg: Assigning Authority and Id Type are parsed from MFE segment for HL7 MFN~M05 v2.4 and v3

```
MSH^~|\&^VAFC TRIGGER^200M~MPI.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20120107095656-0500^^MFN~M05^200NMVTFUPD1^T^2.4^^^AL^AL^USA
MFI^TFL^^REP^^^NE^500~ALBANY
MFE^MAD^500-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|100003470~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
ZET^^
MFE^MAD^200PS-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|~~~USVHA&&0363~PI~VA FACILITY ID&200PS&L^CX
ZET^^
MFE^MAD^553-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|100002205~~~USVHA&&0363~PI~VA FACILITY ID&553&L^CX
ZET^^
MFE^MAD^200NKP-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|KP99123456789~~~&1.3.6.1.4.1.26580&ISO~~&1.3.6.1.4.1.26580&ISO^CX
ZET^^
MFE^MDC^500-2^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|100003472~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
ZET^^
MFE^MAD^200NMV-1^^1008591932V642183~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|KP991234567893049580394850938409580398409580398405983498569874958798745986
798475968798798347992837492387492837492837948237598798798273948729038798273~~~&2.16.
840.1.113883.3.190.6.100.1&ISO~~&2.16.840.1.113883.3.190.6.100.1&ISO^CX
ZET^^
```

Figure 2-93. MFN-M05—Update Treating Facility msg: Assigning Authority and Id Type are parsed from MFE segment, more than 245 characters long, for HL7 MFN~M05 v2.4 and v3

MFN^M05 HL7 Message Examples for My HealtheVet Applications

Example: Message Received FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20020916085620-0500^^MFN~M05^20096036^P^2.4^^^AL^AL^US
MFI^TFL^^UPD^^^AL^500~ALBANY
MFE^MUP^500^20020913112211-0500^500~ALBANY~VA~1001170419V238836~ICN~VA
ZET^A1
MFE^MUP^553^^553~DETROIT,MI~VA~1001170419V238836~ICN~VA
ZET^
MFE^MUP^998^^998~BPMARION~VA~1001170419V238836~ICN~VA
ZET^
```

Figure 2-94. MFN-M05 for My Healthevet Applications—Update Treating Facility msg: Received from MPI

Commit Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051111094136-0400^^ACK^673105227963^P^2.4
MSA^CA^20096036
```

Figure 2-95. MFN-M05 for My Healthevet Applications—Update Treating Facility msg: Commit acknowledgement sent to MPI

Application Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051111094130-0500^^MFK~M05^5008304^P^2.4^^^AL^NE^US
MSA^AA^500164930^0
MFI^TFL^^UPD^^^AL^500~ALBANY
MFE^MUP^500^20020913112211-0500^500~ALBANY~VA~1001170419V238836~ICN~VA
MFA^MUP^500^20041108122753-0500^S
MFE^MUP^553^^553~DETROIT,MI~VA~1001170419V238836~ICN~VA
MFA^MUP^553^20041108122753-0500^S
MFE^MUP^998^^998~BPMARION~VA~1001170419V238836~ICN~VA
MFA^MUP^998^20041108122753-0500^S
```

Figure 2-96. MFN-M05 for My Healthevet Applications—Update Treating Facility msg: Application acknowledgement sent to MPI

Commit Level Acknowledgement Returned FROM MPI to Sending System

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051111084137-0500^^ACK^2001705747823^P^2.4
MSA^CA^5008304
```

Figure 2-97. MFN-M05 for My Healthevet Applications—Update Treating Facility msg: Commit acknowledgement sent from MPI

2.14 QRY/ADR—Patient Query (Event A19)

The following trigger event is served by QRY (a query from another system) and ADR (a response from a Patient Administration system).

Another application determines a need for Patient Administration data about a patient and sends a query to the Patient Administration system. The Who Filter in the QRD can identify the patient or account number upon which the query is defined and can contain a format code of "R" (record-oriented). If the query is based on the Patient ID and there are data associated with multiple accounts, the problem of which account data should be returned becomes an implementation issue. The ADT event-type segment, if included in the response, describes the last event for which the Patient Administration system initiated an unsolicited update.

NOTE: At this time, the QRY-A19 message is only triggered from the MPI to any of the sites in the Treating Facility list and any associated systems related to those treating facilities.

NOTE: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

QRY^A19^QRY_A19	**Patient Query**	**Chapter**
MSH	Message Header	2
QRD	Query Definition	2

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

ADR^A19^ADR_A19	**ADT Response**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2
[QAK]	Query Acknowledgement (Not built by the MPI)	5
QRD	Query Definition	2
EVN	Event Type	3
PID	Patient Identification	3
[PD1]	Patient Additional Demographics	3
PV1	Patient Visit	3
[ZPD]	VA Specific Patient Information Segment	

ACK^COMMIT	**Commit Level Acknowledgement**	**Chapter**
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example 1: When the Patient is Known at the Facility by the ICN Known at the MPI

Query Message Sent FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20021002160803-0500^^QRY~A19^200101031^P^2.4^^^AL^AL^US
QRD^20021002160803-
500^R^I^0000170555^^^1~RD^1000170555V098765~~~~~~~~USVHA&&0363~NI~~~~~VA FACILITY
ID&500&L|666645123~~~~~~~~USSSA&&0363~SS~~~~~VA FACILITY ID&500&L^DEM^^^
```

Figure 2-98. QRY-A19—Patient Query msg: Sent from MPI

Commit Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051104073709-0400^^ACK^50085379^P^2.4
MSA^CA^200101031
```

Figure 2-99. QRY-A19—Patient Query msg: Commit acknowledgement sent to MPI

Query Results Received When Patient is Known at Queried Facility

```
MSH^~|\&^VAFC TRIGGER^500~DEVCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20021002160814-0500^^ADR~A19^500167426^P^2.4^^^AL^NE^US
MSA^AA^200101031^
QRD^20021002160803-
500^R^I^1000170555V098765^^^RD~1^1000170555V098765~~~~~~~~USVHA&&0363~NI~~~~~VA
FACILITY ID&500&L|666645123~~~~~~~~USSSA&&0363~SS~~~~~VA FACILITY ID&500&L^DEM^^^
EVN^A1^20020913112211-0500^^A1^.5~POSTMASTER~~~~~~~USVHA&&0363~L~~~NI~VA FACILITY
ID&500&L^20020913112211-0500^500
PID^1^^1000170555V098765~~~USVHA&&0363~NI~VA FACILITY ID&200M&L^^MPIPATIENT~TEN~
FIRST~~~~L^MPIMAIDEN~~~~~~M^19450403^M^^^123 TEST~LINE2~PELHAM~AL~34124~~P~LINE3|
~~BIRMINGHAM~AL~~~N^117^""^""^^S^9^^^^^^^^^^^^""^^
PV1^N
ZPD^1^^^^^^^^^^^^^^^Y^^^^
```

Figure 2-100. QRY-A19—Patient Query msg: Query results received when patient is known at queried facility

Commit Level Acknowledgement Sent FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^500~DEVCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051104073723-0500^^ACK^200917444^P^2.4
MSA^CA^500167426
```

Figure 2-101. QRY-A19—Patient Query msg: Commit acknowledgement sent from MPI

Example 2: When the Patient is Not Known at the Facility by ICN Known at MPI

Query Message Sent FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^553~TSTCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051104073703-0500^^QRY~A19^200917406^P^2.4^^^AL^AL^US
QRD^20051104073703-
0500^R^I^1000170555V098765^^^1~RD^1000170555V098765~~~~~~~~USVHA&&0363
~NI~~~~~VA FACILITY ID&200M&L|7169826~~~~~~~~USVHA&&0363~PI~~~~~VA FACILITY
ID&553&L^DEM^^^
```

Figure 2-102. QRY-A19—Query Message sent from MPI

Commit Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^VAFC TRIGGER^553~TSTCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051104073709-0400^^ACK^55385379^P^2.4
MSA^CA^200917406
```

Figure 2-103. QRY-A19—Query Message sent from MPI: Commit acknowledgement sent to MPI

Query Results Received When Patient is NOT Known at Queried Facility

```
MSH^~|\&^VAFC TRIGGER^553~TSTCRN.FO-ALBANY.MED.VA.GOV~DNS^VAFC TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051104073710-0400^^ADR~A19^55385380^P^2.4^^^AL^NE^US
MSA^AA^200917406^Unknown ICN#1000170555V098765 and SSN#
QRD^20051104073703-
500^R^I^1008520116^^^1~RD^1000170555V098765~~~~~~~~USVHA&&0363~NI~~~~~VA FACILITY
ID&200M&L^DEM^^^
```

Figure 2-104. QRY-A19—Query results received when patient is NOT known at queried facility

Commit Level Acknowledgement Returned FROM the MPI

```
MSH^~|\&^VAFC TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^VAFC TRIGGER^553~TSTCRN.FO-
ALBANY.MED.VA.GOV~DNS^20051104073723-0500^^ACK^200917413^P^2.4
MSA^CA^55385380
```

Figure 2-105. QRY-A19—Query results received when patient is NOT known at queried facility: Commit acknowledgement returned from MPI

2.15 VQQ—Query for Patient Matches (Event Q02)

The purpose of this message is to query the Master Patient Index (MPI) to see if the patient in question exists or potentially exists. The query is utilized in three different ways:

1. Via the real-time connection with the MPI where the query is just seeing what the MPI has for display only purposes.
2. Via the real-time connection with the MPI where the query is being used to see if the patient in question is known.
3. Via the background process as part of a batch message to see if the patient is known on the MPI and if the patient is not known (no matches, not even potential matches), is added to the MPI.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

VQQ^Q02	Message	Chapter
MSH	Message Header	2
VTQ	Virtual Table Query	2
RDF	Table Row Definition	2

ACK^Q02	Message	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
QAK	Query Acknowledgement	2
RDF	Table Row Definition	2
{RDT}	Table Row Data	2

Example: Real-Time Connection Query Sent TO the MPI

```
MSH|^~\&|MPI_LOAD|500|MPI-ICN|||VQQ^Q02|100000082-1|
VTQ|100000082|T|VTQ_PID_ICN_NO_LOAD|ICN|@00108.1^EQ^MPIPATIENT^AND~@00122^EQ^0000645
67^AND~@00108.2^EQ^TEN^AND~@00110^EQ^19780303
RDF|24|@00108.1^ST^20~@00122^ST^9~@00110^ST^8~@00756^ST^3~@00105^ST^19~@00108.2^ST^2
0~@00169^ST^99~@00740^ST^8~@00108.3^ST^16~@00111^ST^1~@00126.1^ST^30~@00126.2^ST^3~@
00108.5^ST^15~@00108.4^ST^10~@00109.1^ST^20~@ZEL6^ST^9~@CASE#^ST^69~POW^ST^1~@00127^
ST^1~@00112.1^ST^30~@00112.2^ST^25~@00112.3^ST^25~@00112.5^ST^10~@00112.4^ST^10
```

Figure 2-106. VQQ-Q02—Real-Time Connection Query msg: Sent to MPI

Example: Real-Time Connection Query Returned FROM the MPI

```
MSH|^~\&|MPI|MPI|MPI_LOAD|500|||ACK^Q02|100000082-1|P|2.3
MSA|AA|100000082-1
QAK|100000082|OK
RDF|24|@00108.1^ST^20~@00122^ST^9~@00110^ST^8~@00756^ST^3~@00105^ST^19~@00108.2^ST^2
0~@00169^ST^99~@00740^ST^8~@00108.3^ST^16~@00111^ST^1~@00126.1^ST^30~@00126.2^ST^3~@
00108.5^ST^15~@00108.4^ST^10~@00109.1^ST^20~@ZEL6^ST^9~@CASE#^ST^69
RDT|MPIPATIENT|000064567|19780203|998|1001170560V235869|INDY|998~||E|M|JASPER|AL|||P
UPPY|
```

Figure 2-107. VQQ-Q02─Real-Time Connection Query msg: Returned from MPI

2.16 VQQ-Q02 in Batch Format (i.e., the Local/Missing ICN Resolution Job)

NOTE: There can be up-to 100 patients per batch message, when sent via the Local/Missing ICN Resolution Job.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

VQQ^Q02	Message	Chapter
BHS	Batch Message Header	2
{MSH	Message Header	2
VTQ	Virtual Table Query	2
RDF}	Table Row Definition	2
BTS	Batch Trailer Segment	2

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^Q02	Message	Chapter
BHS	Batch Message Header	2
{MSH	Message Header	2
MSA	Message Acknowledgement	2
QAK	Query Acknowledgement	2
RDF	Table Row Definition	2
{RDT}}	Table Row Data	2
BTS	Batch Trailer Segment	2

Example: VQQ-Q02 Used in a Batch Message (i.e., the Local/Missing ICN Resolution Job) Sent TO the MPI

```
BHS^~|\&^MPIF-STARTUP^500^MPIF MPI^^20020913111339-0500^^~P~VQQ|Q02~2.3~AL~NE^
^500149126^
MSH^~|\&^MPIF-STARTUP^500^^^^^VQQ~Q02^500152422-1^^2.3^^^AL^NE
VTQ^100000042^T^VTQ_PID_ICN_NO_LOAD^ICN^@00108.1~EQ~NEW~AND|@00108.2~EQ~PATIENT~AND
|@00110~EQ~19400203~AND|@00111~EQ~M~AND|@00108.4~EQ~ATWE~AND|@00108.3~EQ~FOR
RDF^17^@00108.1~ST~20|@00122~ST~9|@00110~ST~8|@00756~ST~3|@00105~ST~19|@00108.2~ST~2
0|@00169~ST~99|@00740~ST~8|@00108.3~ST~16|@00111~ST~1|@00126.1~ST~30|@00126.2~ST~3|@
00108.5~ST~15|@00108.4~ST~10|@00109.1~ST~20|@ZEL6~ST~9|@CASE#~ST~69
BTS^1
```

Figure 2-108. VQQ-Q02—Real-Time Connection Query batch msg: Sent to MPI

Commit Level Acknowledgement sent FROM the MPI

```
BHS^~|\&^MPIF MPI^500^MPIF-STARTUP^500^20051114120003-0500^^~P~ACK^CA^
2001708000178^51129
MSA^CA^500149126
```

Figure 2-109. VQQ-Q02─Real-Time Connection Query batch msg: Commit acknowledgement sent from MPI

Example: VQQ-Q02 Used in a Batch Message Returned FROM the MPI

```
BHS^~|\&^MPIF MPI^MPI^MPIF-STARTUP^500^20020913111358-500^^~P~ACK|Q02~2.3~NE~NE^AA~
^20049759^500149126
MSH^~|\&^MPI^MPI^MPIF-STARTUP^500^^^ACK^500152422-1^P^2.3
MSA^AA^500152422-1
QAK^100000042^OK
RDF^17^@00108.1~ST~20|@00122~ST~9|@00110~ST~8|@00756~ST~3|@00105~ST~19|@00108.2~ST~2
0|@00169~ST~99|@00740~ST~8|@00108.3~ST~16|@00111~ST~1|@00126.1~ST~30|@00126.2~ST~3|@
00108.5~ST~15|@00108.4~ST~10|@00109.1~ST~20|@ZEL6~ST~9|@CASE#~ST~69
RDT^NEW^^^500^1001170233V211078^PATIENT^500|^^FOR^^^^^^^
BTS^1
```

Figure 2-110. VQQ-Q02─Real-Time Connection Query batch msg: Returned from MPI

2.17 ADT/ACK—Unlink Patient Information (Event A37)

The A37 event unlinks a patient from an identifier. An A37 event can be used to unlink a systems patient from an existing entry on the MPI.

REF: The "Chapter" reference below refers to the HL7 Standard Version 2.4 documentation.

ADT^A37^ADT_A37	ADT Message	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient (1) Identification	3
[PD1]	Patient (1) Additional Demographics	3
[PV1]	Patient (1) Visit	3
PID	Patient (2) Identification	3
[PD1]	Patient (2) Additional Demographics	3
[PV1]	Patient (2) Visit	3

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

ACK^A37^ACK	Application Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2

ACK^COMMIT	Commit Level Acknowledgement	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2

Example: Message Sent TO the MPI

This message indicates that the MHV application is requesting that the MHV ID 123 be unlinked from the 1001170560V235869 ICN (sequence 3 in PID2) and not be linked with another ICN (null in sequence 3 of PID1).

```
MSH^~|\&^MPIF TRIGGER^200MHV~MYHEAL.MED.VA.GOV^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20020921202421-0500^^ADT~A37^200100057^P^2.4^^^AL^AL^
EVN^A37^20020921202421-0500^20020921202421-0500^^USER NAME
PID^1^^""~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|123~~~USVHA&&0363~PI~VA FACILITY
ID&200MHV&L^^MHVPATIENT~ONE~~~~~L^PUPPY~~~~~~M^2780203^M^^^^^^^^^^111111111^^^^^^^^
PID^2^^1001170560V235869~~~USVHA&&0363~NI~VA FACILITY ID&200M&L|123~~~USVHA&&0363
~PI~VA FACILITY ID&200MHV&L^^MHVPATIENT~ONE~E~~~~L^PUPPY~~~~~~M^2780203^M^^
^^^^^^^^^111111111^^^^^^^^^^^
```

Figure 2-111. ADT-A37—Unlink Patient Information msg: Sent to MPI

Commit Level Acknowledgement Sent FROM the MPI

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF
TRIGGER^200MHV~MYHEAL.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001672355997^P^2.4
MSA^CA^200100057
```

Figure 2-112. ADT-A37—Unlink Patient Information msg: Commit acknowledgement sent from MPI

Application Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^MPIF TRIGGER^200M~MPI-AUSTIN.MED.VA.GOV~DNS^MPIF TRIGGER^200MHV~
MYHEAL.MED.VA.GOV~DNS^20020921202425-0500^^ACK~A37^200167161^P^2.4^^^AL^NE^
MSA^AA^200100057^
```

Figure 2-113. ADT-A37—Unlink Patient Information msg: Application acknowledgement sent to MPI

Commit Level Acknowledgement Sent TO the MPI

```
MSH^~|\&^MPIF TRIGGER^200MVH~MYHEAL.MED.VA.GOV~DNS^MPIF TRIGGER^200M~MPI-
AUSTIN.MED.VA.GOV~DNS^20051028060001-0500^^ACK^2001672355997^P^2.4
MSA^CA^200167161
```

Figure 2-114. ADT-A37—Unlink Patient Information msg: Commit acknowledgement sent to MPI

3 Message Segments

This section describes the HL7 message segments supported by VistA and used specifically by the MPI/PD software. All standard HL7 segments and sequence/field definitions involved with MPI processes are listed in tables in this section. However, only the VistA data passed by the MPI is mapped to the standard HL7 sequences/fields within these segment tables and subsequently translated.

The HL7 message segments documented in this chapter are listed as follows:

- BHS—Batch Header Segment
- BTS—Batch Trailer Segment
- DSC—Continuation Pointer Segment
- ERR—Error Segment
- EVN—Event Type Segment
- MFA—Master File Acknowledgement Segment
- MFE—Master File Entry Segment
- MFI—Master File Identification Segment
- MRG—Merge Patient Information Segment
- MSA—Message Acknowledgement Segment
- MSH—Message Header Segment
- NTE—Notes and Comments Segment
- OBX—Observation/Result, HL7 Segment
- PD1—Patient Additional Demographic Segment
- PID—Patient Identification Segment
- PV1—Patient Visit Segment
- PV2—Patient Visit Segment – Additional Information
- QAK—Query Acknowledgement Segment
- QPD—Query Parameter Definition
- QRD—Original-Style Query Definition Segment
- QRI—Query Response Instance Segment
- RCP—Response Control Parameter Segment
- RDF—Table Row Definition Segment
- RDT—Table Row Data Segment
- VTQ—Virtual Table Query Request Segment
- ZCT—VA Specific Emergency Contact Segment
- ZEL—VA Specific Patient Eligibility Segment
- ZEM—VA Specific Employment Information Segment
- ZET—VA Specific Event Reason for Date of Last Treatment Segment
- ZFF—VA Specific File/Field Segment
- ZPD—VA Specific Patient Information Segment
- ZSP—VA Specific Service Period Segment

3.1 BHS—Batch Header Segment

The BHS segment defines the start of a batch.

SEQ	LEN	DT	R/O	RP/#	TBL#	Element Name	VistA Element Name
1	1	ST	R			Batch Field Separator	Recommended value is ^
2	4	ST	R			Batch Encoding Characters	Recommended delimiter values: Component = ~ (tilde) Repeat = | (bar) Escape = \ (back slash) Subcomponent = & (ampersand)
3	15	ST				Batch Sending Application	When originating from facility and is MPI Initialization: MPI-STARTUP When originating from MPI in response to Initialization: MPIF MPI
4	20	ST				Batch Sending Facility	Station's facility number where Initial Batch request came from
5	15	ST				Batch Receiving Application	When originating from facility for Initialization: MPIF MPI When originating from MPI: MPI-STARTUP
6	20	ST				Batch Receiving Facility	Station's facility number where Initial Batch request came from
7	26	TS				Batch Creation Date/Time	Date and time batch message was created
8	40	ST				Batch Security	Not used

SEQ	LEN	DT	R/O	RP/#	TBL#	Element Name	VistA Element Name
9	20	ST				Batch Name/ID/Type	When originating from facility: Component 1: Not used Component 2: P Component 3: Sub Component 1: message type: VQQ Sub Component 2: event type code:Q02 Component 4: 2.3 Component 5: AL Component 6: NE When originating from MPI: Component 1: Not used Component 2: P Component 3: Sub Component 1: message type: ACK
10	80	ST				Batch Comment	When originating from facility: (not used) When originating from MPI: Component 1: CA (*Refer to table 0008*) Component 2: Text Message, (not used)
11	20	ST				Batch Control ID	Automatically generated by VistA HL7 Package
12	20	ST				Reference Batch Control ID	When from MPI: Batch Control ID of batch message being acknowledged When from facility: (not used)

Table 3-1. BHS—Batch Header, HL7 attributes

BHS Field Definitions

3.1.1 BHS-1 Batch Field Separator (ST) 00081

Definition: This field contains the separator between the segment ID and the first real field, BHS-2 Batch Encoding Characters (ST) 00082. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is |, (ASCII 124).

3.1.2 BHS-2 Batch Encoding Characters (ST) 00082

Definition: This field contains the four characters in the following order:

- Component separator—Recommended values are ^ (ASCII 94).
- Repetition Separator—Recommended values are ~(ASCII 126).
- Escape Characters—Recommended values are \ (ASCII 92).
- Subcomponent Separator—Recommended values are **&** (ASCII 38).

3.1.3 BHS-3 Batch Sending Application (ST) 00083

Definition: This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined.

When the sites initiate the message, MPIF-STARTUP is used. When the message is initiated by the MPI, MPI is used.

3.1.4 BHS-4 Batch Sending Facility (ST) 00084

Definition: This field contains the address of one of several occurrences of the same application within the sending system. Absent other considerations, the Medicare Provider ID might be used with an appropriate sub-identifier in the second component. Entirely user-defined.

Station Number of site making initial query request.

3.1.5 BHS-5 Batch Receiving Application (ST) 00085

Definition: This field uniquely identifies the receiving applications among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined.

When the sites initiate the message, MPIF MPI is used. When the message is initiated by the MPI, MPIF-STARTUP is used.

3.1.6 BHS-6 Batch Receiving Facility (ST) 00086

Definition: This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations.

REF: For more information, please refer to the comments in the "BHS-4 Batch Sending Facility (ST) 00084" topic in this manual. Entirely site-defined.

Station Number of site making initial query request.

3.1.7 BHS-7 Batch Creation Date/Time (TS) 00087

Definition: This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.

3.1.8 BHS-8 Batch Security (ST) 00088

This field is passed but not used by the MPI software.

3.1.9 BHS-9 Batch Name/ID/Type (ST) 00089

Definition: This field can be used by the application processing the batch. It can have extra components if needed.

Component 1:

Component 2: P

Component 3:

Subcomponent 1: Message type

Subcomponent 2: Event type

Component 4: 2.3

3.1.10 BHS-10 Batch Comment (ST) 00090

Definition: This field is a comment field that is not further defined in the HL7 protocol.

When originating from facility: this field is not used.

When originating from MPI:

Component 1: CA, (*Refer to table 0008*)

Component 2: Text Message, this field is not used.

3.1.11 BHS-11 Batch Control ID (ST) 00091

Definition: This field is used to uniquely identify a particular batch. It can be echoed back in BHS-12 Reference Batch Control ID (ST) 00092, if an answering batch is needed.

Automatically generated by the VistA Health Level 7 (HL7) application.

3.1.12 BHS-12 Reference Batch Control ID (ST) 00092

Definition: This field contains the value of BHS-11 Batch Control ID (ST) 00091 when this batch was originally transmitted. **Not present on the initial batch query message from the VistA site.**

REF: For more information, please refer to the definition in the "BHS-11 Batch Control ID (ST) 00091" topic in this manual.

3.2 BTS—Batch Trailer Segment

The BTS segment defines the end of a batch.

SEQ	LEN	DT	R/O	RP/#	Item#	Element Name	VISTA Description
1	10	ST			00093	Batch Message Count	Number of messages within batch
2	80	ST			00090	Batch Comment	Passed but not used by MPI.
3	100	CM		Y	00095	Batch Totals	Passed but not used by MPI.

Table 3-2. BTS—Batch Trailer, HL7 attributes

BTS Field Definitions

3.2.1 BTS-1 Batch Message Count (ST) 00093

Definition: This field contains the count of the individual messages contained within the batch.

3.2.2 BTS-2 Batch Comment (ST) 00090

This field is not used by the MPI software.

3.2.3 BTS-3 Batch Totals (NM) 00095

This field is not used by the MPI software.

3.3 DSC—Continuation Pointer Segment

The DSC segment is used in the continuation protocol.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name
1	180	ST	O			00014	Continuation Pointer
2	1	ID	O		0398	01354	Continuation Style

Table 3-3. DSC—Continuation Pointer, HL7 Attributes

DSC Field Definitions

3.3.1 DSC-1 Continuation pointer (ST) 00014

Definition: This field contains the continuation pointer. In an initial query, this field is not present. If the responder returns a value of null or not present, then there is no more data to fulfill any future continuation requests.

3.3.2 DSC-2 Continuation style (ID) 01354

Definition: Indicates whether this is a fragmented message, or if it is part of an interactive continuation message (see Section 5.6.3, "Interactive continuation of response messages").

REF: Refer to HL7 Table 0398 – Continuation style code for valid values.

Value	Description
F	Fragmentation
I	Interactive Continuation

Table 3-4. HL7 Table 0398—Continuation style code

3.4 ERR—Error Segment

The ERR segment is used to add error comments to Acknowledgement messages.

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name
1	80	CM	R	Y		00024	Error Code and Location

Table 3-5. ERR—Error, HL7 attributes

ERR Field Definitions

3.4.1 ERR-1 Error Code and Location (CM) 00024

Components: <segment ID (ST)> ^ <sequence (NM)> ^ <field position (NM)> ^ <code identifying error (CE)>

Definition: This field identifies an erroneous segment in another message. The second component is an index if there is more than one segment of type <segment ID>. For systems that do not use the HL7 Encoding Rules, the data item number may be used for the third component. The fourth component (which references HL7 Table 0357—Message Error Condition Codes, (as a CE data type) is restricted from having any subcomponents as the subcomponent separator is now the CE's component separator.

REF: For a listing of HL7 Table 0357—Message Error Condition Codes, please refer to section 3.10.5, "MSA-6 Error Condition (CE) 00023."

NOTE: This will only be used when communicating between PSIM and the MPI when the application level acknowledgement needs to record an error condition has happened on the PSIM side.

3.5 EVN—Event Type Segment

The EVN segment is used to communicate necessary trigger event information to receiving applications.

REF: The valid event types for all chapters are contained in Table 3-6 in this manual, "EVN—Event Type."

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
1	3	ID	B		0003	00099	Event Type Code	Refer to table 0003
2	26	TS	R			00100	Recorded Date/Time	Date/Time Event Occurred
3	26	TS	O			00101	Date/Time Planned Event	Not populated or used by the MPI
4	3	IS	O		0062	00102	Event Reason Code	Refer to table 0062
5	250	XCN	O	Y	0188	00103	Operator ID	User causing event
6	26	TS	O			01278	Event Occurred	Date/Time of Event
7	180	HD	O			01534	Event Facility	Station Number of facility sending message

Table 3-6. EVN—Event Type, HL7 attributes

EVN Field Definitions

3.5.1 EVN-1 Event Type Code (ID) 00099

Definition: *This field has been retained for backward compatibility only.* We recommend using the second component (trigger event) of MSH-9 - Message Type to transmit event type code information. This field contains the events corresponding to the trigger events described in this section (e.g., admission, transfer, or registration).

Value	Description
A1	Patient Admission
A2	Patient Discharge
A3	Patient Clinic Checkout
A24	Link Patient
A31	CMOR Change Request
A37	Unlink Patient
A43	Mismatched Patient

Table 3-7:HL7 Table 0003 EVN—ADT/R Event Type Codes

3.5.2 EVN-2 Recorded Date/Time (TS) 00100

When sent from site:

Definition: This field contains the patient date/time of last treatment. This value is also stored on the local VistA system in the TREATING FACILITY file (#391.91) and can be obtained via the VistA supported API TFL^VAFCTFU1 (IA #2990).

When sent from the MPI:

Definition: This field contains the corresponding date last updated field for the Primary View, contained in MPI VETERAN/CLIENT file #985, or the corresponding date last updated field for the Correlation's View, contained in MPI FACILITY ASSOCIATION file #985.5.

3.5.3 EVN-3 Date/Time Planned Event (TS) 00101

Passed but not used by MPI.

3.5.4 EVN-4 Event Reason Code (IS) 00102

Definition: This field contains the date last treated event reason. Below is a list of the currently supported values.

Value	Description
A1	Patient Admission
A2	Patient Discharge
A3	Patient Clinic Checkout
A24	Link Patient
A31	CMOR Change Request
A37	Unlink Patient

Table 3-8. User-defined Table 0062—Event Reason

3.5.5 EVN-5 Operator ID (XCN) 00103

Components: <ID number (ST)> ^ <family name (ST)> <given name (ST)> ^ <second and further given names or initials thereof (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code (ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)> ^ <name representation code (ID)> ^ <name context (CE)> ^ <name validity range (DR)>

Subcomponents of family name: <family name (ST)> & <own family name prefix (ST)> & <own family name (ST)> & <family name prefix from partner/spouse (ST)> & <family name from partner/spouse (ST)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: This field identifies the individual responsible for triggering the event. Refer to User-defined Table 0188 - Operator ID for suggested values.

Value	Description
	No suggested values defined

Table 3-9. User-defined Table 0188—Operator ID

Example value:

```
Internal VistA ien from File
#200~lastname~firstname~middlename~~~~~"USVHA"&&"0363"~"L"~~~"NI"~"VA FACILITY
ID"&station#&"L"
12584~LASTNAME~FIRSTNAME~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&500&L
```

Figure 3-1. EVN—Event Type Segment example

3.5.6 EVN-6 Event Occurred (TS) 01278

Definition: This field contains the date/time that the event actually occurred. For example, on a transfer (A02 transfer a patient), this field would contain the date/time the patient was actually transferred. This value is also stored on the local VistA system in the TREATING FACILITY file (#391.91) and can be obtained via the VistA supported API TFL^VAFCTFU1 (IA #2990).

3.5.7 EVN-7 Event Facility (HD) 01534

Components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Definition: This field identifies the actual facility where the event occurred as differentiated from the sending facility (MSH-4). It would be the facility at which the Operator (EVN-5) has entered the event.

Use Case: System A is where the patient is originally registered. This registration message is sent to an MPI, System B. The MPI needs to broadcast the event of this update and would become the sending facility. This new field would allow for retention of knowledge of the originating facility where the event occurred.

3.6 MFA—Master File Acknowledgement Segment

The Technical Steward for the MFA segment is CQ.

The MFA segment contains the following fields:

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name	VistA Description
1	3	ID	R		0180	00664	Record-Level Event Code	Type of Update: MUP – update TF MAD – Add TF MDL – delete TF
2	20	ST	C			00665	MFN Control ID	Station number data from MPI's gold copy of the correlated/linked system id's
3	26	TS	O			00668	Event Completion Date/Time	Last Treatment Date/Time
4	250	CE	R		0181	00669	MFN Record Level Error Return	Status
5	250	CE	N	Y	9999	01308	Primary Key Value - MFA	Passed but not used by MPI.
6	3	ID	N	Y	0355	01320	Primary Key Value Type - MFA	Passed but not used by MPI.

Table 3-10. MFA—Master File Acknowledgement, HL7 attributes

MFA Field Definitions

3.6.1 MFA-1 Record-Level Event Code (ID) 00664

Definition: This field defines record-level event for the master file record identified by the MFI segment and the primary key in this segment.

REF: For a list of valid values, please refer to Table 3-14 in this manual, "HL7 Table 0180—Record-level Event Code."

3.6.2 MFA-2 MFN Control ID (ST) 00665

Definition: This field uniquely identifies the particular record (identified by the MFE segment) being acknowledged by this MFA segment. When returned to the originating system via the MFA segment, this field allows the target system to precisely identify which change to this record is being acknowledged.

3.6.3 MFA-3 Event Completion Date/Time (TS) 00668

This field contains the field contains the last treatment date at that facility. This information is currently being used to update the local VistA Treating Facility (#391.71). The Treating Facility file information is used by VistA CPRS-RDV to allow the user to identify whether they want to pull remote data or not.

3.6.4 MFA-4 MFN Record Level Error Return (CE) 00669

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains the status of the requested update. Site-defined table, specific to each master file being updated via this transaction.

REF: For a list of suggested values, please refer to Table 3-11 in this manual, "User-defined Table 0181—MFN Record-level Error Return."

All such tables will have at least the following two return code values:

Value	Description
S	Successful posting of the record defined by the MFE segment
U	Unsuccessful posting of the record defined by the MFE segment

Table 3-11. User-defined Table 0181—MFN Record-level Error Return

3.6.5 MFA-5 Primary Key Value - MFA (CE) 01308

This field is passed but not used by the MPI software.

Definition: This field contains the HL7 data type of *MFE-4 - Primary key value*. The valid values for the data type of a primary key are listed in HL7 table 0355 - Primary key value type.

Value	Description
PL	Person location
CE	Coded element

Table 3-12. HL7 Table 0355—Primary key value type

NOTE: This table contains data types for MFE-4 values present in HL7 defined master files. As HL7 adopts a new master file that contains a data type for MFE-4 not defined in Table 0355, the data type will be added to Table 0355. For locally defined master files, this table can be locally extended with other HL7 data types as defined in section 2.6.6.

3.6.6 MFA-6 Primary Key Value Type - MFA (ID) 01320

This field is passed but not used by the MPI software.

3.7 MFE—Master File Entry Segment

The Technical Steward for the MFE segment is CQ.

SEQ	LEN	DT	OPT	RP#	TBL#	Item	Element Name	VistA Description
1	3	ID	R		0180	00664	Record-Level Event Code	Type of Update
2	20	ST	C			00665	MFN Control ID	Station Number
3	26	TS	O			00662	Effective Date/Time	Date Last Treated for non-VAMC systems this would be null
4	200	Varies	R	Y		00667	Primary Key Value - MFE	Site and ICN involved
5	3	ID	N	Y	0355	01319	Primary Key Value Type	

Table 3-13. MFE—Master File Entry, HL7 attributes

MFE Field Definitions

3.7.1 MFE-1 Record-Level Event Code (ID) 00664

Definition: This field defines the record-level event for the master file record identified by the MFI segment and the primary key field in this segment.

REF: For a list of valid values, please refer to Table 3-14 in this manual, "HL7 Table 0180—Record-level Event Code."

Value	Description
MAD	Add record to master file
MDL	Delete record from master file
MUP	Update record for master file
MDC	Deactivate/Merged record for master file

Table 3-14. HL7 Table 0180—Record-level Event Code

NOTE: If the file-level event code is "REP" (replace file), then each MFE segment must have a record-level event code of "MAD" (add record to master file).

3.7.2 MFE-2 MFN Control ID (ST) 00665

Definition: A number or other identifier that uniquely identifies this change to this record from the point of view of the originating system. When returned to the originating system via the MFA segment, this field allows the target system to precisely identify which change to this record is being acknowledged. This field will contain a unique identifier, which will be VHA's STATION NUMBER (#99) of the INSTITUTION file (#4). The assumption is that prior to subscribing to the MPI for patient identification management that there will be a formal process of setting up the necessary communication and uniquely identification of the new system.

NOTE: This segment does not contain a Set ID field. The MFE-2 - MFN control ID implements a more general concept than the Set ID. It takes the place of the SET ID in the MFE segment.

NOTE: In situations where the same Station Number is sent multiple times in the same HL7 message to define unique segments, an incremented number is concatenated with a hyphen at the end of each Station Number. See example as follows with Station Numbers underlined:

```
MFE^MAD^500-1^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA
FACILITY ID&200M&L|123~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
ZET^A1
MFE^MDC^500-2^20020913112211-0500^1001170419V238836~~~USVHA&&0363~NI~VA
FACILITY ID&200M&L|234~~~USVHA&&0363~PI~VA FACILITY ID&500&L^CX
```

3.7.3 MFE-3 Effective Date/Time (TS) 00662

Definition: This field contains the date of last treatment if the system is a system that would contain that type of data.

3.7.4 MFE-4 Primary Key Value - MFE (Varies) 00667

Components: <STATION#> ^ <INSTITUTION NAME> ^ <"VA"> ^ <ICN> ^ <"ICN"> ^ <"VA"> ^

Definition: This field will contain the unique identifier from MFE-2, the name of the unique system, the system (VA), the VHA unique identifier or ICN, and the system again.

Assigning authority (HD): The assigning authority is a unique identifier of the system (or organization or agency or department) that creates the data. It is a HD data type. Assigning authorities are unique across a given HL7 implementation. *User-defined Table 0363 – Assigning authority* is used as the HL7 identifier for the user-defined table of values for the first sub-component, namespace ID.

Value	Description
AUSDVA	Australia - Dept. of Veterans Affairs
AUSHIC	Australia - Health Insurance Commission
CANAB	Canada - Alberta
CANBC	Canada - British Columbia

Value	Description
CANMB	Canada - Manitoba
CANNB	Canada - New Brunswick
CANNF	Canada - Newfoundland
CANNS	Canada - Nova Scotia
CANNT	Canada - Northwest Territories
CANNU	Canada - Nanavut
CANON	Canada - Ontario
CANPE	Canada - Prince Edward Island
CANQC	Canada - Quebec
CANSK	Canada - Saskatchewan
CANYT	Canada - Yukon Territories
NLVWS	NL - Ministerie van Volksgezondheid, Welzijn en Sport
USCDC	US Center for Disease Control
USHCFA	US Healthcare Finance Authority
USSSA	US Social Security Administration
USDOD	US Department of Defense
USVBA	US Veterans Benefits Administration

Table 3-15. User-defined HL7 Table 0363 – Assigning authority

3.7.5 MFE-5 Primary Key Value Type (ID) 01319

This field is passed but not used by the MPI software.

3.8 MFI—Master File Identification Segment

A treating facility list identifies the systems that know a particular Integration Control Number (ICN). This list is maintained on the MPI and synchronized as systems are added, updated, or deleted from the list. The MFI segment is used to identify the type master file, in this case Treating Facility (TFL).

SEQ	LEN	DT	OPT	RP#	TBL#	Item	Element Name	VistA Description
1	250	CE	R		0175	00658	Master File Identifier	TFL
2	180	HD	O			00659	Master File Application Identifier	Passed but not used by MPI.
3	3	ID	R		0178	00660	File-Level Event Code	Type of update UPD or REP
4	26	TS	O			00661	Entered Date/Time	Passed but not used by MPI.
5	26	TS	O			00662	Effective Date/Time	Passed but not used by MPI.
6	2	ID	R		0179	00663	Response Level Code	Site Station Number~Name?

Table 3-16. MFI—Master File Identification, HL7 attributes

MFI Field Definitions

3.8.1 MFI-1 Master File Identifier (CE) 00658

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field is a CE data type that identifies a standard HL7 master file. The table below (Table 3-17) was extended by local agreement to include "TFL."

REF: For a list of valid values, please refer to Table 3-17 in this manual, "HL7 Table 0175—Master File Identifier Code."

Value	Description
TFL	Treating Facility list master file

Table 3-17. HL7 Table 0175—Master File Identifier Code

3.8.2 MFI-3 File-Level Event Code (ID) 00660

REF: For a list of valid values, please refer to Table 3-18 in this manual, "HL7 Table 0178—File Level Event Code."

Value	Description
REP	Replace current version of this master file with the version contained in this message
UPD	Change file records as defined in the record-level event codes for each record that follows

Table 3-18. HL7 Table 0178—File Level Event Code

3.8.3 MFI-6 Response Level Code (ID) 00663

Definition: These codes specify the application response level defined for a given Master File Message at the MFE segment level as defined in HL7 Table 0179—Response Level (Table 3-19 in this manual). Required for MFN-Master File Notification message. Specifies additional detail (beyond MSH-15 - Accept Acknowledgement type and MSH-16 - Application Acknowledgement type) for application-level Acknowledgement paradigms for Master Files transactions. MSH-15 - Accept Acknowledgement type and MSH-16 - Application Acknowledgement type operate as defined in Chapter 2 in the HL7 Standard Version 2.4 documentation.

Value	Description
AL	Always. All MFA segments (whether denoting errors or not) must be returned via the application-level Acknowledgement message

Table 3-19. HL7 Table 0179—Response Level

3.9 MRG—Merge Patient Information Segment

The MRG segment provides receiving applications with information necessary to initiate the merging of patient data as well as groups of records. It is intended that this segment be used throughout the standard to allow the merging of registration, accounting, and clinical records within specific applications.

The assigning authority, the fourth component of the patient identifiers, is a HD data type that is uniquely associated with the assigning authority that originally assigned the number. A given institution, or group of intercommunicating institutions, should establish a list of assigning authorities that may be potential assignors of patient identification (and other important identification) numbers. The assigning authority must be unique across applications at a given site. This field is required in HL7 implementations that have more than a single Patient Administration application assigning such numbers.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
1	250	CX	R	Y		00211	Prior Patient Identifier List	Integration Control Number of "FROM" record
2	250	CX	B	Y		00212	Prior Alternate Patient ID	Not populated or used by the MPI.
3	250	CX	O			00213	Prior Patient Account Number	Not populated or used by the MPI.
4	250	CX	B			00214	Prior Patient ID	Not populated or used by the MPI.
5	250	CX	O			01279	Prior Visit Number	Not populated or used by the MPI.
6	250	CX	O			01280	Prior Alternate Visit ID	Not populated or used by the MPI.
7	250	XPN	O	Y		01281	Prior Patient Name	Patient's Name

Table 3-20. MRG—Merge Patient Information, HL7 attributes

MRG Field Definitions

3.9.1 MRG-1 Prior Patient Identifier List (CX) 00211

Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (ID)> ^ < assigning facility (HD) ^ <effective date (DT)> ^ <expiration date (DT)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: This field contains the prior patient identifier list. This field contains a list of potential "old" numbers to match. Only one old number can be merged with one new number in a transaction.

REF: For a list of valid values, please refer to "HL7 Table 0061—Check Digit Scheme" in the HL7 Standard Version 2.4 documentation.

The assigning authority and identifier type code are strongly recommended for all CX data types.

3.9.2 MRG-2 Prior Alternate Patient ID (CX) 00212

Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (ID)> ^ < assigning facility (HD) ^ <effective date (DT)> ^ <expiration date (DT)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: *This field has been retained for backward compatibility only.* Use MRG-1 - Prior patient identifier list for all patient identifiers. This field contains the prior alternate patient identifier.

REF: For a list of valid values, please refer to "HL7 Table 0061—Check Digit Scheme" in the HL7 Standard Version 2.4 documentation.

This field is passed but not used by the MPI software.

The assigning authority and identifier type code are strongly recommended for all CX data types.

3.9.3 MRG-3 Prior Patient Account Number (CX) 00213

This field is passed but not used by the MPI software.

3.9.4 MRG-4 Prior Patient ID (CX) 00214

This field is passed but not used by the MPI software.

3.9.5 MRG-5 Prior Visit Number (CX) 01279

This field is passed but not used by the MPI software.

3.9.6 MRG-6 Prior Alternate Visit ID (CX) 01280

This field is passed but not used by the MPI software.

3.9.7 MRG-7 Prior Patient Name (XPN) 01281

Patient name is passed for this value.

Components: In Version 2.3, replaces the PN data type. <family name (FN)> ^ <given name (ST)> ^ <second and further given names or initials thereof (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <name type code (ID) > ^ <name representation code (ID)> ^ <name context (CE)> ^ <name validity range (DR)> ^ <name assembly order (ID)>

> **Subcomponents of family name:** <family name (ST)> & <own family name prefix (ST)> & <own family name (ST)> & <family name prefix from partner/spouse (ST)> & <family name from partner/spouse (ST)>

Definition: This field contains the prior name of the patient. This field is passed but not used by MPI to change a patient name.

3.10 MSA—Message Acknowledgement Segment

The MSA segment contains information sent while acknowledging another message.

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Desc
1	2	ID	R		0008	00018	Acknowledgement Code	Refer to Table 0008
2	20	ST	R			00010	Message Control ID	Message Control ID of message being acknowledged
3	80	ST	O			00020	Text Message	Error condition returned from processing original message. **NOTE:** The error text is returned in the ERR segment ONLY with PSIM messaging. See ERR segment for more information.
4	15	NM	O			00021	Expected Sequence Number	Not used.
5	1	ID	B		0102	00022	Delayed Acknowledgement Type	Not used.
6	250	CE	O		0357	00023	Error Condition	ICN or DFN associated with original message processed.

Table 3-21. MSA—Message Acknowledgement, HL7 attributes

MSA Field Definitions

3.10.1 MSA-1 Acknowledgement Code (ID) 00018

Definition: This field contains an Acknowledgement code.

AA is sent when the application successfully processed and executed the requested function.

AE is sent when the application was unsuccessful in executing the requested IdM function due to an internal application error.

AR is sent when the application if the application is unable to locate the patient within its database. This would be the case if MPI erroneously sent a system a message for a patient that is not known to that system.

REF: For more information, please refer to the message processing rules in the HL7 Version 2.4 documentation.

REF: For a list of valid values, please refer to Table 3-22 in this manual, *HL7 Table 0008—Acknowledgement Code*.

Value	Description
AA	Original mode: Application Accept - Enhanced mode: Application Acknowledgement: Accept
AE	Original mode: Application Error - Enhanced mode: Application Acknowledgement: Error
AR	Original mode: Application Reject - Enhanced mode: Application Acknowledgement: Reject
CA	Enhanced mode: Accept Acknowledgement: Commit Accept
CE	Enhanced mode: Accept Acknowledgement: Commit Error
CR	Enhanced mode: Accept Acknowledgement: Commit Reject

Table 3-22. HL7 Table 0008—Acknowledgement Code

3.10.2 MSA-2 Message Control ID (ST) 00010

Definition: This field contains the message control ID of the message sent by the sending system. It allows the sending system to associate this response with the message for which it is intended.

3.10.3 MSA-3 Text message (ST) 00020

Definition: This optional field further describes an error condition. This text may be printed in error logs or presented to an end user.

Use of *MSA-3-text message* and *MSA-6-error condition* are deprecated in favor of *ERR-1-Error code and location*. The ERR segment allows for richer descriptions of the erroneous conditions.

NOTE: The error text is returned in the ERR segment ONLY with PSIM messaging. See ERR segment definition for more information.

3.10.4 MSA-5 Delayed Acknowledgement Type (ID) 00022

This field is passed but not used by the MPI software.

Definition: *This field has been retained for backward compatibility.*

Value	Description
D	Message received, stored for later processing
F	Acknowledgement after processing

Table 3-23. HL7 Table 0102—Delayed Acknowledgement type

3.10.5 MSA-6 Error Condition (CE) 00023

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field allows the acknowledging system to use a user-defined error code to further specify the error text sent in MSA-3. The error codes listed below are pulled from the HL7 v2.4 standard table 0357, however locally identified text can be passed as well by leaving the identifier blank and coding scheme as "L". This will be used to raise an exception on the central MPI system.

Error Condition Code	Error Condition Text	Description/Comment
Success		
0	Message accepted	Success. Optional, as the AA conveys success. Used for systems that must always return a status code.
200	Unsupported message type	The Message Type is not supported.
201	Unsupported event code	The Event Code is not supported.
202	Unsupported processing ID	The Processing ID is not supported.
203	Unsupported version id	The Version ID is not supported.
204	Unknown key identifier	The ID of the patient, order, etc., was not found. Used for transactions other than additions (e.g., transfer of a non-existent patient).
205	Duplicate key identifier	The ID of the patient, order, etc., already exists. Used in response to addition transactions (Admit, New Order, etc.).
206	Application record locked	The transaction could not be performed at the application storage level (e.g., database locked).
207	Application internal error	A catchall for internal errors not explicitly covered by other codes.

Table 3-24. HL7 Table 0357—Message Error Condition Codes

3.11 MSH—Message Header Segment

The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
1	1	ST	R			00001	Field Separator	Recommended value is ^ (caret)
2	4	ST	R			00002	Encoding Characters	Recommended delimiter values: Component = ~ (tilde) Repeat = | (bar) Escape = \ (back slash) Subcomponent = & (ampersand)
3	180	HD	O		0361	00003	Sending Application	When originating from facility and the message type is A01, A03, A04 or A08: RG ADT When originating from facility and the message type is A28 or A24: MPIF TRIGGER When originating from facility OR MPI and the message type is A31, A37, A43 or A24: MPIF TRIGGER When originating from facility or MPI and the message type is MFN or MFK or A19: VAFC TRIGGER When originating from facility and the message type is a query via the Direct Connect: MPI_LOAD When originating from MPI and the message type is the response to the query via the Direct Connect or via the Q22/K22 query/response: MPI For batch queries:

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
								MPI-STARTUP Change CMOR messages: RG CIRN MPIF CMOR CHNG MPIF CMOR RSLT When the message type is A24, A31 or A43 and is sent via HLO from the MPI: MPI
4	180	HD	O		0362	00004	Sending Facility	When originating from facility: Station's facility number When originating from MPI and message is the batch query: MPI When originating from the MPI and not the batch query: 200M When originating from the MPI and the message type is A24, A31 or A43 and is being sent via HLO the port number of HLO listener for the sending site will be included at the end of the domain name preceded by a colon.
5	180	HD	O		0361	00005	Receiving Application	When originating from facility and the message type is A01, A03, A04 or A08: RG ADT When originating from facility and the message type is A28 or A24: MPIF TRIGGER When originating from facility OR MPI and the message type is A31, A37, A43 or A24: MPIF TRIGGER

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
								When originating from facility or MPI and the message type is MFN or MFK or A19: VAFC TRIGGER When originating from facility and the message type is a query via the Direct Connect: MPI_LOAD When originating from MPI and the message type is the response to the query via the Direct Connect or via the Q22/K22 query/response: MPI For batch queries: MPI-STARTUP Change CMOR messages: RG CIRN MPIF CMOR CHNG MPIF CMOR RSLT When the message type is A24, A31 or A43 and is sent via HLO from the MPI: PSIM
6	180	HD	O			00006	Receiving Facility	When message is originating at the facility to the MPI and the message is related to the CMOR Change: Station Number of facility sending message When the message is originating from the facility to the MPI and the message is the Query (batch or real-time): there is no value sent Otherwise, when the message is originating at the facility to the

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
								MPI: 200M When originating from the MPI and the message type is A24, A31 or A43 and is being sent via HLO the port number of HLO listener for the receiving site will be included at the end of the domain name preceded by a colon.
7	26	TS	R			00007	Date/Time Of Message	Date and time message was created
8	40	ST	O			00008	Security	(not used)
9	13	CM	R			00009	Message Type	2 Components Refer to Table 0076 Refer to Table 0003
10	20	ST	R			00010	Message Control ID	Automatically generated by VistA HL7 Package NOTE: The HLO message number will include a space.
11	3	PT	R			00011	Processing ID	**P** (production)
12	60	VID	R		0104	00012	Version ID	**2.3** (Version 2.3) or **2.4** (version 2.4)
13	15	NM	O			00013	Sequence Number	(not used)
14	180	ST	O			00014	Continuation Pointer	(not used)
15	2	ID	O			00015	Accept Acknowledgement Type	AL (always acknowledge)
16	2	ID	O			00016	Application Acknowledgement Type	AL (always acknowledge) Unless related to the Change of CMOR messages then is NE (never acknowledge)
17	3	ID	O		0399	00017	Country Code	USA
18	16	ID	O	Y		00692	Character Set	(not used)
19	250	CE	O			00693	Principal Language Of Message	(not used)
20	20	ID	O			01317	Alternate Character Set Handling	(not used)

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Description
							Scheme	
21	10	ID	O	Y		01598	Conformance Statement ID	(not used)

Table 3-25. MSH—Message Header, HL7 attributes

MSH Field Definitions

3.11.1 MSH-1 Field Separator (ST) 00001

Definition: This field contains the separator between the segment ID and the first real field, *MSH-2-encoding characters*. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is |, (ASCII 124).

3.11.2 MSH-2 Encoding Characters (ST) 00002

Definition: This field contains the four characters in the following order:

- Component separator—Recommended values are ^ (ASCII 94).
- Repetition Separator—Recommended values are ~(ASCII 126).
- Escape Characters—Recommended values are \ (ASCII 92).
- Subcomponent Separator—Recommended values are & (ASCII 38).

3.11.3 MSH-3 Sending Application (HD) 00003

Components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Definition: This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined.

The User-defined Table 0361—Sending/Receiving Application (Table 3-26 in this manual) is used as the user-defined table of values for the first component, as shown below:

Value	Description
MPI	When originating from MPI and the message type is the response to the query via the Direct Connect. This is also used for the QBP~Q22 query to the MPI and the responding RSP~K22. When the HLO messages are sent from the MPI for the message types A24, A31 and A43 MPI is also sent.
MPI_LOAD	When originating from facility and the message type is a query via the Direct Connect.
MPIF CMOR CHNG	This will be used when communicating a CMOR change via an ADT-A31 message.
MPIF CMOR RSLT	This will be used when communicating a CMOR Change via an ADT-A31 message.
MPIF TRIGGER	When originating from facility or the MPI and the message type is ADT-A24, ADT-A31 (MPI update message), ADT-A37, or ADT-A43.
MPIF TRIGGER	When originating from facility and the message type is ADT-A24 or ADT-A28.
MPI-STARTUP	For batch queries.
RG ADT	When originating from facility and the message type is ADT-A01, ADT-A03, ADT-A04, and ADT-A08 messages.
RG CIRN	This will be used when sending a change of CMOR ADT-A31 message.
VAFC TRIGGER	When originating from facility or MPI and the message type is MFN-M05 Treating Facility Master file update message

Table 3-26. User-defined Table 0361—Sending/Receiving Application

3.11.4 MSH 4 -Sending Facility (HD) 00004

Components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Definition: This field further describes the sending application, MSH-3-sending application. With the promotion of this field to an HD data type, the usage has been broadened to include not just the sending facility but also other organizational entities (entirely site-defined), such as:

a. The organizational entity responsible for sending application.

b. The responsible unit.

c. A product or vendor's identifier, etc.

The User-defined Table 0362—Sending/Receiving Facility (Table 3-27 in this manual) is used as the HL7 identifier for the user-defined table of values for the first component, as shown below:

Value	Description
<vha_station#^HL7.domainname^DNS>	No suggested values defined

Table 3-27. User-defined Table 0362—Sending/Receiving Facility

3.11.5 MSH-5 Receiving Application (HD) 00005

Components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Definition: This field uniquely identifies the receiving application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined.

The User-defined Table 0361—Sending/Receiving Application (Table 3-26 in this manual) is used as the HL7 identifier for the user-defined table of values for the first component.

3.11.6 MSH-6 Receiving Facility (HD) 00006

Components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Definition: This field identifies the system that is communicating the event. The User-defined Table 0362—Sending/Receiving Facility (Table 3-27 in this manual) is used as the HL7 identifier for the user-defined table of values for the first component. Entirely site-defined.

3.11.7 MSH-7 Date/Time of Message (TS) 00007

Definition: This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.

CAUTION: This field was made required in Version 2.4. Messages with versions prior to 2.4 are *not* required to value this field. This usage supports backward compatibility.

3.11.8 MSH-9 Message Type (CM) 00009

Components: <message type (ID)> ^ <trigger event (ID)> ^ <message structure (ID)>

Definition: This field contains the message type, trigger event, and the message structure ID for the message.

The first component is the message type code defined by HL7 Table 0076—Message Type. The second component is the trigger event code defined by EVN—Event Type. The third component is the abstract message structure code defined by HL7 Table 0354—Message Structure. This table has two columns. The first column contains the value of this code, which describes a particular HL7 "abstract message structure

definition" in terms of segments. The second column of Table 0354 lists the various HL7 trigger events that use the particular abstract message definition.

REF: For more information on the HL7 Table 0076—Message Type and HL7 Table 0354—Message Structure, please refer to the HL7 Standard Version 2.4 documentation.

The receiving system uses this field to recognize the data segments, and possibly, the application to which to route this message. The second component is not required on response or Acknowledgement messages.

3.11.9 MSH-10 Message Control ID (ST) 00010

Definition: This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message Acknowledgement segment (MSA).

3.11.10 MSH-11 Processing ID (PT) 00011

Components: <processing ID (ID)> ^ <processing mode (ID)>

Definition: This field is used to decide whether to process the message as defined in HL7 Application (level 7) Processing rules. The first component defines whether the message is part of a production, training, or debugging system. The second component is not currently used.

REF: For a list of valid values, please refer to Table 3-28 in this manual, "HL7 Table 0103—Processing ID."

Value	Description
P	Production

Table 3-28. HL7 Table 0103—Processing ID

3.11.11 MSH-12 Version ID (VID) 00012

Components: <version ID (ID)> ^ <internationalization code (CE)> ^ <internal version ID (CE)>

Definition: This field is matched by the receiving system to its own version to be sure the message will be interpreted correctly. Beginning with Version 2.3.1, it has two additional "internationalization" components, for use by HL7 international affiliates. The <internationalization code> is CE data type (using the ISO country codes where appropriate), which represents the HL7 affiliate. The <internal version ID> is used if the HL7 Affiliate has more than a single 'local' version associated with a single US version. The <internal version ID> has a CE data type, since the table values vary for each HL7 Affiliate.

Value	Description	Date
2.3	Release 2.3	March 1997
2.4	Release 2.4	November 2000

Table 3-29. HL7 Table 0104—Version ID

3.11.12 MSH-15 Accept Acknowledgement Type (ID) 00015

Definition: This field identifies the conditions under which accept Acknowledgements are required to be returned in response to this message. Required for enhanced Acknowledgement mode.

REF: For a list of valid values, please refer to Table 3-30 in this manual, "HL7 Table 0155—Accept/Application Acknowledgement Conditions."

3.11.13 MSH-16 Application Acknowledgement Type (ID) 00016

Definition: This field contains the conditions under which application Acknowledgements are to be returned in response to this message. Required for enhanced Acknowledgement mode.

The following table contains the possible values for MSH-15-accept Acknowledgement type and MSH-16-application Acknowledgement type:

Value	Description
AL	Always
NE	Never
ER	Error/reject conditions only
SU	Successful completion only

Table 3-30. HL7 Table 0155—Accept/Application Acknowledgement Conditions

NOTE: If MSH-15-accept Acknowledgement type and MSH-16-application Acknowledgement type are omitted (or are both null), the original Acknowledgement mode rules are used.

3.11.14 MSH-17 Country Code (ID) 00017

Definition: This field contains the country of origin for the message. It will be used primarily to specify default elements, such as currency denominations. The values to be used are those of ISO 3166, which are reprinted here upon written approval from ANSI.[1]. The ISO 3166 table has three separate forms of the country code: HL7 specifies that the 3-character (alphabetic) form be used for the country code.

[1] Available from ISO 1 Rue de Varembe, Case Postale 56, CH 1211, Geneve, Switzerland

REF: For the 3-character codes as defined by ISO 3166 table, please refer to Table 3-31 in this manual, "HL7 Table 0399—Country Code."

Value	Description
USA	UNITED STATES

Table 3-31. HL7 Table 0399—Country Code

3.12 NTE—Notes and Comments Segment

The NTE segment is defined here for inclusion in messages defined in other chapters. It is commonly used for sending notes and comments.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
1	4	SI	O			00096	Set ID - NTE	Passed but not used by MPI.
2	8	ID	O		0105	00097	Source of Comment	"P" sent always
3	65536	FT	O	Y		00098	Comment	Phone number of person making request
4	250	FT					Reviewer comments	This is from Reviewer comments field in File #984.9
5		FT						Status of request
6		FT						Request number
7		FT						Station Number of requestor
9		FT						Current CMOR

Table 3-32. NTE—Notes and Comments, HL7 attributes

NTE Field Definitions

3.12.1 NTE-1 Set ID–NTE (SI) 00096

Definition: This field may be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition.

3.12.2 NTE-2 Source of Comment (ID) 00097

Definition: This field is used when source of comment must be identified. This table may be extended locally during implementation.

REF: For a list of valid values, please refer to Table 3-33 in this manual, "HL7 Table 0105—Source of Comment."

Value	Description
L	Ancillary (filler) department is source of comment
P	Order (placer) is source of comment
O	Other system is source of comment

Table 3-33. HL7 Table 0105—Source of Comment

3.12.3 NTE-3 Comment (FT) 00098

Definition: This field contains the comment contained in the segment.

NOTE: In the current HL7 version, this is a FT rather than a TX data type. Since there is no difference between a FT data type without any embedded formatting commands, and a TX data type, this change is compatible with the previous version.

3.13 OBX—Observation/Result, HL7 Segment

NOTE: The OBX–Observation/Result segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment.

The OBX segment is used to transmit a single observation or observation fragment. It represents the smallest indivisible unit of a report. Its structure is summarized in Figure 7-5.

Its principal mission is to carry information about observations in report messages. But the OBX can also be part of an observation order (see Section 4.2, "Order Message Definitions"). In this case, the OBX carries clinical information needed by the filler to interpret the observation the filler makes. For example, an OBX is needed to report the inspired oxygen on an order for a blood oxygen to a blood gas lab, or to report the menstrual phase information, which should be included on an order for a pap smear to a cytology lab. Appendix 7A includes codes for identifying many of pieces of information needed by observation producing services to properly interpret a test result. OBX is also found in other HL7 messages that need to include patient clinical information.

SEQ	LEN	DT	R/O	RP/#	TBL#	Item	Element Name	VistA Description
1	10	SI	O			00569	Set ID - OBX	not used
2	2	ID	C		0125	00570	Value Type	CE - Security Log, SSN Verification, Active Prescriptions and older record TS - Last Radiology Exam date/time and Last Lab Test date/time
3	590	CE	R			00571	Observation Identifier	38.1^SECURITY LOG (Passed but not used by MPI) SSN VERIFICATION (sent by ESR to MPI and MPI to subscribers from ESR update based upon business rules) ACTIVE PRESCRIPTIONS (only received at the MPI from the VistA sites, not sent out by the MPI) LAST RADIOLOGY EXAM DATE/TIME (only received at the MPI from the VistA sites, not sent out by the MPI) LAST LAB TEST DATE/TIME (only received at the MPI from the VistA sites, not sent out by the MPI) OLDER RECORD (only received at the MPI from the VistA sites, not sent out by the MPI)
4	20	ST	C			00572	Observation Sub-ID	not used

SEQ	LEN	DT	R/O	RP/#	TBL#	Item	Element Name	VistA Description
5	65536[2]	*	C	Y[3]		00573	Observation Value	Sensitive = 1 Not Sensitive or No Value = 0 SSN VERIFICATION (see table below): <value>^<text>^"L" valid verification text: value text ---------- Null 0 = New Record 1 = In-Process 2 = Invalid Per SSA 3 = Resend to SSA 4 = Verified Active Prescriptions: Y = for Yes active prescriptions N = for no current active prescriptions Older Records: Y = for yes older records
6	60	CE	O			00574	Units	not used
7	10	ST	O			00575	References Range	not used
8	5	ID	O	Y/5	0078	00576	Abnormal Flags	not used
9	5	NM	O			00577	Probability	not used.
10	2	ID	O	Y	0080	00578	Nature of Abnormal Test	not used.
11	1	ID	R		0085	00579	Observation Result Status	F=Results entered, Not verified (Passed but not used by MPI)
12	26	TS	O			00580	Date Last Observation Normal Value	not used
13	20	ST	O			00581	User Defined Access Checks	not used
14	26	TS	O			00582	Date/Time of the Observation	Date if found in VistA
15	60	CE	O			00583	Producer's ID	not used
16	80	XCN	O			00584	Responsible Observer	Name if found in VistA
17	60	CE	O	Y		00936	Observation Method	not used

[2] The length of the observation value field is variable, depending upon value type. See *OBX-2-value type*.

[3] May repeat for multipart, single answer results with appropriate data types, e.g., CE, TX, and FT data types.

SEQ	LEN	DT	R/O	RP/#	TBL#	Item	Element Name	VistA Description
18	22	EL	O	Y		01479	Equipment Instance Identifier	not used
19	26	TS	O			01480	Date/Time of the Analysis	not used

Table 3-34. OBX—Observation/Result, HL7 attributes

3.14 PD1—Patient Additional Demographic Segment

NOTE: PD1-3 (Patient Primary Facility) is the only field used by the MPI software in the PD1—Patient Additional Demographic segment. All other fields in this segment are passed but not used by the MPI. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment.

The patient additional demographic segment contains demographic information that is likely to change about the patient.

SEQ	LEN	DT	OPT	RP#	TBL	Item	Element Name	VistA Description
1	2	IS	O	Y	0223	00755	Living Dependency	Passed but not used by MPI.
2	2	IS	O		0220	00742	Living Arrangement	Passed but not used by MPI.
3	250	XON	O	Y		00756	Patient Primary Facility	Coordinating Master of Record
4	250	XCN	B	Y		00757	Patient Primary Care Provider Name & ID No.	Passed but not used by MPI.
5	2	IS	O		0231	00745	Student Indicator	Passed but not used by MPI.
6	2	IS	O		0295	00753	Handicap	Passed but not used by MPI.
7	2	IS	O		0315	00759	Living Will Code	Passed but not used by MPI.
8	2	IS	O		0316	00760	Organ Donor Code	Passed but not used by MPI.
9	1	ID	O		0136	00761	Separate Bill	Passed but not used by MPI.
10	250	CX	O	Y		00762	Duplicate Patient	Passed but not used by MPI.
11	250	CE	O		0215	00743	Publicity Code	Passed but not used by MPI.
12	1	ID	O		0136	00744	Protection Indicator	Passed but not used by MPI.
13	8	DT	O			01566	Protection Indicator Effective Date	Passed but not used by MPI.
14	250	XON	O	Y		01567	Place of Worship	Passed but not used by MPI.
15	250	CE	O	Y	0435	01548	Advance Directive Code	Passed but not used by MPI.

SEQ	LEN	DT	OPT	RP#	TBL	Item	Element Name	VistA Description
16	1	IS	O		0441	01569	Immunization Registry Status	Passed but not used by MPI.
17	8	DT	O			01570	Immunization Registry Status Effective Date	Passed but not used by MPI.
18	8	DT	O			01571	Publicity Code Effective Date	Passed but not used by MPI.
19	5	IS	O		0140	01572	Military Branch	Passed but not used by MPI.
20	2	IS	O		0141	00486	Military Rank/Grade	Passed but not used by MPI.
21	3	IS	O		0142	00487	Military Status	Passed but not used by MPI.

Table 3-35. PD1—Patient Additional Demographic, HL7 attributes

PD1 Field Definition

3.14.1 PD1-3 Patient Primary Facility (XON) 00756

Components: <organization name (ST)> ^ <organization name type code (ID)> ^ <ID number (ID)> ^ <check digit (NM)> ^ < check digit scheme (ID)> ^ <assigning authority (HD)> ^ <identifier type code (ID)> ^ <assigning facility (HD)> ^ <name representation code (ID)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: This field contains the name and identifier that specifies the "primary care" healthcare facility or Coordinating Master of Record (CMOR) site selected by the software or requests from the facilities. In the future this will more than likely transition to the OneVHA demographic database (EDB), OneVA demographic database or some central patient demographic database.

3.14.2 Yes/No Indicator Table

The actual interpretation of Yes/No is context sensitive.

Value	Description
Y	Yes
N	No

Table 3-36. HL7 Table 0136—Yes/no indicator

3.15 PID—Patient Identification Segment

The PID segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

From V2.4 onwards, the demographics of animals can also be sent in the PID segment (see PID-35 to PID-38).

The assigning authority, the fourth component of the patient identifiers, is a HD data type that is uniquely associated with the assigning authority that originally assigned the number. A given institution, or group of intercommunicating institutions, should establish a list of assigning authorities that may be potential assignors of patient identification (and other important identification) numbers. The list will be one of the institution's master dictionary lists. Since third parties (other than the assignors of patient identification numbers) may send or receive HL7 messages containing patient identification numbers. This field is required in HL7 implementations that have more than a single Patient Administration application assigning such numbers. The assigning authority and identifier type codes are strongly recommended for all CX data types.

With HL7 V2.3, the nomenclature for the fourth component of the patient identifiers was changed from "assigning facility ID" to "assigning authority." While the identifier may be unique to a given healthcare facility (for example, a medical record assigned by facility A in Hospital XYZ), the identifier might also be assigned at a system level (for example a corporate person index or enterprise number spanning multiple facilities) or by a government entity, for example a nationally assigned unique individual identifier. While a facility is usually an assigning authority, not all assigning authorities are facilities. Therefore, the fourth component is referred to as an assigning authority, but retains backward compatibility using the construct of the HD data type.

REF: For more information on the HD data type, please refer to Section 2.9 of HL7 Standard Version 2.4 documentation.

Additionally, CX data types support the use of assigning facility (HD) as the sixth component.

Example: Message Patient Identification PID Segment

```
MSH^~|\&^RG ADT^984~DAYTSHR.FO-BAYPINES.MED.VA.GOV~DNS^RG ADT^200M~TLMPI.FO-
BAYPINES.MED.VA.GOV~DNS^20070625100545-0400^^ADT~A08^98459402631^T^2.4^^^AL^AL^USA
EVN^^^^^35198~MPIPATIENT~ONE~~~~~~USVHA&&0363~L~~~NI~VA FACILITY ID&984&L^^984
PID^1^1011185729V870655^1011185729V870655~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|666010255~~~USSSA&&0363~SS~VA FACILITY ID&984&L|552151092~~~USVHA&&0363~PI~VA FACILITY
ID&984&L|666010256~~~USSSA&&0363~SS~VA FACILITY
ID&984&L~~20070625|9840002493V683214~~~USVHA&&0363~NI~VA FACILITY
ID&984&L~~20070625^^MPISQA~PIDTSTB
MID~SFIX~~~~L|ALIASLNA~ALIASFNA~~~~~A^MOMSMITH~~~~~~M^19800202^M^^""^222 PERM TST ADDRESS~TAMPA,
FL~""~""~""~""~VAB1~""~""|~~TAMPA~FL~~~N|333 CONFIDENTIAL ADDRESS~""~SAINT
PETERSBURG~FL~33716~""~VACAA~""~""~~~20070625&20080625^""^111-1111~PRN~PH|222-2222~WPN~PH|555-
5555~ORN~CP|666-6666~BPN~BP|~NET~INTERNET~ONE.SQA@MPI.COM^222-2222^555)555-
5555~VACPN~PH^""^""^^666010255^^^""^TAMPA FL^N^^^^^""^^
PV1^1^O^""^^^^^^^^^^^^^^^ACTIVE DUTY^^^^^^^^^^^^^^^^^^^^^^^^^^20070625^^^^^^1535241
ZPD^1^^^^^^^^^^^^^^^""^^^^""^^^^^^^^^^^^^""
ZSP^1^0^""^""^""^""^""^""^^""
ZEL^1^""^""^""^""^""^""^""^1^ACTIVE DUTY^""^""^""^""^""^""^""^""^""^""^""^""^""^""
ZCT^1^1^""^""^""^""^""^""^""^""^1^1^""^""^""^""^""^""
ZFF^2^.01;.02;.03;.092;.093;.09;.2403;.301;1901;391;.111;.112;.131;.132;
```

Figure 3-2. Sample Message Patient Identification PID Segment

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
1	4	SI	O			00104	Set ID - PID	Sequential Number
2	20	CX	B			00105	Patient ID	ICN, including V checksum for backwards compatibility
3	250	CX	R	Y		00106	Patient Identifier List	Integration Control Number (including V and checksum), Social Security Number, DFN, Claim Number, all entries in the ICN History Multiple, all alias SSNs which will correspond directly to the alias name in the name field (pid-5). The ID State for the primary ICN will be determined based upon the following: ID State for a deactivated ICN will have the expiration date only set; ID State for a temporary ICN will have neither the expiration nor effective date set; ID State for a permanent ICN will have the effective date only set.
4	20	CX	B	Y		00107	Alternate Patient ID - PID	Active Veteran's Health Identity Card (VHIC) numbers
5	250	XPN	R	Y		00108	Patient Name	Patient Name and all Alias entries
6	250	XPN	O	Y		00109	Mother's Maiden Name	Mother's Maiden Name
7	26	TS	O			00110	Date/Time of Birth	Date of Birth
8	1	IS	O		0001	00111	Administrative Sex	Sex
9	250	XPN	B	Y		00112	Patient Alias	Not used. Alias is passed in PID-5
10	250	CE	O	Y	0005	00113	Race	Race Information
11	250	XAD	O	Y		00114	Patient Address	Permanent: • Street Address [Line 1] • Street Address [Line 2]

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
								• Street Address [Line 3] • City • State • ZIP+4 • County Code • Country Code • Provence • Postal Code [incorporating foreign address] • Bad Address Indicator (only for Permanent address) Place of Birth: • Place of Birth [City] • Place of Birth [State] Confidential Address: • Street Address line 1 • Street Address line 2 • Street Address line 3 • City • State • Zip+4 • County Code • Confidential Address Category • Start And End Date • Country Code • Provender • Post Code (incorporating confidential foreign address) **NOTE:** Foreign address information (province, postal code, and country) may be included in the PID segment in existing fields.
12	4	IS	B		0289	00115	County Code	County
13	250	XTN	O	Y		00116	Phone Number - Home	• Phone Number [Residence] • Work Number • Cell Phone • Pager Number • E-Mail Address • Confidential Phone

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
								Number
14	250	XTN	O	Y		00117	Phone Number - Business	Phone Number [Work] **only for backwards compatibility should use PID-13
15	250	CE	O		0296	00118	Primary Language	Not used.
16	250	CE	O			00119	Marital Status	Marital Status
17	250	CE	O			00120	Religion	Religious Preference
18	250	CX	O			00121	Patient Account Number	Not used.
19	16	ST	B			00122	SSN Number - Patient	SSN – for backwards compatibility
20	25	DLN	O			00123	Driver's License Number - Patient	Not used.
21	250	CX	O	Y		00124	Mother's Identifier	Not used.
22	250	CE	O	Y	0189	00125	Ethnic Group	Ethnicity Information
23	250	ST	O			00126	Birth Place	Place of birth city and place of birth state – backwards compatibility
24	1	ID	O		0136	00127	Multiple Birth Indicator	Multiple Birth Indicator [Y for multiple birth]
25	2	NM	O			00128	Birth Order	Populated if the Multiple Birth Indicator (field #PID-24) = Yes *and* if the Birth Order is sent by DoD.
26	250	CE	O	Y	0171	00129	Citizenship	Not used.
27	250	CE	O		0172	00130	Veterans Military Status	Not used.
28	250	CE	B		0212	00739	Nationality	Not used.
29	26	TS	O			00740	Patient Death Date and Time	Date of Death
30	1	ID	O		0136	00741	Patient Death Indicator	Not used.
31	1	ID	O		0136	01535	Identity Unknown Indicator	Not used.
32	20	IS	O		0445	01536	Identity Reliability Code	Only sent from the MPI in A31 message. Used by PSIM.
33	26	TS	O			01537	Last Update Date/Time	Not used.
34	40	HD	O			01538	Last Update Facility	Not used.
35	250	CE	C		0446	01539	Species Code	Not used.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	VistA Description
36	250	CE	C		0447	01540	Breed Code	Not used.
37	80	ST	O			01541	Strain	Not used.
38	250	CE	O	2	0429	01542	Production Class Code	Not used.

Table 3-37. PID—Patient Identification, HL7 attributes

PID Field Definitions

3.15.1 PID-1 Set ID - PID (SI) 00104

Definition: This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.

3.15.2 PID-2 Patient ID (CX) 00105

Definition: This field is being populated with the VHA MPI integration control number [ICN], including V and the ICN Checksum for backwards compatibility ONLY. ICN should be retrieved from PID-3.

3.15.3 PID-3 Patient identifier list (CX) 00106

Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (ID)> ^ < assigning facility (HD) ^ <effective date (DT)> ^ <expiration date (DT)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: This field contains the list of identifiers (one or more) used by the healthcare facility to uniquely identify a patient (e.g., VistA internal id [DFN], Claim number, VHA MPI integration control number [ICN], social security number, unique individual identifier, etc.). Refer to *HL7 Table 0061 - Check digit scheme* for valid values. The arbitrary term of "internal ID" has been removed from the name of this field for clarity. Refer also to HL7 Table 0203 - Identifier type and *User-defined Table 0363 - Assigning authority* for valid values. The currently supported values are listed below.

Identifier	Assigning Authority	Identifier type	Assigning Location unique station# id	Expiration date	Effective date
National ICN **	USVHA	NI	200M	If populated, the ICN ID State is considered Deactivated If both Expiration Date and Effective date are not populated the ICN ID State is Temporary	If populated, the ID State of the ICN is Permanent (see note above) If both Expiration Date and Effective date are not populated the ICN ID State is Temporary
Local ICN	USVHA	NI	unique station# id		
SSN	USSSA	SS	unique station# id		
Alias SSN	USSSA	SS	Unique station # id	Date/Time of segment being built	
VistA id (DFN)	USVHA	PI	unique station# id		
CLAIM#	USVBA	PN	unique station# id		
Deprecated National ICN (resolved duplicate pair)	USVHA	NI	200M	Replacement date/time Also, indicates that the ID State is Deactivated	
Deprecated local ICN	USVHA	NI	unique station# id	Replacement date/time	
DOD EDIPN	USDOD	NI	200DOD		
TIN	USDOD	TIN	unique station# id		
FIN	USDOD	FIN	unique station# id		

Table 3-38. HL7 Table 0203—Identifier type

**** Note:** If both the Expiration and Effective dates are null then this indicates that the ICN has a temporary ID State.

3.15.4 PID-4 Alternate patient ID - PID (CX) 00107

Active Veteran's Health Identification Card (VHIC) Numbers Added to PID-4 Segment

As of Patch DG*5.3*874 Veteran's Health Identity Card (VHIC) number was added to the PID segment (PID-4). Format:

```
[VHIC Card #]~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L
```

Example of active VHIC number in PID-4 repeated twice for interoperability between DoD and VA because this patient has two active VHIC numbers:

```
PID(1)="PID^1^1000003594V373737^1000003594V373737~~~USVHA&&0363~NI~VA FACILITY
ID&200M&L|000321234~~~USSSA&&0363~SS~VA FACILITY ID&500&L|"""~~~USDOD&&0363~TIN~VA
FACILITY ID&500&L|"""~~~USDOD&&0363~FIN~VA FACILITY
ID&500&L|100004184~~~USVHA&&0363~PI~VA FA"

PID(2)="CILITY ID&500&L^999~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L|999999~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L^MPIPATIENT~JAMES~~~~~L^MPIMOTHERSMAIDEN~~~~~~M^99999999^M^^2106-3-
SLF~~0005~2106-3~~CDC^"""~"""~"""~"""~"""~"""~P~"""~"""|~~Patient Address
ANY TOWN~CA~~~N^"""^"""^"""^^S^29^^000321234"

PID(3)="^^^2186-5-SLF~~0189~2186-5~~CDC^Place of Birth Address ANY TOWN
CA^^^^^^"""^^"
```

NOTE: Only active VHIC numbers are included.

3.15.5 PID-5 Patient name (XPN) 00108

Components: In Version 2.3, replaces the PN data type. <family name (FN)> ^ <given name (ST)> ^ <second and further given names or initials thereof (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <name type code (ID) > ^ <name representation code (ID)> ^ <name context (CE)> ^ <name validity range (DR)> ^ <name assembly order (ID)>

Subcomponents of family name: <family name (ST)> & <own family name prefix (ST)> & <own family name (ST)> & <family name prefix from partner/spouse (ST)> & <family name from partner/spouse (ST)>

Definition: This field contains the names of the patient, the primary or legal name of the patient is reported first. Therefore, the name type code in this field should be "L - Legal". Refer to HL7 Table 0200 - Name type for valid values. Repetition of this field is allowed for representing the same name in different character sets. Note that "last name prefix" is synonymous to "own family name prefix" of previous versions of HL7, as is "second and further given names or initials thereof" to "middle initial or name". Multiple given names and/or initials are separated by spaces.

Value	Description
L	Legal Name
M	Maiden Name (not used}
A	Alias Name

Table 3-39. HL7 Table 0200—Name type

3.15.6 PID-6 Mother's maiden name (XPN) 00109

Components: In Version 2.3, replaces the PN data type. <family name (FN)> ^ <given name (ST)> ^ <second and further given names or initials thereof (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <name type code (ID) > ^ <name representation code (ID)> ^ <name context (CE)> ^ <name validity range (DR)> ^ <name assembly order (ID)>

Subcomponents of family name: <family name (ST)> & <own family name prefix (ST)> & <own family name (ST)> & <family name prefix from partner/spouse (ST)> & <family name from partner/spouse (ST)>

Definition: This field contains the family name under which the mother was born (i.e., before marriage). It is used to distinguish between patients with the same last name.

3.15.7 PID-7 Date/time of birth (TS) 00110

Definition: This field contains the patient's date and time of birth.

3.15.8 PID-8 Administrative sex (IS) 00111

Definition: This field contains the patient's sex. Refer to User-defined Table 0001 - Administrative sex for suggested values.

Value	Description
F	Female
M	Male

Table 3-40. User-defined Table 0001—Administrative sex

3.15.9 PID-9 Patient alias (XPN) 00112

Definition: This field is not used. Alias should be retrieved from PID-5.

3.15.10 PID-10 Race (CE) 00113

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field refers to the patient's race. Refer to *User-defined Table 0005 - Race* for suggested values. The second triplet of the CE data type for race (alternate identifier, alternate text, and name of alternate coding system) is reserved for governmentally assigned codes.

NOTE: Table 0005 values contain a pre-calculated Mod 10 check digits, separated by a dash.

Value	Description
1002-5	American Indian or Alaska Native
2028-9	Asian
2054-5	Black or African American
2076-8	Native Hawaiian or Other Pacific Islander
2106-3	White
2131-1	Other Race

Table 3-41. User-defined Table 0005—Race

3.15.11 PID-11 Patient address (XAD) 00114

Components: In Version 2.3 and later, replaces the AD data type. <street address (ST)> ^ <other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ < address type (ID)> ^ <other geographic designation (ST)> ^ <county/parish code (IS)> ^ <census tract (IS)> ^ <address representation code (ID)> ^ <address validity range (DR)>

Subcomponents of street address: <street address (ST)> & <street name (ST)> & <dwelling number (ST)>

Definition: This field contains the mailing address of the patient. Address type codes are defined in *HL7 Table 0190 - Address type*. Multiple addresses for the same person may be sent in the following sequence: The primary mailing address must be sent first in the sequence (for backward compatibility); if the mailing address is not sent, then a repeat delimiter must be sent in the first sequence.

Value	Description
N	Birth (nee) (birth address, not otherwise specified)
P	Permanent
VAB1	VA - Bad Address, Undeliverable
VAB2	VA Bad Address, Homeless

Value	Description
VAB3	VA Bad Address, Other
VAB4	VA Bad Address, Address Not Found
VACAA	VA - Confidential Address Appointment/Scheduling
VACAC	VA - Confidential Address Copayments/Veteran Billing
VACAE	VA - Confidential Address Eligibility/Enrollment
VACAM	VA - Confidential Address Medical Records
VACAO	VA - Confidential Address All Others

Table 3-42. HL7 Table 0190—Address type

3.15.12 PID-12 County code (IS) 00115

Definition: *This field has been retained for backward compatibility.* This field contains the patient's county code. The county can now be supported in the county/parish code component of the XAD data type (*PID-11 - Patient Address*). Refer to *User-defined Table 0289 - County/parish* for suggested values

3.15.13 PID-13 Phone number - home (XTN) 00116

Components: [NNN] [(999)]999-9999 [X99999] [B99999] [C any text] ^ <telecommunication use code (ID)> ^ <telecommunication equipment type (ID)> ^ <e-mail address (ST)> ^ <country code (NM)> ^ <area/city code (NM)> ^ <phone number (NM)> ^ <extension (NM)> ^ <any text (ST)>

Definition: This field contains the patient's personal phone numbers. All personal phone numbers for the patient are sent in the following sequence. The first sequence is considered the primary number (for backward compatibility). If the primary number is not sent, then a repeat delimiter is sent in the first sequence. Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

Value	Description
BPN	Beeper Number
EMR	Emergency Number (not used)
NET	Network (email) Address
ORN	Other Residence Number (not used)
PRN	Primary Residence Number
VHN	Vacation Home Number (not used)
WPN	Work Number
VACPN	Confidential Phone Number

Table 3-43. HL7 Table 0201 Telecommunication Use Code

Value	Description
BP	Beeper
CP	Cellular Phone
Internet	Internet Address: Use Only if Telecommunication Use Code is NET
PH	Telephone

Table 3-44. HL7 Table 0202 Telecommunication Equipment Type

3.15.14 PID-14 Phone number - business (XTN) 00117

Components: [NNN] [(999)]999-9999 [X99999] [B99999] [C any text] ^ <telecommunication use code (ID)> ^ <telecommunication equipment type (ID)> ^ <e-mail address (ST)> ^ <country code (NM)> ^ <area/city code (NM)> ^ <phone number (NM)> ^ <extension (NM)> ^ <any text (ST)>

Definition: This field contains the patient's business telephone numbers. All business numbers for the patient are sent in the following sequence. The first sequence is considered the patient's primary business phone number (for backward compatibility). If the primary business phone number is not sent, then a repeat delimiter must be sent in the first sequence. Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

3.15.15 PID-15 Primary language (CE) 00118

Definition: This field is not used.

3.15.16 PID-16 Marital status (CE) 00119

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains the patient's marital (civil) status. Refer to *User-defined Table 0002 - Marital status* for suggested values.

Value	Description
A	Separated
D	Divorced
M	Married
S	Never Married
W	Widowed
U	Unknown

Table 3-45. User-defined Table 0002—Marital status

3.15.17 PID-17 Religion (CE) 00120

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains the patient's religion, for example, Baptist, Catholic, Methodist, etc. Refer to *User-defined Table 0006 - Religion* for suggested values.

Value	Description
0	ROMAN CATHOLIC CHURCH
1	JUDAISM
2	EASTERN ORTHODOX
3	BAPTIST
4	METHODIST
5	LUTHERAN
6	PRESBYTERIAN
7	UNITED CHURCH OF CHRIST
8	EPISCOPALIAN
9	ADVENTIST
10	ASSEMBLY OF GOD
11	BRETHREN

Value	Description
12	CHRISTIAN SCIENTIST
13	CHURCH OF CHRIST
14	CHURCH OF GOD
15	DISCIPLES OF CHRIST
16	EVANGELICAL COVENANT
17	FRIENDS
18	JEHOVAH'S WITNESSES
19	LATTER DAY SAINTS
20	ISLAM
21	NAZARENE
22	OTHER
23	PENTECOSTAL
24	PROTESTANT
25	PROTESTANT, NO DENOMINATION
26	REFORMED
27	SALVATION ARMY
28	UNITARIAN-UNIVERSALISM
29	UNKNOWN/NO PREFERENCE
30	NATIVE AMERICAN
31	ZEN BUDDHISM
32	AFRICAN RELIGIONS
33	AFRO-CARIBBEAN RELIGIONS
34	AGNOSTICISM
35	ANGLICAN
36	ANIMISM
37	ATHEISM
38	BABI & BAHA'I FAITHS
39	BON
40	CAO DAI
41	CELTICISM
42	CHRISTIAN (NON-SPECIFIC)
43	CONFUCIANISM
44	CONGREGATIONAL
45	CYBERCULTURE RELIGIONS

Value	Description
46	DIVINATION
47	FOURTH WAY
48	FREE DAISM
49	FULL GOSPEL
50	GNOSIS
51	HINDUISM
52	HUMANISM
53	INDEPENDENT
54	JAINISM
55	MAHAYANA
56	MEDITATION
57	MESSIANIC JUDAISM
58	MITRAISM
59	NEW AGE
60	NON-ROMAN CATHOLIC
61	OCCULT
62	ORTHODOX
63	PAGANISM
64	PROCESS, THE
65	REFORMED/PRESBYTERIAN
66	SATANISM
67	SCIENTOLOGY
68	SHAMANISM
69	SHIITE (ISLAM)
70	SHINTO
71	SIKISM
72	SPIRITUALISM
73	SUNNI (ISLAM)
74	TAOISM
75	THERAVADA
76	UNIVERSAL LIFE CHURCH
77	VAJRAYANA (TIBETAN)
78	VEDA
79	VOODOO

Value	Description
80	WICCA
81	YAOHUSHUA
82	ZOROASTRIANISM
83	ASKED BUT DECLINED TO ANSWER

Table 3-46. User-defined Table 0006—Religion

3.15.18 PID-18 Patient account number (CX) 00121

Definition: This field is not used.

3.15.19 PID-19 SSN number - patient (ST) 00122

Definition: This field is populated for backwards compatibility only. SSN should be retrieved from PID-3.

3.15.20 PID-20 Driver's license number - Patient (DLN) 00123

Definition: This field is not used.

3.15.21 PID-21 Mother's identifier (CX) 00124

Definition: This field is not used.

3.15.22 PID-22 Ethnic group (CE) 00125

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field further defines the patient's ancestry. Refer to User-defined Table 0189 - Ethnic group for suggested values. The second triplet of the CE data type for ethnic group (alternate identifier, alternate text, and name of alternate coding system) is reserved for governmentally assigned codes. In the US, a current use is to report ethnicity in line with US federal standards for Hispanic origin.

Value	Description
2135-2	HISPANIC OR LATINO
2186-5	NOT HISPANIC OR LATINO
0000-0	DECLINED TO ANSWER
9999-4	UNKNOWN BY PATIENT

Table 3-47. User-defined Table 0189—Ethnic group

3.15.23 PID-23 Birth place (ST) 00126

Definition: This field is populated for backward compatibility only. Data should be pulled from PID-11.

3.15.24 PID-24 Multiple birth indicator (ID) 00127

Definition: This field indicates whether the patient was part of a multiple birth. Refer to ***HL7 Table 0136 - Yes/No Indicator*** for valid values.

3.15.25 PID-25 Birth order (NM) 00128

Definition: Populated if the Multiple Birth Indicator (field #PID-24) = Yes *and* if the Birth Order is sent by DoD.

3.15.26 PID-26 Citizenship (CE) 00129

Definition: This field is not used.

3.15.27 PID-27 Veterans military status (CE) 00130

Definition: This field is not used.

3.15.28 PID-28 Nationality (CE) 00739

Definition: This field is not used.

3.15.29 PID-29 Patient death date and time (TS) 00740

Definition: This field contains the date and time at which the patient death occurred.

3.15.30 PID-30 Patient Death Indicator (ID) 00741

Definition: This field is not used.

3.15.31 PID-31 Identity Unknown Indicator (ID) 01535

Definition: This field is not used.

3.15.32 PID-32 Identity Reliability Code (IS) 01536

Definition: This field contains a coded value used to communicate information regarding the reliability of patient/person identifying data transmitted via a transaction. Values could indicate that certain fields on a PID segment for a given patient/person are known to be false (e.g., use of default or system-generated values for Date of Birth or Social Security Number. Refer to ***User-defined Table 0445 - Identity reliability code*** for suggested values.

Value	Description
P	Pending
A	Accepted all fields
R	Some fields were excepted
C	Reject–Catastrophic – all fields were rejected
N is stored on the MPI but mapped to R for sending to PSIM	Reject – Non Catastrophic edit – all fields were rejected but not due to catastrophic edit.
AC	Catastrophic Edit Accept
AN	Non-Catastrophic Edit Accept

Table 3-48. User-defined Table 0445—Identity Reliability Code

3.15.33 PID-33 Last Update Date/Time (TS) 01537

Definition: This field is not used.

3.15.34 PID-34 Last Update Facility (HD) 01538

Definition: This field is not used.

3.15.35 PID-35 Species Code (CE) 01539

Definition: This field is not used.

3.15.36 PID-36 Breed Code (ID) 01540

Definition: This field is not used.

3.15.37 PID-37 Strain (ST) 01541

Definition: This field is not used.

3.15.38 PID-38 Production Class Code (CE) 01542

Definition: This field is not used.

3.16 PV1—Patient Visit Segment

NOTE: Only fields used by the MPI in the PV1 segment are PV1-44 Admit Date/Time and PV1-2 Patient Class. All other fields may or may not be populated depending on the message type; however, none of them are used by the MPI.

NOTE: This segment is only included in A01, A03, A04, A08, and A31.

The PV1 segment is used by Registration/Patient Administration applications to communicate information on an account or visit-specific basis. The default is to send account level data. To use this segment for visit level data PV1-51 - visit indicator must be valued to "V". The value of PV-51 affects the level of data being sent on the PV1 and any other segments that are part of the associated PV1 hierarchy (e.g., ROL, DG1, or OBX).

The facility ID, the optional fourth component of each patient location field, is a HD data type that is uniquely associated with the healthcare facility containing the location. A given institution, or group of intercommunicating institutions, should establish a list of facilities that may be potential assignors of patient locations. The list will be one of the institution's master dictionary lists. The facility ID must be unique across facilities at a given site. This field is required for HL7 implementations that have more than a single healthcare facility with bed locations, since the same <point of care> ^ <room> ^ <bed> combination may exist at more than one facility.

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Desc
1	4	SI	O			00131	Set ID - PV1	Passed but not used by MPI.
2	1	IS	R		0004	00132	Patient Class	MPI will pass N to PSIM
3	80	PL	O			00133	Assigned Patient Location	Passed but not used by MPI.
4	2	IS	O		0007	00134	Admission Type	Passed but not used by MPI.
5	250	CX	O			00135	Preadmit Number	Passed but not used by MPI.
6	80	PL	O			00136	Prior Patient Location	Passed but not used by MPI.
7	250	XCN	O	Y	0010	00137	Attending Doctor	Passed but not used by MPI.
8	250	XCN	O	Y	0010	00138	Referring Doctor	Passed but not used by MPI.
9	250	XCN	B	Y	0010	00139	Consulting Doctor	Passed but not used by MPI.
10	3	IS	O		0069	00140	Hospital Service	Passed but not used by MPI.

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Desc
11	80	PL	O			00141	Temporary Location	Passed but not used by MPI.
12	2	IS	O		0087	00142	Preadmit Test Indicator	Passed but not used by MPI.
13	2	IS	O		0092	00143	Re-admission Indicator	Passed but not used by MPI.
14	6	IS	O		0023	00144	Admit Source	Passed but not used by MPI.
15	2	IS	O	Y	0009	00145	Ambulatory Status	Passed but not used by MPI.
16	2	IS	O		0099	00146	VIP Indicator	Passed but not used by MPI.
17	250	XCN	O	Y	0010	00147	Admitting Doctor	Passed but not used by MPI.
18	2	IS	O		0018	00148	Patient Type	Passed but not used by MPI.
19	250	CX	O			00149	Visit Number	Passed but not used by MPI.
20	50	FC	O	Y	0064	00150	Financial Class	Passed but not used by MPI.
21	2	IS	O		0032	00151	Charge Price Indicator	Passed but not used by MPI.
22	2	IS	O		0045	00152	Courtesy Code	Passed but not used by MPI.
23	2	IS	O		0046	00153	Credit Rating	Passed but not used by MPI.
24	2	IS	O	Y	0044	00154	Contract Code	Passed but not used by MPI.
25	8	DT	O	Y		00155	Contract Effective Date	Passed but not used by MPI.
26	12	NM	O	Y		00156	Contract Amount	Passed but not used by MPI.
27	3	NM	O	Y		00157	Contract Period	Passed but not used by MPI.
28	2	IS	O		0073	00158	Interest Code	Passed but not used by MPI.
29	1	IS	O		0110	00159	Transfer to Bad Debt Code	Passed but not used by MPI.
30	8	DT	O			00160	Transfer to Bad Debt Date	Passed but not used by MPI.
31	10	IS	O		0021	00161	Bad Debt Agency Code	Passed but not used by MPI.

SEQ	LEN	DT	OPT	RP/#	TBL	Item	Element Name	VistA Desc
32	12	NM	O			00162	Bad Debt Transfer Amount	Passed but not used by MPI.
33	12	NM	O			00163	Bad Debt Recovery Amount	Passed but not used by MPI.
34	1	IS	O		0111	00164	Delete Account Indicator	Passed but not used by MPI.
35	8	DT	O			00165	Delete Account Date	Passed but not used by MPI.
36	3	IS	O		0112	00166	Discharge Disposition	Passed but not used by MPI.
37	25	CM	O		0113	00167	Discharged to Location	Passed but not used by MPI.
38	250	CE	O		0114	00168	Diet Type	Passed but not used by MPI.
39	2	IS	O		0115	00169	Servicing Facility	Passed but not used by MPI.
40	1	IS	B		0116	00170	Bed Status	Passed but not used by MPI.
41	2	IS	O		0117	00171	Account Status	Passed but not used by MPI.
42	80	PL	O			00172	Pending Location	Passed but not used by MPI.
43	80	PL	O			00173	Prior Temporary Location	Passed but not used by MPI.
44	26	TS	O			00174	Admit Date/Time	Currently admitted – date/time of admission
45	26	TS	O	Y		00175	Discharge Date/Time	Passed but not used by MPI.
46	12	NM	O			00176	Current Patient Balance	Passed but not used by MPI.
47	12	NM	O			00177	Total Charges	Passed but not used by MPI.
48	12	NM	O			00178	Total Adjustments	Passed but not used by MPI.
49	12	NM	O			00179	Total Payments	Passed but not used by MPI.
50	250	CX	O		0203	00180	Alternate Visit ID	Passed but not used by MPI.
51	1	IS	O		0326	01226	Visit Indicator	Passed but not used by MPI.
52	250	XCN	B	Y	0010	01274	Other Healthcare Provider	Passed but not used by MPI.

Table 3-49. PV1—Patient Visit, HL7 attributes

PV1 Field Definition

3.16.1 PV1-2 Patient Class

Definition: This field is used by systems to categorize patients by site. It does not have a consistent industry-wide definition. It is subject to site-specific variations. Refer to *User-defined Table 0004 - Patient class* for suggested values.

Value	Description
E	Emergency
I	Inpatient
O	Outpatient
P	Preadmit
R	Recurring patient
B	Obstetrics
C	Commercial Account
N	Not Applicable
U	Unknown

Table 3-50. User-defined Table 0004 - Patient class

"Commercial Account" is used by reference labs for specimen processing when the service is billed back to a third party. A registration is processed for the specimen to facilitate the subsequent billing. The identity of the patient may be known or unknown. In either case, for billing and statistical purposes, the patient class is considered a commercial account due to the third party billing responsibility.

"Not Applicable" is used only in cases where the PV1 segment itself is not applicable but is retained in the message definitions for backwards compatibility (for example when a managed care system sends A28, A29, or A31 messages to indicate the enrolment of a patient in the system and there is no scheduled "visit" or "encounter" and hence the entire PV1 segment is not applicable).

NOTE: MPI will send 'N' to PSIM for Patient Class.

3.16.2 PV1-44 Admit Date/Time (TS) 00174

Definition: This field contains the current admit date/time or the last registration date/time. Using the PV1-2 Patient Class to determine if it's an admission date/time or a registration date/time.

3.17 PV2—Patient Visit Segment – Additional Information

The PV2 segment is a continuation of information contained on the PV1 segment.

NOTE: Only fields used by the MPI in the PV2 segment is PV2-8 Expected Admit Date/time for the next scheduled appointment, PV2-14 Previous Service Date for the last admission date, and PV2-46 Patient Status Effective Date for the last registration date (date only, time not included). All other fields may or may not be populated depending on the message type; however, none of them are used by the MPI.

NOTE: This segment is only included in A04, A08, and A31.

The PV2 segment is a continuation of information contained on the PV1 segment.

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	80	PL	C			00181	Prior Pending Location [not passed to MPI]
2	250	CE	O		0129	00182	Accommodation Code [not passed to MPI]
3	250	CE	O			00183	Admit Reason [not passed to MPI]
4	250	CE	O			00184	Transfer Reason [not passed to MPI]
5	25	ST	O	Y		00185	Patient Valuables [not passed to MPI]
6	25	ST	O			00186	Patient Valuables Location [not passed to MPI]
7	2	IS	O	Y	0130	00187	Visit User Code [not passed to MPI]
8	26	TS	O			00188	Expected Admit Date/Time (used for the Next Scheduled Appointment)
9	26	TS	O			00189	Expected Discharge Date/Time [not passed to MPI]
10	3	NM	O			00711	Estimated Length of Inpatient Stay [not passed to MPI]
11	3	NM	O			00712	Actual Length of Inpatient Stay [not passed to MPI]
12	50	ST	O			00713	Visit Description [not passed to MPI]
13	250	XCN	O	Y		00714	Referral Source Code [not passed to MPI]
14	8	DT	O			00715	Previous Service Date (used for the Last Admission Date)
15	1	ID	O		0136	00716	Employment Illness Related Indicator [not passed to MPI]
16	1	IS	O		0213	00717	Purge Status Code [not passed to MPI]
17	8	DT	O			00718	Purge Status Date [not passed to MPI]

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
18	2	IS	O		0214	00719	Special Program Code [not passed to MPI]
19	1	ID	O		0136	00720	Retention Indicator [not passed to MPI]
20	1	NM	O			00721	Expected Number of Insurance Plans [not passed to MPI]
21	1	IS	O		0215	00722	Visit Publicity Code [not passed to MPI]
22	1	ID	O		0136	00723	Visit Protection Indicator [not passed to MPI]
23	250	XON	O	Y		00724	Clinic Organization Name [not passed to MPI]
24	2	IS	O		0216	00725	Patient Status Code [not passed to MPI]
25	1	IS	O		0217	00726	Visit Priority Code [not passed to MPI]
26	8	DT	O			00727	Previous Treatment Date [not passed to MPI]
27	2	IS	O		0112	00728	Expected Discharge Disposition [not passed to MPI]
28	8	DT	O			00729	Signature on File Date [not passed to MPI]
29	8	DT	O			00730	First Similar Illness Date [not passed to MPI]
30	250	CE	O		0218	00731	Patient Charge Adjustment Code [not passed to MPI]
31	2	IS	O		0219	00732	Recurring Service Code [not passed to MPI]
32	1	ID	O		0136	00733	Billing Media Code [not passed to MPI]
33	26	TS	O			00734	Expected Surgery Date and Time [not passed to MPI]
34	1	ID	O		0136	00735	Military Partnership Code [not passed to MPI]
35	1	ID	O		0136	00736	Military Non-Availability Code [not passed to MPI]
36	1	ID	O		0136	00737	Newborn Baby Indicator [not passed to MPI]
37	1	ID	O		0136	00738	Baby Detained Indicator [not passed to MPI]
38	250	CE	O		0430	01543	Mode of Arrival Code [not passed to MPI]
39	250	CE	O	Y	0431	01544	Recreational Drug Use Code [not passed to MPI]
40	250	CE	O		0432	01545	Admission Level of Care Code [not passed to MPI]
41	250	CE	O	Y	0433	01546	Precaution Code [not passed to MPI]
42	250	CE	O		0434	01547	Patient Condition Code [not passed to MPI]
43	2	IS	O		0315	00759	Living Will Code [not passed to MPI]
44	2	IS	O		0316	00760	Organ Donor Code [not passed to MPI]
45	250	CE	O	Y	0435	01548	Advance Directive Code [not passed to MPI]
46	8	DT	O			01549	Patient Status Effective Date (used for the Last Registration Date) NOTE: Does not include Time.

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
47	26	TS	C			01550	Expected LOA Return Date/Time [not passed to MPI]

Table 3-51. HL7 Attribute Table - PV2 – Patient visit – additional information

PV2 Field Definition

3.17.1 PV2-8 Expected admit date/time (TS) 00188

Definition: This field contains the date and time that the patient has as their next scheduled outpatient appointment.

3.17.2 PV2-14 Previous service date (DT) 00715

Definition: This field contains the date of the last admission at this facility.

3.17.3 PV2-46 Patient Status Effective Date (DT) 01549

Definition: This field contains the date of the last registration at this facility.

3.18 QAK—Query Acknowledgement Segment

NOTE: Only field QAK-2 (Query Response Status) is used in the response to the Local/Missing ICN Resolution job and the K22 response to the Q22 query.

The QAK segment contains information sent with responses to a query. Although the QAK segment is required in the responses to the enhanced queries it may appear as an optional segment placed after the (optional) ERR segment in any query response (message) to any original mode query.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	MPI Description
1	32	ST	C			00696	Query Tag	Local/Missing ICN Resolution job or real-time query (VQQ): DFN of patient sent to MPI for ICN assignment RSP/K22: Original Query Message ID
2	2	ID	O		0208	00708	Query Response Status	Local/Missing ICN Resolution job or real-time query (VQQ): • NO DATA • NO DATA – POTENTIAL MATCHES FOUND • OK RSP/K22: Refer to Table 0208
3	250	CE	O			01375	Message Query Name	Local/Missing ICN Resolution job or real-time query (VQQ): (Not used) RSP/K22: Q22^Find Candidates^HL72.4
4	10	NM	O			01434	Hit Count	Local/Missing ICN Resolution job or real-time query (VQQ): (not used) RSP/K22: 0 or 1 for DFN/Site query.
5	10	NM	O			01622	This payload	Passed but not used by the MPI.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	MPI Description
6	10	NM	O			01623	Hits remaining	Passed but not used by the MPI.

Table 3-52. QAK—Query Acknowledgement, HL7 attributes

QAK Field Definition

3.18.1 QAK-1 Query Tag (ST) 00696

Definition: This field may be valued by the initiating system to identify the query, and may be used to match response messages to the originating query. If it is valued, the responding system is required to echo it back as the first field in the query Acknowledgement segment (QAK). This field differs from *MSA-2-message control ID* in that its value remains constant for each message (i.e., all continuation messages) associated with the query, whereas *MSA-2-Message control ID* may vary with each continuation message, since it is associated with each individual message, not the query as a whole. *QAK-1-Query tag* is not conditional on the presence of the *QRD-1-Query ID* field in the original mode queries: in the original mode queries *QAK-1-Query tag* is

Local/Missing ICN Resolution job or real-time query (VQQ): DFN of patient sent to MPI for ICN assignment

RSP/K22: Original Query Message ID

3.18.2 QAK-2 Query Response Status (ID) 00708

Definition: This field allows the responding system to return a precise response status. It is especially useful in the case where no data is found that matches the query parameters, but where there is also no error. It is defined with HL7 Table 0208—Query Response Status (Table 3-53 in this manual), as shown below:

Local/Missing ICN Resolution job or real-time query (VQQ): NO DATA, NO DATA – POTENTIAL MATCHES FOUND, or OK

RSP/K22: Table values used.

Value	Description
OK	Data found, no errors (this is the default)
NF	No data found, no errors
AE	Application error
AR	Application reject

Table 3-53. HL7 Table 0208—Query Response Status

3.18.3 QAK-3 Message query name (CE) 01375

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains the name of the query. These names are assigned by the function-specific chapters of this specification. Site-specific event replay query names begin with the letter "Z." Refer to *User defined table 0471 - Query name* for suggested values.

Local/Missing ICN Resolution job or real-time query (VQQ): This field is not used

RSP/K22: Q22^Find Candidates^HL72.4

3.18.4 QAK-4 Hit count total (NM) 01434

Definition: This field, when used, contains the total number of records found by the Server that matched the query. For tabular responses, this is the number of rows found. For other response types, the Conformance Statement defines the meaning of a "hit."

Local/Missing ICN Resolution job or real-time query (VQQ): This field is not used

RSP/K22: 0 or 1 for DFN/Site query.

3.19 QPD—Query Parameter Definition Segment

The QPD segment defines the parameters of the query.

SEQ	LEN	DT	OPT	RP	TBL	Item	Element Name	MPI Description
1	250	CE	R		0471	01375	Message Query Name	Q22^Find Candidates^HL72.4
2	32	ST	C			00696	Query Tag	Original Message ID
3	256	varies				01435	User Parameters (in successive fields)	DFN/Station Number or Last name, first name, date of birth and social security number, etc.
4	256	varies				01435	Matching Algorithm Name	VHA MPI or INITIATE
5	256	varies				01435	Matching Algorithm Version	1.0 or 7.5
6	2	varies				01435	User parameters	TF = add the site sending the query to the Treating Facility List. AS = add the site sending the query to the site association for the Treating Facility for the site associated with the DFN. BT = add both the TF and the AS. NT = don't add a TF or an AS (If nothing is passed the default will be NT). **When user parameters are last name, first name, etc, only NT will be supported at this time.

Table 3-54. QPD—Query Parameter Definition, HL7 attributes

QPD Field Definitions

3.19.1 QPD-1 Message query name (CE) 01375

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains the name of the query. These names are assigned by the function-specific chapters of this specification. It is one to one with the conformance statement for this query name, and it is in fact an identifier for that conformance statement. Site-specific query names begin with the letter "Z." Refer to *User defined table 0471 - Query name* for suggested values.

Q22^Find Candidates^HL72.4

3.19.2 QPD-2 Query tag (ST) 00696

Definition: This field may be valued by the initiating system to identify the query, and may be used to match response messages to the originating query. If this field is valued, the responding system is required to echo it back as the first field in the query acknowledgement segment (QAK).

This field differs from *MSA-2-Message control ID* in that its value remains constant for each message (i.e. all continuation messages) associated with the query, whereas *MSA-2-Message control ID* may vary with each continuation message, since it is associated with each individual message, not the query as a whole.

NOTE: ***Implementation considerations:*** It is not necessary to value this field in implementations where the only return message on the socket will be the response to the query that was just sent. Conversely, in an "asynchronous" implementation where many queries, responses, and other messages may be communicated bidirectionally over the same socket, it is essential that this field be valued so that the Client knows to which query the Server is responding.

Original Message ID

3.19.3 QPD-3 User parameters (Varies) 01435

Definition: These successive parameter fields hold the values that the Client passes to the Server.

The client data is presented as a sequence of HL7 fields. Beginning at *QPD-3-User parameters*, the remaining fields of the QPD segment carry user parameter data. Each QPD user parameter field corresponds to one parameter defined in the Conformance Statement, where each name, type, optionality, and repetition of each parameter has been specified. While these parameters are understood to be usually "anded" together, the user must inspect the required Conformance Statement to properly understand each. Except in the QSC variant, the parameter names do not need to be stated in the query; they are understood to be positional based on the Conformance Statement.

Each parameter field may be specified in the Conformance Statement to be of any single data type, including the complex QIP and QSC types. Parameter fields may also contain the sort control (SRT) field or the segment group (ID) field defined in Sections 5.4.5.3.1 and 5.4.5.3.2 below.

Parameter fields in the QPD segment appear in the same order as in the Conformance Statement.

1st implementation: DFN/Station number

PID.3 = <dfn>~~~USVHA&&0363~PI~VA FACILITY ID&<station #>&L

@PID.3.1^<dfn>
@PID.3.2^<null>
@PID.3.3^<null>
@PID.3.4^USVHA&&0363
@PID.3.5^PI
@PID.3.6^VA FACILITY ID&<station#>&L

2nd implementation: Last Name, First Name, Date of Birth, Social Security Number

@PID.5.1^<last name>
@PID.5.2^<first name>
@PID.5.3^<null>
@PID.5.4^<null>
@PID.5.5^<null>
@PID.5.6^<null>
@PID.5.7^L

@PID.7^<date of birth in HL7 format>

@PID.3.1^<social security number>
@PID.3.2^<null>
@PID.3.3^<null>
@PID.3.4^USVHA&&0363
@PID.3.5^SS
@PID.3.6^VA FACILITY ID&<station#>&L

MPI implementation of QBP/Q22 to send to PSIM for the Initiate Algorithm implementation

- SSN
  @PID.3^<ssn>^<null>^<null>^USVHA&&0363^SS^VA FACILITY ID&<station#>&L
- Claim Number
  @PID.3^<claim number>^<null>^<null>^<null>^USVBA&&0363^PN^VA FACILITY ID&<station#>&L
- Name
  @PID.5^<last name>^<first name>^<middle>^<suffix>^<>^<>^<>^<L>
- Physical Address
  @PID.11^<Physical Address Line 1>^<Physical Address Line 2>^<Physical Address City>^<Physical Address State>^<Physical Address Zip Code>^<country>^P
- Date of Birth
  @PID.7^<date of birth in HL7 format>
- Home Phone (Area Code & Number)
  @PID.13^<Home Phone>

- Gender
  @PID.8^<Gender>
- Date of Last Treatment
  @EVN.2^<Last Treatment Date >
- Date of Death
  @PID.29^<date of death>
- Multiple Birth Indicator
  @PID.24^<multiple birth indicator>
- Place of Birth City and State
  @PID.11^<>^<>^<Place of birth City>^<Place of birth State>^<>^<country>^N
- Race (repeatable)
  @PID.10^<race>^<>^<coding scheme>
- Ethnicity
  @PID.22^<ethnicity>^<>^<coding scheme>
- Mother's Maiden Name
  @PID.5^<mothers maiden name>^<>^<>^<>^<>^<>^<>^<M>
- Marital Status
  @PID.16^<marital status>^<>^<coding scheme>

Example: MPI implementation of QBP/Q22

```
MSH^~|\&^MPI APP^200M~HL7.MPI-AUSTIN.MED.VA.GOV:5026~DNS^PSIM^200PS~ps-
dev.commserv.healthevet.va.gov:8090~DNS^20081031093516-0500^^QBP~Q22~^200M
109030^P~^2.4^^^AL^AL^USA
QPD^Q22~FIND CANDIDATES~HL72.4^888387888^@PID.5~SMITH~JOHN~~~~~~L|
@PID.3~123456789~~~USVHA&&0363~SS~VA FACILITY ID&553&L|@PID.3~123456789~~~
USVBA&&0363~PN~VA FACILITY ID&553&L|@PID.7~500 MAIN STREET~NOT
USED~JACKSONVILLE~NC~28546~~P~NOT USED|@PID.7~20020506|@PID.13~(555)555-
0000|@PID.8~M|@EVN.2~20080312|@PID.29~20080222|@PID.24~Y|@PID.11~~~New York
City~NY~~USA~N|@PID.10~1002-
5~~HL005|@PID.22~H~~HL0189|@PID.5~SMITH~~~~~~~M|@PID.16~M~~HL0002^INITIATE^7.5
RCP^I^1000~RD^R^^N^
```

3.19.4 QPD-4 User parameters (Varies) 01435

Matching Algorithm Name

Value will be when incoming from non-PSIM application: VHA MPI
Value will be when going to PSIM from the MPI: INITIATE

3.19.5 QPD-5 User parameters (Varies) 01435

Matching Algorithm Version

When matching algorithm name is VHA MPI Value will be: 1.0

When matching algorithm name is INITIATE value will be: 7.5

3.19.6 QPD-6 User parameters (Varies) 01435

Record Linking Action

Value will be when Algorithm is VHA MPI one of the following:

TF = add the site sending the query to the Treating Facility List

AS = add the site sending the query to the site association for the Treating Facility for the site associated with the DFN

BT = add both the TF and the AS

NT = add neither the TF or the AS (If nothing is passed the default will be NT)

NOTE: QPD usage for query by example variant: The query by example is an extension of Query By Parameter (QBP) in which search parameters are passed by sending them in the segment, which naturally carries them. Thus if one wanted to perform a "find_candidates" query using query by example, one would send the demographics information on which to search in the PID and/or PD1 segments leaving blank those fields in the segment sent which are not query parameters. If, for example, religion were not one of the query parameters, PID-17 would be left blank when the PID was sent in the query. Parameters which do not occur naturally in an HL7 message, such as search algorithm, confidence level, etc, would continue to be carried in the QPD segment as they are in the Query by Parameter. The segments and fields available for use as query parameters would be specified in the Conformance Statement for the query.

Value will be when Algorithm is INITIATE: NT (doesn't need to be specified, default value)

3.20 QRD—Original-Style Query Definition Segment

The QRD segment is used to define a query.

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name	MPI Description
1	26	TS	R			00025	Query Date/Time	Date/Time query built
2	1	ID	R		0106	00026	Query Format Code	R – for record orientated response
3	1	ID	R		0091	00027	Query Priority	I for immediate
4	10	ST	R			00028	Query ID	Integration Control Number
5	1	ID	O		0107	00029	Deferred Response Type	No value passed by the MPI
6	26	TS	O			00030	Deferred Response Date/Time	No value passed by the MPI
7	10	CQ	R		0126	00031	Quantity Limited Request	1<component separator> RD
8	250	XCN	R	Y		00032	Who Subject Filter	repeat patient ID list including ICN,SSN AND site/DFN
9	250	CE	R	Y	0048	00033	What Subject Filter	DEM for demographics GID for Generate new identifier
10	250	CE	R	Y		00034	What Department Data Code	No value passed by the MPI
11	20	CM	O	Y		00035	What Data Code Value Qual	No value passed by the MPI
12	1	ID	O		0108	00036	Query Results Level	No value passed by the MPI

Table 3-55. QRD—Original-Style Query Definition, HL7 attributes

QRD Field Definitions

3.20.1 QRD-1 Query Date/Time (TS) 00025

Definition: This field contains the date the query was generated by the application program.

3.20.2 QRD-2 Query Format Code (ID) 00026

Definition: This field refers to valid values in the HL7 Table 0106—Query/Response Format Code (Table 3-56 in this manual), as shown below:

Value	Description
R	Response is in record-oriented format
T	Response is in tabular format

Table 3-56. HL7 Table 0106—Query/Response Format Code

The MPI is always passing R.

3.20.3 QRD-3 Query Priority (ID) 00027

Definition: This field contains the time frame in which the response is expected.

REF: For a list of valid values, please refer to Table 3-57 in this manual, "HL7 Table 0091—Query Priority." Table values and subsequent fields specify time frames for response.

Value	Description
I	Immediate

Table 3-57. HL7 Table 0091—Query Priority

3.20.4 QRD-4 Query ID (ST) 00028

Definition: This field contains a unique identifier for the query. Assigned by the querying application. Returned intact by the responding application.

Integration Control Number is passed as the value used for lookup at the site.

3.20.5 QRD-5 Deferred Response Type (ID) 00029

No value passed by the MPI.

3.20.6 QRD-6 Deferred Response Date/Time (TS) 00030

No value passed by the MPI.

3.20.7 QRD-7 Quantity Limited Request (CQ) 00031

Components: <quantity (NM)> ^ <units (CE)>

Definition: This field contains the maximum length of the response that can be accepted by the requesting system. Valid responses are numerical values (in the first component) given in the units specified in the second component.

REF: For a list of valid entries for the second component, please refer to Table 3-58 in this manual, "HL7 Table 0126—Quantity Limited Request." Default is LI (lines).

Value	Description
RD	Records

Table 3-58. HL7 Table 0126—Quantity Limited Request

3.20.8 QRD-8 Who Subject Filter (XCN) 00032

Components: <ID number (ST)> ^ <family name (FN)> ^ <given name (ST)> ^ <second and further given names or initials thereof (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code (ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)> ^ <name representation code (ID)> ^ <name context (CE)> ^ <name validity range (DR)> ^ < name assembly order (ID)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Definition: This field contains the list of identifiers (one or more) used by the healthcare facility to uniquely identify a patient (e.g., VistA Internal ID [DFN], Claim Number, VHA MPI Integration Control Number [ICN], Social Security Number [SSN], unique individual identifier, etc.).

REF: For a list of valid values, please refer to "HL7 Table 0061—Check Digit Scheme" in the HL7 Standard Version 2.4 documentation. The arbitrary term of "internal ID" has been removed from the name of this field for clarity.

Future supported values are listed below:

Identifier	Assigning Authority	Identifier type	Assigning Location	Expiration date
National ICN	USVHA	NI	200M	
SSN	USSSA	SS	unique station# id	
VistA ID (DFN)	USVHA	PI	unique station# id	

Table 3-59. VA Patient identifiers

NOTE: This field should *not* have been a required field. However, for backwards compatibility it remains a required field. There are some queries in the standard that have not required this field.

3.20.9 QRD-9 What Subject Filter (CE) 00033

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field describes the kind of information that is required to satisfy the request. Valid values define the type of transaction inquiry and may be extended locally during implementation. DEM is the only value currently being utilized.

Value	Description
DEM	Demographics
GID	Generate new identifier

Table 3-60. HL7 Table 0048—What Subject Filter

REF: For detailed examples of use of various query filter fields, please refer to the "*HL7 Implementation Guide*."

3.20.10 QRD-10 What Department Data Code (CE) 00034

No value passed by the MPI.

3.20.11 QRD-11 What Data Code Value Qual (CM) 00035

No value passed by the MPI.

3.20.12 QRD-12 Query Results Level (ID) 00036

No value passed by the MPI.

3.21 QRI—Query Response Instance Segment

The QRI segment is used to indicate the weight match for a returned record (where the responding system employs a numeric algorithm) and/or the match reason code (where the responding system uses rules or other match options).

Examples of the use of this segment appear in Section 3.6, “MPI Queries.”

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	10	NM	O			01436	Candidate Confidence
2	2	IS	O	Y	0392	01437	Match Reason Code
3	250	CE	O		0393	01438	Algorithm Descriptor

Table 3-61. HL7 Attribute Table – QRI – Query Response Instance

QRI Field Definitions

5.1.1.0 QRI-1 Candidate confidence (NM) 01436

Definition: This field contains a numeric value indicating the match weight or confidence level associated with the record.

Example: |0.88| or |12.32|

One use of this optional field is in Patient Look-up transactions where the searching system employs a numeric algorithm for determining potential matches to patient/person look-ups.

Score returned from the Initiate Algorithm.

5.1.1.1 QRI-2 Match reason code (IS) 01437

Definition: This field contains a coded value indicating what search components (e.g., name, birth date, social security number) of the record returned matched the original query where the responding system does not assign numeric match weights or confidence levels. In short, it provides a method for passing a descriptive indication of why a particular record was found.

Refer to *User-defined Table 0392 - Match reason* for suggested values.

Value	Description
DB	Match on Date of Birth
NA	Match on Name (Alpha Match)
NP	Match on Name (Phonetic Match)

Value	Description
SS	Match on Social Security Number

Table 3-62. User-defined Table 0392 – Match reason

5.1.1.2 QRI-3 Algorithm descriptor (CE) 01438

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

Definition: This field contains a text value indicating the name or identity of the specific search algorithm to which the *RCP-5 Search confidence threshold* and the *QRI-1 Candidate confidence* refer. Note that there are sometimes significant differences among the algorithms in their numeric scales (e.g., one is 0-100, another might be 10 – 20) as well as their meanings of the same value (two algorithms with an 80% match might not return the same records). Refer to *User-defined Table 0393 - Match algorithms* for suggested values.

Value	Description
LINKSOFT_2.01	Proprietary algorithm for LinkSoft v2.01
MATCHWARE_1.2	Proprietary algorithm for MatchWare v1.2
INITIATE	Proprietary algorithm for Initiate 7.5

Table 3-63. User-defined Table 0393 – Match algorithms

Example: |MATCHWARE_1.2^^HL7nnnn| or |LINKSOFT_2.01^HL7nnnn|

One use of this optional field is in Patient Look-up transactions where the searching system employs a numeric algorithm for determining potential matches to patient/person look-ups.

Example: 102-145~INITIATE

- In the example above, the value 102 represents the TASK THRESHOLD in the MPI PARAMETER file (#985.1).
- In this example above, the value 145 represents the AUTO-LINK THRESHOLD in the MPI PARAMETER file (#985.1).

3.22 RCP—Response Control Parameter Segment

The RCP segment is used to restrict the amount of data that should be returned in response to query.

SEQ	LEN	DT	OPT	RP	TBL	Item#	Element name	MPI Description
1	1	ID	O		0091	00027	Query Priority	I
2	10	CQ	O		0126	00031	Quantity Limited Request	0-1 when algorithm is VHA MPI 100 when algorithm is INITIATE
3	250	CE	O		0394	01440	Response Modality	R
4	26	TS	C			01441	Execution and Delivery Time	No value will be passed
5	1	ID	O		0395	01443	Modify Indicator	N
6	512	SRT	O	Y		01624	Sort-by Field	Passed but not used for the VHA MPI or Initiate implementations
7	256	ID		Y		01594	Segment group inclusion	Passed but not used for the VHA MPI or Initiate implementations

Table 3-64. RCP—Response Control Parameter, HL7 Attribute

RCP Field Definitions

3.22.1 RCP-1 Query priority (ID) 00027

Definition: This field contains the time frame in which the response is expected. Refer to *HL7 Table 0091 - Query priority* for valid values. Table values and subsequent fields specify time frames for response.

Always immediate.

Value	Description
D	Deferred
I	Immediate

Table 3-65. HL7 Table 0091—Query priority

3.22.2 RCP-2 Quantity limited request (CQ) 00031

Components: <quantity (NM)> ^ <units (CE)>

Definition: This field contains the maximum length of the response that can be accepted by the requesting system. Valid entries are numerical values (in the first component) given in the units specified in the second component. Default is LI (lines).

REF: Refer to *HL7 Table 0126 - Quantity limited request* for valid entries for the second component. In a segment pattern response, a line is defined as a single segment.

The RCP-2 field should be passed with a value of 1 for all unattended searches so that there will be one and only one matched record return. For attended searches that desire matched record and potential match record(s), the value of RCP-2 should be greater than 1.

For DFN/Station # the range would be 0-1. (To be revisited when we have other search methods).

For INITIATE algorithm name the range would be 0-100.

Value	Description	Message Usage	Comment
CH	Characters	RSP/RTB/RDY	Used where size of input buffer has limitations
LI	Lines	RTB/RDY	
PG	Pages	RDY	
RD	Records	RSP/RTB/RDY	In RSP record = hit
ZO	Locally defined		

Table 3-66. HL7 Table 0126—Quantity limited request

3.22.3 RCP-3 Response modality (CE) 01440

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <alternate coding system (IS)>

Definition: This field specifies the timing and grouping of the response message(s). Refer to *HL7 Table 0394 – Response modality* for valid values.

We would always be Real Time, possible batch in the future.

Value	Description
R	Real Time
T	Bolus (a series of responses sent at the same time without use of batch formatting)
B	Batch

Table 3-67. HL7 Table 0394—Response modality

3.22.4 RCP-4 Execution and delivery time (TS) 01441

Specifies the time the response is to be returned. This field is only valued when *RCP-1-Query priority* contains the value **D** (Deferred).

Only used for deferred queries (Response modality)

3.22.5 RCP-5 Modify indicator (ID) 01443

Definition: This field specifies whether the subscription is new or is being modified. Refer to *HL7 Table 0395 - Modify indicator* for valid values.

New one each time.

Value	Description
N	New Subscription
M	Modified Subscription

Table 3-68. HL7 Table 0395—Modify indicator

3.22.6 RCP-6 Sort-by field (SRT) 01624

Components: <sort-by field/parameter (varies)> ^ <sequencing (ID)>

Definition: For queries requesting a tabular response, this field specifies by which fields the response is to be sorted, and the order(s) in which sorting is to be performed. When the QSC variant is not in use, the values specified for the first component in this field are derived from the ColName field of the Output Specification and Commentary. When the QSC variant is used, the values are derived from the ColName field of the Input/Output Specification and Commentary.

Each repetition of this field specifies a single sort field. Thus, the first repetition of this field specifies the primary sort field; the second repetition specifies the secondary sort field; etc.

We would NOT use for the DFN/Site query since there is only 1 value or 0 value returned.

3.22.7 RCP-7 Segment group inclusion (ID) 01594

Definition: Specifies those optional segment groups which are to be included in the response. Refer to *HL7 Table 0391—Segment group* for values for Segment Group. This is a repeating field, to accommodate inclusion of multiple segment groups. The default for this field, not present, means that all relevant groups are included.

Default is not present, which includes all relevant groups.

NOTE: Although the codes for segment groups are taken from *HL7 Table 0391*, the exact segment-level definition of a segment group (e.g. PIDG) is given only in the conformance statement of the query in which this segment group appears.

For example:

Value	Description
PIDG	PID group
OBRG	OBR group
ORCG	ORC group
RXAG	RXA group
RXDG	RXD group
RXEG	RXE group
RXOG	RXO group
etc	

Table 3-69. HL7 Table 0391—Segment group

NOTE: *HL7 Table 0391 – Segment group* currently includes no values defined by HL7. As values are agreed upon in conformance statements balloted by HL7 Technical Committees, they will be included in this table.

3.23 RDF—Table Row Definition Segment

The RDF segment defines the content of the row data segments (RDT) in the Tabular Data Response Message (TBR). It is used in two ways:

1. As an optional segment in the SPQ message (Stored Procedure Request) or the VQQ (Virtual Table Query) message, this segment can be used to limit the number of columns returned and to specify what column positions the fields occupy (where supported, these features can be used to override the defaults for the particular query). If omitted, all fields defined for the query are returned in their default column order.
2. As a required segment on the tabular data response message (TBR), this segment defines the contents of the table row data (RDT) segments that follow.

SEQ	LEN	DT	OPT	RP/#	TBL#	Item#	Element Name
1	3	NM	R			00701	Number of Columns per Row
2	40	RCD	R	Y		00702	Column Description

Table 3-70. RDF—Table Row Definition, HL7 attributes

RDF Field Definitions

3.23.1 RDF-1 Number of columns per row (NM) 00701

Definition: This field specifies the number of data columns (and therefore the number of fields) contained within each row of returned data.

24 passed for the number of fields potentially returned in response.

3.23.2 RDF-2Column Description (RCD) 00702

Components: <Segment field name (ST)> ^ <HL7 data type (ST)> ^ <maximum column width (NM)>

Definition: Each repetition of this field consists of three components:

Component 1: HL7 field number,

Component 2: data type,

Component 3: maximum length.

The HL7 field designation numbers and translations for each are as follows:

Field	HL7 Field#	Data Type	Max Length
Last Name	00108.1	ST	30
SSN	00122	ST	9
DOB	00110	TS	8
CMOR	00756	ST	6
ICN	00105	ST	19
First Name	00108.2	ST	30
Treating Facilities (multiple entries possible)	00169	ST	999
Date of Death	00740	TS	8
Middle Name	00108.3	ST	16
Sex	00111	ST	1
POB- City	00126.1	ST	30
POB – State	00126.2	ST	3
Name Prefix	00108.5	ST	15
Name Suffix	00108.4	ST	10
Mother's Maiden Name	00109.1	ST	20
Claim Number	ZEL6	ST	9
MPI DUP CASE#	CASE#	ST	69
POW Status	POW	ST	1
Multiple Birth Indicator	00127	ST	1
Alias Last Name	00112.1	ST	30
Alias First Name	00112.2	ST	25
Alias Middle Name	00112.3	ST	25
Alias Prefix	00112.5	ST	10
Alias Suffix	00112.4	ST	10

Table 3-71. HL7 field designation numbers and translations

REF: For a list of relational operators, please refer to Table 3-75 in this manual, "HL7 Table 0209—Relational operator."

REF: For a list of relational conjunctions, please refer to Table 3-76 in this manual, "HL7 Table 0210—Relational conjunction"

3.24 RDT—Table Row Data Segment

The RDT segment contains the row data of the tabular data response message (TBR).

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name
1-n	Variable	Variable	R			00703	Column Value

Table 3-72. RDT—Table Row Data, HL7 attributes

RDT Field Definition

3.24.1 RDT-1 Column value (Variable) 00703

Definition: This field is a requested field. Fields occur in the position order defined for the query or table, (unless overridden by an optional RDF segment on a stored procedure request or virtual table query message), separated by field delimiters.

Values returned correspond directly to the values in the RDF—Table Row Definition Segment. If that field isn't populated, no value is passed.

Field	HL7 Field#	Data Type	Max Length
Last Name	00108.1	ST	30
SSN	00122	ST	9
DOB	00110	TS	8
CMOR	00756	ST	6
ICN	00105	ST	19
First Name	00108.2	ST	30
Treating Facilities (multiple entries possible)	00169	ST	999
Date of Death	00740	TS	8
Middle Name	00108.3	ST	16
Sex	00111	ST	1
POB- City	00126.1	ST	30
POB – State	00126.2	ST	3
Name Prefix	00108.5	ST	15
Name Suffix	00108.4	ST	10
Mother's	00109.1	ST	20

Field	HL7 Field#	Data Type	Max Length
Maiden Name			
Claim Number	ZEL6	ST	9
MPI DUP CASE#	CASE#	ST	69
POW Status	POW	ST	1
Multiple Birth Indicator	00127	ST	1
Alias Last Name	00112.1	ST	30
Alias First Name	00112.2	ST	25
Alias Middle Name	00112.3	ST	25
Alias Prefix	00112.5	ST	10
Alias Suffix	00112.4	ST	10

Table 3-73. HL7 field designation numbers and translations

3.25 VTQ—Virtual Table Query Request Segment

The VTQ segment is used to define queries that are responded to with the Tabular Data Message (TBR). The VTQ query message is an alternate method to the EQQ query message that some systems may find easier to implement, due to its use of HL7 delimiters that separate components of the selection definition, and its limited selection criteria. Queries involving complex selection criteria (nested operators, etc.) may need to be formatted as an EQL segment.

NOTE: As with the other query methods, the functional chapters define specific queries supported as VTQ messages. Please refer to the functional chapters in the HL7 Version 2.4 documentation for the lists of HL7-defined virtual tables, selection lists, and criteria.

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name	MPI Description
1	32	ST	O			00696	Query Tag	DFN of patient at site
2	1	ID	R		0106	00697	Query/Response	T
3	60	CE	R			00698	VT Query Name	2 possible values
4	60	CE	R			00699	Virtual Table Name	ICN
5	256	QSC	O	Y		00700	Selection Criteria	Fields used in Query

Table 3-74. VTQ—Virtual Table Query Request, HL7 attributes

VTQ Field Definitions

3.25.1 VTQ-1 Query tag (ST) 00696

Definition: This field may be valued by the initiating system to identify the query, and may be used to match response messages to the originating query. If it is valued, the responding system is required to echo it back as the first field in the query Acknowledgement segment (QAK). This field differs from MSA-2-message control ID in that its value remains constant for each message (i.e., all continuation messages) associated with the query, whereas MSA-2-message control ID may vary with each continuation message, since it is associated with each individual message, not the query as a whole.

3.25.2 VTQ-2 Query/Response Format Code (ID) 00697

Definition: This field refers to HL7 Table 0106—Query/Response Format Code (Table 3-56 in this manual), which lists valid values. At this point in time the only value used is T.

3.25.3 VTQ-3 VT Query Name (CE) 00698

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>

Definition: This field contains the name of the virtual table query.

NAME	FUNCTION
VTQ_PID_ICN_LOAD_1	Used to tell MPI that this is in initialization phase
VTQ_PID_ICN_NO_LOAD	Used to inquire to the MPI without any addition to MPI
VTQ_DISPLAY_ONLY_QUERY	Used to tell MPI that this is the Display Only Query
EXACT_MATCH_QUERY	Used to tell the MPI that only exact matches should be returned based upon business rules

3.25.4 VTQ-4 Virtual Table Name (CE) 00699

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>

Definition: This field contains the name of the virtual table being referenced. This table name may refer to an HL7-defined segment, an HL7 virtual table, or a site-specific "Z table."

Integration Control Number (ICN).

REF: For more information HL7 virtual tables, please refer to the functional chapters in the HL7 Standard Version 2.4 documentation.

3.25.5 VTQ -5 Selection Criteria (QSC) 00700

Components: <segment field name (ST)> ^ <relational operator (ID)> ^ <value (ST)> ^ <relational conjunction (ID)>

Definition: Each repetition of this field defines a column in the RDT segment: the first repetition defines the first column of the RDT segment; the second repetition defines the second column of the RDT segments, etc.

This field indicates the conditions that qualify the rows to be returned in the query response. (This field conveys the same information as the "WHERE" clause in the corresponding SQL expression of the query, but is formatted differently.) It is comprised of the following components:

- A relational operator.
- The value to which the field will be compared.

Field	HL7 Field#	Data Type	Max Length	Notes
Last Name	00108.1	ST	30	Must be present
SSN	00122	ST	9	Not sent if null
DOB	00110	TS	8	Not sent if null
First Name	00108.2	ST	30	Not sent if null
Date of Death	00740	TS	8	Not sent if null
Middle Name	00108.3	ST	16	Not sent if null
Sex	00111	ST	1	Not sent if null
POB- City	00126.1	ST	30	Not sent if null
POB – State	00126.2	ST	3	Not sent if null
Name Suffix	00108.4	ST	10	Not sent if null
Permanent Physical Address	00114	XAD	250	Not sent if null
Physical Address Line 2	00114			Not sent if null
Physical Address Line 3	00114			Not sent if null
Physical Address City	00114			Not sent if null
Physical Address State	00114			Not sent if null
Physical Address Zip Code	00114			Not sent if null
Home Phone	00116	XTN	250	Not sent if null
Last Activity Date				Not sent if null
Multiple Birth Indicator	00127	ID	1	Not sent if null
Race	00113	CE	250	Not sent if null
Ethnicity	00125	CE	250	Not sent if null
Marital Status	00119	CE	250	Not sent if null

NOTE: All fields are sent with equals, except DOB, which can be equals or generic. Generic is used for imprecise DOB.

REF: For a list of relational operators, please refer to Table 3-75 in this manual, "HL7 Table 0209—Relational operator."

Relational Operator	Value
EQ	Equal
NE	Not Equal
LT	Less than
GT	Greater than
LE	Less than or equal
GE	Greater than or equal
CT	Contains
GN	Generic

Table 3-75. HL7 Table 0209—Relational operator

If more than one comparison is to be made to select qualifying rows, a conjunction relating this repetition of the field to the next. Table 0210 provides a list of relational conjunctions.

Relational Conjunction	Note
AND	Default
OR	

Table 3-76. HL7 Table 0210—Relational conjunction

Hence, the segment (shown below) causes a response to be generated from the virtual table defined by the PID segment. All rows containing the name field subcomponents defined in the selection criteria field (last name = "Evans," first name = "Carolyn") will be selected for the response. The RDF segment will define the columns returned from each selected row.

```
VTQ|100000082|T|VTQ_PID_ICN_NO_LOAD|ICN|@00108.1^EQ^MPIPATIENT^AND~@00122^EQ^0000645
67^AND~@00108.2^EQ^TEN^AND~@00110^EQ^19780303
```

NOTES:

- As previously stated, the VTQ segment does not, and is not intended to, provide as robust selection function as native EQQ query. It is offered as a simpler alternative.
- When applied to strings, the relational operators LT, GT, LE, and GE imply an alphabetic comparison.
- A "generic" comparison selects a record for inclusion in the response if the beginning of the designated field matches the select string.
- Where a repeating field is specified as an operand, a match on any instance of that field qualifies the row for inclusion in the response message.

- AND takes precedence over OR. More sophisticated precedence rules require that the query be expressed as an SQL message, or a stored procedure for the query may be written and referenced with the SPR segment.

3.26 ZCT—VA Specific Emergency Contact Segment

NOTE: The ZCT—VA Specific Emergency Contact segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	4	SI	R			SET ID
2	1	ID				NEXT OF KIN (NOK) **NOTE:** Value is always 1 for patient requested
3	35	ST				K-NAME OF PRIMARY NOK
4	30	ST				K-RELATIONSHIP TO PATIENT
5	106	AD		Y		Component 1:K-STREET ADDRESS (LINE 1) Component 2:K-STREET ADDRESS (LINE 2) & K-STREET ADDRESS (LINE 3) Component 3: K-CITY Component 4: K-STATE (abbreviation) Component 5: K-ZIP code
5	106	AD		Y		K-ADDRESS SAME AS PATIENT'S?
6	40	TN		Y		K-PHONE NUMBER
7	40	TN		Y		K-WORK PHONE NUMBER
8	1	ID			VA01	K-ADDRESS SAME AS PATIENT'S?
9	1	ID			VA01	PRIMARY NOK

Table 3-77. ZCT—VA Specific Emergency Contact, HL7 attributes

3.27 ZEL—VA Specific Patient Eligibility Segment

NOTE: The ZEL—VA Specific Patient Eligibility segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	4	SI	R			SET ID
2	2	ID			VA04	ELIGIBILITY or PRIMARY ELIGIBILITY CODE
3	16	CX				LONG ID or PRIMARY LONG ID
4	12	CX				SHORT ID or PRIMARY SHORT ID
5	1	ID			VA05	DISABILITY RET. FROM MILITARY?
6	8	NM				CLAIM NUMBER
7	40	ST				CLAIM FOLDER LOCATION
8	1	ID			VA01	VETERAN (Y/N)?
9	30	ST				TYPE
10	1	ID			VA06	ELIGIBILITY STATUS
11	8	DT				ELIGIBILITY STATUS DATE
12	8	DT				ELIGIBILITY INTERIM RESPONSE
13	50	ST				ELIGIBILITY VERIF. METHOD
14	1	ID			VA01	RECEIVING A&A BENEFITS?
15	1	ID			VA01	RECEIVING HOUSEBOUND BENEFITS?
16	1	ID			VA01	RECEIVING A VA PENSION?
17	1	ID			VA01	RECEIVING A VA DISABILITY?
18	1	ID			VA01	AGENT ORANGE EXPOS. INDICATED?
19	1	ID			VA01	RADIATION EXPOSURE INDICATED?
20	1	ID	Y		VA01	ENVIRONMENTAL CONTAMINANTS?
21	5	NM				TOTAL ANNUAL VA CHECK AMOUNT
22	22	CE			VA0122	RADIATION EXPOSURE METHOD

Table 3-78. ZEL—VA Specific Patient Eligibility, HL7 attributes

3.28 ZEM—VA Specific Employment Information Segment

NOTE: The ZEM—VA Specific Employment Information segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	4	SI	R			SET ID
2	1	ID				PATIENT DATA REQUESTED?
3	1	ID			VA15	EMPLOYMENT STATUS
4	30	ST				EMPLOYER NAME
5	30	ST				OCCUPATION
6	106	AD				Component 1: EMPLOYER STREET [LINE 1] Component 2: EMPLOYER STREET [LINE 2] AND EMPLOYER STREET [LINE 3] Component 3: EMPLOYER CITY Component 4: EMPLOYER STATE Component 5: EMPLOYER ZIP CODE
7	40	TN				EMPLOYER PHONE NUMBER
8	1	ID			VA01	GOVERNMENT AGENCY

Table 3-79. ZEM—VA Specific Employment Information, HL7 attributes

3.29 ZET—VA Specific Event Reason for Date of Last Treatment Segment

This is a VA defined segment used to transmit event reason for date of last treatment.

NOTE: The ZET—Event Reason for Date of Last Treatment segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	OPT	RP/#	TBL#	Item	Element Name
1	2	CE			ZZ011		EVENT REASON CODE NAME
2	90	XON	O				PATIENT PRIMARY FACILITY

Table 3-80. ZET—Event Reason for Date of Last Treatment, HL7 attributes

ZET Field Definitions

3.29.1 ZET-1 Event Reason Code Name

Definition (ZZ011): This field defines the corresponding event that has occurred. The possible values are:

A1: Admission

A2: Discharge

A3: Clinic check-out

3.29.2 ZET-2 Patient Primary Facility

Definition: This field defines the facility at which the event has taken place.

Component 1: Name
Component 2: Station Number

3.30 ZFF—VA Specific File/Field Segment

NOTE: The ZFF—VA Specific File/Field segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	20	NM	R			FILE NUMBER
2	150	ST	R			FIELD NUMBER(S)

Table 3-81. ZFF—VA Specific File/Field, HL7 attributes

3.31 ZPD—VA Specific Patient Information Segment

A	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	4	SI	R			SET ID - PATIENT ID (always 1) (Passed but not used by MPI)
2	60	ST				REMARKS (Passed but not used by MPI)
3	20	ST				PLACE OF BIRTH [CITY] (Use the one passed in the PID segment—Passed but not used by MPI)
4	2	ST				PLACE OF BIRTH [STATE] (Use the one passed in the PID segment—Passed but not used by MPI)
5	2	ID			VA02	CURRENT MEANS TEST STATUS (Passed but not used by MPI)
6	35	ST				FATHER'S NAME (Passed but not used by MPI)
7	35	ST				MOTHER'S NAME (Passed but not used by MPI)
8	1	ID			VA01	RATED INCOMPETENT? (Passed but not used by MPI)
9	19	TS				DATE OF DEATH (use the one in the PID segment)
10	48	PN				COLLATERAL SPONSOR'S NAME (Passed but not used by MPI)
11	1	ID			VA01	Active Health Insurance? (Passed but not used by MPI) **NOTE:** This field comes from the Patient file (#2) looking at the values of a number of fields.
12	1	ID			VA01	ELIGIBLE FOR MEDICAID? (Passed but not used by MPI)
13	19	TS				DATE MEDICAID LAST ASKED (Passed but not used by MPI)
14	1	ID			0005	RACE (use the one in the PID segment—Passed but not used by MPI) **NOTE:** RACE is the old field, and not the RACE INFORMATION multiple.
15	3	ID			VA08	RELIGIOUS PREFERENCE (Passed but not used by MPI)
16	1	ID			VA01	Homeless Indicator (Passed but not used by MPI) name has been removed. **NOTE:** This is a computed field derived from VISTA Social Work package.
17	1	ST				POW STATUS INDICATED?
18	2	ID			VA12	TYPE OF INSURANCE (Passed but not used by MPI) **NOTE:** Derived from the MAJOR CATEGORY field (#.03) in the TYPE OF PLAN file (#355.1).

A	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
19	1	ID			VA14	MEDICATION COPAYMENT EXEMPTION (Passed but not used by MPI) **NOTE:** This is a computed field derived from VISTA Integrated Billing package.
20	22	CE			VA0023	POW CONFINEMENT LOCATION (Passed but not used by MPI)
21	30	ST				PRIMARY CARE TEAM **NOTE:** Derived from the NAME field (#.01) in the TEAM file (#404.51).
22	3	IS				GI INSURANCE POLICY? (passed but not used by MPI) – Yes, No
23	10	NM				AMOUNT OF GI INSURANCE (passed but not used by MPI)
24	8	DT				MOST RECENT DATE OF CARE (passed but not used by MPI)
25	10	ST				MOST RECENT LOCATION OF CARE (passed but not used by MPI)
26	8	DT				2ND MOST RECENT DATE OF CARE (passed but not used by MPI)
27	10	ST				2ND MOST RECENT LOCATION OF CARE (passed but not used by MPI)
28	8	DT				DATE RULED INCOMPETENT (CIVIL) (passed but not used by MPI)
29	8	DT				DATE RULED INCOMPETENT (VA) (passed but not used by MPI)
30	3	ID				SPINAL CORD INJURY (passed but not used by MPI)
31	3	ST				SOURCE OF NOTIFICIATION (passed but not used by MPI) [1:INPATIENT AT VAMC 2:NON-VA MEDICAL FACILITY 3:DEATH CERTIFICATE ON FILE 4:VBA 5:VA INSURANCE 6:SSA 7:NCA 8:NEXT OF KIN/FAMILY/FRIEND 9:OTHER]
32	8	DT				DATE OF DEATH LAST UPDATED (passed but not used by MPI)

A	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
33	3	IS			VA048	FILIPINO VETERAN PROOF (passed but not used by MPI)
34	1	ST				Pseudo SSN Reason – 'R' FOR REFUSED TO PROVIDE 'S' FOR SSN UNKNOWN/FOLLOW-UP REQUIRED 'N' FOR NO SSN ASSIGNED
35	15	ID			VA018	AGENCY/ALLIED COUNTRY (passed but not used by MPI)
36-39						NOT DEFINED
40	1	IS		R		Emergency Response Indicator (Passed by not used by MPI) [K: Hurricane Katrina

Table 3-82. ZPD—VA Specific Patient Information, HL7 attributes

ZPD Field Definition

These are the only two fields, which the MPI is pulling data. The MPI will also send the Pseudo SSN Reason out in the ZPD segment.

3.31.1 ZPD-17 POW Status Indicated?

Definition: This field defines the Prisoner of War status of the patient. The POW Status Indicator? value is a Yes/No field pulled from the PATIENT (#2) file, field POW STATUS INDICATED? (# .525).

3.31.2 ZPD-34 PSEUDO SSN REASON

Definition: This field defines reason that a pseudo SSN has been collected for the patient. Field 17 is the only field that is being taken from the ZPD segment. The PSEUDO SSN REASON value is a set of codes pulled from the PATIENT (#2) file, field PSEUDO SSN REASON (#.0906).

R	REFUSED TO PROVIDE
S	FOR SSN UNKNOWN/FOLLOW-UP REQUIRED
N	NO SSN ASSIGNED;

Table 3-83. Possible values for PSEUDO SSN REASON

3.32 ZSP—VA Specific Service Period Segment

NOTE: The ZSP—VA Specific Service Period segment is passed but not used by the MPI software. However, this segment can be used by any software subscribing to the MPI messages defined in the documentation as containing this segment. This is not a required segment. It may or may not be present in all messages.

SEQ	LEN	DT	R/O	RP/#	TBL#	VistA Element Name
1	4	SI	R			SET ID
2	1	ID	R		VA01	SERVICE CONNECTED?
3	3	NM				SERVICE CONNECTED PERCENTAGE
4	2	ID			VA11	PERIOD OF SERVICE
5	1	ST				VIETNAM SERVICE INDICATED?

Table 3-84. ZSP—VA Specific Service Period, HL7 attributes

4 VA HL7 Tables

NOTE: For information referring to Race, see "Table 3-41. User-defined Table 0005—Race" in this documentation.

4.1 Table VA001:Yes/No

Value	Description
0	NO
1	YES

Table 4-1. VA001: Yes/No

4.2 Table VA002: Current Means Test Status

NOTE: Type of Care (#.03) field of MEANS TEST STATUS (#408.32) file.

Value	Description
0	Exempt (LTC C0-Pay Exempt Test)
1	Non- Exempt (LTC C0-Pay Exempt Test)
A	MT COPAY EXEMPT
B	CATEGORY B
C	MT COPAY REQUIRED
E	EXEMPT
G	GMT COPAY REQUIRED
I	INCOMPLETE
L	NO LONGER APPLICABLE
M	NON-EXEMPT
N	NO LONGER REQUIRED
P	PENDING ADJUDICATION
R	REQUIRED

Table 4-1. VA002: Current Means Test Status

4.3 Table VA004: Eligibility

NOTE: Name (#.01) field of MAS ELIGIBILITY CODE (#8.1) file.

Value	Description
1	SERVICE CONNECTED 50% to 100%
2	AID & ATTENDANCE
3	SC LESS THAN 50%
4	NSC - VA PENSION
5	NSC
6	OTHER FEDERAL AGENCY
7	ALLIED VETERAN
8	HUMANITARIAN EMERGENCY
9	SHARING AGREEMENT
10	REIMBURSABLE INSURANCE
12	CHAMPVA
13	COLLATERAL OF VET.
14	EMPLOYEE
15	HOUSEBOUND
16	MEXICAN BORDER WAR
17	WORLD WAR I
18	PRISONER OF WAR
19	TRICARE/CHAMPUS
21	CATASTROPHIC DISABILITY
22	PURPLE HEART RECIPIENT
23	REFUSED MT CO-PAY

Table 4-2. VA004: Eligibility

4.4 Table VA005: Disability Retirement From Military

NOTE: Disability Ret. From Military? (#.362) field of PATIENT (#2) file.

Value	Description
0	NO
1	YES, RECEIVING MILITARY RETIREMENT
2	YES, RECEIVING MILITARY RETIREMENT IN LIEU OF VA COMPENSATION
3	UNKNOWN

Table 4-3. VA005: Disability Retirement From Military

4.5 Table VA006: Eligibility Status

NOTE: Eligibility Status (#.3611) field of PATIENT (#2) file.

Value	Description
P	PENDING VERIFICATION
R	PENDING RE-VERIFICATION
V	VERIFIED

Table 4-4. VA006: Eligibility Status

NOTE: For information referring to Race, see "Table 3-41. User-defined Table 0005—Race" in this documentation.

4.6 Table VA008: Religion

NOTE: Code (#3) field of RELIGION (#13) file.

Value	Description
0	ROMAN CATHOLIC CHURCH
1	JUDAISM
2	EASTERN ORTHODOX
3	BAPTIST

Value	Description
4	METHODIST
5	LUTHERAN
6	PRESBYTERIAN
7	UNITED CHURCH OF CHRIST
8	EPISCOPALIAN
9	ADVENTIST
10	ASSEMBLY OF GOD
11	BRETHREN
12	CHRISTIAN SCIENTIST
13	CHURCH OF CHRIST
14	CHURCH OF GOD
15	DISCIPLES OF CHRIST
16	EVANGELICAL COVENANT
17	FRIENDS
18	JEHOVAH'S WITNESSES
19	LATTER DAY SAINTS
20	ISLAM
21	NAZARENE
22	OTHER
23	PENTECOSTAL
24	PROTESTANT
25	PROTESTANT, NO PREFERENCE
26	REFORMED
27	SALVATION ARMY
28	UNITARIAN-UNIVERSALISM
29	UNKNOWN/NO PREFERENCE
30	NATIVE AMERICAN
31	ZEN BUDDHISM
32	AFRICAN RELIGIONS
33	AFRO-CARIBBEAN RELIGIONS
34	AGNOSTICISM
35	ANGLICAN
36	ANIMISM
37	ATHEISM

Value	Description
38	BABI & BAHA'I FAITHS
39	BON
40	CAO DAI
41	CELTICISM
42	CHRISTIAN (NON-SPECIFIC)
43	CONFUCIANISM
44	CONGREGATIONAL
45	CYBERCULTURE RELIGIONS
46	DIVINATION
47	FOURTH WAY
48	FREE DAISM
49	FULL GOSPEL
50	GNOSIS
51	HINDUISM
52	HUMANISM
53	INDEPENDENT
54	JAINISM
55	MAHAYANA
56	MEDITATION
57	MESSIANIC JUDAISM
58	MITRAISM
59	NEW AGE
60	NON-ROMAN CATHOLIC
61	OCCULT
62	ORTHODOX
63	PAGANISM
64	PROCESS, THE
65	REFORMED/PRESBYTERIAN
66	SATANISM
67	SCIENTOLOGY
68	SHAMANISM
69	SHIITE (ISLAM)
70	SHINTO
71	SIKISM

Value	Description
72	SPIRITUALISM
73	SUNNI (ISLAM)
74	TAOISM
75	THERAVADA
76	UNIVERSAL LIFE CHURCH
77	VAJRAYANA (TIBETAN)
78	VEDA
79	VOODOO
80	WICCA
81	YAOHUSHUA
82	ZOROASTRIANISM
83	ASKED BUT DECLINED TO ANSWER

Table 4-5. VA008: Religion

4.7 Table VA010: Means Test Indicator

Value	Description
AS	This Means Test category includes all compensable service-connected (0-100%) veterans and special category veterans. Special category veterans include: Mexican Border War and World War I veterans; former Prisoners of War; and patients receiving care for conditions potentially related to exposure to either Agent Orange (Herbicides), Ionizing Radiation or Environmental Contaminants. This category also includes 0% non-compensable service-connected veterans when they are treated for a service-connected condition.
AN	This Means Test category includes NSC veterans who are required to complete VA Form 10-10F (Financial Worksheet) and those NSC veterans in receipt of VA pension, aid and attendance, housebound allowance, or entitled to State Medicaid. This category may also include 0% non-compensable service-connected veterans when they are not treated for a service-connected condition and are placed in this category based on completion of a Means Test.
C	This Means Test category includes those veterans who, based on income and/or net worth, are required to reimburse VA for care rendered. This category also includes those pending adjudication. This category may also include 0% non-compensable service-connected veterans when they are not treated for a service-connected condition and are placed in this category based on completion of a Means Test.
N	This Means Test category includes only non-veterans receiving treatment at VA facilities.
X	This Means Test category includes treatment of patients who are not required to complete the Means Test for the care being provided. If the veteran was admitted prior to July 1, 1986 with no change in the level of care being received, (i.e., if the patient was in the Nursing Home Care Unit (NHCU) on June 30, 1986 and has remained in the NHCU since that date with no transfer to the hospital for treatment), the "X" Means Test indicator will be accepted. This category also includes patients admitted to the domiciliary, patients seen for completion of a compensation and pension examination, and Class II dental treatment.

Value	Description
U	This Means Test category includes only those patients who require a Means Test, and the Means Test has not been done/completed. The Austin Automation Center (AAC) will not accept an OPC transaction unless the Means Test has been completed.

Table 4-6. VA010: Means Test Indicator

4.8 Table VA011: Period of Service

Value	Description
0	KOREAN
1	WORLD WAR I
2	WORLD WAR II
3	SPANISH AMERICAN
4	PRE-KOREAN
5	POST-KOREAN
6	OPERATION DESERT SHIELD
7	VIETNAM ERA
8	POST-VIETNAM
9	OTHER OR NONE
A	ARMY - ACTIVE DUTY
B	NAVY, MARINE - ACTIVE DUTY
C	AIR FORCE - ACTIVE DUTY
D	COAST GUARD - ACTIVE DUTY
E	RETIRED, UNIFORMED FORCES
F	MEDICAL REMEDIAL ENLIST
G	MERCHANT SEAMEN - USPHS
H	OTHER USPHS BENEFICIARIES
I	OBSERVATION/EXAMINATION
J	OFFICE OF WORKERS COMP
K	JOB CORPS/PEACE CORPS
L	RAILROAD RETIREMENT
M	BENEFICIARIES-FOREIGN GOV
N	HUMANITARIAN (NON-VET)
O	CHAMPUS RESTORE

Value	Description
P	OTHER REIMBURS. (NON-VET)
Q	OTHER FEDERAL - DEPENDENT
R	DONORS (NON-VET)
S	SPECIAL STUDIES (NON-VET)
T	OTHER NON-VETERANS
U	CHAMPVA - SPOUSE, CHILD
V	CHAMPUS
W	CZECHOSLOVAKIA/POLAND SVC
X	PERSIAN GULF WAR
Y	CAV/NPS
Z	MERCHANT MARINE

Table 4-7. VA011: Period of Service

4.9 Table VA012: Type of Insurance

Value	Description
0	NO INSURANCE
1	MAJOR MEDICAL
2	DENTAL
3	HMO
4	PPO
5	MEDICARE
6	MEDICAID
7	CHAMPUS
8	WORKMAN COMP
9	INDEMNITY
10	PRESCRIPTION
11	MEDICARE SUPPLEMENTAL
12	ALL OTHER

Table 4-8. VA012: Type of Insurance

4.10 Table VA015: Enrollment Status

Value	Description
1	UNVERIFIED
2	VERIFIED
3	INACTIVE
4	REJECTED
5	SUSPENDED
6	TERMINATED
7	CANCELED/DECLINED
8	EXPIRED
9	PENDING
10	NOT ELIGIBLE
11	REJECTED; FISCAL YEAR
12	REJECTED; MID-CYCLE
13	REJECTED; STOP NEW ENROLLMENTS
14	REJECTED; INITIAL APPLICATION BY VAMC
15	PENDING; NO ELIGIBILITY CODE
16	PENDING; MEANS TEST REQUIRED
17	PENDING; ELIGIBILITY STATUS IS UNVERIFIED
18	PENDING; OTHER
19	NOT ELIGIBLE; REFUSED TO PAY COPAY
20	NOT ELIGIBLE; INELIGIBLE DATE
21	PENDING; PURPLE HEART UNCONFIRMED
22	REJECTED; BELOW ENROLLMENT GROUP THRESHOLD

Table 4-9. VA015: Enrollment Status

4.11 Table VA016: Reason Canceled/Declined

Value	Description
1	DISSATISFIED WITH CARE
2	GEOGRAPHIC ACCESS
3	OTHER INSURANCE
4	OTHER

Table 4-10. VA016: Reason Canceled/Declined

4.12 Table VA021: Enrollment Priority

Value	Description
1	Priority 1
2	Priority 2
3	Priority 3
4	Priority 4
5	Priority 5
6	Priority 6
7	Priority 7
8	Priority 8

Table 4-11. VA021: Enrollment Priority

4.13 Table VA022: Radiation Exposure Method

Value	Description
2	Nagasaki – Hiroshima
3	Nuclear Testing
4	Both

Table 4-12. VA022: Radiation Exposure Method

4.14 Table VA023: Prisoner of War Location

Value	Description
4	WORLD WAR I
5	WORLD WAR II – EUROPE
6	WORLD WAR II – PACIFIC
7	KOREAN
8	VIETNAM
9	OTHER
A	PERSIAN GULF WAR

Value	Description
B	YUGOSLAVIA CONFLICT

Table 4-13. VA023: Prisoner of War Location

4.15 Table VA024: Source of Enrollment

Value	Description
1	VAMC
2	HEC
3	OTHER VAMC

Table 4-14. VA024: Source of Enrollment

4.16 Table VA036: MST Status

Value	Description
U	UNKNOWN, NOT SCREENED
Y	YES, SCREENED REPORTS MST
N	NO, SCREENED DOES NOT REPORT MST
D	SCREENED, DECLINES TO ANSWER

Table 4-15. VA036: MST Status

4.17 Table VA046: Agent Orange Exposure Location

Value	Description
K	KOREAN DMZ
U	UNKNOWN
V	VIETNAM

Table 4-16. VA046: Agent Orange Exposure Location

4.18 Table NPCD 001: National Patient Care Database Error Codes

NOTE: Example listing of possible values.

Value	Description
100	EVENT TYPE SEGMENT
200	PATIENT NAME
205	DATE OF BIRTH
210	SEX
215	RACE

Table 4-17. NPCD 001: National Patient Care Database Error Codes

Glossary

accept agreement	Part of the validation and agreement to the privacy regulations associated with IdM Toolkit (IdM TK).
ACK	General Acknowledgement message. The ACK message is used to respond to a message where there has been an error that precludes application processing or where the application does not define a special message type for the response.[4]
acknowledgement - accept level	The receiving system commits the message to safe storage in a manner that releases the sending system from any obligation to resend the message. A response is returned to the initiator indicating successful receipt and secure storage of the information.
acknowledgement - application level	The appropriate application on the receiving system receives the transaction and processes it successfully. The receiving system returns an application-dependent response to the initiator.
active patients	Patients who have been seen at a site within the past three years.
ADPAC	Automated Data Processing Application Coordinator.
ADR	The Administrative Data Repository is the authoritative data store within VHA for cross-cutting person administrative information. The Administrative Data Repository contains identification and cross-cutting demographics data as well as other administrative information. Patient Information Management System (PSIM) uploads the identity demographic data to the ADR. May also include subset of the Enrollment database. May also be referred to as ADR-N or ADR-L to designate a national or local instance.
ADT	Admission Discharge and Transfer- Part of the Patient Information Management System (PIMS).
ADT/HL7 PIVOT File	Changes to any of the fields of patient information will be recorded and an entry created in the ADT/HL7 PIVOT file (#391.71). When an update to a patient's treating facility occurs, this event is to be added to the ADT/HL7 PIVOT file (#391.71) and marked for transmission. A background job will collect these updates and broadcast the appropriate HL7 message (ADT-A08 Patient Update).
AITC	The Master Patient Index (MPI) is located at the Austin Information Technology Center (AITC).
alerts	Brief online notices that are issued to users as they complete a cycle through the menu system. Alerts are designed to provide interactive notification of pending computing activities, such as the need to reorder supplies or review a patient's clinical test results. Along with the alert message is an indication that the View Alerts common option should be chosen to take further action.

[4] Glossary description taken from the Health Level Seven, Version 2.3.1 documentation © 1999, Final Standard 05/999. Editor: Don A. Kruse, Atomic Moving Images™.

ancillary reviewer This can be a single person or group of people given the responsibility to conduct reviews of potential duplicate record pairs with data in files other than the PATIENT file (#2). For example, selected personnel in Laboratory, Radiology, and Pharmacy.

ANSI American National Standards Institute.

ANSI M The M (formerly known as MUMPS) programming language is a standard recognized by the American National Standard Institute (ANSI). M stands for Massachusetts Utility Multi-programming System.

API Application Programmer Interface. VistA Application Programmer Interfaces (APIs) are units of programming code provided by a custodial development domain to permit developers outside the custodial domain to accomplish a specified purpose. In some programming languages, APIs are called (sub)routines. APIs in VistA may be defined as extrinsic functions, extrinsic special variables, or label references to routines. VistA APIs fall into the following three categories:

- The first category is "Supported API" These are callable routines, which are supported for general use by all VistA applications.
- The second category is "Controlled Subscription API." These are callable routines for which you must obtain an Integration Agreement (IA - formerly referred to as a DBIA) to use.
- The third category is "Private API," where only a single application is granted permission to use an attribute/function of another VistA package.

These IAs are granted for special cases, transitional problems between versions, and release coordination.

application VistA software and documentation that supports the automation of a service (e.g., Laboratory or Pharmacy) within the Veterans Health Administration (VHA).

application coordinator Designated individuals responsible for user-level management and maintenance of an application package such as IFCAP, Lab, Pharmacy, Mental Health, etc.

Application Programmer Interface (API) Program calls provided for use by application programmers. APIs allow programmers to carry out standard computing activities without needing to duplicate utilities in their own software. APIs also further DBA goals of system integration by channeling activities, such as adding new users, through a limited number of callable entry points.

application server Software/hardware for handling complex interactions between users, business logic, and databases in transaction-based, multi-tier applications. Application servers, also known as app servers, provide increased availability and higher performance.

array An arrangement of elements in one or more dimensions. An M array is a set of nodes referenced by subscripts that share the same variable name.

asynchronous	Without regular time relationship; unexpected or unpredictable with respect to the execution of a program's instructions; a physical transfer of data to or from a device that occurs without a regular or predictable time relationship. Contrast with synchronous.
Asynchronous Transfer Mode (ATM)	A high-speed connection-oriented data transmission method that provides bandwidth on demand through packet-switching techniques using fixed-sized cells. ATM supports both time-sensitive and time-insensitive traffic, and is defined in CCITT standards as the transport method for B-ISDN services. Cell-switching technology that operates at high data rates: up to 622 Mbps currently, but potential data rates could reach Gbps. ATM runs on an optical fiber network that uses Synchronous Optical Network (SONET) protocols for moving data between ATM switches.
authentication	Verifying the identity of the end-user.
authorization	Granting or denying user access or permission to perform a function.
batch acknowledgements	The format of a HL7 batch acknowledgement message consists entirely of a group of ACK (acknowledgment) messages. In the case of MPI, batch acknowledgements are returned during the initialization process and during the Local/Missing ICN Resolution job. The background job files the ICN, ICN checksum and CMOR, updates the MPI, and then the associated treating facilities and systems. Data returned from this process constitute the acknowledgment of the batch message.
batch messages	There are instances when it is convenient to transfer a batch of HL7 messages. Common examples related to MPI are queries sent to the MPI for an ICN during the initialization process, the resolution of Local or Missing ICNs, and CMOR Batch Comparisons. Such a batch could be sent online using a common file transfer protocol. In the case of the MPI, the HL7 Batch Protocol uses the Batch Header Segment (BHS) and Batch Trailer Segment (BTS) message segments to delineate the batch.
batch protocol, Hl7	The protocol generally uses File Header Segment (FHS), BHS, BTS, and File Trailer Segment (FTS) segments to delineate the batch. In the case of the MPI, the protocol only uses the BHS and BTS segments.
BHIE	Bidirectional Health Information Exchange
bulletins	Electronic mail messages that are automatically delivered by VistA MailMan under certain conditions. For example, a bulletin can be set up to "fire" when database changes occur, such as adding a new Institution in the INSTITUTION file (#4). Bulletins are fired by bulletin-type cross-references.
callable entry point	An authorized programmer call that may be used in any VistA application package. The DBA maintains the list of DBIC-approved entry points.
CE	Coded Element data type. This data type transmits codes and the text associated with the code. This type has six components, as follows: identifier, text, name of coding system, alternate identifier, alternate text, and name of alternate coding

	system.
CHDR	Clinical Data Repository (CDR) Health Data Repository
Clinical Patient Record System (CPRS)	Clinical Patient Record System provides a computer-based patient record and organizes and presents all relevant data on a patient in a way that directly supports clinical decision-making. CPRS integrates the extensive set of clinical and administrative applications available within VistA.
CM	Composite data type. A field that is a combination of other meaningful data fields. Each portion is called a component.
component separator	The component separator is used to separate adjacent components of some data fields. Its use is described in the descriptions of the relevant data fields. The character that represents the component separator is specified for each message as the first character in the Encoding Characters data field of the MSH segment. Absent other considerations it is recommended that all sending applications use "^"as the component separator. However, all applications are required to accept whatever character is included in the Message Header and use it to parse the message.
controlled subscription integration agreement	This applies where the IA describes attributes/functions that must be controlled in their use. The decision to restrict the IA is based on the maturity of the custodian package. Typically, these IAs are created by the requesting package based on their independent examination of the custodian package's features. For the IA to be approved, the custodian grants permission to other VistA packages to use the attributes/functions of the IA; permission is granted on a one-by-one basis where each is based on a solicitation by the requesting package. An example is the extension of permission to allow a package (e.g., Spinal Cord Dysfunction) to define and update a component that is supported within the Health Summary package file structures.
correlation	Comparison of person identity traits for multiple records with the Primary View in the ADR and/or MPI databases.
CQ	Composite Quantity with Units data type. The first component is a quantity and the second is the units in which the quantity is expressed.
cross reference	There are several types of cross-references available. Most generally, a VA FileMan cross-reference specifies that some action be performed when the field's value is entered, changed, or deleted. For several types of cross-references, the action consists of putting the value into a list; an index used when looking-up an entry or when sorting. The regular cross-reference is used for sorting and for lookup; you can limit it to sorting only.
data attribute	A characteristic unit of data such as length, value, or method of representation. VA FileMan field definitions specify data attributes.
data dictionary (DD)	The Data Dictionary is a global containing a description of the kind of data that is stored in the global corresponding to a particular file. VA FileMan uses the data internally for interpreting and processing files.

	It contains the definitions of a file's elements (fields or data attributes), relationships to other files, and structure or design. Users generally review the definitions of a file's elements or data attributes; programmers review the definitions of a file's internal structure.
data dictionary access	A user's authorization to write/update/edit the data definition for a computer file. Also known as DD Access.
data integrity	This term refers to the condition of patient records in terms of completeness and correctness. It also refers to the process in which a particular patient's data is synchronized at all the sites in which that patient receives care.
data type	A specific field or type of information, such as Name, Social Security Number, etc.
database	A set of data, consisting of at least one file, that is sufficient for a given purpose. The VistA database is composed of a number of VA FileMan files. A collection of data about a specific subject, such as the PATIENT file (#2); a data collection has different data fields (e.g. patient name, SSN, Date of Birth, and so on). An organized collection of data about a particular topic.
database management system	A collection of software that handles the storage, retrieval, and updating of records in a database. A Database Management System (DBMS) controls redundancy of records and provides the security, integrity, and data independence of a database.
DBA	Database Administrator, oversees software development with respect to VistA Standards and Conventions (SAC) such as namespacing. Also, this term refers to the Database Administration function and staff.
DBIA	Database Integration Agreement (see Integration Agreements [IA]).
Default	Response the computer considers the most probable answer to the prompt being given. It is identified by double slash marks (//) immediately following it. This allows you the option of accepting the default answer or entering your own answer. To accept the default you simply press the Enter (or Return) key. To change the default answer, type in your response.
delimiter	Special character used to separate a field, record, or string. VA FileMan uses the caret character ("^") as the delimiter within strings.
demographic data	Identifying descriptive data about a patient, such as: name, sex, date of birth, marital status, religious preference, SSN, address, etc.
demographics	Information about a person, such as name, address, service record, next of kin, and so on.
Department of Veterans Affairs	The Department of Veterans Affairs (formerly known as the Veterans Administration.)
device	Peripheral connected to the host computer, such as a printer, terminal, disk drive, modem, and other types of hardware and equipment associated with a computer.

	The host files of underlying operating systems may be treated like devices in that they may be written to (e.g., for spooling).
DFN	Data File Number. This is the patient IEN (.001 Field) in the PATIENT file (#2). Additionally, this is a defined variable in VistA that refers to the IEN of the patient currently in memory.
DHCP	Decentralized Hospital Computer Program (now known as Veterans Health Information Systems and Technology Architecture [VistA]). VistA software, developed by VA, is used to support clinical and administrative functions at VA Medical Centers nationwide. It is written in M and, via the Kernel, runs on all major M implementations regardless of vendor. VistA is composed of packages that undergo a verification process to ensure conformity with namespacing and other VistA standards and conventions.
dictionary	Database of specifications of data and information processing resources. VA FileMan's database of data dictionaries is stored in the FILE of files (#1).
direct connect	The Direct Connect is a real-time TCP/IP connection to the MPI to allow for an immediate request for an ICN. Direct Connect is activated when using any of the following PIMS options: • Register A Patient, • Load/Edit Patient Data, • Electronic 10-10EZ Processing, and when using the: • Display Only Query
direct mode utility	A programmer call that is made when working in direct programmer mode. A direct mode utility is entered at the MUMPS prompt (e.g., >D ^XUP). Calls that are documented as direct mode utilities cannot be used in application software code.
DNS	Domain Name Server
DOB	Date of Birth
DOD	IdM– Date of Death
DoD	Department of Defense.
domain	A site for sending and receiving mail.
DUZ	Locally defined variable in VistA that refers to the IEN of the logged on user (From the New Person file).
DUZ(0)	Locally defined variable that holds the File Manager Access Code of the signed-on user.
electronic signature	Secret password that some users may need to establish in order to sign documents

code	via the computer.
eligibility codes	Codes representing the basis of a patient's eligibility for care.
encryption	Scrambling data or messages with a cipher or code so that they are unreadable without a secret key. In some cases encryption algorithms are one directional, that is, they only encode and the resulting data cannot be unscrambled (e.g. access/verify codes).
entry	VA FileMan record. An internal entry number (IEN, the .001 field) uniquely identifies an entry in a file.
error trap	A mechanism to capture system errors and record facts about the computing context such as the local symbol table, last global reference, and routine in use. Operating systems provide tools such as the %ER utility. The Kernel provides a generic error trapping mechanism with use of the ^%ZTER global and ^XTER* routines. Errors can be trapped and, when possible, the user is returned to the menu system.
event type	Type of HL7 message generated (i.e., ADT-A24, ADT-A28).
exception message	MPI/PD VistA generates messages and bulletins to alert the user to problems that occur in generating or processing HL7 messages. The MPI/PD Message Exception Menu contains options to manage the problems.
extrinsic function	Extrinsic function is an expression that accepts parameters as input and returns a value as output that can be directly assigned.
facility	Geographic location at which VA business is performed.
FHIE	Federal Health Information Exchange – A Federal IT health care initiative that facilitates the secure electronic one-way exchange of patient medical information between Government health organizations. The project participants are the Department of Defense (DoD) and the Department of Veterans Affairs (VA). (http://vaww1.va.gov/fhie/)
field	HL7: An HL7 field is a string of characters defined by one of the HL7 data types. VistA: In a record, a specified area used for the value of a data attribute. The data specifications of each VA FileMan field are documented in the file's data dictionary. A field is similar to blanks on forms. It is preceded by words that tell you what information goes in that particular field. The blank, marked by the cursor on your terminal screen, is where you enter the information.
field components	A field entry may also have discernible parts or components. For example, the patient's name is recorded as last name, first name, and middle initial, each of which is a distinct entity separated by a component delimiter (sub-subfield in astm e1238-94).
field separator	The HL7 field separator separates two adjacent data fields within an HL7 segment. It also separates the segment ID from the first data field in the segment.

	The value that represents the field separator may be defined differently for each message. Whatever character is the fourth character of the MSH segment serves as the field separator for all segments in the message. Absent other considerations, it is recommended that all sending applications use "|" as the field separator. However, all receiving applications are required to accept whatever character is included in this position and use it to parse the message.
file	Set of related records treated as a unit. VA FileMan files maintain a count of the number of entries or records.
File Manager (VA Fileman)	VistA's Database Management System (DBMS). The central component of Kernel that defines the way standard VistA files are structured and manipulated.
FIN	Foreign ID Number
FOIA	Freedom of Information Act
FORUM	The central E-mail system within VistA. Developers use FORUM to communicate at a national level about programming and other issues. FORUM is located at the OI Field Office—Washington, DC (162-2).
free text	A DATA TYPE that can contain any printable characters.
FT	Formatted Text data type. This data type is derived from the string data type by allowing the addition of embedded formatting instructions. These instructions are limited to those that are intrinsic and independent of the circumstances under which the field is to be displayed, FT supports width-independent and device-independent text display.
FTP	File Transfer Protocol
function point count (FPC)	The function point method is used to establish a meaningful unit-of-work measure and can be used to establish baseline costs and performance level monitors. Function point analysis centers on its ability to measure the size of any software deliverable in logical, user-oriented terms. Rather than counting lines of code, function point analysis measures the functionality being delivered to the end user.
GAL	Global Address List.
global variable	Variable that is stored on disk (M usage).
GUI	Graphical User Interface.
HD	Hierarchic Designator data type.
HDR	Health Data Repository – A repository of clinical information normally residing on one or more independent platforms for use by clinicians and other personnel in support of patient-centric care. The data is retrieved from heritage, transaction-oriented systems and is organized in a format to support clinical decision-making in support of patient care. Formerly known as Clinical Data Repository.

Health Level 7 (HL7) Batch Protocol	Protocol utilized to transmit a batch of HL7 messages. The protocol generally uses FHS, BHS, BTS and FTS segments to delineate the batch. In the case of the MPI, the protocol only uses the BHS and BTS segments.
Health Level Seven (HL7)	National standard for electronic data exchange/messaging protocol. HL7 messages are the dominant standard for peer-to-peer exchange of clinical, text-based information.
Health Level Seven (HL7) VistA	Messaging system developed as VistA software that follows the HL7 Standard for data exchange.
Healthcare Identity Management (HC IdM)	The Healthcare Identity Management team (formerly the Identity Management Data Quality team) • Serves as business steward for patient identity data for the patient's electronic health record (such as name, SSN, date of birth, gender, mother's maiden name, place of birth) as well as managing the patient's longitudinal health record across the enterprise. • Defines business rules and processes governing healthcare identity management data collection and maintenance. Monitors and resolves data integrity issues and conflicts on the MPI and local systems related to the individual's identity data within their health record, including the resolution of duplicates, mismatches and catastrophic edits to patient identity, which affect patient care and safety.
HEC	Health Eligibility Center.
HINQ	Hospital Inquiry- The HINQ module provides the capability to request and obtain veteran eligibility data via the VA national telecommunications network. Individual or group requests are sent from a local computer to a remote Veterans Benefits Administration (VBA) computer where veteran information is stored. The VBA network that supports HINQ is composed of four computer systems located in regional VA payment centers.
HIPAA	Health Insurance Portability and Accountability Act – A law passed by Congress in 1996 that requires the Department of Health and Human Services to implement regulations that will require the use of specific standards related to health care claims, code sets, identifiers (individual, provider, employer, and health plan), and security. Protects the privacy of individually identifiable health information.
HL7	Health Level 7 – National standard for electronic data exchange/messaging protocol. A standards organization primarily focused on message-oriented middleware for healthcare. HL7 messages are the dominant standard for peer-to-peer exchange of clinical, text-based information.
HLO	HL7 Optimized. VistA HL7 package routines.
ICN	Patients are assigned a unique identifier, known as an Integration Control Number (ICN), when added to the MPI database. This number links patients to their records across VHA systems. The Integration Control Number is a unique

	identifier assigned to patients when they are added to the MPI. The ICN follows the ASTM-E1714-95 standard for a universal health identifier.
ID	Coded Value data type. The value of such a field follows the formatting rules for a ST field except that it is drawn from a table of legal values. Examples of ID fields include religion and sex.
ID State	An attribute of the ICN, which describes the state of the record as Permanent, Temporary, or Deactivated. ID State is composed of the following two fields from the MPI VETERAN/CLIENT file (#985): • ID STATE (#80) is a set of codes: PERMANENT, TEMPORARY, and DEACTIVATED. Auditing is enabled for this field. • DATE OF ID STATE (#81) identifies when the ID STATE field was last updated.
Identity Management Toolkit (IdM TK)	The User Interface for the HealthCare Identity Management team. The IdM Toolkit will provide functionality to allow HC IdM staff to search and view identity and exception information. This includes the ability to view the Primary View record and any associated correlations, correlation data, history, audit trails, and HC IdM Tasks captured by PSIM and MPI. In addition, functionality is provided to support the re-hosting transition for a side-by-side comparison of ADR and MPI information.
Identity Services	A business and data service that provides a consistent interface for access and maintenance of person identification to trusted client applications and services. It is the authoritative source for person identification in the Veterans Health Administration (VHA) domain.
IdM	Identity Management
IEN	Internal Entry Number. The IEN number and Station Number comprise the Source ID of the person targeted for the search. The Source ID is used to uniquely identify a person.
Initiate Identity Hub™	The Initiate Identity Hub™ is a third-party proprietary off-the-shelf software package that makes use of a Probabilistic Matching Algorithm. Initiate Systems Inc. software that provides a trusted on-demand system of record for multiple organizations or other entities by accurately identifying the relevant duplicate and fragmented records and linking them – within, as well as across, all data sources
input template	A pre-defined list of fields that together comprise an editing session.
institution	A Department of Veterans Affairs (VA) facility assigned a number by headquarters, as defined by Directive 97-058. An entry in the INSTITUTION file (#4) that represents the Veterans Health Administration (VHA).
integration	Integration Agreements define agreements between two or more VistA software applications to allow access to one development domain by another. VistA

agreements (IA)	software developers are allowed to use internal entry points (APIs) or other software-specific features that are not available to the general programming public. Any software developed for use in the VistA environment is required to adhere to this standard; as such, it applies to vendor products developed within the boundaries of DBA assigned development domains (e.g., MUMPS AudioFax). An IA defines the attributes and functions that specify access. The DBA maintains and records all IAs in the Integration Agreement database on FORUM. Content can be viewed using the DBA menu or the Health Systems Design & Development's Web page.
integration control number (ICN)	Patients are assigned a unique identifier, known as an Integration Control Number (ICN), within the process of being added to the MPI database. This number links patients to their records across VHA systems. The Integration Control Number is a unique identifier assigned to patients when they are added to the MPI. The ICN follows the ASTM-E1714-95 standard for a universal health identifier.
internal entry number (IEN)	The number used to identify an entry within a file. Every record has a unique internal entry number.
IP	Integration Point
IRM	Information Resource Management. A service at VA medical centers responsible for computer management and system security.
IS	Coded value for user defined table's data type.
ISO	Information Security Officer.
ISS	Infrastructure and Security Services (now known as Common Services Security Program).
IV&V	IV&V is the principal activity that oversees the successful implementation and execution of all internal control processes for financial and interfacing systems. In order to ensure overall systems integrity, IV&V is accomplished organizationally independent from the elements that acquire, design, develop or maintain the system.
KERNEL	VistA software that functions as an intermediary between the host operating system and other VistA software applications so that VistA software can coexist in a standard operating-system-independent computing environment. Kernel provides a standard and consistent user and programmer interface between software applications and the underlying M implementation.
LAN	Local Area Network.
LDAP	Lightweight Directory Access Protocol.
M (ANSI Standard)	Massachusetts General Hospital Utility Multi-Programming System (M, formerly named MUMPS). The Mumps language originated in the mid-60's at the Massachusetts General Hospital. Although most implementations are proprietary, consolidated into the hands of a small number of companies, an open source

	version of the language has been developed which is distributed freely under the GNU GPL and LGPL licenses.
mail message	An entry in the MESSAGE file (#3.9). The VistA electronic mail system (MailMan) supports local and remote networking of messages.
Mailman	VistA software that provides a mechanism for handling electronic communication, whether it's user-oriented mail messages, automatic firing of bulletins, or initiation of server-handled data transmissions.
manager account	UCI that can be referenced by non-manager accounts such as production accounts. Like a library, the MGR UCI holds percent routines and globals (e.g., ^%ZOSF) for shared use by other UCIs.
mandatory field	Field that requires a value. A null response is not valid.
master files	A set of common reference files used by one or more application systems. These common reference files need to be synchronized across the various applications at a given site. The Master Files Notification transactions provide a way of maintaining this synchronization.
Master Patient Index (Austin) or MPI Austin	The MPI is a separate computer system located at the Austin Information Technology Center. It maintains a record for VA patients and stores data such as a unique patient identifier and Treating Facility lists (which tracks the sites where that ICN is known).
Master Patient Index or MPI	Master Patient Index is a cross-reference or index of patients that includes the patient's related identifiers and other patient identifying information. It is used to associate a patient's identifiers among multiple ID-assigning entities, possibly including a Health Data Repository, to support the consolidation and sharing of a patient's health care information across VHA. The MPI is the authoritative source for patient identity.
Master Patient Index/Patient Demographics (MPI/PD) VistA or MPI/PD	Master Patient Index/Patient Demographics (MPI/PD) software initializes entries in the PATIENT file (#2) with the Master Patient Index, itself. The initialization process assigns an Integration Control Number (ICN), Coordinating Master of Record (CMOR), and creates a Treating Facility list of all sites at which the patient has received care. This information is then updated in the PATIENT file (#2) at all sites where the patient has been treated.
Master Veteran Index or MVI	The authoritative source for person identity data. Maintains identity data for persons across VA systems. Provides a unique universal identifier for each person. Stores identity data as correlations for each system where a person is known. Provides a probabilistic matching algorithm. (Includes MPI, PSIM, and IdM TK) Maintains a "gold copy" known as a "Primary View" of the person's identity data. Broadcasts identity trait updates to systems of interest. Maintains a record locator service.
menu	List of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection.

When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

menu system The overall Menu Manager logic as it functions within the Kernel framework.

menu text The descriptive words that appear when a list of option choices is displayed. Specifically, the Menu Text field of the OPTION file (#19). For example, User's Toolbox is the menu text of the XUSERTOOLS option. The option's synonym is TBOX.

message A message is the atomic unit of data transferred between systems. It is comprised of a group of segments in a defined sequence. Each message has a message type that defines its purpose. For example, the ADT Message type is used to transmit portions of a patient's ADT data from one system to another. A three-character code contained within each message identifies its type.

message delimiters In constructing a message certain characters are used. These include the Segment Terminator, the Field Separator, the Component Separator, the Sub-Component Separator, Repetition Character, and the Escape Character.

message event type

- **Asynchronous** HL7 the Message Event Type. Example ADT-A24
- **Synchronous** interactions PS will log the primary interaction type. Example: Add, Search, Update, and Resolve Duplicate.

message segments Each HL7 message is composed of segments. Segments contain logical groupings of data. Segments may be optional or repeatable. A [ ] indicates the segment is optional, the { } indicates the segment is repeatable. For each message category, there will be a list of HL7 standard segments and/or "Z" segments used for the message.

message type Each message has a message type that defines its purpose. For example, the ADT Message Type is used to transmit portions of a patient's ADT data from one system to another. A 3-character code contained within each message identifies its type.

MFN Master Files Change Notification message.

namespace A convention for naming VistA package elements. The Database Administrator (DBA) assigns unique character strings for package developers to use in naming routines, options, and other package elements so that packages may coexist. The DBA also assigns a separate range of file numbers to each package.

namespacing Convention for naming VistA software elements. The DBA assigns unique two to four character string prefix for software developers to use in naming routines, options, and other software elements so that software can coexist. The DBA also assigns a separate range of file numbers to each software application.

NDBI National Database Integration

NM	Numeric data type. A number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits, and an optional decimal point.
node	In a tree structure, a point at which subordinate items of data originate. An M array element is characterized by a name and a unique subscript. Thus the terms: node, array element, and subscripted variable are synonymous. In a global array, each node might have specific fields or "pieces" reserved for data attributes such as name.
NPI	National Provider Index
Null	Empty—A field or variable that has no value associated with it is null.
numeric field	Response that is limited to a restricted number of digits. It can be dollar valued or a decimal figure of specified precision.
OBX	Observation/result message. OBX is intended to cover all types of patient specific observation reports except pharmacy.
OIFO	Office of Information Field Office.
OIT	Office of Information Technology
option	An entry in the OPTION file (#19). As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by TaskMan.
option name	Name field in the OPTION file (e.g., XUMAINT for the option that has the menu text "Menu Management"). Options are namespaced according to VistA conventions monitored by the DBA.
package (software)	The set of programs, files, documentation, help prompts, and installation procedures required for a given application (e.g., Laboratory, Pharmacy, and PIMS). A VistA software environment is composed of elements specified via the PACKAGE file (#9.4). Elements include files, associated templates, namespaced routines, and namespaced file entries from the OPTION, HELP FRAME, BULLETIN, and FUNCTION files. As public domain software, VistA software can be requested through the Freedom of Information Act (FOIA).
person correlation	A profile of an Identity that is maintained by an Associated System and is correlated to only one ICN. (Source - PIDS)
Person Identification Service	The Person Identification Service (PIDS) is an OMG Interface Specification standard responsible for the identification, correlation, and search within and across a specified domain (A *domain* is a sphere of influence. For instance, a person has an identifier issued by the Social Security Administration [Social Security Number] which is different that their identifier issued by the State Department [Passport Number]. Both the Social Security Administration and State Department could be considered separate domains.) for identifiers based upon a

	provided set of search criteria traits. Essentially, this service provides for the assignment and reconciliation of multiple identifiers across domains and in supporting multiple implementation topologies. CORBA specification from OMG. (Source - PIDS)
PKI	Public Key Infrastructure
PL	Patient Location data type.
PN	Person Name data type. A name includes multiple free text components: family name, given name, middle initial or name, suffix, prefix, and degree.
POB (City)	PLACE OF BIRTH [CITY]: The city in which this applicant was born (or foreign country if born outside the U.S.).
POB (State)	PLACE OF BIRTH [STATE]: State in which patient was born.
pointer	The address at which a data value is stored in computer memory. A relationship between two VA FileMan files, a pointer is a file entry that references another file (forward or backward). Pointers can be an efficient means for applications to access data by referring to the storage location at which the data exists.
primary key	A Data Base Management System construct, where one or more fields uniquely define a record (entry) in a file (table). The fields are required to be populated for every record on the file, and are unique, in combination, for every record on the file.
primary view	Provides the most accurate, current, and complete identity information for a VA patient. The Primary View from the MVI business rules make determinations about data additions and updates to identity traits (Name, SSN, Date of Birth, Gender, Mother's Maiden Name, Place of Birth, and Multiple Birth Indicator) based on the authoritativeness of the update or edits as they are received by the MVI.
private integration agreement	Where only a single application is granted permission to use an attribute/function of another VistA package. These IAs are granted for special cases, transitional problems between versions, and release coordination. A Private IA is also created by the requesting package based on their examination of the custodian package's features. Example: one package distributes a patch from another package to ensure smooth installation.
prompt	The computer interacts with the user by issuing questions called prompts, to which the user issues a response.
protocol	Entry in the PROTOCOL file (#101). Used by the Order Entry/Results Reporting (OE/RR) package to support the ordering of medical tests and other activities.
PS	Product Support
pseudo-SSNs	False Social Security Numbers that are calculated internally to VistA and cannot be mistaken for valid SSNs because they end in P.

PSIM	Person Service Identity Management (PSIM) enumerates and maintains person identities.
PSIM	Person Service Identity Management – VHA's re-hosted Java/Oracle implementation of the MPI's Identity Management Service.
QRY	Query message.
receiving site	Receiving Site- As it relates to HL7 Messages, it is the site that the message was sent to.
record	Set of related data treated as a unit. An entry in a VA FileMan file constitutes a record. A collection of data items that refer to a specific entity (e.g., in a name-address-phone number file, each record would contain a collection of data relating to one person).
REEME	Registration/Eligibility/Enrollment Maintenance and Enhancement
registration process	During a registration, if a patient does not have an ICN, the patient is checked against the entries in the MPI to determine if the patient already is established or needs to be added. The MPI may return a list of patients who are possible matches. If the patient is truly new and there are no potential matches on the MPI, the MPI will assign an ICN. If the patient is already known at the MPI, the ICN and CMOR is returned and a HL7 message is sent to the CMOR to add this new facility to the list of Treating Facilities for this patient. Registration for patients who already have an ICN at the Facility. The MPI will return either that a match was found or that no match was found. If a potential match was found the MPI will log an exception in the IdM ToolKit for review and not found will be returned to the user. If the MVI did not find a match, the request is sent to add a new record to MVI. If the match was found, the date last treated site will be contacted to pull data back as part of Register Once functionality. Once the registration process has completed, the ADT-A04 Registration HL7 message will be sent to the MPI and if the MPI updates primary view as a result of that A04, the updates will be broadcasted out to all appropriate facilities.
remote procedure call (RPC)	Remote Procedure Call is a protocol that one program can use to request a service from a program located on another computer network. Essentially M code may take optional parameters to do some work and then return either a single value or an array back to the client application.
repeated value	Some fields may contain many repeat fields. For example, the diagnoses field may contain many different diagnoses.
repetition separator	The repetition separator is used in some data fields to separate multiple occurrences of a field. It is used only where specifically authorized in the descriptions of the relevant data fields. The character that represents the repetition separator is specified for each message as the second character in the Encoding Characters data field of the MSH segment. Absent other considerations it is recommended that all sending applications use "~" as the repetition separator. However, all applications are required to accept whatever character is included in

	the Message Header and use it to parse the message.
requesting site	Requesting Site- As is relates to HL7 Messages, it is the site initiating a message to another site requesting some action be taken.
required field	A mandatory field, one that must not be left blank. The prompt for such a field will be repeated until the user enters a valid response.
routine	Program or a sequence of instructions called by a program that may have some general or frequent use. M routines are groups of program lines, which are saved, loaded, and called as a single unit via a specific name.
SAC	Standards and Conventions. Through a process of quality assurance, all VistA software is reviewed with respect to SAC guidelines as set forth by the Standards and Conventions Committee (SACC).
SACC	VistA's Standards and Conventions Committee. This Committee is responsible for maintaining the SAC.
scheduling options	The technique of requesting that Task Manager run an option at a given time, perhaps with a given rescheduling frequency.
screen editor	VA FileMan's Screen-oriented text editor. It can be used to enter data into any WORD-PROCESSING field using full-screen editing instead of line-by-line editing.
screenman forms	Screen-oriented display of fields, for editing or simply for reading. VA FileMan's Screen Manager is used to create forms that are stored in the FORM file (#.403) and exported with a software application. Forms are composed of blocks (stored in the BLOCK file [#.404]) and can be regular, full screen pages or smaller, "pop-up" pages.
screen-oriented	A computer interface in which you see many lines of data at a time and in which you can move your cursor around the display screen using screen navigation commands. Compare to Scrolling Mode.
security key	The purpose of Security Keys is to set a layer of protection on the range of computing capabilities available with a particular software package. The availability of options is based on the level of system access granted to each user.
segment	An HL7 segment is a logical grouping of data fields. Segments of a message may be required or optional. They may occur only once in a message or they may be allowed to repeat. Each segment is identified by a unique three-character code known as the Segment ID.
segment (record)	A typed aggregate of fields (fields) describing one complete aspect of a message. For example, the information about one order is sent as type of segment (OBR), the information related to an observation is sent as another segment (OBX). The segment in a message is analogous to a record in a database, and in previous versions of the standard we used record in place of the word segment. We have changed the nomenclature to be consistent with HL7 and other standards

	organizations in this version.
segment terminator	The segment terminator is the last character of every segment. It is always the ASCII CR character (hex 0D).
sending site	Sending Site—As it relates to HL7 Messages, it is the site that is transmitting the message to another site.
sensitive patient	Patient whose record contains certain information, which may be deemed sensitive by a facility, such as political figures, employees, patients with a particular eligibility or medical condition. If a shared patient is flagged as sensitive at one of the treating sites, a bulletin is sent to the DG SENSITIVITY mail group at each subscribing site telling where, when, and by whom the flag was set. Each site can then review whether the circumstances meet the local criteria for sensitivity flagging.
server	The computer where the data and the Business Rules reside. It makes resources available to client workstations on the network. In VistA, it is an entry in the OPTION file (#19). An automated mail protocol that is activated by sending a message to a server at another location with the "S.server" syntax. A server's activity is specified in the OPTION file (#19) and can be the running of a routine or the placement of data into a file.
set of codes	Usually a preset code with one or two characters. The computer may require capital letters as a response (e.g., M for male and F for female). If anything other than the acceptable code is entered, the computer rejects the response.
shared patient	A patient who has been seen at more than one VistA site. The MPI keeps the Treating Facility list updated every time a new facility is added. The MPI broadcasts out an updates to the treating facility list, including date last treated and event reason.
SI	Sequence ID data type. A positive integer in the form of a NM field.
Site Manger/IRM Chief	At each site, the individual who is responsible for managing computer systems, installing and maintaining new modules, and serving as a liaison to the CIO Field Offices.
software (package)	The set of programs, files, documentation, help prompts, and installation procedures required for a given application (e.g., Laboratory, Pharmacy, and PIMS). A VistA software environment is composed of elements specified via the PACKAGE file (#9.4). Elements include files, associated templates, namespaced routines, and namespaced file entries from the OPTION, HELP FRAME, BULLETIN, and FUNCTION files. As public domain software, VistA software can be requested through the Freedom of Information Act (FOIA).
source id	PSIM – A Source ID is a term used to describe the components that define a unique correlation in PSIM/ADR. There are 4 components of a Source ID in PSIM: 1. Assigning Authority (ex. USVHA)

2. Assigning Location (ex. Station #)
3. IDType (e.g. NI, PI, EI)
4. Internal Identifier - A code used at the assigning location used to uniquely identify a person.

The Initiate Identity Hub also uses the term Source ID, but with a slightly different context. The Source ID in the IDHub is the unique identifier of a correlated system. PSIM would translate the components Assigning Authority, Assigning Location, and IDType to an IDHub Source ID. The fourth PSIM Source ID component, IEN, would translate to the Member ID in the ID HUB. Thus, the IDHub uses 2 components to uniquely identify a member: Source ID and Member ID.

spacebar return You can answer a VA FileMan prompt by pressing the spacebar and then the Return key. This indicates to VA FileMan that you would like the last response you were working on at that prompt recalled.

special queuing Option attribute indicating that Task Manager should automatically run the option whenever the system reboots.

SSDI Social Security Death Index (SSDI). The SSDI is a database used for genealogical research as well as enabling users to locate a death certificate, find an obituary, discover cemetery records and track down probate records. The Healthcare Identity Management (HC IdM) Team uses the SSDI (http://ssdi.rootsweb.com/) as a resource for verifying patients' dates of death.

SSN Social Security Number

ST String data type. String Data is left justified with trailing blanks optional. Any printable ASCII characters are allowed.

station identifier The number assigned to a VAMC facility or a System Association. The station identifier may be three characters in length designating the facility as a parent organization or up to six characters in length designating the facility as a child of a parent organization.

subcomponent separator The subcomponent separator is used to separate adjacent subcomponents of some data fields. Its use is described in the descriptions of the relevant data fields. The character that represents the subcomponent separator is specified for each message as the fourth character in the Encoding Characters data field of the MSH segment. Absent other considerations it is recommended that all sending applications use "&" as the subcomponent separator. However, all applications are required to accept whatever character is included in the Message Header and use it to parse the message.

subscript A symbol that is associated with the name of a set to identify a particular subset or element. In M, a numeric or string value that: is enclosed in parentheses, is appended to the name of a local or global variable, and identifies a specific node within an array.

supported reference integration agreement	This applies where any VistA application may use the attributes/functions defined by the IA (these are also called "Public "). An example is an IA that describes a standard API such as DIE or VADPT. The package that creates/maintains the Supported Reference must ensure it is recorded as a Supported Reference in the IA database. There is no need for other VistA packages to request an IA to use these references; they are open to all by default.
synchronous	Refers to events that are synchronized, or coordinated, in time. Synchronous events have characteristics such as the interval between transmitting A and B being the same as between B and C, and completing the current operation before the next one is started. Contrast with asynchronous.
systems of interest	The term "systems of interest" refers to VA facilities that have seen patients and entered them as entries onto the MPI. This also refers to non-VistA systems that have a registered interest in a patient (e.g., Federal Health Information Exchange [FHIE], HomeTeleHealth, Person Service Identity Management [PSIM], Health Data Repository [HDR], etc).
Task Manager	Kernel module that schedules and processes background tasks (also called TaskMan)
task threshold or threshold, task	The Task Threshold (also called the Clerical Review Threshold) is a value that is less than the Auto Link Threshold. A Comparison Score above the Task Threshold and below the Auto Link Threshold needs to be reviewed by an Identity Management expert to determine whether the Identity Profile is either a match or not a match for the traits being compared. The Task Threshold is determined and tuned by Identity Management experts and may change over time as software systems and business processes improve. The ideal goal for automated identity matching is to minimize the difference between the Task Threshold and the Auto Link Threshold.
TCP/IP	Transaction Control Protocol/Internet Protocol. A set of protocols for Layers 3 (Network) and 4 (Transfer) of the OSI network model. TCP/IP has been developed over a period of 15 years under the auspices of the Department of Defense. It is a de facto standard, particularly as higher-level layers over Ethernet. Although it builds upon the OSI model, TCP/IP is not OSI-compliant.
template	Means of storing report formats, data entry formats, and sorted entry sequences. A template is a permanent place to store selected fields for use at a later time. Edit sequences are stored in the INPUT TEMPLATE file (#.402), print specifications are stored in the PRINT TEMPLATE file (#.4), and search or sort specifications are stored in the SORT TEMPLATE file (#.401).
Testing Service	The mission of Testing Service is to provide testing environments, independent testing services, and capacity metrics that will support improvement of the overall quality, performance and safety of both Health*e*Vet and legacy VistA systems.
TIN	Temporary ID Number

treating facility Any facility (VAMC) where a patient has applied for care, or has been added to the local PATIENT file (#2) (regardless of VISN) and has identified this patient to the MPI will be placed in the TREATING FACILITY LIST file (#391.91).

treating facility list Table of institutions at which the patient has received care. This list is used to create subscriptions for the delivery of patient clinical and demographic information between sites.

trigger A type of VA FileMan cross-reference. Often used to update values in the database given certain conditions (as specified in the trigger logic). For example, whenever an entry is made in a file, a trigger could automatically enter the current date into another field holding the creation date.

trigger event The event that initiates an exchange of messages is called a trigger event. The HL7 Standard is written from the assumption that an event in the real world of health care creates the need for data to flow among systems. The real-world event is called the trigger event. For example, the trigger event "a patient is admitted" may cause the need for data about that patient to be sent to a number of other systems. There is a one-to-many relationship between message types and trigger event codes. The same trigger event code may not be associated with more than one message type.

TS Time Stamp data type. Contains the exact time of an event, including the date and time.

TX Text data type. String data meant for user display on a terminal or printer.

UCI User Class Identification, a computing area. The MGR UCI is typically the Manager's account, while VAH or ROU may be Production accounts.

user access This term is used to refer to a limited level of access, to a computer system, which is sufficient for using/operating a package, but does not allow programming, modification to data dictionaries, or other operations that require programmer access. Any option, for example, can be locked with the key XUPROGMODE, which means that invoking that option requires programmer access.

The user's access level determines the degree of computer use and the types of computer programs available. The System Manager assigns the user an access level.

VA Department of Veterans Affairs

VA Domiciliary Provides comprehensive health and social services in a VA facility for eligible veterans who are ambulatory and do not require the level of care provided in nursing homes.

VA FileMan VistA's Database Management System (DBMS). The central component that defines the way standard VistA files are structured and manipulated.

VA Hospital An institution that is owned, staffed and operated by VA and whose primary function is to provide inpatient services. NOTE: Each division of an integrated

	medical center is counted as a separate hospital.
VA Medical Center (VAMC)	A unique VA site of care providing two or more types of services that reside at a single physical site location. The services provided are the primary service as tracked in the VHA Site Tracking (VAST) (i.e., VA Hospital, Nursing Home, Domiciliary, independent outpatient clinic (IOC), hospital-based outpatient clinic (HBOC), and CBOC). The definition of VA medical center does not include the Vet Centers as an identifying service. NOTE: This definition was established by the Under Secretary for Health.
VA Nursing Home Care Units (NHCU)	Provide care to individuals who are not in need of hospital care, but who require nursing care and related medical or psychosocial services in an institutional setting. VA NHCUs are facilities designed to care for patients who require a comprehensive care management system coordinated by an interdisciplinary team. Services provided include nursing, medical, rehabilitative, recreational, dietetic, psychosocial, pharmaceutical, radiological, laboratory, dental and spiritual.
Variable	Character, or group of characters, that refer(s) to a value. M (previously referred to as MUMPS) recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays. The term "global" may refer either to a global variable or a global array. A special variable is defined by systems operations (e.g., $TEST).
VBA SHARE	This is a VBA application which is utilized by the Regional Offices to access BIRLS, C&P, PIF, PHF, Corporate Database, Social Security and COVERS records. The Healthcare Identity Management (HC IdM) Team uses VBA SHARE as a resource for verifying patient identity data as well as military information.
verify code	The Kernel's Sign-on/Security system uses the Verify code to validate the user's identity. This is an additional security precaution used in conjunction with the Access code. Verify codes shall be at least eight characters in length and contain three of the following four kinds of characters: letters (lower- and uppercase), numbers, and, characters that are neither letters nor numbers (e.g., "#", "@" or "$"). If entered incorrectly, the system does not allow the user to access the computer. To protect the user, both codes are invisible on the terminal screen.
Vet Center	A data source under the direct supervision of the Readjustment Counseling Service (RCS). The Vet Center provides professional readjustment counseling, community education, outreach to special populations, brokering of services with community agencies, and access to important links.
VHA	Veterans Health Administration.
VIS	Veterans Information Solution (VIS). This intranet-based application is designed to provide a consolidated view of information about veterans and active service members. The HC IdM Team uses VIS as a resource for verifying patient identity data as well as military information.

VISN	Veterans Integrated Service Network
VistA	Veterans Health Information Systems and Technology Architecture (VistA) of the Veterans Health Administration (VHA), Department of Veterans Affairs (VA). VistA software, developed by the VA, is used to support clinical and administrative functions at VHA sites nationwide. It is both roll-and-scroll- and GUI-based software that undergoes a quality assurance process to ensure conformity with namespacing and other VistA standards and conventions (see SAC). Server-side code is written in M, and, via Kernel, runs on all major M implementations regardless of vendor. Client-side code is written in Java or Borland Delphi and runs on the Microsoft operating system.
VPID (replaced with ICN.)	Veterans Administration Personal Identifier – An enterprise-level identifier uniquely identifying VA „persons‟ across the entire VA domain.
WAN	Wide Area Network.
XCN	Extended Composite ID Number and Name data type. In version 2.3, use instead of the CN data type.
XON	Extended composite name and ID number for organizations data type.
XPN	Extended person name data type. In version 2.3, replaces the PN data type.
XTN	Extended telecommunications number data type. In version 2.3, replaces the TN data type.
Z st	All message type and trigger event codes beginning with Z are reserved for locally defined messages. No such codes will be defined within the HL7 Standard.

NOTE: For a comprehensive list of commonly used infrastructure- and security-related terms and definitions, please visit the Security and Other Common Services Legacy Glossary Web site at the following address:

http://vista.med.va.gov/iss/glossary.asp

For a comprehensive list of acronyms, please visit the Office of Information and Technology (OIT) Master Glossary Web site at the following address:

http://vaww.oed.wss.va.gov/process/OIT%20Master%20Glossary/Home.aspx

Appendix A—Communication with MPI Specification Agreement

The table below shows a list of messages found in the MPI HL7 Specification. Each HL7 message indicates if it applies to a non-VistA system. All messages must be processed and all messages expect Commit and Application Level Acknowledgements.

NOTE: Currently, VistA applications update demographic information on the MPI using the following HL7 messages:

- ADT-A04—Register a Patient
- ADT-A08—Update Patient Information
- ADT-A31 – Update Person Information

In the future, enterprise level applications coming from Person Services that need to update demographic information on the MPI in coordination with the enterprise view of patient record will use the following HL7 message:

- ADT-A31—Update Person Information

Trigger Event	Event Supported HL7 V2.4 Message	Description
Query MPI for match	VTQ-Q02	The MPI will accept a query for patient information. The current search algorithm uses Name, DOB, and SSN (if available) for its search. Results are returned in an ACK/Q02 (changed from ADT-A31 in patches MPI*1.0*32 and MPIF*1.0*38) (**NOTE:** supported for internal VistA VAMC messaging)
	QBP-Q22/RSP-K22 MFN-M05	This find Candidates query is used to return a list of one ICN candidates for a given local identifier (i.e. dfn/station#). The query can also be used to establish a correlation to an ICN and/or an association to an existing correlated id (i.e. dfn/station#). **NOTE:** Supported for external VistA VAMC messaging.
Add new patient to the MPI	ADT-A28	The MPI will accept new patient adds via ADT-A28 (add person or patient information). The MPI will in-turn broadcast back an ADT-A24 (link patient information) message.
	VQQ-Q02 (via Local/Missing ICN Resolution Job) MFN-M05	The MPI will add a new patient if the VQQ-Q02 is sent in the form of the Local/Missing ICN Resolution Job and the patient is not found. The MPI will return the ICN in the ACK/Q02 Local/Missing ICN Resolution job response.
Link to an existing patient on the MPI	ADT-A24 MFN-M05	The MPI will accept an ADT-A24 (link patient information) message for the purpose of matching a sites patient to an existing ICN. The sites current demographic values will also be stored as a result.

Update to fields on an existing MPI entry	ADT-A04, ADT-A08 MFN-M05	The MPI will accept patient updates via ADT-A04 (register a patient) or ADT-A08 (update patient information) and will broadcast out to the authoritative source system if the update came from a non-authoritative source system and to all systems if it came from the authoritative source system.
Update Person Information outside of an event	ADT-A31	The MPI will accept an ADT-A31 (update person information) and update the appropriate entry on the MPI depending on if the message is from the CMOR (MPI VETERAN/CLIENT file [#985]) or a treating facility (ASSOCIATED FACILITY file [#985.5]). The MPI also broadcast out an ADT-A31 message to synchronize the identity management elements to the MPI Patient "primary view".
Update to date last treated	ADT-A01, ADT-A03, MFN-M05	The MPI will accept updates to date last treated and event reason via ADT-A01 (admit/visit notification) and/or ADT-A03 (Discharge and/or clinic checkouts). If the update changes the sites current MPI date last treated or event reason the MPI will broadcast a MFN-M05
Resolution of duplicates at the site where both entries exist on the MPI	ADT-A40, ADT-A24 MFN-M05	The MPI will accept a resolution of a duplicate from a site via ADT-A40 (merge patient - patient identifier list). The MPI will in-turn broadcast out an ADT-A24 (link patient information).
Resolution of duplicates on the MPI	ADT-A24 MFN-M05	The MPI will notify sites of a duplicate resolution via ADT-A24 (link patient information).
Identification and resolution of a mismatched patient	ADT-A43 MFN-M05	The MPI will notify sites of a mismatched patient via ADT-A43 (move patient - patient identifier list) This maintenance message is used to update a records ICN (i.e. enterprise ID trait)
Change of CMOR assignment	ADT-A31	The MPI will accept a change in CMOR assignment via an ADT-A31 from the current CMOR via ADT-A31 (update person information)
Patient Query	QRY/ADR-A19	The sending site is requesting patient demographic information to be returned for a specific ICN via the QRY-A19 (patient query) message. The data is returned in an ADR message to the requesting site.
Unlink Patient	ADT-A37 MFN-M05	The sending site is requesting to unlink its patient record from an ICN. This action reverses the Link.
Treating Facility List Update	MFN-M05	The MPI will send out an MFN-M05 if the treating facility list is modified or if the date last treated or event reason changes. This message can be generated as a result of another message being processed on the MPI or maybe triggered manually.

Table A-1. HL7 messages for non-VistA systems

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