

# 9.

# Medical Records/Information Management

## (Document Management)

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### 9.1 PURPOSE

This chapter currently supports document management. In the future, it is intended also to support the data exchange needs of applications supporting other medical record functions, including chart location and tracking, deficiency analysis, consents, and release of information. The main purpose of the medical record is to produce an accurate, legal, and legible document that serves as a comprehensive account of healthcare services provided to a patient.

This chapter defines the transactions at the seventh level, i.e., the abstract messages. Various schemes may be used to generate the actual characters that comprise the messages according to the communications environment. The HL7 Encoding Rules will be used where there is not a complete Presentation Layer. This is described in Chapter 1, "Relationship to Other Protocols." The examples in this chapter were constructed using the HL7 Encoding Rules.

#### 9.1.1 Definition of terms and concepts

This part provides definition of terms used throughout this chapter. The intent of this part is to provide clarification on use and interpretation.

- 9.1.1.1 **Addendum:** An appendage to an existing document that contains supplemental information. The parent document remains in place and its content is unaltered.
- 9.1.1.2 **Archived:** A storage status in which a document has been stored off-line for long-term access.
- 9.1.1.3 **Canceled:** An availability status in which a document has been "removed" from a patient's record with no replacement. This is done when a document has been erroneously created or assigned to the incorrect patient.
- 9.1.1.4 **Composite document:** A document which consists of an original document and one or more addenda.

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9.1.1.5 **Document completion table:** The following terms are used to describe the workflow progression of a document:

9.1.1.5.1 **Authenticated:** A completion status in which a document or entry has been signed manually or electronically by one or more individuals who attest to its accuracy. No explicit determination is made that the assigned individual has performed the authentication. While the standard allows multiple instances of authentication, it would be typical to have a single instance of authentication, usually by the assigned individual.

9.1.1.5.2 **Dictated:** A completion status in which information has been orally recorded but not yet transcribed.

9.1.1.5.3 **Documented:** A completion status in which document content, other than dictation, has been received but has not been translated into the final electronic format. Examples include paper documents, whether hand-written or typewritten, and intermediate electronic forms, such as voice to text.

9.1.1.5.4 **In progress/assigned:** A workflow progression in which the recipient has assigned the material to personnel to perform the task of transcription. The document remains in this state until the document is transcribed.

9.1.1.5.5 **Incomplete:** A completion status in which information is known to be missing from a transcribed document.

9.1.1.5.6 **Legally authenticated:** A completion status in which a document or entry has been signed manually or electronically by the individual who is legally responsible for that document or entry. This is the most mature state in the workflow progression.

9.1.1.5.7 **Pre-authenticated:** A completion status in which a document is transcribed but not authenticated.

9.1.1.6 **Edited document:** A document that alters an existing document which had not been made available for patient care. (see also Section 9.1.1.10, "Replacement document").

9.1.1.7 **New or original document:** The first version of a document. The original may or may not be final or authenticated. An original document should have a set of associated statuses to define its current condition.

9.1.1.8 **Obsolete:** An availability status in which a document has been replaced by a document which contains revised content.

9.1.1.9 **Purged:** A storage status in which a document is no longer available in this system.

9.1.1.10 **Replacement document:** A document that replaces an existing document. The original document becomes obsolete, but is still retained in the system for historical reference.

9.1.1.11 **Restricted:** A confidentiality status in which access to a document has institutionally assigned limitations.

9.1.1.12 **Revised document:** This is not a supported trigger event. See Sections 9.1.1.6, "Edited document," and 9.1.1.10, "Replacement document."

9.1.1.13 **Transcription:** A process of transforming dictated or otherwise documented information into an electronic format.

## **9.2 DOCUMENT MANAGEMENT SECTION**

This section defines the Medical Document Management (MDM) transaction set. It supports transmission of new or updated documents or information about their status(es). The trigger events and messages may be divided into two broad categories, one which describes the statuses of documents, and one which both describes the statuses and contains the document content itself.

The document management section is concerned primarily with the management of those documents and entries which are created as a result of a transcription process. These documents are created in two distinct contexts, one of which is related to an order and describes the procedures or activities associated with that order, and another which occurs independent of the order process. The scope of this section also includes any document that contains data derived from orders or results but which must be treated as aggregate display data due to system limitations. This is a transition strategy to support integration of data across the continuum of care.

The content of a document can be represented with one or more observation segments (OBX). Where headings or separations naturally exist within the text, it is preferred that each of these blocks be represented as a separate OBX record. **Where systems are able to decompose the text into separate medical concepts, the most atomic level of granularity of content should be represented, ideally with each medical concept being represented in its own OBX segment.** Many of these concepts can be represented as coded entities.

## **9.3 ASSUMPTIONS**

Within this section, we have created a single message whose contents vary predicated on the trigger event. The following assumptions are made when the Medical Document Management (MDM) message is used:

- The application system is responsible for meeting all legal requirements (on the local, state, and federal levels) in the areas of document authentication, confidentiality, and retention.
- All documents are unique, and document numbers and file names are not reused.
- Documents may be associated with one or more orders.

## **9.4 TRIGGER EVENTS AND MESSAGE DEFINITIONS**

Each triggering event is listed below, along with the applicable form of the message exchange. The notation used to describe the sequence, optionality, and repetition of segments is described in Chapter 2, "Format for Defining Abstract Messages." There are two classes of events, those which contain notifications only, and those which contain both notifications and content (text contained in OBX segments).

These triggering events are mainly associated with documents or entries that will be or have been transcribed. The types and appearance of the transcribed documents can vary greatly within a healthcare organization and between organizations. However, the main purpose of the transcription process is to document patient care or diagnostic results in a legible manner; these documents then become part of the legal medical record. The conceptual purpose of document notification is to facilitate updating the receiving system(s) with information from the source system(s), typically dictation or transcription systems, to indicate that an electronic document has been created or altered. The document notification message can be attached to an entire document (i.e., transcribed document) or can be transmitted stand-alone. In either case, the document notification is transmitted in the form of an unsolicited update or in response to a record-oriented query. A document notification message can be created under a variety of circumstances such as when: 1) dictation has been completed; 2) a document has been transcribed; or 3) the status of a document has been changed, for example, when a document has been authenticated.

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### 9.4.1 MDM/ACK - original document notification (event T01)

This is a notification of the creation of a document without the accompanying content. There are multiple approaches by which systems become aware of documents:

Scenario A: A document is dictated and chart tracking system is notified that it has been dictated and is awaiting transcription.

Scenario B: Dictation is transcribed and chart tracking system is notified that the document exists and requires authentication.

Scenario C: A provider orders a series of three X-rays. The radiologist dictates a single document which covers all three orders. Multiple placer numbers are used to identify each of these orders.

MDM	Original Document Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.2 MDM/ACK - original document notification and content (event T02)

This is a notification of the creation of a document with the accompanying content.

Scenario A: Dictation is transcribed and the chart tracking system is notified that the document exists and requires authentication. The content of the document is transmitted along with the notification.

Scenario B: A provider orders a series of three X-rays. The radiologist's dictation is transcribed in a single document, which covers all three orders. Multiple placer numbers are used to identify each of the orders within the single document message. The notification and document content are transmitted.

MDM	Original Document Notification & Content	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9
{OBX}	Observation/Result (one or more required)	7

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error Information	2

### **9.4.3 MDM/ACK - document status change notification (event T03)**

This is a notification of a change in a status of a document without the accompanying content.

Scenario: A document is authenticated. Notification is sent to the chart tracking system and is used to update the document status from pre-authenticated to authenticated or legally authenticated.

A change in any of the following independent status characteristics would cause a message to be sent:

- Completion Status
- Confidentiality Status
- Availability Status (the Availability Status of “canceled” is supported in T11 (document cancel notification) or T03)
- Storage Status

MDM	Document Status Change Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### **9.4.4 MDM/ACK - document status change notification and content (event T04)**

This is a notification of a change in a status of a document with the accompanying content.

Scenario: A document is authenticated. Notification is sent to the chart tracking system and is used to update the document status from pre-authenticated to authenticated or legally authenticated. The document content is also transmitted.

MDM	Document Status Change Notification & Content	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9
{OBX}	Observation/Result (one or more required)	7

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ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.5 MDM/ACK - document addendum notification (event T05)

This is a notification of an addendum to a document without the accompanying content.

Scenario: Author dictates additional information as an addendum to a previously transcribed document. A new document is transcribed. This addendum has its own new unique document ID that is linked to the original document via the parent ID. Addendum document notification is transmitted. This creates a composite document.

MDM	Document Addendum Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

  

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.6 MDM/ACK - document addendum notification and content (event T06)

This is a notification of an addendum to a document with the accompanying content.

Scenario: Author dictates additional information as an addendum to a previously transcribed document. A new document is transcribed. This addendum has its own new unique document ID that is linked to the original document via the parent ID. Addendum document notification is transmitted, along with the document content. This creates a composite document.

MDM	Document Addendum Notification & Content	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9
{OBX}	Observation/Result (one or more required)	7

  

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.7 Document edit notification (event T07)

**Note:** The only valid use of this trigger event is for documents whose availability status is "Unavailable," i.e., the document has not been made available for patient care.

This is a notification of an edit to a document without the accompanying content.

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Scenario: Errors, which need to be corrected, are discovered in a document. The original document is edited, and an edit notification is sent.

MDM	Document Edit Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.8 MDM/ACK - document edit notification and content (event T08)

<b>Note:</b> The only valid use of this trigger event is for documents whose availability status is "Unavailable," i.e., the document has not been made available for patient care.
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This is a notification of an edit to a document with the accompanying content.

Scenario: Errors, which need to be corrected, are discovered in a document. The original document is edited, and an edit notification and document content are sent.

MDM	Document Edit Notification & Content	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9
{OBX}	Observation/Result (one or more required)	7

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.9 MDM/ACK - document replacement notification (event T09)

<b>Note:</b> This trigger event is generally used when the original document availability status is "Available."
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This is a notification of replacement to a document without the accompanying content.

Scenario: Errors discovered in a document are corrected. The original document is replaced with the revised document. The replacement document has its own new unique document ID that is linked to the original document via the parent ID. The availability status of the original document is changed to "Obsolete" but the original document should be retained in the system for historical reference. Document replacement notification is sent.

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MDM	Document Replacement Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

  

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.10 MDM/ACK - document replacement notification and content (event T10)

Scenario: Errors discovered in a document are corrected. The original document is replaced with the revised document. The replacement document has its own new unique document ID that is linked to the original document via the parent ID. The availability status of the original document is changed to “Obsolete” but the original document should be retained in the system for historical reference. Document replacement notification and document content are sent.

MDM	Document Replacement Notification & Content	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9
{OBX}	Observation/Result (one or more required)	7

  

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

### 9.4.11 MDM/ACK - document cancel notification (event T11)

This is a notification of a cancellation of a document. This trigger event should be used only for an original document with an availability status of “Unavailable.” When a document has been made available for patient care, the process should be to replace the original document, which then becomes obsolete. The replacement document describes why the erroneous information exists.

Scenario: When the author dictated a document, the wrong patient identification was given, and the document was transcribed and sent to the wrong patient’s record. When the error is discovered, a cancellation notice is sent to remove the document from general access in the wrong patient’s record. In these cases, a reason should be supplied in the cancellation message. To protect patient privacy, the correct patient’s identifying information should not be placed on the erroneous document that is retained in the wrong patient’s record for historical reference. A new document notification and content will be created using a T02 (original document notification and content) event and sent for association with the correct patient’s record.



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MDM	Document Cancel Notification	Chapter
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
TXA	Document Notification	9

  

ACK	General Acknowledgment	Chapter
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

## 9.5 MESSAGE SEGMENTS

### 9.5.1 TXA - transcription document header segment

The TXA segment contains information specific to a transcribed document but does not include the text of the document. The message is created as a result of a document status change. This information is used to update other healthcare systems to identify reports that are available in the transcription system. By maintaining the TXA message information in these systems, the information is available when constructing queries to the transcription system requesting the full document text.

Figure 9-1. TXA attributes

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	R			00914	Set ID- TXA
2	30	IS	R		0270	00915	Document Type
3	2	ID	C		0191	00916	Document Content Presentation
4	26	TS	O			00917	Activity Date/Time
5	60	XCN	C			00918	Primary Activity Provider Code/Name
6	26	TS	O			00919	Origination Date/Time
7	26	TS	C			00920	Transcription Date/Time
8	26	TS	O	Y		00921	Edit Date/Time
9	60	XCN	O			00922	Originator Code/Name
10	60	XCN	O	Y		00923	Assigned Document Authenticator
11	48	XCN	C			00924	Transcriptionist Code/Name
12	30	EI	R			00925	Unique Document Number
13	30	EI	C			00926	Parent Document Number
14	22	EI	O	Y		00216	Placer Order Number
15	22	EI	O			00217	Filler Order Number
16	30	ST	O			00927	Unique Document File Name
17	2	ID	R		0271	00928	Document Completion Status
18	2	ID	O		0272	00929	Document Confidentiality Status
19	2	ID	O		0273	00930	Document Availability Status
20	2	ID	O		0275	00932	Document Storage Status
21	30	ST	C			00933	Document Change Reason
22	60	PTS	C	Y		00934	Authentication Person, Time Stamp
23	60	XCN	O	Y		00935	Distributed Copies (Code and Name of Recipients)

#### 9.5.1.0 TXA field definitions

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### 9.5.1.1 Set ID - TXA (SI) 00914

Definition: This field contains a number that uniquely identifies this transaction for the purpose of adding, changing, or deleting the transaction.

### 9.5.1.2 Document type (IS) 00915

Definition: This field identifies the type of document (as defined in the transcription system). Refer to *user-defined table 0270 - Document type* for suggested values. The organization is free to add more entries.

User-defined Table 0270 - Document type

<u>Value</u>	<u>Description</u>
AR	Autopsy report
CD	Cardiodiagnostics
CN	Consultation
DI	Diagnostic imaging
DS	Discharge summary
ED	Emergency department report
HP	History and physical examination
OP	Operative report
PC	Psychiatric consultation
PH	Psychiatric history and physical examination
PN	Procedure note
PR	Progress note
SP	Surgical pathology
TS	Transfer summary

### 9.5.1.3 Document content presentation (ID) 00916

Definition: This is a conditional field which is required whenever the message contains content as presented in one or more OBX segments. This field identifies the method by which this document was obtained or originated. Refer to *HL7 table 0191 - Main type of referenced data* for valid values.

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Table 0191 - Main type of referenced data

Value	Description
SI	Scanned image
NS	Non-scanned image
SD	Scanned document
TX	Machine readable text document
FT	Formatted text
IM	Image data (new with HL7 v 2.3)
AU	Audio data (new with HL7 v 2.3)
AP	Other application data, typically uninterpreted binary data (new with HL7 v 2.3)

### 9.5.1.4 Activity date/time (TS) 00917

Definition: This field contains the date/time identified in the document as the date a procedure or activity was performed. This date can identify date of surgery, non-invasive procedure, consultation, examination, etc.

### 9.5.1.5 Primary activity provider code/name (XCN) 00918

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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 of the person identified in the document as being responsible for performing the procedure or activity. This field includes the code and name (if available) of the caregiver. This field is conditional based upon the presence of a value in *TXA-4-activity date*.

### 9.5.1.6 Origination date/time (TS) 00919

Definition: This field contains the date and time the document was created (i.e., dictated, recorded, etc.).

### 9.5.1.7 Transcription date/time (TS) 00920

Definition: This field contains the date and time the input was actually transcribed. This field is conditional based upon the presence of a value in *TXA-17-document status* of anything except “dictated.”

### 9.5.1.8 Edit date/time (TS) 00921

Definition: This field contains the date and time the document was edited.

### 9.5.1.9 Originator code/name (XCN) 00922

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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)>

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Definition: This field identifies the person who originated (i.e., dictated) the document. The document originator may differ from the person responsible for authenticating the document.

### 9.5.1.10 Assigned document authenticator (XCN) 00923

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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 person(s) responsible for authenticating the document, who may differ from the originator. Multiple persons may be responsible for authentication, especially in teaching facilities. This field is allowed to repeat an undefined number of times.

### 9.5.1.11 Transcriptionist code/name (XCN) 00924

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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 person transcribing the document. This is a conditional value; it is required on all transcribed documents.

### 9.5.1.12 Unique document number (EI) 00925

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

Definition: This field contains a unique document identification number assigned by the sending system. This document number is used to assist the receiving system in matching future updates to the document, as well as to identify the document in a query. When the vendor does not provide a unique document ID number, some type of document identifier should be entered here, or the Unique Document File name should be utilized. See Chapter 2, Section 2.8.49, "XTN - extended telecommunication number." Where the system does not customarily have a document filler number, this number could serve as that value, as well.

### 9.5.1.13 Parent document number (EI) 00926

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

Definition: This field contains a document number that identifies the parent document to which this document belongs. The parent document number can be used to assist the receiving system in matching future updates to this document. This is a conditional field that is always required on T05 (document addendum notification), T06 (document addendum notification and content), T09 (document replacement notification), and T10 (document replacement notification and content) events.

### 9.5.1.14 Placer order number (EI) 00216

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

Definition: This field is the placer application's order number.

This is a composite field. The first component is a string of characters that identifies an individual order (e.g., OBR). It is assigned by the placer (ordering application). It identifies an order uniquely among all orders from a particular ordering application. The second through fourth components contain the (filler) assigning authority of the placing application. The (filler) assigning authority is a string of characters that will be uniquely associated with an application. A given institution or group of intercommunicating institutions should establish a unique list of applications that may be potential placers and fillers and assign unique entity identifiers. The components are separated by component delimiters.

#### 9.5.1.15 Filler order number (EI) 00217

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

Definition: This field is the order number associated with the filling application. Where a transcription service or similar organization creates the document and uses an internally unique identifier, that number should be inserted in this field. Its first component is a string of characters that identifies an order detail segment (e.g., OBR). This string must uniquely identify the order (as specified in the order detail segment) from other orders in a particular filling application (e.g., transcription service). This uniqueness must persist over time. Where a number is reused over time, a date can be affixed to the non-unique number to make it unique.

The second through fourth components contains the (filler) assigning authority. The (filler) assigning authority is a string of characters that uniquely defines the application from other applications on the network. The second through fourth components of the filler order number always identify the actual filler of an order.

For further details, please see the definitions provided in Chapter 4.

#### 9.5.1.16 Unique document file name (ST) 00927

Definition: This field contains a unique name assigned to a document by the sending system. The file name is used to assist the receiving system in matching future updates to the document.

#### 9.5.1.17 Document completion status (ID) 00928

Definition: This field identifies the current completion state of the document. This is a required, table-driven field. Refer to *HL7 table 0271 - Document completion status* for valid values.

Table 0271 - Document completion status

Value	Description
DI	Dictated
DO	Documented
IP	In Progress
IN	Incomplete
PA	Pre-authenticated
AU	Authenticated
LA	Legally authenticated

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Figure 9-2. Document completion status state transition table

Transition (Action)	Old State	New State
T01 Original Notification T02 Original Notification and Content	NA	Dictated In Progress Incomplete Pre-authenticated Authenticated Legally authenticated
T03 Status Change Notification T04 Status Change Notification and Content	Dictated	In Progress Incomplete Pre-authenticated Authenticated Legally authenticated
	In Progress	Incomplete Pre-authenticated Authenticated Legally authenticated
	Incomplete	Pre-authenticated Authenticated Legally authenticated
	Pre-authenticated	Authenticated Legally authenticated
	Authenticated	Legally authenticated
	Legally authenticated	NA
	Documented	Pre-authenticated Authenticated Legally authenticated
T05 Addendum Notification T06 Addendum Notification and Content	NA	Dictated In Progress Incomplete Pre-authenticated Authenticated Legally authenticated
T07 Edit Notification T08 Edit Notification and Content	Dictated	In Progress Incomplete Pre-authenticated Authenticated Legally authenticated
	In Progress	Incomplete Pre-authenticated Authenticated Legally authenticated
	Incomplete	Pre-authenticated Authenticated Legally authenticated
	Pre-authenticated	Authenticated Legally authenticated
	Authenticated	Legally authenticated
	Legally authenticated	NA

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Transition (Action)	Old State	New State
	Documented	Pre-authenticated Authenticated Legally authenticated
T09 Replacement Notification T10 Replacement Notification and Content	NA	Dictated In Progress Incomplete Pre-authenticated Authenticated Legally authenticated
T11 Cancel Notification	Dictated In Progress Incomplete Pre-authenticated and Availability status of “Unavailable”	Canceled

**Note:** NA means not applicable.

### 9.5.1.18 Document confidentiality status (ID) 00929

Definition: This is an optional field which identifies the degree to which special confidentiality protection should be applied to this information. The assignment of data elements to these categories is left to the discretion of the healthcare organization. Refer to *HL7 table 0272 - Document confidentiality status* for valid values.

Table 0272 - Document confidentiality status

Value	Description
V	Very restricted
R	Restricted
U	Usual control

### 9.5.1.19 Document availability status (ID) 00930

Definition: This is an optional field which identifies a document's availability for use in patient care. If an organization's business rules allow a document to be used for patient care before it is authenticated, the value of this field should be set to "AV." If a document has been made available for patient care, it cannot be changed or deleted. If an erroneous document has been made available at any point in time and a replacement is not appropriate, then it may be marked as "Canceled" and removed, as in the case of a document being assigned to the wrong patient. Additional information must be provided via an addendum, which is separately authenticated and date/time stamped. If the content of a document whose status is "Available" must be revised, this is done by issuing a replacement, which is separately authenticated and date/time stamped. Refer to *HL7 table 0273 - Document availability status* for valid values.

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Table 0273 - Document availability status

Value	Description
AV	Available for patient care
CA	Deleted
OB	Obsolete
UN	Unavailable for patient care

Figure 9-3. Document availability status state transition table

Transition (Action)	Old State	New State	Notes
T01 Original Notification T02 Original Notification and Content	NA	Unavailable Available	
T03 Status Change Notification T04 Status Change Notification and Content	Unavailable	Unavailable Available Obsolete	
	Available	Available Obsolete	
	Obsolete	NA	
T05 Addendum Notification T06 Addendum Notification and Content	NA	Unavailable Available	
T07 Edit Notification T08 Edit Notification and Content	Unavailable	Unavailable Available	
T09 Replacement Notification T10 Replacement Notification and Content	NA	Unavailable Available	Set parent document to "obsolete"
T11 Cancel	Unavailable	Delete	

**Note:** NA means not applicable.

### 9.5.1.20 Document storage status (ID) 00932

Definition: This optional field identifies the storage status of the document. Refer to *HL7 table 0275 - Document storage status* for valid values.

Table 0275 - Document storage status

Value	Description
AC	Active
AA	Active and archived
AR	Archived (not active)
PU	Purged

### 9.5.1.21 Document change reason (ST) 00933

Definition: This free text field (limited to 30 characters) contains the reason for document status change.



### 9.5.1.22 Authentication person, time stamp (set) (PTS) 00934

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)> ^ <when authenticated (TS)>

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

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

Definition: This is a conditional field. When the status of *TXA-17-document completion status* is equal to AU (authenticated) or LA (legally authenticated), all components are required. This field contains a set of components describing by whom and when authentication was performed. Whenever any one of the ID number - Name type code component s is valued, the when authenticated component, which is time stamp, must be valued as non-null. If the time component of a set is valued as non-null, the person component becomes required. These subcomponents are normally delimited by an ampersand (&). See Chapter 2.

#### 9.5.1.22.1 Authentication person (component) (XCN)

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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

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

Definition: This component identifies the person who has authenticated the document (either manually or electronically).

#### 9.5.1.22.2 Authentication time stamp (component) (TS)

Definition: This component contains the date and time the document was authenticated (either manually or electronically).

### 9.5.1.23 Distributed copies (XCN) 00935

Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <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)>

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

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

Definition: This field identifies the persons who received a copy of this document.

## 9.5.2 OBX - observation segment usage

The OBX segment is documented in its entirety in Chapter 7. Its usage as it applies to Medical Records/Information Management is documented here for clarity.

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Figure 9-4. OBX attributes

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	Element Name
1	4	SI	R			00569	Set ID- OBX
2	2	ID	R		0125	00570	Value Type
3	80	CE	O			00571	Observation Identifier
4	20	ST	O			00572	Observation Sub-Id
5	*	*	C/R			00573	Observation Value
6	60	CE	O			00574	Units
7	60	ST	O			00575	Reference Range
8	10	ID	O	Y/5	0078	00576	Abnormal Flags
9	5	NM	O			00577	Probability
10	5	ID	O		0080	00578	Nature of Abnormal Test
11	2	ID	R/NA			00579	Observation Result Status
12	26	TS	C			00580	Date Last Obs Normal Values
13	20	ST	C			00581	User Defined Access Checks
14	26	TS	O			00582	Date/Time of Observation
15	60	CE	C			00583	Producer's ID
16	60	XCN	O			00584	Responsible Observer
17	60	CE	O	Y		00936	Observation Method

C = For fields OBX-12, OBX-13, and OBX-15, the field should be valued conditionally. These fields should be valued only when the result (OBX-5-observation value) contains a single concept. This is typically true when the result type is numeric, ID, or CE. When multiple medical concepts are expressed, the values of these three fields are ambiguous.\* = 256 K or site negotiated

Specialized usage: Observation Identifier/Observation Sub-ID have been used as optional fields that are not required in unstructured text where the nature of the document has been identified in *TXA-2-document type*, which is a required field, but is expressly allowed in the richer structured documentation. An example includes cases where anatomic reports may have separate OBXs for gross examination, microscopic examination, clinical impression, and final diagnosis. Another possible use includes imbedding non-textual observations within textual reports.

## 9.6 EXAMPLE MESSAGE

The following is an example of an original transmission of a history and physical examination which has been authenticated prior to this message being initiated:

```

MSH|...<cr>

EVN|T02|19960215154405||04|097220^Smith^Frederick^A^Jr^Dr^MD^| <cr>

PID|...<cr>

PR1|...<cr>

TXA|0001|HP^history &
    physical|TX^text|19960213213000|099919^Tracy^Wayne^R^III^Mr^MS^|
    19960213153000|19960215134500||099919^Tracy^Wayne^R^III^Mr^MS^|0972
    20^Smith^Frederick^A^Jr^Dr^MD^|01234567^Baxter^Catherine^S^Ms|19960
    21500001^transA|||example.doc|LA|UC|AV||AC|||097220^Smith^Frederi
    ck^A^Jr^Dr^MD^| <cr>

OBX|1|CE|2000.40^CHIEF COMPLAINT|| ... <cr>

OBX|2|ST|2000.01^SOURCE||PATIENT <cr>

OBX|3|TX|2000.02^PRESENT ILLNESS||SUDDEN ONSET OF CHEST PAIN. 2 DAYS,
    PTA ASSOCIATED WITH NAUSEA, VOMITING & SOB. NO RELIEF WITH
    ANTACIDS OR NTG. NO OTHER SX. NOT PREVIOUSLY ILL.<cr>

.

.

and so on.

```

## 9.7 QUERY

A query may be used to retrieve a list of documents or a specific document. See Chapter 2 for details of queries.

### 9.7.1 QRY/DOC - document query (event T12)

QRY	Document Query	Chapter
MSH	Message Header	2
QRD	Query Definition	2
[ QRF ]	Query Filter	2

DOC	Document Response	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ERR]	Error	2
QRD	Query Definition	2
{		
[EVN]	Event Type	3
PID	Patient Identification	3
PVL	Patient Visit	3
TXA	Document Notification	9
[{OBX}]	Observation	7
}		
[DSC]	Continuation Pointer	2

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### 9.7.1.1 Query usage notes

The QRD and QRF segments are defined in Chapter 2, Sections 2.24.4, “QRD - original style query definition segment,” and 2.24.5, “QRF - original style query filter segment.”

The subject filters contained in the QRD and QRF segments describe the kind of information that is required to satisfy the request. They are defined by local agreement between the inquiring system and the ancillary system. See the Implementation Guide for detailed examples of the use of query filter fields.

The Set ID fields in the various segments (including PID) are used to count the number of segments of one kind transmitted at one level of the hierarchy.

*QRD-12-query result level* determines the amount of data requested. See Chapter 2, Section 2.24.4.12, “Query results level.”

