

- 1 Unit Overview
- 2 Order Event Summary
- 3 Orders to Cerner Millennium---Message Definition and Processing
  - 3.1 General ORM Message Definition
    - 3.1.1 ORM Additional Use Notes
  - 3.2 General ORR Order Response Message Definition
    - 3.2.1 ORR Use Notes
  - 3.3 New Orders (O01/NW or SN)
    - 3.3.1 Cerner MillenniumOrder Grouping Functionality
    - 3.3.2 Cerner MillenniumDuplicate Checking
    - 3.3.3 Cerner MillenniumOrder Admit (Quick Admit)
      - 3.3.3.1 Constraints
    - 3.3.4 Cerner MillenniumAccept Foreign Accession
    - 3.3.5 Order Number Assigned (O02/NA)---Response From Cerner Millennium
  - 3.4 Order Number Assigned in Foreign System (O02/NA)
  - 3.5 Cancel Order Request From a Foreign System (O01/CA)
    - 3.5.1 Cancel as Requested (O02/CR) and Unable To Cancel (O02/UR) Response From Cerner Millennium
      - 3.5.1.1 Example
  - 3.6 Order Canceled in Foreign System (O01/OC)
  - 3.7 Discontinue Request From a Foreign System (O01/DC)
    - 3.7.1 Discontinue as Requested (O02/DR) and Unable To Discontinue (O02/UD) Response
  - 3.8 Order Discontinued in Foreign System (O01/OD)
  - 3.9 Hold Order Request from a Foreign System (O01/HD)
    - 3.9.1 Held as Requested (O02/HR) and Unable To Hold (O02/UH) Response From Cerner Millennium
  - 3.10 Order Held in Foreign System (O01/OH)
  - 3.11 Release Request From a Foreign System (O01/RL)
    - 3.11.1 Released as Requested (O02/OR) and Unable To Release (O02/UR) Response From Cerner Millennium
  - 3.12 Order Released in Foreign System (O01/OE)
  - 3.13 Change Order Request From Foreign System (O01/XO)
    - 3.13.1 Changed as Requested (O02/XR) and Unable To Change (O02/UX) Response From Cerner Millennium
  - 3.14 Order Changed in Foreign System (O01/XX)
  - 3.15 Status Changed From Foreign Filler System (O01/SC)
    - 3.15.1 Implementation Notes for Result Processing
- 4 HL7 Segment Layouts
  - 4.1 Control Segments (HL7 Chapter 2)
  - 4.2 MSH (Message Header) Segment
    - 4.2.1 MSH Segment Layout
    - 4.2.2 MSH Segment Processing Notes
  - 4.3 MSA (Message Acknowledgment) Segment
    - 4.3.1 MSA Segment Layout
    - 4.3.2 MSA Segment Processing Notes
  - 4.4 NTE (Notes and Comments) Segment
    - 4.4.1 NTE Message Layout
    - 4.4.2 NTE Message Processing Notes
  - 4.5 ADT Segments (HL7 Chapter 3)
  - 4.6 PID (Patient Identification) Segment
    - 4.6.1 PID Segment Layout
  - 4.7 PV1 (Patient Visit) Segment
    - 4.7.1 PV1 Segment Layout
  - 4.8 Order Entry Segments (HL7 Chapter 4)
    - 4.8.1 ORC (Common Order) Segment
      - 4.8.1.1 ORC Segment Layout
    - 4.8.2 OBR (Observation Request) Segment
      - 4.8.2.1 OBR Field Definitions
      - 4.8.2.2 OBR Segment Layout
      - 4.8.2.3 OBR Segment Processing Notes
    - 4.8.3 BLG (Billing) Segment (Not Used)
      - 4.8.3.1 BLG Segment Layout (Not Used)
  - 4.9 Observation Reporting Segments (HL7 Chapter 7)
    - 4.9.1 OBX (Observation/Result) Segment
      - 4.9.1.1 OBX Segment Layout

## Unit Overview

The Cerner MillenniumUniversal Interface accepts real-time order messages from a non- Cernersystem using the HL7 ORM message. In response to receipt of an order message, the Universal Interface can send an asynchronous order response messages to a non- Cernersystem using the HL7 ORR message.

If Cerneris the order management system, Cerneris defined in this specification as the HL7 placer system. When an external order management system sends orders to a Cernerclinical system (such as PathNetor RadNet), Cerneris defined in this specification as the HL7 filler system. In addition, a Cerner Millennium clinical system is considered the placer system when sending orders to a supporting external system (such as a reference laboratory system or dictation system).

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The Cerner MillenniumUniversal Interface responds to all ORM messages with an immediate ACK General Acknowledgment message (protocol-level acknowledgment). The Universal Interface also can respond to an ORM message with an asynchronous ORR response message. The Universal Interface sends the ORR response message based on the HL7 Order Control Code (ORC-1).

This unit describes HL7 order messages, order control codes, and order segments accepted by the Cerner MillenniumUniversal Interface (UI). This unit also describes HL7 order response messages and order control codes supported by the Cerner MillenniumUniversal Interface.

This unit does not discuss pharmacy, dietary, or supply orders. This unit does not discuss repository-only orders transmitted to OCF.

## Order Event Summary

The ORC-1 - Order Control Code determines the function of the order segment. The Cerner MillenniumUniversal Interface considers the Order Control Code field the trigger event identifier for order messages. The codes and subsequent Cerner Millenniuminterface processing overall are in three categories:

1. **Event Request.** Codes such as NW (New Order) and CA (Cancel Order Request) are used to initiate an event.
2. **Event Acknowledgment.** Codes such as OK (Order Accepted) and CR (Cancel as Requested) are used to reply to the event request.
3. **Event Notification.** Codes such as OC (Order Canceled) and OD (Order Discontinued) are used to notify other applications that an event has occurred. No application reply is necessary or is sent.

The Cerner MillenniumUniversal Interface accepts ORM message and returns ORR response messages with the following event codes and order control codes. The originator abbreviations are listed below.

- C - The Universal Interface conditionally accepts and processes the event as described later in this unit.
- F - Messages originate from the filler application but can be sent to applications other than the placer.
- N - The Universal Interface does *not* accept and process (or return) this event type.
- N/A - Not Applicable to the discussion of messages and events described in this unit.
- P - Messages originate from the placer or other application with placer privileges.
- Y - The Universal Interface accepts and processes (or returns) this event type.

Message Type	Event Code	Order Control Code	Description	Originator 1	Accepted by Cerner Millennium	Response From Cerner Millennium <sup>2</sup>
ORM	O01	NW	New Order	P,F	Y	-
ORR	O02	OK	Order Accepted and OK	F	N	N
ORR	O02	UA	Unable To accept	F	N	N
ORM	O01	CA	Cancel Order Request	P	C	-
ORM	O01	OC	Order Canceled	F	Y	-
ORR	O02	CR	Canceled as Requested	F	N	N
ORR	O02	UC	Unable To Cancel	F	N	N
ORM	O01	DC	Discontinue Order Request	P	C	-
ORM	O01	OD	Order Discontinued	F	Y	-
ORR	O02	DR	Discontinue as Requested	F	N	N
ORR	O02	UD	Unable to Discontinue	F	N	N
ORM	O01	HD	Hold Order Request	P	C	-
ORM	O01	OH	Order Held	F	Y	-
ORR	O02	HR	On Hold as Requested	F	N	N
ORR	O02	UH	Unable To Put Order On Hold	F	N	N
ORM	O01	RL	Release Previous Hold	P	Y	-
ORR	O02	OR	Released as Requested	F	N	N
ORR	O02	UR	Unable To Release	F	N	N
ORM	001	OE	Order Released	F	N	N
ORM	O01	RP	Order Replace Request	P	N	-
ORM	O01	RU	Replaced Unsolicited	F	N	-

ORM	O01	RO	Replacement Order	P,F	N	-
ORR	O02	RQ	Replaced as Requested	F	N	N
ORR	O02	UM	Unable To Replace	F	N	N
ORM	O01	PA	Parent Order	P,F	N	-
ORM	O01	CH	Child Order	P,F	N	-
ORM	O01	XO	Change Order Request	P	C	-
ORM	O01	XX	Order changed, Unsol	F	C	-
ORR	O02	UX	Unable To Change	F	N	N
ORR	O02	XR	Change as Requested	F	N	N
ORM	O01	DE	Data Errors	P,F	C	-
ORM	O01	RE	Observations To Follow	P,F	Y (ORU)	-
ORM	O01	CN	Combined Results	F	Y (ORU)	-
ORM	O01	SS	Send Order Status Request	P	N	-
ORM	O01	SC	Status Change	P,F	Y	-
ORM	O01	SN	Send Order Number	F	Y	-
ORR	O02	NA	Number Assigned	P	N	Y to SN
ORR	O02	RR	Request Received	P,F	N	N
ORR	O02	SR	Response To Send Order Status	F	N	N
ORM	O01	RF	Refill Order Request	P,F	N/A	-
ORM	O01	FU	Order Refilled Unsolicited	F	N/A	-
ORR	O02	AF	Order Refill Request Approval	P	N/A	N/A
ORR	O02	DF	Order Refill Request Denied	P	N/A	N/A
ORR	O02	OF	Order Refilled as Requested	F	N/A	N/A
ORR	O02	UF	Unable To Refill	F	N/A	N/A

<sup>1</sup> The Universal Interface does not determine processing based on a definition of the originator as a placer or a filler system. The designation of an application as the placer, filler, or auxiliary (interested party) system is however an important concept in understanding the message flow, trigger events, and overall interface design and implementation.

<sup>2</sup> The message control ID and response flag are included in the Orders Miscellaneous List. This list is used for outbound processing to determine if an ORR response is needed and to format the appropriate ORR response. This functionality is not configurable and requires scripting in the ESO\_GET\_ORDER\_SELECTION script. Initial implementations may also require outbound communications client scripting.

## Orders to Cerner Millennium---Message Definition and Processing

Message definition and processing for orders inbound is described below.

### General ORM Message Definition

The Universal Interface accepts order messages using the OBR order detail segment with the following ORM message format:

ORM Segment	Segment Name	Comments
MSH	Message Header	

[[ NTE ]]	Notes and Comments (for Header)	Accepted but not used. Documentation only.
[		
PID	Patient Identification	
[ PD1 ]	Additional Demographics	
[[NTE ]]	Notes and Comments	Encounter comments. Inserted only with new orders when an encounter is created on initial receipt of an order.
[PV1	Patient Visit	Required to create a new usable encounter (order-admit logic) on receipt of an ORM message before or in lieu of an ADT message, or to validate existing encounter identification based on visit identifiers (such as PV1-19 or PV1-50). The Universal Interface creates a shell encounter without a PV1, but data expected or required by specific applications is missing.
[ PV2 ]]	Patient Visit Additional	
[ GT1 ]	Guarantor	
[[ IN1	Insurance	
[ IN2 ]	Insurance Additional Info	
[ IN3 ]	Insurance Add'l Info - Cert.	
}]		
[[ AL1 ]]	Allergy	
]		
{		
ORC	Common Order	
[		
OBR	Observation Request	Not required for a simple control message (ORM-1 - Order Control CA, OC, DC, OD, HD, and RL) if, and only if, the placer or filler order number (ORC-2 or ORC-3) is the Cerner Millenniumorder identifier or otherwise uniquely identifies the order in a sending system. Cernerrecommends always sending the OBR segment, even with simple control messages.
[[NTE ]]	Notes and Comments	Order-level comments.
[ { DG1 } ]	Diagnosis	Variable as defined in an order accept format. Note: DG1 within a ORM message is processed as a Order_detail.
[		
{		
OBX	Observation/Result	Variable as defined in an order accept format.
[ {NTE } ]	Notes and Comments	Accepted but not used.
}		
]		
]		
{ [ CT1 ] }	Clinical Trial Identification	HL7 2.3 segment. Not accepted.
[BLG]	Billing segment	Accepted but not used.
}		

See [Unit 10: ATD Message Processing Inbound](#) for mapping and processing of the following segments: PD1, PV2, IN1, IN2, IN3, GT1, AL1, and DG1.

## ORM Additional Use Notes

- The Universal Interface accepts multiple orders (ORC or OBR pairs) per each ORM message. All new orders per message *must* apply to the same person (PID) and encounter (PV1).
- The Universal Interface requires a unique identifier for each order transmitted from an external system. This order identifier must be constant and unique, must never be reused, and must be provided when Cerner Millenniumfirst receives the order message. Cerner provides a configurable parameter to define which HL7 field contains the unique order identifier of the external system or sending application. The order identifier from the external system is stored as a Cerner Millenniumorder alias. The Universal Interface provides a configurable parameter to determine the level of validation or uniqueness. Levels of validation are by system (alias pool), person, and encounter.

## General ORR Order Response Message Definition

The Universal Interface can return an *asynchronous* order response message using the following HL7 ORR message format:

ORR Segment	Segment Name	Comments
	Message Header	
	Message Acknowledgment	
[		
	Patient Identification	
{{		
	Order Control	Required when OBR is returned.
[		
	Order Detail	
]		
}]		
]		

The Universal Interface can return an ORR positive response. The Universal Interface contains an initial release of logic to return an ORR negative response. Currently, ORR processing, selection, and message format is not configurable and requires scripting in the ESO comclient. Consequently, Cerner recommends using ORR processing for only the SN order control code.

## ORR Use Notes

- The Universal Interface returns the ORR response for event request order control codes (ORC-1 - Order Control - NW, CA, DC, HD, RL, XO, or SN) when the ORC-6 - Response Flag is valued as described in the table below.
- The Universal Interface does not return the ORR response message for event notification order control codes (ORC-1 - Order Control - OC, OD, or OH).

The ORR responses are listed below.

Order Control	Response Flag	Cerner MillenniumProcessing	ORR Segments
CA, DC, HD, RL, NW	E, R	Exceptions only.	,
CA, DC, HD, RL, NW	D	Exceptions only	, , , ,
CA, DC, HD, RL, NW	F	Confirmations and exceptions	, , , ,
CA, DC, HD, RL, NW	N	Confirmations and exceptions	,
CA, DC, HD, RL	Null or empty	Exceptions only	, , , ,
NW	Null or empty	No ORR response	None
SN	E, R, N	Confirmations & Exceptions	, ,
SN	D, F, null	Confirmations & Exceptions	, , , ,

## New Orders (O01/NW or SN)

The Universal Interface accepts new orders originating in a foreign system using HL7's ORM message with an event code of O01. The *ORC-1 - Order Control*

Code field (ORC-1) contains the value NW or SN to indicate a new order event. The transmitted value in ORC-1 must be aliased to the Cerner Millenniumorder action code value (Code Set 6003) of ORDER.

The Universal Interface accepts one or more orders in an ORM message. The message must consist of a single PID, optional associated ADT and financial segments, and multiple ORC/OBR pairs each with a New Order (NW) control code or Send Order Number (SN) order control code.

The Universal Interface accepts *either* one-time orders *or* continuous orders. If the original order is transmitted to Cerner Millennium as a continuous order, the instances are exploded by Cerner Millennium processing until the order is discontinued. To prevent duplicates, the sending system should send either the parent order or its instances; the sending system should never send both the parent active order and its instances.

The Universal Interface processes an add-on to an existing order as new order. The Universal Interface has no special processing for add-on orders (OBR-11 - Specimen Action Code A).

The Universal Interface accepts specific order prompts and order details using OBX segments.

## Cerner MillenniumOrder Grouping Functionality

Universal Interface processing includes logic to hold and group orders before assigning an accession number or releasing the order to the SCS Netting server for completion of immediate accessioning and label processing. Orders held for grouping can be received in different interface messages over a configurable time period (usually 30-120 seconds). Before grouper processing, the Order server first processes all orders and determines which orders are eligible for grouping. Orders eligible for immediate accessioning (that is, an order not scheduled for a collection list or future draw date and time) are then held by the FSIOrder Grouper server for n seconds or n orders before release to the SCS Netting server. The grouper functionality allows STAT interface orders received in different messages to get the same accession number before label printing.

The grouper time and the maximum number of orders to group are configurable at the system level, with the CPM ESI server properties, and at the contributor system level, through configuration in ESI Configuration Tool (2003.02 through 2004.M04.03.0) or System Integration Manager (2005.01 and later). If the grouper time or the maximum number of orders to group are configured at the contributor system level, the FSIOrder Grouper server uses that setting; if not, the FSIOrder Grouper uses the systemwide CPM ESI server setting.

For more information on making contributor system-level configurations in SI Manager, see [Configure ESI With SI Manager](#). For more information on defining contributor system-level configurations in System Integration Manager, see [ESI Special Configurations](#).

As mentioned above, the grouper time is configurable at the system level. The CPM ESI server uses the GROUPER\_TIME property to determine the time in seconds allowed for potential grouping. If the property is not set, the time defaults to 90 seconds. Orders are held for 90 or n seconds. The n second clock starts with the system date and time when the grouper is passed an order for an encounter causing the grouper to create a new hold thread. One hold thread can exist at any given time in a contributor system for each encounter. The grouper clock does not restart when a subsequent order eligible for an existing hold thread is received. At the end of n seconds, all orders in the hold thread at that time are released to the netting server.

The number of orders held in a thread before release from the grouper is also configurable at the system level. The CPM ESI server uses the GROUPER\_NBR property to determine the maximum number of orders to hold for potential grouping. If the property is not set, the number of orders defaults to 10. The grouper releases all orders in the hold thread to the netting server at the end of n seconds or when n orders are received, whichever condition is met first.

The Cerner Millenniumorder grouping functionality is needed only when the initiating system sends a single order per ORM message. When multiple orders are transmitted in a single ORM message, additional interface grouping (ESI Grouper) is not required; instead, these orders can be grouped as transmitted and released as a group to the SCS Netting server.



### Note

ESI Grouper functionality is available only for PathNetor specimen orders. The order grouping functionality is an aid to netting orders onto the same accession. It is not a guarantee. Lab technologists should monitor the PathNetPending Inquiry to find outstanding orders missed due to the grouper time elapsing.

The SCS Netting server uses configurable criteria to group orders for accessioning. When the SCS Netting server receives a group of ESI orders, they are grouped onto the same accession number when the orders have the same accession class and collection date and time. The SCS Netting server uses the NETTING.collect\_dt\_tm that should be identical to the ORDERS.current\_start\_dt\_tm. The SCS Netting server also performs look-ahead/back logic and groups pending orders (previously received orders in a pending status) when the collection date and time is within the look-ahead/back time window defined for the server. The SCS Netting server groups orders with the same collection priority to the earliest collection date and time. The SCS Netting server groups orders with different collection priorities only when the COLLECTION\_PRIORITY.group\_with\_other\_flag is set. When orders are grouped in a time window, the above-the-line (ORDERS) and below-the-line (PENDING\_COLLECTION) tables are updated to reflect the new collection date and time.

The SCS Netting server processes both manual and interface orders.

Accession grouping also is performed by the SCS Collections server when pending orders are printed on collection lists, using the same logic for accession class, requested collection date and time, and look-ahead window.

## Cerner MillenniumDuplicate Checking

Cerner recommends that each system implement duplicate checking to prevent users from entering duplicate orders. In addition to duplicate checking provided by a sending application, the CPM ESI server also provides duplicate checking at the interface level (true duplicates). The Order server provides duplicate checking at the procedure (Order Catalog) level. The CPM ESI server identifies a true duplicate when an order is received from a sending application for a previously ordered procedure with an identical catalog code and the same order number. The CPM ESI server assumes this order is the result of a duplicate transmission and does not process the order or return a cancel message to the sending application.

Duplicate checking criteria at the procedure level is configurable by the servicing department and can be set to warn with override or reject when the same procedure is ordered n minutes before or after an existing order. Because the Order server performs procedure-level duplicate checking, the Order server first accepts and commits the order providing documentation that the order was received and then cancels the order as a system duplicate cancel. The duplicate cancel triggers an ORM message from Cerner Millennium with an Order Cancelled (OC) order control code and a cancel reason indicating system duplicate. The CPM ESI server uses only reject-duplicate-checking criteria to perform a system duplicate cancel. When an order with a reject-duplicate-cancel condition is identified, the interface processing returns an ORM message with an OC order control code and a cancel reason code indicating a system duplicate. The CPM ESI server continues to process an ordered procedure when duplicate checking criteria identify a warning condition.



**Note**

The requested date and time for routine specimen orders eligible for a collection list becomes the date and time for the next available collection list. The requested time from a foreign system is not used unless the collection priority is defined as a time study or the order is identified as a nurse collect. If the order management system simultaneously releases multiple recurring orders for the same day but for different times (such as today at 6 am, 12 pm, and 6 pm), the collection priority must be defined as a time study for the interface to use the transmitted requested times and assign the orders to different collection lists. System duplicate cancels occur if the priority is routine because Cerner Millennium processing assigns each recurring order to the same collection list.

## Cerner Millennium Order Admit (Quick Admit)

Cerner Millennium order-admit or quick-admit logic allows Cerner Millennium interface processing to add a new person or new encounter *and* post an order on receipt of an ORM message. A separate ADT message is not required. When an ORM message is received and CPM ESI server processing cannot validate an existing person or encounter row, the CPM ESI server does not reject the order but instead inserts a new person or encounter row. Configurable parameters (defined in SI Manager or the ESI Configuration Tool) determine if a sending application inserts authenticated or unauthenticated rows, and if a sending application can add and update (or only add) new person and encounter rows.

### Constraints

- All data elements in the PID and PV1 segments required for an ADT A01, A04, or A05 message must be transmitted in the ORM message. Required data elements include the medical record number or other primary person identifier, an alias to the client or patient servicing organization, name, sex, birth date, financial number or other primary encounter identifier, patient type, and patient location.
- Encounters created using order-admit logic often contain only limited patient information. In addition to the required data, the recommended data elements include the admission date and time, admission or attending physician, and admission diagnosis.
- Encounters created using order-admit logic may create unwanted active encounters that require manual combine (CMB) processing to reconcile.
- Person and encounter rows created using order-admit logic usually are unauthenticated active encounters and may require manual processing to reconcile or authenticate.

## Cerner Millennium Accept Foreign Accession

Cerner Millennium provides the ability to allow the foreign system to assign the Cerner Millennium accession number for PathNet orders when you use an ESI special configuration option. This option is used when a foreign system is acting as the collections system (such as a central collection point) and PathNet is performing the tests and recording the results.

When using this option, you can configure the Cerner Millennium internal accession number to be sent in the following fields:

- ORC/OBR-2---Placer Order ID
- ORC/OBR-3---Filler Order ID
- OBR-18---Placer Field 1
- OBR-19---Placer Field 2
- OBR-20---Filler Field 1
- OBR-21---Filler Field 2

The accession number sent must be formatted as a Cerner Millennium, unformatted, 18-character accession, including the zeros, to fill the leading of the site prefix and sequence segments. If it is not in the correct format, the transaction errors out and a message is written to the log files. The following formats are accepted:

- Julian date formats consisting of a site prefix from one to five digits, a two- or four-digit year, a three-digit Julian date, and a sequence up to six digits. The Julian date is stored as SSSSYYYYJJNNNNNN, where SSSSS is the site prefix, YYYY is the four-digit year, JJJ is the Julian date, and NNNNNN is the sequence number.
- Alpha-prefix formats consisting of a site prefix from one to five digits, a two-character prefix, a two- or four-digit year, and a sequence up to seven digits. The alpha prefix is stored as SSSSAAYYYNNNNNNN, where SSSSS is the site prefix, AA is the alpha prefix, YYYY is the four-digit year, and NNNNNNN is the sequence number.

When configuring this functionality, the internal accession number is captured as an order identifier. Because the accession number identifies a group of orders, you must configure additional criteria for order match for individual orders in the group. The interface also validates whether the accession exists for another person or encounter.

Also, the accession *must* be unique to the person and encounter in the message, but the interface allows multiple orders tied to the same encounter to use the same accession number. Due to this functionality, all of these orders pass through the grouper server, but the netting server knows to accept the accession sent instead of assigning a Cerner Millennium accession. When multiple orders using the same accession are tied to the same encounter, Cerner Millennium is expecting the foreign collection system to use the correct containers because container information is not captured with these orders.

When using this functionality, the internal accession number posts to the ACCESSION\_ORDER\_R table.

## Order Number Assigned (O02/NA)---Response From Cerner Millennium

On receipt and processing of an ORM message with the Send Order Number (SN) order control code, the Universal Interface returns an asynchronous response using the ORR message. If the CPM ESI server successfully processes the new order, the Universal Interface returns an ORR message with a Number Assigned (NA) number, assigned order control code, and the unique Cerner Millennium order number. By default, the Cerner Millennium order number is returned in the ORC-2 - Placer Order Number. If the CPM ESI server is unable to process the new order, Cerner Millennium generates an error and no response is sent.

## Order Number Assigned in Foreign System (O02/NA)

For Cerner Millennium initiated orders when the foreign system is defined as the placer and always assigns the order number, an Order Notification transaction is necessary for the ESI server to insert an order alias valued with the foreign order number.

The Universal Interface accepts an ORR message with an event code of O02 and with the ORC-1 - Order Control field valued as NA (Number Assigned). The transmitted value in ORC-1 is aliased to the Cerner Millennium order action code value (Code Set 6003) of ADD ALIAS. The HL7 fields used to provide the placer and filler order identifiers are configurable. The external system, however, must return the Cerner Millennium order identifier exactly as valued in the Cerner Millennium initiated order message (ORM^O01 message with SN order control code).

If Cerner Millennium initiated orders are not accepted by the external system, the NA order control code is not used.

If Cerner Millennium initiated orders are accepted by the external system using a Cerner Millennium assigned order number, the NA order control code event is not used.

The Universal Interface can add a new order alias with any order action.

## Cancel Order Request From a Foreign System (O01/CA)

The Universal Interface accepts an ORM message with an O01 event code and a request to cancel (CA) order control code. The ORC-1 - Order Control Code is aliased to the Cerner Millennium order action code value (Code Set 6003) of CANCEL.

The Universal Interface identifies who entered the cancel from the personnel identifier transmitted in the ORC-10 - Entered By field. Alternately, the Universal Interface uses a default personnel identifier assigned to this contributing system.

The Universal Interface accepts a cancel reason code provided in the Order Control Reason Code field (ORC-16). The cancel reason code must be a valid alias to a Cerner Millennium cancel code value. If the cancel code reason code is not valued, the Universal Interface uses the default value built in the order accept format. Currently, the order accept format tool does not allow an option to define generic textual cancel comments in the cancel accept format. Consequently, free-text cancel comments must be provided in an OBX segment and built as a user-defined order detail.

The cancel date and time is the date and time provided in ORC-9 - Transaction Date and Time.

## Cancel as Requested (O02/CR) and Unable To Cancel (O02/UR) Response From Cerner Millennium

If the cancel request is allowed and the level of response is defined to return confirmations, the Universal Interface returns an ORR response message with the Cancel as Requested (CR) order control code. If the cancel request is rejected, the Universal Interface returns an ORR response message with the Unable to Cancel (UR) order control code.

### Example

The radiology filler department allows the interface from the placer order management system to cancel a procedure up until the exam has been started. Radiology uses a start exam function to status the order. Once the exam is started, an interface cancel is not allowed. Once the exam is started, only departmental personnel can cancel the procedure.



#### Note

PathNet(Order Server LabShare) rejects a cancel when the order status (Code Set 6004) or department status (Code Set 14281) is in-process. A department status for in-process can be any one of the following: LABINPROCESS, INPATHOLOGY, LABSTAIN, LABSUS, LABPRELIM, or LABFINAL.

The department status code set (Code Set 14281) has four extensions that applications can use to determine when an order with this status can be canceled. These extensions are DCP\_ALLOW\_CANCEL\_IND used by PowerChart as the order management system, DEPT\_ALLOW\_CANCEL\_IND used by Cerner Millennium departmental systems, ESI\_ALLOW\_CANCEL\_IND, and ECO\_ALLOW\_CANCEL\_IND. The Universal Interface does not use these extensions to reject an interface cancel message. Note also that the common Order server processing does not reject cancels using these extensions. This functionality is provided by each application.

## Order Canceled in Foreign System (O01/OC)

When an order is canceled in the foreign system and an application-level response is not expected, the Universal Interface accepts an event notification ORM message with the *Order Control* field of the ORC segment valued at OC (Order Canceled). The ORC-1--Order Control Code is aliased to the Cerner Millennium



order action code value (Code Set 6003) of CANCEL.

Using the same logic described for the Cancel Order Request (CA), the cancel is processed successfully or rejected. If the cancel is rejected, the Universal Interface logs an error message (ESI\_LOG table) but does not return an unable to cancel response to the sending system.

The Universal Interface values cancel ID, cancel date and time, and cancel code reason as described in [Cancel Order Request From a Foreign System \(O01/CA\)](#).

## Discontinue Request From a Foreign System (O01/DC)

For active continuous orders, the Universal Interface accepts an ORM message with an O01 event code and a Discontinue Request (DC) order control code. The transmitted value in ORC-1 is aliased to the Cerner Millenniumorder action code value (Code Set 6003) of DISCONTINUE. The Universal Interface returns an asynchronous ORR response message with an O02 event code and either a Discontinue as Requested (DR) or an Unable to Discontinue (UD) order control code. The Universal Interface determines the level of the ORR response from the ORC-6 - Response Flag as described in [General ORR Order Response Message Definition](#).

The Universal Interface identifies who entered the discontinue request from the personnel identifier transmitted in the ORC-10 - Entered By field. Alternately, the Universal Interface uses a default personnel identifier assigned to this contributing system.

The Universal Interface accepts a discontinue reason code provided in the Order Control Reason Code field (OR-16). The discontinue reason code must be a valid alias to a Cerner Millenniumdiscontinue code value. If the discontinue code reason code is not valued, the Universal Interface uses the default value defined in the order accept format. Currently, the Order Accept Format tool does not allow an option to define generic textual comments in the Discontinue Accept format. Consequently, free-text comments must be provided in an OBX segment and built as a user-defined order detail.

The discontinue date and time is the date and time provided in ORC-9 - Transaction Date and Time.

## Discontinue as Requested (O02/DR) and Unable To Discontinue (O02/UD) Response

When the Universal Interface discontinues the order and the level of response is defined to return confirmations, the Universal Interface returns an ORR response message with the Discontinued as Requested (DR) order control code. If the Universal Interface is unable to discontinue the order, the discontinue request is rejected and the Universal Interface returns an ORR response message with the Unable to Discontinue (UD) order control code.

## Order Discontinued in Foreign System (O01/OD)

When an active continuous order is discontinued in the foreign system and an application-level response is not expected, the Universal Interface accepts an event notification ORM message with the Order Control field of the ORC segment valued at OD (Order Discontinued). The transmitted ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of DISCONTINUE.

The Universal Interface discontinues the order and does not return a confirmation ORR response. If unable to discontinue the order, the Universal Interface logs an error message but does not return an unable to discontinue response to the sending system.

The Universal Interface values discontinue personnel, discontinue date and time, and discontinue code reason as described in [Discontinue Request From a Foreign System \(O01/DC\)](#).

## Hold Order Request from a Foreign System (O01/HD)

For active continuous orders, the Universal Interface accepts an ORM message with an O01 event code and a Hold Order Request (HD) order control code. The transmitted ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of SUSPEND. The Universal Interface returns an asynchronous ORR response message with an O02 event code and either a Held as Requested (HR) or Unable to Hold (UH) order control code. The Universal Interface determines the level of the ORR response from the ORC-6 - Response Flag as described in [General ORR Order Response Message Definition](#).

The Universal Interface identifies who entered the hold request from the personnel identifier transmitted in the ORC - 10 - Entered By field. Alternately, the Universal Interface uses a default personnel identifier assigned to this contributing system.

The Universal Interface accepts a hold or suspend reason code provided in the Order Control Reason Code field (ORC-16). The suspend reason code must be a valid alias to a Cerner Millenniumsuspend code value. If the suspend reason code is not valued, the Cerner MillenniumUniversal Interface uses the default reason built in the order accept format. Currently, the Order Accept Format tool does not have an option to define generic textual comments in the Suspend Accept format. Consequently, free-text hold comments must be provided in an OBX segment and built as a user-defined order detail.

The suspend date and time is the date and time provided in ORC-9 - Transaction Date and Time.

## Held as Requested (O02/HR) and Unable To Hold (O02/UH) Response From Cerner Millennium

When the Universal Interface suspends an order and the level of response is defined to return confirmations, the Universal Interface returns an ORR response message with the Held as Requested (HR) order control code. If the Universal Interface cannot suspend an order, the hold request is rejected and the Universal Interface returns an ORR response message with the Unable to Hold (UH) order control code.

## Order Held in Foreign System (O01/OH)

When an active continuous order is held or suspended in the foreign system and an application-level response is not expected, the Universal Interface accepts an event notification ORM message with the Order Control field of the ORC segment valued at OH (Order Held). The transmitted ORC-1 - Order Control Code is aliased to the order action code (Code Set 6003) of SUSPEND.

The Universal Interface suspends the order and does not return a confirmation ORR response. If unable to suspend the order, the Universal Interface logs an error message but does not return an unable to hold response to the sending system.

The Universal Interface values suspend personnel, suspend date and time, and suspend code reason as described in [Hold Order Request from a Foreign System \(O01/HD\)](#).

## Release Request From a Foreign System (O01/RL)

For continuous orders currently suspended, the Universal Interface accepts an ORM message with an O01 event code and a Release Request (RL) order control code. The transmitted ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of RESUME or RENEW. The Universal Interface returns an asynchronous ORR response message with an O02 event code and either a Released as Requested (OR) or Unable to Release (UR) order control code. The Universal Interface determines the level of the ORR response from the ORC-6 - Response Flag as described in [General ORR Order Response Message Definition](#).

The Universal Interface identifies who entered the release request from the personnel identifier transmitted in the ORC-10 - Entered By field. Alternately, the Universal Interface uses a default personnel identifier assigned to this contributor system.

The Universal Interface accepts a release reason code provided in the Order Control Reason Code field (ORC-16). The release reason code must be a valid alias to a Cerner Millenniumrelease code value. If the release code reason code is not valued, the Universal Interface uses the default release reason built in the order accept format.

The release date and time is the date and time provided in ORC-9 - Transaction Date and Time.

## Released as Requested (O02/OR) and Unable To Release (O02/UR) Response From Cerner Millennium

When the Cerner MillenniumUniversal Interface resumes a suspended order and the level of response is defined to return confirmations, the Universal Interface returns an ORR response message with the Release as Requested (OR) order control code. If the Universal Interface is unable to resume the order, the release request is rejected and the Universal Interface returns an ORR response message with the Unable to Release (UR) order control code.

## Order Released in Foreign System (O01/OE)

When a suspended order is resumed in the foreign system and an application-level response is not expected, the Universal Interface accepts an event notification ORM message with the Order Control field of the ORC segment valued at OE (Order Released). The transmitted ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of RESUME or RENEW.

The Universal Interface resumes the order and does not return a confirmation ORR response. If unable to resume the order, the Universal Interface logs an error message but does not return an unable to release response to the sending system.

The Universal Interface values resumed personnel, resumed date and time, and resume code reason as described in [Release Request From a Foreign System \(O01/RL\)](#).

## Change Order Request From Foreign System (O01/XO)

The Universal Interface accepts an ORM message with an O01 event code and a Change Order Request (XO) order control code. The transmitted ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of MODIFY. The Universal Interface returns an asynchronous ORR response message with an O02 event code and either a Change as Requested (XR) or Unable to Change (UR) order control code. The Universal Interface determines the level of the ORR response from the ORC-6 - Response Flag as described in [General ORR Order Response Message Definition](#).

The Universal Interface identifies who entered the modify request from the personnel identifier transmitted in the ORC-10 - Entered By field. Alternately, the Universal Interface uses a default personnel identifier assigned to this contributor system.

The Universal Interface accepts change comments or notes provided in an NTE segment. A modify reason code is not posted.

The modify date and time is the date and time provided in ORC-9 - Transaction Date and Time.

**Note**

The ORM Order Write Synch for FSIServer allows only selected order data elements to be changed. Configurable order-accept parameters also allow users to further define or restrict data elements eligible for change. The Universal Interface can change only eligible data elements. The ORM Order Write Synch for FSIServer expects the change order request to contain all order details associated with this order that should remain active and viewable after the change message is processed. The ORM Order Write Synch for FSIServer assumes that order details not retransmitted no longer are associated with this order.

Some departmental applications (such as PathNet) do not allow any order modifications and automatically reject any attempted modification.

## Changed as Requested (O02/XR) and Unable To Change (O02/UX) Response From Cerner Millennium

When the Universal Interface modifies an order and the level of response is defined to return confirmations, the Universal Interface returns an ORR response message with the Changed as Requested (XR) order control code. If the Universal Interface is unable to change the order, the change request is rejected, and the Universal Interface returns an ORR response message with the Unable to Change (UX) order control code.

## Order Changed in Foreign System (O01/XX)

When an order is changed in the foreign system and an application-level response is not expected, the Universal Interface accepts an event notification ORM message with the Order Control field of the ORC segment is XX (Order Changed). The transmitted ORC-1-Order Control Code is aliased to the Cerner Millenniumorder action code (Code Set 6003) of MODIFY.

The Universal Interface changes eligible data elements associated with the order and does not return a confirmation ORR response. If unable to change the order, the Universal Interface logs an error message but does not return an Unable to Change (UX) response to the sending system.

The Universal Interface values modified by personnel, modify date and time, and modify reason code as described in [Change Order Request From Foreign System \(O01/XO\)](#).

## Status Changed From Foreign Filler System (O01/SC)

Cernerrequires the completion of every order, either using a specific event request (cancel or discontinue) or a non-specific status change notification. When Cerneris defined as the placer system, the Universal Interface accepts status change notifications originating in a foreign filler system using HL7s ORM message with an event code of O01. The Order Control Code field (ORC-1) contains the value SC to indicate a status change notification. When Cerneris defined as the filler system, the type of status-change messages accepted or rejected may vary by application.

The ORC-5 - Order Status field contains the order status known to the sending system at the time the message is sent. The ORC-16 - Order Control Reason Code

The Universal Interface uses the order control code and transmitted order status value to determine the order action (complete or status change), order status, and departmental order status. can contain a more discrete departmental order status known to the sending system at the time the message is sent.

To indicate a status change other than complete, the ORC-1 - Order Control Code is aliased to the Cerner Millenniumorder action code value (Code Set 6003) of STATUSCHANGE.

HL7 does not provide an order control code that represents an order complete event. To indicate that the Universal Interface should update the order to Complete, the ORC-5 - Order Status value that indicates the order is complete is aliased to the Cerner Millenniumorder action code value (Code Set 6003) of COMPLETE.

To value the order status, ORC-5 - Order Status is aliased to the appropriate order status code value (Code Set 6004). Order status codes valid for the STATUSCHANGE action are ORDERED or INPROCESS.

**Note**

Internally, many Cerner Millenniumdepartment applications reserve the order status of INPROCESS to indicate that a result is available and use the departmental order status to indicate that departmental activity (such as specimen received or exam complete) has occurred.

To value the department order status, either the ORC-16 - Order Control Reason Code or the ORC-5 - Order Status is aliased to the appropriate departmental order status (Code Set 14281). For specimen orders that are transmitted as collected (OBR-7 - Observation Date/Time is valued), the Universal Interface sets the COLLECTEDYN order detail to 1. The Order server automatically updates the departmental order status to COLLECTED.

**Note**

Although, the Collected departmental code value has a CDF meaning of LABCOLLECT, this status indicates that the specimen is collected by anyone, not just the laboratory. The NURSECOLLECT order detail indicates if the specimen was nurse-collected or lab-collected.

## Implementation Notes for Result Processing

Page Version: 59	Page Identifier: 694432	Page Title: Unit 09i - Order Message Processing Inbound	Page Effective Date: Aug 26, 2013
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The Universal Interface provides a configurable option to update the order status to In-Process or Complete based on the OBR-25 - Result Status in an ORU result message or a ZDM document message that includes the OBR segment.

The ESI Configuration Tool contains a row for the Ensure Tab with the order-ensure column set to ORU Update Order to Complete. This row enables the Universal Interface to perform an order match during result processing, stamp the order ID on the clinical event rows, and update the order to In-Process or Complete.

To implement the complete action, the OBR-25 - Result Status that indicates complete is aliased to the order action (Code Set 6003) of COMPLETE.

To implement the ability to update the order or department status to a value other than Complete, the OBR-25 - Result Status is aliased to an Order Status (Code Set 6004), a Department Status (Code Set 14281), or both. When the transmitted order status is different than the current order status, or the transmitted department status is different than the current department status, the Universal Interface passes an order action of STATUSCHANGE to the order server.

## HL7 Segment Layouts

This section defines the HL7 data segments supported by this Cerner Millennium Universal Interface. The segment definition tables are populated as shown below. Shaded rows in the segment tables denote fields currently not supported by Cerner Millennium.

Heading	Contents	Values
Seq	HL7 Field Sequence	Begins with 01 for each segment.
HL7 Format	HL7 maximum bytes	Defined by HL7. Values are comma delimited, such as 20,ST,R. Defined by HL7. The data type in parentheses indicates the type used by Cerner Millennium. Required values: R - Required, C - conditional, O or empty - Optional, Repeat: r# where r indicates repeat and # is the number of instances. The r without a number indicates that a field can repeat an indefinite number of times.
HL7 Elem	HL7 Field identifier	Defined by HL7, Unique Identifier.
Name	HL7 field name	Defined by HL7.
Cerner Table	Cerner Millennium table	Abbreviated table name. A plus sign (+) denotes that the attribute is stored on multiple tables. v denotes that the attribute is stored on various tables depending on the event and other values.
Cerner Attribute	Cerner Millennium column or attribute	Attribute name. Blank denotes that the transmitted element is not stored.
Code Set	Cerner Millennium Code Set	Code set number. E before the code set number indicates an extendible Code Set, which is a Code Set that has non-aliased values, added on-the-fly (AOF).
R/O	Field required by Cerner Millennium	R - Required to process the message. C - Conditionally required. O - Optional. N - Not supported. B - Backward compatibility. Use new field defined. r# - Indicates a repeat and # is the number of instances. r without a number indicates that a field can repeat an indefinite number of times.
HL7 Ver	HL7 version number	The HL7 version in which the field was first supported.
Comments	Cerner Millennium Field Usage Comments	General comments.

**Note**  
 This section defines HL7 order-entry data segments supported in the Orders (ORM) interface from Cerner Millennium applications to an external system. For convenience, the common PID and PV1 segment definitions are included in this unit. See [Unit 8i: ATD Message Processing Inbound](#) for mapping and processing of the following segments: PD1, PV2, IN1, IN2, IN3, GT1, AL1, and DG1.

The segment definition tables contain the following information:  
 Code meanings listed as valid values represent Cerner-defined (CDF) meanings. The actual transmitted code from the external system does not have to match the code meaning but maps to a code meaning via the CODE\_VALUE\_OUTBOUND table. Also, unless specifically identified with a size limit, Cerner Millennium can accept values considerably larger than the HL7 maximum size. For example, the maximum size of a code value alias built by a site is 255 characters.

## Control Segments (HL7 Chapter 2)

The control segments are described below.

### MSH (Message Header) Segment

The MSH (Message Header) segment defines the characteristics of the message. The sending and receiving applications are identified, as well as the encoding characters used as delimiters for the message. The MSH message type is used to indicate the type of message being transmitted. In the MSH of the ACK response, the values of the Sending Application, Sending Facility, Receiving Application, and Receiving Facility are the reverse of the values in the original message.

#### MSH Segment Layout

MSH Seq	HL7 Format	HL7 Elem	Name	Cerner Table	CernerAttribute	Code Set	R/O	HL7 Ver	Comments
01	1,ST,R	00001	Field Separator				R	2.3	Field separator. Must be printable character that is never included in transmitted data. The recommended value is a pipe ( ) - ASCII(124). Values other than the recommended value can be configured by interface connection.
02	4,ST,R	00002	Encoding Char				R	2.3	Used to separate data field components, repeating data elements, and text control characters. Must be printable characters that are never included in transmitted data. Recommended values: Pos 1: Component Separator (^) - ASCII(94) Pos 2: Repetition Separator (-) - ASCII(126) Pos 3: Escape (,), ASCII(92) Pos 4: Sub-Component (&- ASCII(38) Values other than the recommended values can be configured by interface connection.
03	227,HD,O	00003	Send Application		Contributor_system_cd Contributor_source_cd	89 73	R	2.3	Site-defined description of sending application. Must be unique. Use (to Cerner Millennium): Determine what action the server takes for records already in the database. Note that CONTRIBUTOR_SOURCE_CD is a derived value configurable in the SI Manager (SI_Manager.exe) for each contributing system.
04	227,HD,O	00004	Send Facility				R	2.3	Site-defined description of sending facility. Use (to Cerner Millennium): 1) Default facility. 2) A configurable option to use this value to derive the encounter organization.  <b>Blood Bank Inventory:</b> CernerTable = BB_EDN_ADMIN CernerAttribute = source_org_id
05	227,HD,O	00005	Receive Application			15769	O	2.3	Site-defined description of receiving application. To Cerner Millennium: Value RLI for PathNetReference Laboratory interfaces.  <b>Accept Attachments:</b> Valued with MSH-3---Sending Application.
06	227,HD,O	00006	Receiving Facility				O	2.3	Site-defined description of receiving facility. Use (to Cerner Millennium): A configurable option to use this value to derive the encounter organization.  <b>Accept Attachments:</b> Valued with MSH-4---Sending Facility.  <b>Blood Bank Inventory:</b> CernerTable=BB_EDN_ADMIN CernerAttribute=destination_loc_cd
07	26,TS,O	00007	D/T of Message				O	2.3	System date and time the message was formatted in the sending system.
08	40,ST,O	00008	Security				N	2.3	Not supported by Cerner Millennium.

09	15,MSG,R	00009	Message Type			R	2.3	Specific HL7 message type and event triggering the message.
09.1			Type			R	2.3	HL7 Table 0076: ORU.
09.2			Event			R	2.3	HL7 Table 0003: R01, R03, ZB1, and ZB2.
09.3			Structure			N	2.3.1	Not supported by Cerner Millennium.
10	20,PT,R	00010	Message Control ID			R	2.3	Unique. Initiator generated. Responder returns sender value in ACK message in MSA-2. With acknowledgment messages, the MSH-10 value can be identical to the original sender value or can be a new unique value assigned by the acknowledging system. To Cerner Millennium: The Universal Interface does not reject a message when MSH-10 is not unique; however, non-unique values hinder or limit troubleshooting options.
11	01,ID,R	00011	Processing ID HL7 2.3 Processing id^mode			R	2.3	Status of the interface. Valid values from the HL7 0103 table for Cerner Millennium applications: T - Training/Testing Environment or P - Production Environment. Cross-environment processing is not supported. With HL7 2.3, MSH-11.2 determines the processing mode. Valid values from the HL7 0207 table are A - Archive I - Initial load, and R - Restore from archive. This field allows different priorities to be given to different processing modes. The interface does not support MSH-11.2---ProcessingMode.
12	08,ID,R	00012	Version ID			R	2.3	HL7 version. Set to 2.3. To Cerner Millennium: Set to 2.1, 2.2, or 2.3. Functionality based on HL7 2.3 fields. Components and segments are available only if the HL7 2.3 standard is used. The interface, however, has not defined processing parameters that reject a message due to the absence of an HL7-2.3-only field or component.
13	15,NM,O	00013	Sequence Number			N	2.3	Not supported by Cerner Millennium. HL7 sequence number protocol.
14	180,ST,O	00014	Continuation Pointer			N	2.3	Not supported by Cerner Millennium. Value indicating a single logical message transmitted using more than one physical message.
15	2,ID,O	00015	Accept Ack Type			N	2.3	
16	2,ID,O	00016	Application Ack type			N	2.3	
17	2,ID,O	00017	Country Code			N	2.3	Not supported by Cerner Millennium.
18	ID	00692	Character Set			N	2.4	Not supported by Cerner Millennium.
19	CE	00693	Language of Message			N	2.4	Not supported by Cerner Millennium.
20	20,ID,O	01317	Alternate character set handling scheme			N	2.4	Not supported by Cerner Millennium. HL7 User table 0356.
21	427,EI,O,r	01598	Message Profile Identifier			N	2.4	Not supported by Cerner Millennium.

## MSH Segment Processing Notes

Alias MSH-5 to code value (Code Set15769) whose CDF meaning is OCFORDER for repository display only orders.

### Example - Original Message:

```
MSH|^~\&|PM|CHLD|OCF|OCF|19960214134522||ORU^R01|A13345.78|P|2.2<CR>
```

#### Example - Acknowledgment:

```
MSH|^~\&|OCF|OCF|PM|CHLD|19960214134530|ACK|A13345.78|P|2.2<CR>
```

## MSA (Message Acknowledgment) Segment

The MSA (Message Acknowledgment) segment is returned as part of MSH, MSA pair in the ACK message type.

### MSA Segment Layout

MSA Seq	HL7 Format	HL7 Elem	Name	Cerner Table	Cerner Attribute	Code Set	R/O	HL7 Ver	Comments
01	2,ID,R	00018	Acknowledge Code				R	2.3	Valid values: AA = ACK = message stored AE = ACK = message stored with error noted AR = NAK = message rejected.  <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px;"><b>Note</b> AE is not supported by the standard Universal Interface communications options. Custom scripting is required.</div>
02	20,ST,R	00019	Message Control ID				R	2.3	Echo MSH segment control ID (MSH-10) of message being acknowledged.
03	80,ST,B	00020	Text Message				N		
04	15,NM,O	00021	Expected Seq #				N	2.3	Not supported by Cerner Millennium.
05	W	00022	Delayed Ack Type				N	2.3	Not supported by Cerner Millennium.
06	250,CE,B	00023	Error Condition				N	2.3	

## MSA Segment Processing Notes

#### Original Message

```
MSH|^~\&|PM|CHLD|OCF|OCF|19960214134522||ORU^R01|A13345.78|P|2.2<CR>
```

#### Acknowledgment (Immediate Original Processing Rules)

```
MSH|^~\&|OCF|OCF|PM|CHLD|19960214134530|ACK|A13345.78|P|2.2<CR> MSA|AA|A13345.78<CR>
```

## NTE (Notes and Comments) Segment

The NTE segment is used for accepting textual notes and comments. The comment applies to the segment preceding the NTE segment. The Cerner Millennium tables referenced from the NTE segment are CENT - CE\_EVENT\_NOTE, LBLOB - LONG\_BLOB, LONG - LONG\_TEXT, and OCOM-ORDER\_COMMENT.

### NTE Message Layout

NTE Seq	HL7 Format	HL7 Elem	Name	Cerner Table	CernerAttribute	Code Set	R/O	HL7 Ver	Comments
01	4,SI,O	00096	Set ID - NTE				O	2.3	Sequential. Start at 1 and increment by 1 for each set (order, result).
02	8,ID	00097	Source of Comment	OCOM CENT CENT CENT	Comment_type_cd Note_type_cd Entry_method_cd Entry_meth	14 14 13	O	2.3	In HL7 2.3 processing Cerner Millenniumuses Code Set 14 for the Comment type. There is special processing in SI Manager for notes and comments processing. In HL7 version 2.3.1 and forward this field uses Code Set 13 as the Source of Comment.
03	64k,FT,R,r	00098	Comment	LONG LBLOB CENT	Note_Text Long_blob Event_title_text		R,r	2.3	Cerner Millenniumaccepts notes up to 64K.
04	250,CE,O	01318	Comment Type				O	2.3.1	HL7 User Table 0364.
04.1	ST		Identifier	OCOM CENT	Comment_type_cd Note_type_cd	14 14	O	2.3.1	In HL7 version 2.3.1, the recommended values are PI - Patient Instructions, AI - Ancillary Instructions, GI - General Instructions, 1R - Primary Reason, 2R - Secondary Reason, GR - General Reason, RE - Remark and DR - Duplicate/Interaction Reason. <b>Orders:</b> When processing at the order level, the interface uses the COMMENT_TYPE_CD attribute on the ORDER_COMMENT table. <b>Results:</b> When processing at the result level, the interface uses the NOTE_TYPE_CD attribute on the CE_EVENT_NOTE table.
04.2	ST		Text	CV	Display		O	2.3.1	
04.3	ST		Coding System				O	2.3.1	

## NTE Message Processing Notes

The NTE segment is used to send textual comments. The Universal Interface accepts comments as multiple NTE segments in which each NTE segment represents a hard carriage return or new line. The Universal Interface also accepts comments as a single NTE segment in which each instance of the NTE-3---Comment field separated by the repeat delimiter represents a new line.

If provided, the Universal Interface uses NTE-2---Source of Comment as an alias to both the note type and entry method. If a code value alias does not exist, the Universal Interface defaults a note type and entry method as described below.

By default, the Universal Interface determines the type of comment (NOTE\_TYPE\_CD on Code Set 14) from the HL7 message type, event, and segment immediately preceding the NTE segment. The Universal Interface defaults the source of note (ENTRY\_METHOD\_CD on Code Set 13) to ancillary/owner application. The Universal Interface defaults the person who entered the note (NOTE\_PRSNL\_ID, foreign key to the PRSNL table) to the person who verified the event on the contributor system.

The interface provides a special configuration, *To split the source of NTE-2*, which allows aliasing of the same value received in NTE-2---Source of Comment to two different code values on Code Set 14. The code values are distinguished from one another based on whether the NTE segments follows an OBR segment or an OBX segment in the ORU message. See [ESI Special Configurations](#) to properly configure the option.

## ADT Segments (HL7 Chapter 3)

The ADT segments are described below.

## PID (Patient Identification) Segment

The PID segment identifies the person and usually the encounter associated with the message. Cerner Millenniumrequires at least one primary patient or person Identifier. Other patient demographic information also is provided. The Cerner Millenniumtables referenced from the PID segment are EA - ENCTR\_ALIAS, EN - ENCOUNTER, P - PERSON, PA - PERSON\_ALIAS, PP - PERSON\_PATIENT, PH - PHONE, and PN - PERSON\_NAME.

## PID Segment Layout

PID Seq	HL7 Format	HL7 Elem	Name	Cerner Table	CernerAttribute	Code Set	R/O	HL7 Ver	Comments
01	4,SI,O	00104	Set ID- PID				O		Start at 1, increment by 1.



02	20,CX,B	00105	External Patient ID				O	Identifier, such as a referring medical record number, assigned by another system.
02.1	ST,O		Patient ID	PA	Alias		O	
02.2	ST,O		Check Digit				N	Not supported by Cerner Millennium. If transmitted separately, value stored separately.
02.3	ID,O		Check Digit Scheme				N	Not supported by Cerner Millennium. HL7 Table 0061.
02.4	HD		Assigning Authority	PA	Authority and type used to derive alias_pool_cd	263	O	Translation configured in the ESI configuration which determines alias_pool_cd and person_alias_type_cd. If transmitted, this value must match exactly the value entered in SI Manager (SI_Manager.exe), which in turn must match exactly an organization alias whose type is ESI Assign Authority.
02.5	ID,O		Identifier Type		Person_alias_type_cd	4	O	Translation configured in SI Manager (SI_Manager.exe). If transmitted, the value must match exactly the value entered in SI Manager (SI_Manager.exe).
03	20,CX,R,r	00106	Internal Patient ID				C,r	Repeating field. Cerner Millennium requires at least one primary, unique person alias. Cerner Millennium requires one person map to Cerner Millennium MRN type. Any configurable person identifier field (PID-2, PID-3 or PID-4) can be used. Although PID-19--Social Security Number is an option, Cerner does not recommend using this field as the primary, unique person identifier.
03.1	ST		Patient ID	PA	Alias		C	Identifier can be numeric or alphanumeric. Alias usually stored without leading zeros or formatting characters. ESO masks determine transmit format.
03.2	ST		Check Digit				N	Not supported by Cerner Millennium. If transmitted separately, value stored separately.
03.3	ID		Check Digit Scheme				N	Not supported by Cerner Millennium. HL7 table 0061.
03.4	HD		Assigning Authority	PA	Authority and type used to derive alias_pool_cd	263	C	If not valued and only one instance, translation configured in SI Manager (SI_Manager.exe) which determines ALIAS_POOL_CD and PERSON_ALIAS_TYPE_CD. If transmitted, this value must match exactly the value entered in SI Manager (SI_Manager.exe), which in turn must match exactly an organization alias whose type is ESI Assign Authority. If multiple identifier instances with different assigning authorities are transmitted, Cerner Millennium requires a valid value in this field.
03.5	ID		Identifier Type		Person_alias_type_cd	4	C	Configurable option. Cerner recommends sending alias of MRN type in this field. Other possible types include CMRN - Community Medical Record Number, NHIN - National Health Insurance Number, SHIN - State/province Health Insurance Number, MILITARYID, PASSPORT, and HNAPERSONID - HNA. Classic patient sys ID from feeder HNA system. If multiple identifier instances with different alias types are transmitted, Cerner Millennium requires a valid translation value in this field. For encounter-level processing, only one alias type should be of MRN type. During person-level processing, ESI supports multiple aliases of MRN type. Any configurable field (PID-2, PID-3, and PID-4) can contain the MRN alias.

04	20,CX,O,r	00107	Alternate Patient ID	PA	Alias		C,r	Translation configured in SI Manager (SI_Manager.exe) that determines ALIAS_POOL_CD and PERSON_ALIAS_TYPE_CD. Processing and configuration is identical to PID-4. The Universal Interface supports multiple instances.
05	250,XP,N,R,r	00108	Patient Name family ^ given ^ middle ^ suffix ^ prefix ^ degree ^ type code	PN	Name_last_key Name_first_key Name_middle_key Name_full_formatted Name_phonetic Name_last Name_first Name_middle Name_suffix Name_prefix Name_degree Name_type_cd	213	R	Delimited name is recommended. If a single string, interface does its best-guess attempt to split into components. ESI uses a comma to parse last name from the rest of the name. No other parsing attempts are performed. Formatted name stored as <i>last suffix, first middle</i> . All names on the NAME table have a name type code. The Universal Interface supports only one instance. The name type always is CURRENT. If the transmitted name does not match the existing name, ESI updates the existing name with a type of PREVIOUS. HL7 2.3 Table 0200. HL7 name type codes: L - Legal, M - Maiden, C - Adopted, or A - Alias.
06	30,ST,O	00109	Mother's Maiden Name	P	Mother_maiden_name		O	Treated as a person attribute and not an alias.
07	26,TS,O	00110	Date of Birth	P	Birth_dt_tm		O	
08	01,ID,O	00111	Sex	P	Sex_cd	57	O	Valid values M, F, or U. Default is U. HL7 Table 0001.
09	48,XP,N,O,r	00112	Patient Alias XPN.7-type code	PA PN	Alias Name_type_cd	213	O,r	Cerner Millennium valid name type code meanings include ADOPTED, ALTERNATE, LEGAL, MAIDEN, OTHER, and PREFERRED. ESI supports multiple instances; however, ESI supports only one instance per name type. ESI flexes the name type based on the transmitted value in PID-9.7 aliased to Code Set 213. If type is not provided, ESI default to ALTERNATE NAME_TYPE_CD.
10	01,ID,O	00113	Race	P	Race_cd	282	O	HL7 User table 0005.
11	106,XAD,,r	00114	Patient Address	AD			O	If type not sent, the Universal Interface uses the default type of Home.
11.1			Address Line 1	AD	Street_addr		O	
11.2			Address Line 2	AD	Street_addr2		O	
11.3			City	AD	City		O	
11.4			State	AD	State_cd	62	O	
11.5			Zip Code	AD	Zipcode		O	
11.6			Country	AD	Country_cd	15	O	HL7 User Table 0171.
11.7			Type	AD	Address_type_cd	212	O	C - Current or Temporary, P - Permanent, M - Mail, B - business, H - Home, F - Country of Origin. Valid Cerner Millennium codes also include: BIRTH and EMAIL (Internet) HL7 User table 0190.
11.8	ST,O		Other Geographic Desig	AD	Street_addr 3		O	
11.9	IS,O		County / Parish	AD	County_cd	74	O	
12	04,ID,O	00115	County Code	AD	County_cd	74	N	Do not use. Instead, use PID-11.9. Retained as a placeholder for backward compatibility only.


13	40, XTN ,O,r	00116	Home Phone Number TN^ use code ^ equip type ^ email address ^ country ^ area/city^ phone number^extension^ text	PH	Phone_type_cd Phone_num extension Call_instruction	43	O		Cerner Millenniumdefault type HOME. HL7 2.3. If data type XTN sent, the Universal Interface can flex the phone type with a value provided in data type XTN.2HL7 Use Code or data type XTN.3HL7 Equipment Type aliased to Cerner Millennium phone type. The Universal Interface posts data type XTN.1 as a single string and does not parse it into discrete fields. The Universal Interface posts data type XTN.8 - Extension and data type XTN.9 - Text. See Unit 3: Concepts and Definitions.
14	40, XTN ,O,r	00117	Business Phone Nbr	PH	Phone_type_cd Phone_num extension Call_instruction	43	O		Cerner Millenniumdefault type BUSINESS. HL7 2.3: If data type XTN is sent, translate HL7 Use Code (Table 0201) and HL7 Equipment Type (Table 0202) to Cerner Millenniumphone type. See PID-13 for additional discussion.
15	25,ST,O	00118	Language - Patient	P	Language_cd	36	O		
16	01,ID,O	00119	Marital Status	P	Marital_type_cd	38	O		HL7 User Table 0002.
17	03,ID,O	00120	Religion	P	Religion_cd	49	O		HL7 User Table 0006.
18	20, CX ,O	00121	Patient Account Nbr					C	Financial or billing number.
18.1	,ST		Patient Account #	EA	Alias			C	
18.2	,NM		Check Digit					N	Not supported by Cerner Millennium. Stored separately if transmitted separately.
18.3	,ID		Check Digit Scheme					N	HL7 0061. Not supported by Cerner Millennium.
18.4	,HD		Assigning Authority		Authority and Type used to derive alias_pool_cd	263		C	Configurable mapping in SI Manager (SI_Manager.exe). Valid translation value required when different assigning authorities (alias pools) are associated with the same contributing system.
18.5	,ID		Identifier Type		Encntr_alias_type_cd	319		C	Configurable mapping in SI Manager (SI_Manager.exe). Type meaning FIN NBR is used as the billing number for this encounter and for a charge interface from Cerner Millennium. Valid translation value required when different types are associated with the same contributing system.
19	16,ST,O	00122	SSN - Patient	PA	Alias			O	Person alias type code is SSN.
20	25,CM,O	00123	Driver's License Nbr	PA	Alias			N	Not supported by Cerner Millennium.
21	20,CK,O	00124	Mother's Identifier	PP	Mother_identifier			O	Attribute of the person in this PID. ESI does not use to create person_person_reltn between baby and mother.
22	1,ID,O	00125	Ethnic Group	P	Ethnic_group_cd	27		O	HL7 User Table 0189. Further defines ancestry.
23	25,ST,O XAD	00126	Birth Place	AD	Street_addr			O	Address Type - BIRTH. Cerner Millennium extension defines field as XAD type. If transmitted as ST, value posts as defined to STREET_ADDR. If transmitted as AD, values post to Cerner Millenniumaddress components as listed in PID-11.
24	2,ID,O	00127	Multiple Birth Ind	PP	Birth_multiple_cd	335		O	HL7 defines as Y/N indicator.
25	2,NM,O	00128	Birth Order	PP	Birth_order			O	Number indicating birth order.
26	3,ID,O,r	00129	Citizenship	P	Citizenship_cd	14650		O	HL7 User Table 0171. Cerner Millenniumuses two instances.
27	60,CE,O	00130	Veterans Military Stat	P	Vet_military_status_cd	14651		O	HL7 User Table 0172.
28	2,ID,O	00739	Nationality	P	Nationality_cd	14652		O	HL7 User Table 0212.

29	26,TS,O	00740	Patient Death dt_tm	P	Deceased_dt_tm		O		
30	1,ID,O	00741	Patient Death Ind	P	Deceased_cd	268	O		HL7 Table 0136 - Yes/No indicator.

## PV1 (Patient Visit) Segment

The PV1 segment provides visit- or encounter-specific information. The Cerner Millennium tables referenced from the PV1 segment are BED - Bed, EA - ENCNR\_ALIAS, ED - ENCNR\_DOMAIN, EL - HENCNR\_LOC\_HIST, EN - ENCOUNTER, EPRL - RENCNR\_PRSNL\_RELTN, PRL - PERSNL, and PRLA - PERSNL\_ALIAS.

### PV1 Segment Layout

PV1 Seq	HL7 Format	HL7 Elem	Name	Cerner Table	CernerAttribute	Code Set	R/O	HL7 Ver	Comments
01	04,SI	00131	Set ID- PV1				C		Start at 1, increment by 1.
02	01,ID,R	00132	Patient Class	EN	Encntr_class_cd (documentation only) Encntr_type_class_cd  (derived from PV1-18)	321 69	R		Cerner Millennium uses PV1---Patient Type to derive the HNA visit_class (Code Set 69) stored as encntr_type_class_cd. Cerner Millennium uses ENCNR_TYPE_CLASS_CD (Code Set 69) to define patient encounter processing parameters. The Universal Interface captures transmitted class for documentation only. Cerner Millennium does not use ENCNR_CLASS_CD to define any internal processing options.
03	12, PL ,R	00133	Patient Location	EN			C		Current patient location. Cerner Millennium location is hierarchical (Facility-building point of service location-room-bed).
03.1	4,ID		Point of Service Location		Loc_nurse_unit_cd Location_cd	220	C		All location codes have an entry on Code Set 220 with different location type, such as nurse unit and ambulatory location.
03.2	4,ID		Patient Room		Loc_room_cd	220	C		Cerner Millennium location with type ROOM.
03.3	2,ID		Patient Bed		Loc_bed_cd	220	C		Cerner Millennium location type with type BED.
03.4	6,ID		Facility ID		Loc_facility_cd	220	C		If not valued, use MSH-4---Sending Facility. Must be unique across all facilities at a site. Location with type FACILITY. Cerner Millennium locations defined as FACILITY also have corresponding entry on ORGANIZATION table with type FACILITY.
03.5	,ID		Bed Status				N		Not supported by Cerner Millennium.
03.6	,ID		Location Type		Location_type_cd	222	O		Defines point-of-service location type AMBLOC, NURSEUNIT, CLINIC, DOCOFFICE, and CLIENT.  <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 10px; margin-top: 10px;">  <b>Note</b> Currently ignored by the ESI server. Instead, the ESI server finds existing location only of types NURSEUNIT or AMBLOC. </div>
03.7	,ID		Building		Loc_building_cd		O		Cerner Millennium location with type BUILDING. If not valued, the ESI server uses the default building code identical to transmitted facility code.
03.8	,ST		Floor				N		Not supported by Cerner Millennium.
04	02,ID,O	00134	Admission Type	EN	Admit_type_cd	3	O		HL7 User Table 0007, such as accident, emergency, routine, and labor and delivery.
05	20,ST,O	00135	Pre-Admit Number	EN	Preadmit_nbr		O		

06	12,CM,O	00136	Prior Patient Loctn	ELH			O		Cerner Millennium creates a historical record of prior locations during internal processing. The Universal Interface ignores the transmitted value.
07	60, XCN ,O	00137	Attending Doctor	EPRLR	Encntr_prsnl_reltn_cd Prsnl_alias_type_cd	N333 N320	O		HL7 User Table 0010. Code meaning ATTEND doctor relationship for this patient visit. Cerner Millennium allows only one active relationship of this type. Valid Cerner Millennium type code meanings are DOCNBR, DOCCNBR, DOCDEA, DOCUPIN, and PRSNLID. Type code is not a direct CVA mapping to PRSNL_ALIAS_TYPE_CD but is configured in the SI Manager (SI_Manager.exe) as described below. The Universal Interface can use data type XCN.13 as an alias to Code Set 333 to flex the ENCINTR_PRSNL_RELTN_CD. Personnel processing described for PV1-7 applies to all encounter personnel fields supported by the Universal Interface.
07.1	ID		Physician Id	PRLA	Alias		C		Personnel alias mapped to an alias pool for this contributing system in the SI Manager (SI_Manager.exe).
07.2-7	name		Name components	PN	HL7 PN data type. Unit 3: Concepts and Definitions. Also see PID-5.		C		Each non-free-text clinical staff has a row on both the PERSON and PRSNL tables, and all available name components on a row on the PERSON_NAME table. Add-on-the-fly (AOF) personnel and their corresponding name components are written to both the PERSON and PRSNL tables.
07.8	,ID		Source table		Facility or other source. Source, authority, or type used to derive Alias_pool_cd.		C		The translation is configured in the SI Manager (SI_Manager.exe), which determines the ALIAS_POOL_CD and PRSNL_ALIAS_TYPE_CD, such as UPIN. If transmitted, the value must match exactly the value entered in the tool.
07.9	,HD		Assigning Authority	PRLA	Authority, source, or type used to derive Alias_pool_cd.	263	C		The translation is configured in the SI Manager (SI_Manager.exe). If transmitted, the value must match exactly the value entered in the tool. The value entered in the tool also can be defined as an organization alias to flex the list of available alias pool codes.
07.10	,ID		Name Type				N		Not supported by Cerner Millennium.
07.11	,NM		Check Digit				N		Not supported by Cerner Millennium.
07.12	,ID		Check Digit Scheme				N		Not supported by Cerner Millennium.
07.13	,ID		Identifier Type		Authority, source, or type used to derive Alias_pool_cd. Flex: Encntr_prsnl_reltn_cd.	333	O		The translation is configured in the SI Manager (SI_Manager.exe). If transmitted, the value must match exactly the value entered in the tool. The value entered in the tool also can be defined as an organization alias to flex the list of available alias pool codes. The Universal Interface also can use the Identifier Type to flex the relationship type when the transmitted value is an alias to RELTN_CD (Code Set 33).
08	60, XCN ,O	00138	Referring Doctor	EPRLR	Encntr_prsnl_reltn_cd	333	O		Code meaning REFERDOC physician relationship for this patient visit. If the personnel processing option is configured as free-text, a relationship row is the only table for this physician. Cerner Millennium allows only one active relationship of this type.
09	60, XCN ,,r	00139	Consulting Doctor	EPRLR	Encntr_prsnl_reltn_cd	333	O		Code meaning CONSULTDOC for this visit. Universal Interface supports multiple instances of this field and this relationship type. As described in PV1-7, data type XCN.13---Identifier Type can be used to flex the encounter relationship (Code Set 333). The Universal Interface does not end the relationship of a consulting physician even if missing on a subsequent update.
10	03,ID,C	00140	Hospital Service	EN	Med_service_cd	34	O		HL7 User Table 0069. Required field by HL7 with trigger events A01, A02, A14, and A15. Not required by Cerner Millennium.

11	12, PL ,O	00141	Temporary Location	EN	Loc_temp_cd	220	N		Not supported by Cerner Millennium.
12	02,ID,O	00142	Pre-Admit Test Ind	EN	Preadmit_testing_cd	366	O		HL7 User Table 0087. Pre-admit testing required before admission.
13	02,ID,O	00143	Re-Admission Ind	EN	Readmit_cd	47	O		HL7 User Table 0092. Patient is readmit or recurring visit.
14	03,ID,O	00144	Admission Source	EN	Admit_src_cd	2	O		HL7 User Table 0023. Where the patient came from before admission, such as transfer from another hospital, home, or nursing home.
15	02,ID,O,r	00145	Ambulatory Status	EN	Ambulatory_cond_cd	5	O		HL7 User Table 0009. Cerner Millenniumuses only one instance. Transient or permanent limitation on arrival, such as disoriented, coma, or pregnant.
16	02,ID,O	00146	VIP Indicator	EN	Vip_cd	67	O		HL7 User Table 0099. Indicates that this patient may need to be treated with special consideration during this visit. Also see the ZPI segment for related confidentiality field.
17	60, XCN ,O	00147	Admitting Doctor	EPRLR	Encntr_prsnl_reltn_cd	333	O		HL7 User Table 0010. Code meaning ADMITDOC physician relationship for this visit. Cerner Millennium allows only one active relationship of this type.
18	02,ID,O	00148	Patient Type	EN	Encntr_type_cd	71	R		HL7 User Table 0018. Categorize patient populations to groups more specific than patient class. Cerner Millenniumuses to define patient encounter processing options. Each type is configured to belong to an ENCINTR_TYPE_CLASS_CD (Code Set 69).
19	15,CX,O	00149	Visit Number	EA	Alias		O		Encounter alias of type VISIT. Configurable in the SI Manager (SI_Manager.exe) as a primary or secondary identifier to validate and update existing encounter or force the insertion of a new encounter.
20	50,CM,O,r	00150	Financial Class Class^effective date	EN	Financial_class_cd	354	O		HL7 User Table 0067. Primary class assigned to patient for purpose of identifying sources of reimbursements. Cerner Millenniumuses only one instance. Effective date is ignored.
21	02,ID,O	00151	Charge Price Indicat				N		Not supported by Cerner Millennium.
22	02,ID,O	00152	Courtesy Code	EN	Courtesy_cd	16	O		HL7 User Table 0045. Special considerations for this patient (such as express discharge).
23	02,ID,O	00153	Credit Rating				N		Not supported by Cerner Millennium. HL7 User Table 0046.
24	02,ID,O,r	00154	Contract Code				N		Not supported by Cerner Millennium. HL7 User Table 0044.
25	08,DT,O,r	00155	Contract Effective dt				N		Not supported by Cerner Millennium.
26	12,NM,O,r	00156	Contract Amount				N		Not supported by Cerner Millennium.
27	03,NM,O,r	00157	Contract Period				N		Not supported by Cerner Millennium.
28	02,ID,O	00158	Interest Code				N		Not supported by Cerner Millennium. HL7 User Table 0073.
29	01,ID,O	00159	Tran to Bad Debt Cd				N		Not supported by Cerner Millennium. HL7 User Table 0110.
30	08,DT,O	00160	Tran to Bad Debt Dt				N		Not supported by Cerner Millennium.
31	10,ID,O	00161	Bad Debt Agency Cd				N		Not supported by Cerner Millennium. HL7 User Table 0021.
32	12,NM,O	00162	Bad Debt Trans Amt				N		Not supported by Cerner Millennium.

33	12,NM,O	00163	Bad Debt Rcov Amt				N		Not supported by Cerner Millennium.
34	01,ID,O	00164	Delete Account Ind				N		Not supported by Cerner Millennium. HL7 User Table 0111.
35	08,DT,O	00165	Delete Account Date				N		Not supported by Cerner Millennium.
36	03,ID,O	00166	Discharge Dispositn	EN	Disch_disposition_cd	19	O		HL7 User Table 0112.
37	25,CM,O	00167	Disch To Location				O		
37.1	,ID		Code	EN	Disch_to_loctn_cd	20	O		HL7 User Table 0113. The facility to which the patient was discharged, such as another hospital or nursing home.
37.2	,ST		Description				N		Not supported by Cerner Millennium. Universal Interface uses code and ignores description.
38	02,ID,O	00168	Diet Type	EN	Diet_type_cd	18	O		HL7 User Table 0114. Indicates patient is on a special diet.
39	02,ID,O	00169	Servicing Facility	EN OA	Loc_facility_cd	220	C		<div data-bbox="1073 678 1515 905" style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 10px; margin-bottom: 10px;"> <p><b>Note</b> Currently, the Universal Interface does not use to determine LOC_FACILITY_CD. If PD1-3.4--<del>Facility is not valued, Universal Interface uses MSH-4-Sending Facility.</del></p> </div> <p>Configurable in SI Manager (SI_Manager.exe) as the ESI encounter organization alias that determines the ORGANIZATION_ID for this encounter row. The encounter organization is used to determine internal processing parameters (such as billing) and values (such as client code). Fields available to determine this organization include <del>MSH-4-Sending Facility, MSH-6 Receiving Facility, PV1 3.4-Facility,</del> and the default organization from SI Manager (SI_Manager.exe).</p>
40	01,ID,O	00170	Bed Status				N		Not supported by Cerner Millennium.
41	02,ID,O	00171	Account Status	EN	Encntr_status_cd	N261	O		HL7 User Table 0117. Code meanings include TEMP, PRELIM, ACTIVE, CANCELLED, and COMPLETE.
42	12,CM,O	00172	Pending Location				N		Not supported by Cerner Millennium.
43	12,CM,O	00173	Prior Temp Location				N		Not supported by Cerner Millennium.
44	26,TS,O	00174	Admit Date/Time	EN	Arrive_dt_tm		C		The time that registration or admission was performed. Cerner Millenniumrequires this for A01 and A04 and any other event used to create a new encounter row.
45	26,TS,O	00175	Discharge Date/Time	EN	Disch_dt_tm		O		Actual time patient was discharged from facility. Patient types that do not always receive a discharge or other event to close an encounter must be defined in Cerner Millenniumto automatically discharge.
46	12,NM,O	00176	Current Pat Balance				N		Not supported by Cerner Millennium.
47	12,NM,O	00177	Total Charges				N		Not supported by Cerner Millennium.
48	12,NM,O	00178	Total Adjustment				N		Not supported by Cerner Millennium.
49	12,NM,O	00179	Total Payments				N		Not supported by Cerner Millennium.

50	20,CX	00180	Alternate Visit ID	EA	Alias		N		Not supported by Cerner Millennium.
51	1,IS,O	01226	Visit Indicator				N		Not supported by Cerner Millennium. HL7 User Table 0326. Specifies level on which data is sent. HL7 values: A - Account or V - Visit.
52	60,XCN,,r	01224	Other Healthcare Providers	EPLR	Encntr_prsnl_reltn_cd	333	O,r		Other healthcare providers (such as nurse practitioners, midwives, and physician assistants). Universal Interface supports multiple instances. Alias pool code, alias type, and flex ENCINTR_PRSNL_RELTN_CD determined as described in PV1-7.

## Order Entry Segments (HL7 Chapter 4)

Data fields mapped to the Cerner Millennium ORDER\_DETAIL (OD) table are identified with the OE\_FIELD\_MEANING in uppercase letters (such as CANCELREASON). An Order entry format defines the order details that can be associated with each orderable. If an order detail in the order entry format is required, and it is not valued through the interface, the order entry format must supply a default value. For example, if the specimen type is not valued, but it is marked as required, the code value for blood can be inserted in the default field of the order entry format for specimen type. When the order detail is defined as a code value type and the transmitted value is an alias to an existing code value, the Universal Interface values the order detail fields with the actual code value and code value display. When the order detail is defined as a code value type and the transmitted value is not an alias to an existing code value, the Universal Interface does *not* apply add-on-the-fly logic. Instead, the Universal Interface uses the transmitted value to value the order detail display field. The Universal Interface uses the code set defined in the order entry format field. The Universal Interface determines how to map ORC and OBR fields based on the OE\_FIELD\_MEANING of the order detail. Consequently, the code set listed in the ORC and OBR segments in this unit is the suggested or Cerner Millennium standard code set but can vary depending on site-specific implementation of the orders application and other Cerner Millennium solutions. Some Cerner Millennium applications do not allow alternate code sets and always require the standard code set.

Each order detail populates the ORDER\_DETAIL table as well as other Cerner Millennium tables. The order detail display field is limited to 255 characters, regardless of the HL7 defined format size. These additional tables vary by many order parameters including activity type (such as general laboratory or radiology), specimen versus non-specimen order, collected versus non-collected, laboratory versus non-laboratory personnel to collect. This specification does not list these additional tables and elements.

## ORC (Common Order) Segment

The ORC segment is used to transmit fields that are common to all orders and services requested. The ORC segment is required in the Order (ORM) message. ORC is mandatory in the Order Response (ORR) message if an order detail segment (such as OBX) is present. An ORC segment always must precede any order detail segment.

The Cerner Millennium tables referenced from the ORC segment are O - ORDERS, OAC - ORDER\_ACTION, OAL - ORDER\_ALIAS, OCM - ORDER\_COMMENT, OD - ORDER\_DETAIL, PRL - PRSNL, and PRLA - PRSNL\_ALIAS.

## ORC Segment Layout

ORC Seq	HL7 Format	HL7 Elem	Name	Cerner Table	Cerner Attribute	Code Set	R/O	HL7 Ver	Comments
01	02,ID,R	00215	Order Control		Used by program.	6003	C		ORU^R01: RE - result. ORU^O01: NW, SC, OC.
02	75,CM,C	00216	Placer Order Number				C		Use with Meds. For all others, use OBR value.
02.1			Unique Placer ID				N		Not used for OCF-only results processing.
02.2			Placer Application ID				C		
03	75,CM,C	00217	Filler Order Number				C		Use OBR value.
03.1			Unique Filler ID	CE	Reference_nbr		C		
03.2			Filler Application ID	CE	Source_app_cd	89	C		



04	75,CM	00218	Placer Group Number				N		Not supported for OCF-only results.	
05	02,ID	00219	Order Status	O O		Order_status_cd dept_status_cd		6004 14281	C	Required for Meds. All others, use comparable field in OBR: IP - In Process or CM - Complete.
06	01,ID	00220	Response Flag				N		Not supported by Cerner Millennium.	
07	200,TQ	00221	Quantity/Timing				N		Not supported by Cerner Millennium.	
08	200,CM	00222	Parent				O		Use OBR value.	
09	26,TS	00223	DT of Transaction				C		Use comparable field in OBR.	
10	80, XCN	00224	Entered By				N		Not supported by Cerner Millennium.	
11	80, XCN	00225	Verified By				N		Not supported by Cerner Millennium.	
12	80, XCN	00226	Ordering Clinical Staff	CEPRL	Action_prsnl_id		C		Use OBR value.	
13	80,CM	00227	Enterer's Location	OAC	order_loc_cd	220	N			
14	40, XTN ,O,r2	00228	Call Back Phone Nbr				N		Not supported by Cerner Millennium.	
15	26,TS	00229	Order Effective DT				N		Not supported by Cerner Millennium.	
16	200,CE	00230	Order Cntrl Cd Reason				N		Not supported by Cerner Millennium.	
17	60,CE	00231	Entering Organization				N		Not supported by Cerner Millennium.	
18	60,CE	00232	Entering Device				N		Not supported by Cerner Millennium.	
19	80, XCN	00233	Action By				N		Not supported by Cerner Millennium.	

## OBR (Observation Request) Segment

The OBR segment is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment. The OBR segment defines the attributes of a particular request for diagnostic services (such as laboratory, radiology, or EKG) or clinical observations (such as a physical exam). For laboratory tests, the information in the OBR segment usually applies to a single specimen; however, there is not a one-to-one relationship between a specimen and tests ordered. Each test battery requires its own OBR segment, even when they can be performed on a single specimen. Consequently, the specimen information must be duplicated in each OBR segment.

### OBR Field Definitions

Cerner Millennium does not perform any validation based on the sending system unless specifically stated in the specification.

- Per the HL7 standard, the daggered ( + ) items are *not* created by the placer. They are created by the filler and valued as needed when the OBR


segment is returned as part of a report (ORU message). Therefore, on a new order sent to the filler, they are not valued. There is an exception when the filler initiates the order. In that case, the filler order number is valued and the placer order number may be blank.

- The starred ( /\* ) items are relevant only when an observation is associated with a specimen. The placer values only when the placer obtains the specimen. Otherwise, the filler values when the filler obtains the specimen.

The Cerner Millennium tables referenced from the OBR segment are O - ORDERS, OAC - ORDER\_ACTION, OAL - ORDER\_ALIAS, and OD - ORDER\_DETAIL.

## OBR Segment Layout

OBR Seq	HL7 Format	HL7 Elem	Name	Cerner Table	CernerAttribute	Code Set	R/O	HL7 Ver	Comments
01	04,SI,C	00237	Set ID - OBR				C		Always 1.
02	75,EI,C	00216	Placer Order Number	O			C		Required in the ORC if it is not present in the OBR. If this field is valued in both the ORC and the OBR, the values must be identical. The Universal Interface provides a configurable option by order control code to define one primary order alias from an external system and one primary internal order identifier (currently only internal order_id). The Universal Interface always uses the Cerner Millenniumorder_id if provided in the message. If the Cerner Millenniumorder_id is not provided, the Universal Interface uses the primary unique external order identifier. This functionality improves the ability of the Universal Interface to handle downtime and SN/NA scenarios for sending system that do not have hold logic functionality. The specific HL7 field that contains the primary order identifier is configurable. Additional fields can be mapped to contain an order identifier but these additional identifiers are considered store and forward fields and are not used during order match. HL7 fields that can be used are ORC/OBR-2, ORC/OBR-3, OBR-18, OBR-19, OBR-20, and OBR-21.
02.1			Unique Placer Order ID	OAL O	Alias or Order_id		C		Assigned by the placer system. For the Universal Interface to use this field to uniquely identify an order among all orders from this ordering application, a row must be configured in the ESI Configuration Tool. Uniqueness must persist over time; however, the level of uniqueness is configurable by system (alias pool), person, or encounter. In addition, the Universal Interface always validates the order during order match using both the primary identifier and the ordered procedure if provided in the message. This allows the sending system to use order sets during new order creation and to use a specific component during subsequent order activity (such as cancel). Implies that the OBR segment always is present.
02.2			Placer Application ID				C		Unique in a group of intercommunicating systems. SI Manager/ESI Configuration Tool can use this field to derive the order alias type and alias pool code. This field can be used in the ESI Configuration Tool as a simple literal match or as an alias to an assigning authority organization.

03	75,*EI,*C	00217	Filler Order Number +				C		Required in the ORC if it is not present in the OBR. If this field is valued in both the ORC and OBR, the values must be identical. Also see ORC-3 for common processing associated with all order identifiers.
									 <b>Note</b> OCFresult processing uses OBR-3 as the basis for the clinical event reference number. The field is not configurable. The reference number must be persistent and unique over time across the system for this contributor system. The level of uniqueness is not configurable. This fact must be considered during the design of an order and results interface.
03.1			Unique Filler Order ID	OAL O	Alias or Order_id		C		Assigned by the filler system. For the Universal Interface to use this field to uniquely identify an order among all orders from this filler application, a row must be configured in SI Manager/ESI Configuration Tool. Uniqueness must persist over time; however, the level of uniqueness is configurable by system (alias pool), person, or encounter.
03.2			Filler Application ID				C		Unique in a group of intercommunicating systems. SI Manager/ESI Configuration Tool can use this field to derive the order alias type and the alias pool code. This field can be used in SI Manager/ESI Configuration Tool as a simple literal match or as an alias to an assigning authority organization.
04	200,CE,R	00238	Universal Service ID				R		
04.1			Test Code	O	Catalog_cd	200	R		Contains the unique Order Catalog alias for this contributor_source_cd.
04.2			Test Description	O	Ordered_as_mnemonic		O		For documentation and troubleshooting, the Universal Interface stores the transmitted description as the ordered_as_mnemonic. If the description is not valued, the Universal Interface stores the code provided in OBR-4.1. Otherwise, the Universal Interface does not use this field during order processing. Instead, the Universal Interface uses the primary mnemonic from the Order Catalog.
04.3			Coding System		Contributor_source_cd		C		The Universal Interface requires the coding system if the coding system for the Universal Service ID does not match the coding system configured for this sending application. The Universal Interface uses the contributor_source_cd configured for the sending application (contributor system as defined in MSH-3) if it is aliased on Code Set 73; otherwise, it uses the default contributor_source_cd for the feed.
04.4			Alternate Test Code				N		Not supported by Cerner Millennium.
04.5			Alternate Test Description				N		Not supported by Cerner Millennium.
04.6			Alternate Coding System				N		Not supported by Cerner Millennium.
05	02,ID,B	00239	Priority				N		Not supported by Cerner Millennium. Instead, use OBR-27.6.
06	26,TS,B	00240	Requested Date/Time				N		Not supported by Cerner Millennium. Instead, use OBR-27.4.

07	26,TS,C	00241	Observation Date/Time. The clinically significant date and time.	OD O	REQSTA RTDTTM COLLEC TEDYN Current_start_dt_tm		C		If the order control code is NW, SN, SC, or XO, and the service requested is a specimen-associated study, this field represents the date and time the specimen was collected. The Universal Interface sets the COLLECTEDYN detail to Y. Also used as the current_start_dt_tm. This field is required for all report (ORU) messages. For services not associated with a specimen, this field represents the physiologically relevant date and time.
08	26,TS,C	00242	Observation End Dt	OD O	REQSTA RTDTTM COLLEC TEDYN Current_start_dt_tm		C		If the order control code is NW, SN, SC, or XO, and the service requested is a specimen-associated study, this field represents the date and time the specimen was collected. The Universal Interface sets the COLLECTEDYN detail to Y.
09	20,CQ,C	00243	Collection Volume	C			N		Not supported by Cerner Millennium.
10	60,CN	00244	Collector Identifier	OD	COLLBY				A row must be configured on the Personnel Alias tab of the ESI Configuration Tool. ESI uses the ESI Alias Field code of All Personnel. If the personnel is not found, ESI inserts the default personnel for the feed.
11	01,ID	00245	Spec Action Code	OD	NURSECOLLECT		O		HL7 Table 0065. When the transmitted value is O or P, ESI setS the NURSECOLLECT order detail to Y. Otherwise, ESI defaults NURSECOLLECT to N.
12	60,CE	00246	Danger Code	OD	DANGER_CD	59	O		
13	300,ST	00247	Relevant Clinical Info	OD	SPECINX LBLCMNT		O		For the special instructions detail, the ORC-7-7 or the OBR-27-7---Condition Component Is Valued is concatenated to this field.
14	26,TS	00248	Spec Received DT	OD	SPECRECVDATETIME				
15	300,CM	00249	Specimen Source						The site where the specimen should be obtained or the service should be performed.
15.1	CE		Source Code	OD	SPECIMEN TYPE	2052	C		Required for laboratoryorders. If not provided in the message, the order accept format must include a default source.
15.2	ST		Additives	—			N		Not supported by Cerner Millennium.
15.3	ST		Source Description Freetext	OD	SOURCECMNT SPECIMENDESC		O		Only one of these order details should be defined in an order entry format; however if both are defined, the Universal Interface values both order details with the same value.
15.4	CE		Body Site	OD	BODYSITE	E1028	O		
15.5	CE		Site Modifier				N		Not supported by Cerner Millennium.
15.5	CE		Collect Method Modifier	OD	COLLMETHOD	E1058	O		
16	60,XCN	00226	Ordering Provider	O OAC	Last_update_provider_id Order_provider_id				A row must be configured on the Personnel Alias tab of the ESI Configuration Tool. ESI uses the ESI Alias Field code of Ordering Provider. The Universal Interface can use either ORC-12 or OBR-16.
17	40,TN	00250	Ord Call Back Phone #				N		Not supported by Cerner Millennium.
18	60,ST	00251	Placer Field #1				O		Configurable and is used to insert rows on the ORDER_ALIAS table (such as filler system specimen or accession number). Also see ORC-3 for common processing associated with all order identifiers.

19	60,ST	00252	Placer Field #2				O	Configurable and is used to insert rows on the ORDER_ALIAS table (such as filler system specimen or accession number). Also see ORC-3 for common processing associated with all order identifiers.
20	60,ST	00253	Filler Field #1 +				O	Configurable and is used to insert rows on the ORDER_ALIAS table (such as filler system specimen or accession number). Also see ORC-3 for common processing associated with all order identifiers.
21	60,ST	00254	Filler Field #2 +				O	Configurable and is used to insert rows on the ORDER_ALIAS table (such as filler system specimen or accession number). Also see ORC-3 for common processing associated with all order identifiers. During ORU result processing, the Universal Interface uses this field as the default value for the clinical event accession number. The field used for the accession number during result processing is configurable. This fact may need to be considered in an integrated order and result interface.
22	26,TS,C	00255	Result Report/Status Change Date/Time +				N	Not supported by Cerner Millennium.
23	40,CM	00256	Charge to Practice +				N	Not supported by Cerner Millennium.
24	10,ID	00257	Diagnostic Service Section ID	OD	PERFORMLOC	220	O	The Order Catalog defines the catalog_type_cd (diagnostic service); however, when the service area is RAD or LAB, alias the transmitted value to location code (Code Set 220) with a CDF meaning of SRVAREA to override the default service resource routing.
25	01,ID,C	00258	Result Status +				N	Not supported by Cerner Millennium.
26	200,CM	00259	Parent Result +				N	Not supported by Cerner Millennium.
26.1	CE		Parent Order ID				N	Not supported by Cerner Millennium.
26.2	ST		Parent Sub ID				N	Not supported by Cerner Millennium.
26.3	CE		Parent Results				N	Not supported by Cerner Millennium.
27	200,TQ,r	00221	Quantity/Timing				O	The Universal Interface values this field if the OBR-27 quantity/timing field is not valued. If both ORC and OBR are valued, the values must be identical.
27.1	CQ		Quantity Component Quantity & Units	OD	QUANTITY		O	The Quantity & Units field defines the quantity of service that should be provided at each service interval.
27.2	CM		Interval Component	OD	FREQUENCY	4003	O	Defines the frequency explicit time interval.
27.3			Duration	OD	DURATION DURATIONUNIT	54	O	
27.4	TS		Start Date/Time	ODO	REQSTA RTDTTM; Current_start_dt_tm		O	Contains the earliest requested date and time for this service. It is used for future, continuous, and timed orders. It also is used as the current_start_dt_tm. The OBR-7 - Observation Date and Time or the OBR-8 - Observation End Date and Time takes precedence as the current_start_dt_tm.

27.5	TS		End Date/Time	OD	STOPDTTM		O		Contains the latest date and time the service should be performed. For continuous orders, the stop date is the earliest date and time specified by either this field or the duration. For one-time orders, the end date and time equals the start date and time.
27.6	ID		Priority	OD	COLLPRI REPPRI PRIORITY	2054 1905 1304	O		For general laboratory, if two TQ instances are sent, the first maps to COLLPRI and the second to REPPRI. If only one instance is sent, it maps to both collection and reporting. Suggested HL7 values are A - ASAP, C - Callback, P - Preop, PRN - As Needed, R - Routine, S - Stat, and T - Timing Critical. For radiology and non-specimen orders, the first instance is used for the priority order detail.
27.7	ST		Condition Component	OD	SPECINX		O		Per HL7 standard, presence of text in this field implies that human review is needed to determine how or when this drug should be given, for example, PRN for pain or to keep blood pressure below 110. This field is concatenated to the OBR-13---Relevant Clinical Information field.
27.8	TX		Text Component				N		Not supported by Cerner Millennium.
27.9	ID		Conjunction Component				N		Not supported by Cerner Millennium.
27.10	CM		Sequence Component				N		Not supported by Cerner Millennium.
28	150,CN	00260	Result Copies To	OD	CONSULTDOC		O		
29	150,CM	00261	Parent Number				N		Not supported by Cerner Millennium. Use in ORM messages is to be determined.
29.1	CM		Parent Placer Order #				N		Not supported by Cerner Millennium.
29.2	CM		Parent Filler Order #				N		Not supported by Cerner Millennium.
30	20,ID	00262	Transportation Mode	OD	TRANSPORTMODE	10300	O		
31	255,CE	00263	Reason For Study				O		
31.1			Reason ID	OD	REASONFOREXAM	Y	O		
31.2			Reason Text	OD	REASONFOREXAM	Y	O		Used if OBR-31.1 is not valued.
31.3			Coding Scheme				N		Not supported by Cerner Millennium.
31.4			Alternate Reason ID				N		Not supported by Cerner Millennium.
31.5			Alternate Reason Text				N		Not supported by Cerner Millennium.
31.6			Alternate Coding Scheme				N		Not supported by Cerner Millennium.
32	60,CM	00264	Main Reslt Interpret +				N		Not supported by Cerner Millennium.
33	60,CM,,r	00265	Assist Result Interpreter +				N		Not supported by Cerner Millennium.
34	60,CM,,r	00266	Technician +				N		Not supported by Cerner Millennium.
35	60,CM,,r	00267	Transcriptionist +				N		Not supported by Cerner Millennium.

36	26,TS	00268	Sched Date/Time +				N		Not supported by Cerner Millennium.
35	4,NM,O	01028	Nbr of Containers\				N		Not supported by Cerner Millennium.
38	60,CE,O,r	01029	Transport Logistics of Specimen\				N		Not supported by Cerner Millennium.
39	200,CE,,r	01030	Collector comments \				N		Not supported by Cerner Millennium.
40		01031	Transport Arrangmnt Responsibility				N		Not supported by Cerner Millennium.
41	30,ID,O	01032	Transport Arranged				N		Not supported by Cerner Millennium. HL7 Table 0224. Values are A - Arranged, N - Not Arranged, or U - Unknown.
42	1,ID,O	01033	Escort Required				N		Not supported by Cerner Millennium. HL7 Table 0225. Values are N - Not Required, R - Required, or U - Unknown.
43	200,CE,,r	01034	Plannd Patient Transport Comment				N		Not supported by Cerner Millennium.

## OBR Segment Processing Notes

For ORM messages, the OBR segment serves as the primary carrier of information specific to a clinical order. The OBR defines attributes of the service or procedure to be performed including order identification, the specific exam or service requested, when the service is requested, when the results are expected, and who is responsible for collecting a specimen or data for a specimen already collected. When subsequent order activity (status, cancel, and results) occurs in either the placer or filler system, the OBR is again the primary carrier of status and clinical observations specific to the ordered procedure.

Although HL7 provides the option to omit the OBR segment for simple order action events (cancel, discontinue, and suspend), Cerner recommends including the OBR segment in *all* ORM messages for services associated with the OBR detail segment.

## BLG (Billing) Segment (Not Used)

The BLG segment is used to provide billing information on the ordered service to the filling application. The Universal Interface currently does not use this segment. The Cerner Millennium table referenced from the BLG segment is OSR - Order Server Request.

## BLG Segment Layout (Not Used)

BLG Seq	HL7 Format	HL7 Elem	Name	Cerner Table	Cerner Attribute	Code Set	R/O	HL7 Ver	Comments
01	15,CM,O	00234	When To Charge				N		Not supported by Cerner Millennium. HL7 Table 0100. Values are D - On discharge, O - On receipt of order, R - At time service is completed, S - At time service is started, and T - At designated time. Not used.
02	50,ID,O	00235	Charge Type	OSR	NoChargeInd BillOnlyInd		N		Not supported by Cerner Millennium. HL7 Table 0122. Identifies someone other than the patient to be billed for services. HL7 values are CH - Charge, CO - Contract, CR - Credit, DP - Department, GR - Grant, NC - No charge, PC - Professional, and RS - Research. Use Code Set 18229 (FSI yes/no indicator).
03	100,CK,O	00217	Account ID	OD	RSRCHACCT		N		Not supported by Cerner Millennium.

## Observation Reporting Segments (HL7 Chapter 7)

The observation reporting segments are described below.

## OBX (Observation/Result) Segment

The OBX segment is used to transmit a single observation. In an ORM message, the OBX segment is used to communicate values for specific order details or order prompts. OBX segments contain observations available at the time of order entry or other order event trigger activity. The Cerner Millennium tables referenced from the OBX segment are O - ORDERS, OD - ORDER\_DETAIL, and OSR - Order Server Request.

## OBX Segment Layout

OBX Seq	HL7 Format	HL7 Elem	Name	Cerner Table	Cerner Attribute	Code Set	R/O	HL7 Ver	Comments
01	04,SI	00569	Set ID - OBX				R		Sequential under OBR.
02	02,ID,R	00570	Value Type				R		If an HL7 date is being passed, this must be DT or TS.
03	80,CE,R	00571	Observation Identifier						
03.1	ID		Procedure ID	OD	Order Detail or Prompt Test	16449	R		<p><b>Method 1:</b> PathNetonly. This field contains an alias to an oe_field_id that defines a discrete task assay (prompt test) or an order detail (suc as diet start date and time or label printer). In some cases, two order details combine to define one entity, such as WEIGHT and WEIGHUNIT, and these values can be sent in the OBX-5 - Observation Value field and the OBX-6 - Units field, respectively. Two code value alias rows would need to be configured where the alias matches the OBR-3.1 - Procedure Id (and the alias_type_meaning is blank for the value order detail), and UNIT for the unit order detail.</p> <p><b>Method 2:</b> For order details (not prompt tests), this field can contain the oe_field_meaning string on the OE_FIELD_MEANING table (such as PREGNANT or PRINTLBL) instead of an alias to an oe_field_id on Code Set 16449. In cases, when two order details combine to define on entity, ESI allows the values for WEIGHT, VOLUME, and STENGTH to be passed in the OBX-5 - Observation Value field, and the value for WEIGHTUNIT, VOLUMEUNIT, and STRENGTHUNIT to be passed in the OBX-6 - Unit field.</p> <p><b>Method 3:</b> Posting of the Yes/No indicator needs only value_1 (OBX-5.1) to be populated and aliased on 18229.</p>
03.2	ST		Procedure Description				N		Not supported by Cerner Millennium.
03.3	ID		Coding Scheme				N		Not supported by Cerner Millennium.
03.4	ID		Alternate Procedure ID				N		Not supported by Cerner Millennium.
03.5	ST		Alternate Description				N		Not supported by Cerner Millennium.
03.6	ID		Alt Coding Scheme				N		Not supported by Cerner Millennium.
04	20,ST	00572	Observation Sub-ID				N		Not supported by Cerner Millennium.
05	64k,R	00573	Observation Value				R		<p>Contains the value of the order detail (such as 199710301230 or LP231).</p> <p>Posting of Observation Personnel. The observation value field components (OBX-5.1 through 5.14) should be populated according to their corresponding components when the value type in OBX-2 is an XCN datatype. The mapping is as follows: OBX-5.1 - id_nbr, OBX-5.2 - last_name, OBX-5.3 - first_name, OBX-5.4 - middle_name, OBX-5.5 - suffix, OBX-5.6 - prefix, OBX-5.7 - degree, OBX-5.8 - source, OBX-5.9 - assign_auth_id, OBX-5.10 - name_type_cd, OBX-5.11 - check_digit, OBX-5.12 - check_digit_scheme, OBX-5.13 - id_type, OBX-5.14 - assign_fac_id. Note that value_7 through value_14 may not need to be populated for personnel OBXs, depending on the configuration for the personnel alias row in SI Manager.</p>



06	60,CE	00574	Units				C	Some order details are defined in pairs, where one defines the value and the other defines the units (such as VOLUME and VOLUMEUNIT, WEIGHT and WEIGHTUNIT, and STRENGTH and STRENGTHUNIT). For more information, see the Comments column for the OBX-3.1---Procedure ID.
07	60,ST	00575	Reference Range				N	Not supported by Cerner Millennium.
08	10,ID,,r5	00576	Abnormal Flags				N	Not supported by Cerner Millennium.
09	05,NM	00577	Probability				N	Not supported by Cerner Millennium.
10	05,ID	00578	Nature of Abn Test				N	Not supported by Cerner Millennium.
11	02,ID,R	00579	Observ Result Status				N	Not supported by Cerner Millennium.
12	26,TS	00580	Date Last Observe Normal Values				N	Not supported by Cerner Millennium.
13	20,ST	00581	User Access Checks				N	Not supported by Cerner Millennium.
14	26,TS	00582	DT of the Observation				N	Not supported by Cerner Millennium.
15	60,CE	00583	Producer's ID				N	Not supported by Cerner Millennium.
15.2			Producer ID Text				N	Not supported by Cerner Millennium.
15.3			Coding System				N	Not supported by Cerner Millennium.
15.4			Alt Producer ID Code				N	Not supported by Cerner Millennium.
15.5			Alt Producer ID Text				N	Not supported by Cerner Millennium.
15.6			Alternate Coding System				N	Not supported by Cerner Millennium.
16	60,CN	00584	Responsible Observer				N	Not supported by Cerner Millennium.