CT WiZ HL7 Segment Overview
April 2020

The following table provides a summary overview of each HL7 segment and if/how it is used in CT WiZ[1]. The table is organized alphabetically by segment and is intended to provide a high-level overview only. For additional detail refer to the HL7 Version 2.5.1 Implementation Guide for Immunization Messaging or other resources posted under the "Getting Started" section of the CT WiZ Portal for EHR Data Exchange-HL7.

SEGMENT	DEFINITION	MESSAGE USAGE	NATIONAL IG USAGE	CT WiZ USAGE	NOTES
BHS (Batch Header Segment)	The Batch Header Segment wraps a group of 1 or more messages. These may be a mixture of acceptable message types. This segment is not required for real-time messaging. That is, a stream of messages may be sent without a BHS.	Any	Optional	*Prior approval required.*	Used at the beginning of any batch of messages. *Batches should only be uploaded through the CT WiZ user interface and not submitted through the HL7 web service.*
BTS (Batch Trailer Segment)	The BTS segment defines the end of a batch. It is required if the message has a matching BHS.	Any	Required if message starts with BHS	*Prior approval required.*	Used to mark the end of any batch of messages. If the batch of messages starts with a BHS, then this segment is required.

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[1] This table was originally developed by Envision Technology Partners, Inc.

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ERR (Error Segment)	The error segment reports information about errors in processing the message. The segment may repeat. Each error will have its' own ERR segment.	ACK, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to return information about errors.
EVN (Event Segment)	The EVN segment is used to communicate necessary trigger event information to receiving applications. Valid event types for all chapters are contained in HL7 Table 0003 - Event Type	ADT	Required for ADT message.	Not supported	This segment is NOT supported by the CT WiZ HL7 interface.
FHS (File Header Segment)	The file header segment may be used to group one or more batches of messages. This is a purely optional segment, even if batches are sent. Its' use is not anticipated for use in real-time transactions. Not required for batch messages submitted to CT WiZ.	Any	Optional	*Prior approval required.*	Used to mark the beginning of a file of batches. *Batches should only be uploaded through the CT WiZ user interface and not submitted through the HL7 web service.*
FTS (File Trailer Segment)	The FTS segment defines the end of a file of batches. It is only used when the FHS segment is used.	Any	Required to terminate a file of batches if message starts with FHS.	*Prior approval required.*	Used to mark the end of a file of batches. If a file of batches has an FHS at the beginning, then this segment is required.

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IN1-3 (Insurance Segment)	The IN1-IN3 segments contain insurance policy coverage information necessary to produce properly prorated and patient and insurance bills.	VXU	Optional	Not Supported	This segment is NOT supported by the CT WiZ HL7 interface.
MSA (Message Acknowledgement Segment)	This segment is included in the query response (RSP) and acknowledgment (ACK) messages. It contains information used to identify the receiver's acknowledgement response to an identified prior message.	RSP, ACK	Ability to create and process is required for conformant systems	Supports the ability to create and process messages with this segment.	Response to a VXU or QBP. Used to acknowledge receipt of the message and message condition.
MSH (Message Segment Header)	The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.	All	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	This appears at the beginning of every message and includes information about the type of message, how to process it, and by whom it was created.
NK1 (Next of Kin Segment)	The NK1 segment contains information about the patient's next of kin or other related parties. Any associated parties may be identified.	VXU, ADT, RSP	Ability to create and process is required for conformant systems	Supports the ability to create and process messages with this segment.	Used to carry information about the next of kin for a client.

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NTE (Note Segment)	The NTE segment is used for sending notes and comments. It is used in relation to OBX in the VXU and RSP.	VXU, ADT, RSP	Ability to create and process is required for conformant systems.	Not Supported	This segment is NOT supported by the CT WiZ HL7 interface.
OBX (Observation Result Segment)	The observation result segment has many uses. It carries observations about the object of its parent segment. In the VXU/RSP it is associated with the RXA or immunization record. The basic format is a question and an answer.	ADT, VXU, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to report one part of an observation.
ORC (Order Request Segment)	The Common Order segment (ORC) is used to transmit fields that are common to all orders (all types of services that are requested). While not all immunizations recorded in an immunization message are able to be associated with an order, each RXA must be associated with one ORC, based on HL7 2.5.1 standard.	VXU, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to give information about a group of one or more orders (typically RXA).

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PD1 (Patient Demographic Segment)	The patient additional demographic segment contains demographic information that is likely to change about the patient. In immunization messages, this is information about the need to protect the client's information, how they should be part of reminder efforts, and their current status in the IIS.	VXU, RSP, ADT	Ability to create and process is required for conformant systems.	Not Supported	This segment is NOT supported by the CT WiZ HL7 interface.
PID (Patient Identifier Segment)	This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change. Used by all applications as the primary means of communicating patient identification information frequently.	VXU, ADT, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to carry information about the patient/client.
PV1-2 (Patient Visit Segment)	This segment contains information related to a specific visit.	VXU, ADT, RSP	Optional	Not Supported	This segment is NOT supported by the CT WiZ HL7 interface. Use OBX for documenting the funding program eligibility status at the immunization level.

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QAK (Query Acknowledgement Segment)	The QAK segment contains information sent with responses to a query.	RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Response to a QBP. Used to note whether matches were identified in the IIS and to what extent.
QPD (Query Parameter Definition)	Input parameter specification. This segment communicates the type of query being issued and contains patient identifying information for the requested patient.	QBP, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to carry the query type (immunization history or history and forecast) and identifiers for a particular patient/client request.
RCP (Response Control Parameter Segment)	This segment communicates the number of potential matches that should be sent in response to a QBP request.	QBP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to restrict the number of candidate records that should be returned in response to a query.
RXA (Pharmacy/Treatment Administration Segment)	This segment communicates information about the vaccine administration.	VXU, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to carry information about the vaccination encounter and the vaccine administered to the patient.
RXR (Pharmacy/Treatment Route Segment)	This segment communicates information about the site and route of vaccine administration.	VXU, RSP	Ability to create and process is required for conformant systems.	Supports the ability to create and process messages with this segment.	Used to report the body site of the vaccine administration and the route used to administer the vaccine.

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ZSA (Error Segment)	The custom error segment reports additional information about errors in processing the message.	ACK, RSP	Optional	Supports the ability to create and process messages with this segment.	Used to return additional information about errors.