



CT WiZ

Local Delta Implementation Guide

HL7 2.5.1 Release 1.5

Connecticut Department of Public Health
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Delta Guide: Important Notes

- All interfaces with CT WiZ are expected to conform to the CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018¹ (HL7 2.5.1 Implementation Guide). **The material that follows is intended as a supplement to the national HL7 2.5.1 Implementation Guide and lists ONLY the areas where CT WiZ deviates from or elaborates on the information contained in the national implementation guidance.**²
- This Delta Guide is intended for technical groups from EMR (Electronic Medical Record) systems, EHR (Electronic Health Record) systems, and other state-level systems, etc., that will exchange HL7 messages with CT WiZ. The reader of this guide should have a solid HL7 foundation and be fluent with the contents of the national HL7 2.5.1 Implementation Guide.
- **Definitions:**
 - **Jurisdictions:** Connecticut
 - **Name of the Immunization Information System:** CT WiZ
 - **Two-Character Jurisdiction IDs:** CT
 - **Immunization Information System Facility Codes:** CT0000
- **This document addresses only VXU messaging and includes specific guidance on the following segments:**
 - **MSH – Message Header Segment**
 - **NK1 – Next of Kin Segment**
 - **PID – Patient Identifier Segment**
 - **OBX – Observation Result Segment**
 - **ORC – Order Request Segment**
 - **RXA – Pharmacy/Treatment Administration Segment**
 - **RXR – Pharmacy/Treatment Route Segment**
 - **MSA – Message Acknowledgement Segment**
 - **ERR – Error Segment**
 - **ZSA – Custom Error Segment**
- This document does NOT include guidance on the following messages segments. For more information refer to the **HL7 2.5.1 Implementation Guide**.
 - **BHS – Batch Header Segment**
 - **BTS – Batch Trailer Segment**
 - **FHS – File Header Segment**
 - **FTS – File Trailer Segment**

¹ [Resources: AIRA Repository](#)

² **DISCLAIMER:** The CDC has published a template document for a Local Implementation Guide. This document is heavily based on the CDC's Local Implementation Guide for HL7 2.5.1 Immunization Messaging, version 1.5. Much of the format and content of this document is based on the material found in the CDC's document including updates from the CDC Release 1.5 release.

- This document does NOT include guidance on the following messages segments used for bi-directional query and response (QBP/RSP). For more information on establishing a bi-directional interface with CT WiZ refer to the **CT WiZ QBP Technical Specifications**³:
 - QAK – Query Acknowledgement Segment
 - QPD – Query Parameter Definition
 - RCP – Response Control Parameter Segment
- The following segments are NOT supported by this HL7 interface:
 - DSC – Continuation Pointer Segment
 - EVN – Event Type Segment
 - GT1 – Guarantor Segment
 - IN1 – Insurance Segment
 - IN2 – Insurance Segment
 - IN3 – Insurance Segment
 - NTE – Note Segment
 - PD1 – Patient Demographic Segment
 - PV1 – Patient Visit Segment
 - PV2 – Patient Visit Segment
 - SFT – Software Segment
 - TQ1 – Timing/Quality Segment
 - TQ2 – Timing/Quality Segment
- CT WiZ will evaluate all data in a message sent regardless of whether the data is used by the Immunization Information System or not. As a result, any non-NULL data provided in a message must be formatted correctly to avoid errors or warnings. Ideally, any fields not labeled as R, RE, or C should be left blank and sent as null values (unless otherwise noted).

³ [ctwiz251gbptechnicalspecs-420.pdf](#)

CT WiZ Required HL7 Segments for VXU

The table below displays all HL7 segments **required or conditioned** for a VXU submission to CT WiZ. For more detail about these segments refer to the tables in this document or the national HL7 2.5.1 Implementation Guide⁴.

Table 1: CT WiZ Required VXU Segments

Segment	Element Name	Usage	Sequence
MSH	Field Separator	Required	MSH-1
MSH	Encoding Characters	Required	MSH-2
MSH	Sending Application	Required but can be Empty	MSH-3
MSH	Sending Facility	Required	MSH-4
MSH	Receiving Application	Required but can be Empty	MSH-5
MSH	Receiving Facility	Required	MSH-6
MSH	Date and Time of Message	Required	MSH-7
MSH	Message Type	Required	MSH-9
MSH	Message Control ID	Required	MSH-10
MSH	Processing ID	Required	MSH-11
MSH	Version ID	Required	MSH-12
MSH	Accept Acknowledgement Type	Required	MSH-15
MSH	Application Acknowledgment Type	Required	MSH-16
MSH	Message Profile Identifier	Required	MSH-21
NK1	Set ID-NK1	Required	NK1-1
NK1	Name	Required	NK1-2
NK1	Relationship	Required	NK1-3
NK1	Phone	Required but can be Empty	NK1-5
OBX	Set ID	Required	OBX-1
OBX	Value Type	Required	OBX-2
OBX	Observation Identifier	Required	OBX-3
OBX	Observation Sub-ID	Required but can be Empty	OBX-4
OBX	Observation Value	Required	OBX-5
OBX	Observation Result Status	Required	OBX-11
ORC	Order Control	Required	ORC-1
ORC	Filler Order Number	Required	ORC-3
ORC	Ordering Provider	Required but can be Empty	ORC-12
PID	Set ID – PID	Required	PID-1
PID	Patient Identifier List	Required	PID-3
PID	Patient Name	Required	PID-5

⁴ CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018 [Resources: AIRA Repository](#)

Segment	Element Name	Usage	Sequence
PID	Mother's Maiden Name	Required but can be Empty	PID-6
PID	Date of Birth	Required	PID-7
PID	Administrative Sex	Required	PID-8
PID	Patient Race	Required but can be Empty	PID-10
PID	Patient Address	Required but can be Empty	PID-11
PID	Patient Phone	Required but can be Empty	PID-13
PID	Multiple Birth Indicator	Required but can be Empty	PID-24
PID	Birth Order	Conditional but can be Empty	PID-25
PID	Patient Death Date	Conditional but can be Empty	PID-29
PID	Patient Death Indicator	Required but can be Empty	PID-30
RXA	Give Sub-IS Counter	Required	RXA-1
RXA	Administration Sub-ID Counter	Required	RXA-2
RXA	Date Start of Administration	Required	RXA-3
RXA	Administered Code	Required	RXA-5
RXA	Administered Amount	Required	RXA-6
RXA	Administered Units	Conditional but Empty	RXA-7
RXA	Administered Information Source	Required but can be Empty	RXA-9
RXA	Administering Provider	Required but can be Empty	RXA-10
RXA	Administered-at Location	Required but can be Empty	RXA-11.4
RXA	Substance Lot Number	Required but can be Empty	RXA-15
RXA	Substance Expiration Date	Conditional but can be Empty	RXA-16
RXA	Substance Manufacturer Name	Required but can be Empty	RXA-17
RXA	Substance Refusal Reason	Conditional but Empty	RXA-18
RXA	Completion Status	Required but can be Empty	RXA-20
RXA	Action Code	Required but can be Empty	RXA-21
RXR	Route	Required	RXR-1
RXR	Site	Required but can be Empty	RXR-2

Segment-Specific Guidance

The following tables detail **ONLY** the areas where CT WiZ deviates from or elaborates on the information contained in the national HL7 2.5.1 Implementation Guide ⁵.

MSH – Message Header Segment

Note: CT WiZ does not support optional fields in the MSH segment – leave “optional” fields blank when sending messages to CT WiZ (MSH-8, 13-14, 17-20, and 24-25).

Table 2: MSH Segment Differences

SEQ	LEN	Data	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
3	20	HD	[0..1]	[1..1]	0361	Sending Application	RE	RE	Populate with name of your software.
4		HD	[0..1]	[1..1]	0362	Sending Facility	RE	R	CT WiZ requires a valid Sending Facility code in every HL7 message. CT WiZ HL7 staff will provide Sending Facility code(s) once a project is started.
5		HD	[0..1]	[1..1]		Receiving Application	RE	RE	Receiving Application is: CTWiZ
6		HD	[0..1]	[1..1]	0362	Receiving Facility	RE	RE	CT WiZ covers the entire State of Connecticut; the only appropriate Receiving Facility code is: CT0000
11	3	PT	[1..1]	[1..1]	0103	Processing ID	R	R	CT WiZ will accept a “P” in MSH 11 during data quality testing.
15		ID	[1..1]	[0..1]	0155	Accept Acknowledgement Type	R	R	A value is required to be supplied, and must be the correct data type, length and/or valid code. If the value is missing or an invalid value is supplied, the Immunization Information System will return a warning but will continue to process the incoming message. All outgoing messages will contain ‘NE’ (Never) in this field.

16	2	ID	[1..1]	[0..1]	0155	Application Acknowledgement Type	R	R	A value is required to be supplied, and must be the correct data type, length and/or valid code. If the value is missing or an invalid value is supplied, the Immunization Information System will return a warning but will continue to process the incoming message. All outgoing messages will contain 'AL' (always) in this field. (The Immunization Information System does not process any responses to messages it sends.)
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⁵ CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018: [Resources: AIRA Repository](#)

NK1 – Next of Kin Segment

NK1 entries are processed into Patient Contacts.

Note: CT WiZ does not support most of the optional fields in the NK1 segment – leave “optional” fields blank when sending messages to CT WiZ (NK1-7 through NK1-39). **Exception for NK1-6 is noted in the table below. Exception for NK1-6 which is desired and should be submitted in accordance with the national HL7 2.5.1 Implementation Guide⁶.**

Table 3: NK1 Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
2		XPB	[1..*]	[1..2]	0020	Name	R	R	Refer to Table 12 for Name Types supported in CT WiZ. If the type code is left blank it will be defaulted to legal name.
4		XAD	[0..*]	[0..*]		Address	RE	RE	Leave field blank.
5		XTN	[0..*]	[0..2]	0201	Phone Number	RE	RE	Refer to Table 13 for Telecommunication Use Codes supported in CT WiZ.

OBX – Observation Result Segment

Note: CT WiZ does not support optional fields in the OBX segment – leave “optional” fields blank when sending messages to CT WiZ (OBX-7-10, 12-13, 15-16, and 18-25).

Table 4: OBX Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
6		CE	[0..1]	[0..1]	UCUM	Units	C(R/O)	CE	Leave field blank.
14		TS	[1..1]	[1..1]		Date/Time of the Observation	RE	RE	Leave field blank.
17		CE	[0..1]	[0..0]		Observation Method	C(RE/O)	X	Leave field blank.

⁶ CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018: [Resources: AIRA Repository](#)

CT WiZ collects the following OBX values for administered immunizations in OBX-3:

Table 5: OBX-3 Values Supported in CT WiZ

LOINC Code	Description	HL7 Code
30956-7	Vaccine Type	CVX
30963-3	Vaccine Funding Source	CT WiZ only accepts the following values for Vaccine Funding Source: PHC70^Private VXC50^Public
64994-7	Vaccine Funding Program Eligibility	CT WiZ only accepts the following values for Vaccine Funding Program Eligibility: cvp-patient-eligibility-screening-record-cheat-sheet.pdf
29768-9	VIS Published Date	This value represents the date the presented VIS was published. The most current list of Vaccine Information Statement publication dates can be found at: https://www.cdc.gov/vaccines/hcp/vis/current-vis.html .
29769-7	VIS Presented Date	This value represents the date the document was presented to the patient/responsible person and is typically the same date as the Date of Administration for the vaccination.

For All Newly Administered Vaccines – Send the Following 4 OBX Segments/LOINC Codes:

```
OBX|1|CE|64994-7^VACCINE FUNDING PROGRAM ELIGIBILITY^LN|1|V01^NOT VFC ELIGIBLE^HL70064
|||||F|||20160427|||VXC40^PER IMMUNIZATION^CDCPHINVS
OBX|2|CE|30963-3^VACCINE FUNDING
SOURCE^LN|1|PHC70^PRIVATE^CDCPHINVS|||||F|||20160427
OBX|3|TS|29768-9^DATE VACCINE INFORMATION STATEMENT PUBLISHED^LN|2|20150415|||||F
OBX|4|TS|29769-7^DATE VACCINE INFORMATION STATEMENT PRESENTED^LN|2|20160427|||||F
```

VIS for Multi Antigen Vaccines

For a combo vaccine such as Pediarix (DTaP-HepB-IPV) – if a separate VIS is given for each vaccine, there needs to be 3 OBX segments for each vaccine component:

```
OBX|1|CE|30956-7^Vaccine Type^LN|1|107^DTaP, UF^CVX|||||F
OBX|2|DT|29768-9^Date Vaccine Information Statement Published^LN|1|20070517|||||F
OBX|3|DT|29769-7^Date Vaccine Information Statement Presented^LN|1|20141203|||||F
OBX|4|CE|30956-7^Vaccine Type^LN|2|45^Hep B, UF^CVX|||||F
OBX|5|DT|29768-9^Date Vaccine Information Statement Published^LN|2|20120202|||||F
OBX|6|DT|29769-7^Date Vaccine Information Statement Presented^LN|2|20141203|||||F
OBX|7|CE|30956-7^Vaccine Type^LN|3|89^Polio, UF^CVX|||||F
```

OBX|8|DT|29768-9^Date Vaccine Information Statement Published^LN|3|20111108|/////F
 OBX|9|DT|29769-7^Date Vaccine Information Statement Presented^LN|3|20141203|/////F

VIS for Multi Antigen Vaccine by VIS Bar Code

OBX|1|CE|69764-9^Vaccine Information Statement Document
 Type^LN|1|253088698300003511070517^DTaP VIS^cdcgs1vis|/////F
 OBX|2|DT|29769-7^Date Vaccine Information Statement Presented^LN|1|20141203|/////F
 OBX|3|CE|69764-9^Vaccine Information Statement Document
 Type^LN|2|253088698300005911120202^Hepatitis B VIS^cdcgs1vis|/////F
 OBX|4|DT|29769-7^Date Vaccine Information Statement Presented^LN|2|20141203|/////F
 OBX|5|CE|69764-9^Vaccine Information Statement Document
 Type^LN|3|25308869830001721111108^Polio VIS^cdcgs1vis|/////F
 OBX|6|DT|29769-7^Date Vaccine Information Statement Presented^LN|3|20141203|/////F

ORC – Order Request Segment

Note: CT WiZ does not support optional fields in the ORC segment – leave “optional” fields blank when sending messages to CT WiZ (ORC-4-9, 11, 13-16, and 18-31).

Table 6: ORC Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
2		EI	[0..1]	[0..1]		Placer Order Number	RE	RE	Leave field blank.
3		EI	[1..1]	[1..1]		Filler Order Number	R	R	The identifier included in the incoming message will be stored off in the database with this vaccination. It will not be visible on the direct entry user interface. This is the unique identifier of the sending system in a given transaction. Use of this foreign key will allow the initiating system to accurately identify a previously sent immunization record and facilitate the accurate update or deletion of that record.
10		XCN	[0..1]	[0..1]		Entered By	RE	RE	Leave field blank.
12		XCN	[0..1]	[0..1]		Ordering Provider	C(RE/O)	RE	Use a Medical License number or preferably an NPI as the identifier in this field.

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
17		CE	[0..1]	[0..0]		Entering Organization	RE	X	Leave field blank.

PID – Patient Identifier Segment

Note: CT WiZ does not support most of the optional fields in the PID segment – leave “optional” fields blank when sending messages to CT WiZ (PID-16-18, 26-28, 31-32, and 33-39). **Exceptions for PID-14, 15, 22, and 23 which are desired and should be submitted in accordance with the national HL7 2.5.1 Implementation Guide⁷.**

Table 7: PID Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
3		CX	[1..*]	[1..*]	0203	Patient Identifier List	R	R	Refer to Table 14 for Identifier Type codes supported in CT WiZ. CT WiZ does not accept Social Security Numbers. NOTE: Patient Medicaid Number (MA) is now required in addition to Medical Record Number (MR), when available.
6		XPN	[0..1]	[0..1]		Mother’s Maiden Name	RE	RE	CT WiZ expects the Name Type component to be “M” if any value is supplied in the incoming message. Example: FAIRY^^^^^^M
11		XAD	[0..*]	[0..*]	0190	Patient Address	RE	RE	Refer to Table 11 for Address Type codes supported in CT WiZ.
13		XTN	[0..*]	[0..*]	0201	Phone Number - Home	RE	RE	Refer to Table 13 for Telecommunication Use Codes supported in CT WiZ. Do not send fake phone numbers (i.e., 000^0000000). CT WiZ expects 10 digits (area code + 7-digit number). If no phone number, leave entire field blank.

⁷ CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018: [Resources: AIRA Repository](#)

RXA – Pharmacy/Treatment Administration Segment

Note: CT WiZ does not support optional fields in the RXA segment – leave “optional” fields blank when sending messages to CT WiZ (RXA-4, 8, 12-14, 19, and 22-26).

Table 8: RXA Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
9		CE	[0..*]	[0..1]	NIP 001	Administration Notes	C(R/O)	RE	To indicate the source of the record, CT WiZ expects the following values: For administered doses: 00^NEW IMMUNIZATION RECORD^NIP001 For historical doses: 01^HISTORICAL INFORMATION - SOURCE UNSPECIFIED^NIP001 If field is blank, the immunization record will be set to historical (01).
10		XCN	[0..1]	[0..1]		Administering Provider	C(RE/O)	RE	CT WiZ would prefer an NPI as the identifier in this field. A Medical License number is also acceptable.
11.4		LA2	[0..1]	[0..1]		Administered-at Location	C(RE/O)	RE	If RXA-9 is “00^New immunization”, send CT WiZ HL7 Facility Code in component 4 “ ^CTXXXX ”. The Facility Code in RXA-11.4 should match the Facility Code in MSH-4. If RXA-9 is anything other than “00^New Immunization”, leave field blank.

RXR – Pharmacy/Treatment Route Segment

Note: CT WiZ does not support optional fields in the RXR segment – leave “optional” fields blank when sending messages to CT WiZ (RXR-3-6).

MSA – Message Acknowledgement Segment

Note: CT WiZ will not include optional or “X” fields in the MSA segment (MSA-3 through MSA-6). These fields will be blank when returned from CT WiZ.

ERR – Error Segment

Note: CT WiZ will not leverage the following ERR segments: ERR-1, ERR-5 through ERR-6, and ERR-9 through ERR-12. These fields will be blank when returned from CT WiZ.

Table 9: ERR Segment Differences

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
7	2048	TX	[0..1]	[0..0]		Diagnostic Information	O	O	The Immunization Information System will populate this field with the full error warning message when ERR-8 exceeds 250 characters.
8	250	TX	[0..1]	[0..0]		User Message	RE	RE	The Immunization Information System will indicate the specific error or warning message in this field.

ZSA – Custom Error Segment

CT WiZ leverages a ZSA segment to convey custom acknowledgement codes that provide greater visibility to the quality of the message. Custom messages are returned in the ZSA segment of the ACK message. Note: the ZSA segment is not referenced in the national HL7 2.5.1 implementation guidance. The IIS does not expect the sender to consume the ZSA segment. Most parsers will skip the processing of this segment.

Table 10: ZSA Segment Guidance

SEQ	LEN	Data Type	CDC IG Cardinality	IIS Cardinality	Value Set	Element Name	CDC IG Usage	IIS Usage	Constraint
1		CE	[1..1]	[1..1]		Custom Acknowledgement Code	O	R	The ZSA-1.1 field shall be an AA, AE, AR, AF, AW, or AI. The ZSA-1.2 field provides additional text explaining the ZSA-1.1 code.
2		CX	[0..1]	[0..1]		Message Identifier List	O	O	The ZSA-2.1 contains the message identifier
3		CX	[0..1]	[0..1]		Patient Identifier List	O	O	The ZSA-3.1 contains the patient identifier
4		CX	[0..1]	[0..1]		Actions Performed List	O	O	The ZSA-4.1 contains the actions performed

Appendices

Appendix A: Code Tables

Unless otherwise noted, CT WiZ supports and leverages the value sets laid out in the HL7 2.5.1 Implementation Guide⁸, Appendix A: Code Tables (Page 1). The following tables detail ONLY the tables where CT WiZ deviates from or elaborates on the code sets contained in the national HL7 2.5.1 Implementation Guide.

User Defined Table 0064 – Financial Class

CT WiZ supports the subset of Financial Class codes listed in Table 9 below. Use in OBX-5 for VFC Eligibility at the dose administered level (i.e., vaccine) when OBX-3 has a value of 64994-7. The IIS prevents both vaccine- and patient-level financial eligibility from being set for patients who are not eligible for those categories based on their age.

Table 11: Supported Values for User Defined Table 0064 – Financial Class

Value	Description	Comment
V00	VFC Eligibility Not Determined/Unknown	
V01	Not VFC Eligible	Client does not qualify for VFC because they do not have one of the statuses below.
V02	VFC Eligible – Medicaid/Medicaid Managed Care	Client is currently on Medicaid or Medicaid managed care and < 19 years old and the vaccine administered is eligible for VFC funding.
V03	VFC Eligible – Uninsured	Client does not have private insurance coverage and < 19 years old and the vaccine administered is eligible for VFC Funding.
V04	VFC Eligible – American Indian/Alaskan Native	Client is a member of a federally recognized tribe and < 19 years old and the vaccine administered is eligible for VFC Funding.
V05	VFC Eligible – Federally Qualified Health Center Patient (under-insured)	Client has insurance that partially covers vaccines received on visit and so is eligible for VFC coverage at a Federally Qualified Health Center. The client must be receiving the immunizations at the FQHC and < 19 years old and the vaccine administered is eligible for VFC Funding.
V22	CHIP	Client is eligible for the CHIP program, a separate state health insurance that is NOT a Medicaid expansion program.
V23	317	Client is eligible to receive vaccines under the state immunization policy and the vaccine administered is eligible for 317 funding.
V24	V24: Medicare	V24: Medicare Only for Patients 65 years of age or older.

⁸ CDC/AIRA HL7 Version 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, 10/1/2014, Updated October 2018: [Resources: AIRA Repository](#)

HL7 Table 0162 (NCIT) – Route of Administration

CT WiZ supports the subset of Route of Administration codes listed in Table 10 below. Use in RXR-1.

Table 12: Supported Values for User Defined Table 0162 - Route of Administration

HL7 Value	Description	NCIT Code
ID	Intradermal	C38238
IM	Intramuscular	C28161
NS	Nasal	C38284
IV	Intravenous	C38276
PO	Oral	C38288
SC	Subcutaneous	C38299
TD	Transdermal	C38305

HL7 Table 0190 – Address Type

CT WiZ supports the subset of Address Types listed in Table 11 below. Use in all XAD data types; including PID-11 and NK1-4.

Table 13: Supported Values for HL7 Table 0190 - Address Type

Value	Description	Comment
BDL	Birth Delivery Location	City and State portions will be loaded into the Birth City and Birth State fields
BR	Residence at Birth	Loaded as the Patient's Physical address
C	Current or Temporary	Loaded as the Patient's Mailing address
H	Home	Loaded as the Patient's Physical address
L	Legal	Loaded as the Patient's Mailing address
M	Mailing	Loaded as the Patient's Mailing address
N	Birth (nee)	City and State portions will be loaded into the Birth City and Birth State fields
P	Permanent	Loaded as the Patient's Physical address

HL7 Table 0200 – Name Type

CT WiZ supports the subset of Name Types listed in Table 12 below. Use in PID-5, PID-6, PID-9.

Table 14: Supported Values for HL7 Table 0200 - Name Type

Value	Description	Comment
A	Alias Name	Loaded into the Alias Name fields on the Patient Demographics Screen
L	Legal Name	Loaded into the Patient Name fields on the Patient Demographics screen. (If the PID-3 field is type BR, then this value is also loaded into the Birth Name fields on the Patient Demographics screen.)
M	Maiden Name	Loaded into the Mother's Maiden Name field on the Patient Demographics screen.

HL7 Table 0201 – Telecommunication Use Code

CT WiZ supports the subset of Telecommunication Use Codes listed in Table 13 below. Use in PID-13, PID-14.

Table 15: Supported Values for HL7 Table 0201 - Telecommunication Use Code

Value	Description	Comment
ASN	Answering Service Number	Loaded as the Message Phone
BPN	Beeper Number	Loaded as the Pager
NET	Network (email) address	Loaded as the Email Address
ORN	Other Residence Number	Loaded as the Cell Phone
PRN	Primary Residence Number	Loaded as the Home Phone
WPN	Work Number	Loaded as the Work Phone

HL7 Table 0203 – Identifier Type

CT WiZ supports the subset of Identifier Types listed in Table 14 below. Use in all CX, XCN type codes; including PID-2, PID-3, PID-4, PID-18, PID-21, and RXA-10.

Table 16: Supported Values for HL7 Table 0203 - Identifier Type

Value	Description	Comment
BR	Birth IIS Number	Used to match to the patient's Birth Certificate ID field in CT WiZ. <i>NOTE: This identifier should be only be used by Vital Records system submitting birth data to the IIS via HL7. Other external system types should not use this identifier type!</i>
MA	Patient's Medicaid Number	When available, this field should always be sent <i>in addition to</i> whatever the healthcare provider uses as the primary patient identifier (e.g. Medical Record Number).
MC	Patient's Medicare Number	
MD	Medical License Number	Used in RXA-10 to identify the healthcare provider that administered a vaccination. CT WiZ will look up the MD from the users table.
MR	Medical Record Number	Will be associated to the patient records in CT WiZ as a local identifier associated with the clinic tied to the Facility Code in the incoming message.
NPI	National Provider Identifier	Used in RXA-10 to identify the healthcare provider that administered a vaccination. CT WiZ will look up the NPI from the users table.
SR	State IIS ID	The Patient ID associated to this patient in CT WiZ. The value must contain only numeric digits.
SS	Social Security Number	CT WiZ does not accept SSN.

CDC Defined NIP003 – Observation Identifiers (LOINC)

CT WiZ supports the subset of Observation Identifiers (LOINC Codes) listed in Table 15 below. Use in OBX-3.

Table 17: Supported Values for CDC-Defined Table NIP003 - Observation Identifiers

Value	Description	Comment
29768-9	VIS Published Date	VIS Published Date on the vaccination edit screen.
29769-7	VIS Presented Date	VIS Presented Date on the vaccination edit screen.
30956-7	Vaccine Type (Vaccine group or family)	
30963-3	Vaccine funding source	Corresponding observation value code table value set to use for OBX-5 is Value Set OID - 2.16.840.1.114222.4.11.3287 Value Set Code: PHVS_ImmunizationFundingSource_IIS .
64994-7	Vaccine Funding Program Eligibility	VFC Eligibility on the vaccination edit screen. Corresponding observation value code table value set to use for OBX-5 is HL70064. If RXA-9.1 (Administration Note.code) is “00” then the message SHALL include an OBX segment associated with the RXA with OBX-3.1 shall equal “64994-7”. This OBX will indicate the Patient Eligibility Category for Vaccine Funding Program.

Value Set Name – Immunization Funding Source

CT WiZ supports the subset of Immunization Funding Source codes listed in Table 16 below. Use in OBX-5 when OBX-3 has a value of 30963-3. CT WiZ will insert the data on the vaccination edit screen under funding source for the associated vaccine.

Table 18: Supported Values for Value Set Name - Immunization Funding Source

Value	Description	Coding System
PHC70	Private Funds	CDCPHINVS
VXC50	Public Funds	CDCPHINVS

Value Set Name – Vaccination Contraindications

The IIS supports the subset of Vaccination Contraindications codes listed in Table 17 below. Use in OBX-5.

Table 19: Supported Values for Value Set Name - Vaccination Contraindications

Value	Description	Coding System
293104008	Adverse reaction to vaccine component	SNOMED
91930004	Allergy to eggs	SNOMED
38907003	Healthcare provider verified history of or diagnosis of Varicella	SNOMED
4740000	Healthcare provider verified history or diagnosis of Herpes Zoster	SNOMED

Value	Description	Coding System
49723003	History of Intussusception	SNOMED
703936006	Hypersensitivity to yeast	SNOMED
278971009	Laboratory Evidence of Immunity or confirmation of Hepatitis A Disease	SNOMED
271511000	Laboratory Evidence of Immunity or confirmation of Hepatitis B Disease	SNOMED
371111005	Laboratory Evidence of Immunity for Measles	SNOMED
371112003	Laboratory Evidence of Immunity for Mumps	SNOMED
278968001	Laboratory Evidence of Immunity for Rubella	SNOMED
371113008	Laboratory Evidence of Immunity or confirmation of Varicella Disease	SNOMED
77386006	Pregnancy	SNOMED
219085007	Severe allergic reaction after previous dose of Diphtheria	SNOMED
293126009	Severe allergic reaction after previous dose of Hepatitis A	SNOMED
293110008	Severe allergic reaction after previous dose of Hepatitis B	SNOMED
293127000	Severe allergic reaction after previous dose of Hib	SNOMED
429311000124103	Severe allergic reaction after previous dose of HPV	SNOMED
420113004	Severe allergic reaction after previous dose of Influenza	SNOMED
219096004	Severe allergic reaction after previous dose of Measles	SNOMED
219088009	Severe allergic reaction after previous dose of Meningococcal	SNOMED
293115003	Severe allergic reaction after previous dose of Pertussis	SNOMED
293116002	Severe allergic reaction after previous dose of Pneumococcal	SNOMED
293117006	Severe allergic reaction after previous dose of Polio	SNOMED
429301000124101	Severe allergic reaction after previous dose of Rotavirus	SNOMED
293119009	Severe allergic reaction after previous dose of Rubella	SNOMED
219084006	Severe allergic reaction after previous dose of Tetanus	SNOMED
451331000124106	Severe allergic reaction after previous dose of Varicella	SNOMED
451291000124104	Severe allergic reaction after previous dose of Zoster	SNOMED
294847001	Severe allergic reaction to gelatin	SNOMED
294468006	Severe allergic reaction to neomycin	SNOMED
294530006	Severe allergic reaction to polymyxin B	SNOMED
294466005	Severe allergic reaction to streptomycin	SNOMED

Value Set Name – Vaccination Reaction

The IIS supports the subset of Vaccination Reaction codes listed in Table 18 below. Use in OBX-5.

Table 20: Supported Values for Value Set Name - Vaccination Reaction

Value	Description	Coding System
39579001	Anaphylactic Reaction	SNOMED
293104008	Adverse reaction to vaccine component	SNOMED
VXC12	Fever, 40.5+°C (105°F) < 48 hr	HL7
VXC10	Collapse / Shock < 48 hr	HL7
VXC11	Seizures < 3 days	HL7
VXC9	Crying for 3+ hrs, < 48 hr	HL7

Appendix B: Example Messages

Vaccine Newly Administered & Historical

```
MSH|^~\&|EHRNAME|CTFACILITYCODE|CTWiZ|CT0000|20160106165800070+0000||VXU^V04^VXU_V  
04|CTWIZ00002F0C341|P|2.5.1|||NE|AL|  
PID|1||1234567^MR||LASTNAME^FIRST^M^L||19411002|F|||123 ELM  
ST^HARTFORD^CT^06132^M^123 ELM  
ST^HARTFORD^CT^06132^P||^PRN^PH^860^2586457~^NET^Internet^Test@gmail.com|^WPN^P  
H^860^2223333|ENG^ENGLISH^HL70296|2186-5^NOT-HISPANIC OR LATINO^CDCREC  
NK1|1|LASTNAME^FIRST^L|SPO^SPOUSE^HL70063||^PRN^PH^860^7772222  
ORC|RE||2623980^EHR|||NPI#^ORDERINGLASTNAME^FIRST^L^NPI|  
RXA|0|1|20160105|20160105|33^PNEUMOCOCCAL POLYSACCHARIDE PPV23^CVX|0.5|ML^UCUM|  
|00^NEW IMMUNIZATION  
RECORD^NIP001|NPI#^ADMINISTERINGLASTNAME^FIRST^L^NPI|^CTFACILITYCODE|||L02  
4129|20170121|MSD^MERCK AND CO., INC.^MVX||CP|A|20160105|  
RXR|C28161^Intramuscular^NCIT|LD^Left Deltoid^HL70163|  
OBX|1|CE|64994-7^VACCINE FUND PGM ELIG CAT^LN|1|V01^NOT VFC  
ELIGIBLE^HL70064|F||20160721||VXC40^PER IMM^CDCPHINVS  
OBX|2|CE|30963-3^VACCINE FUNDING SOURCE^LN|2|PHC70^PRIVATE  
FUNDS^CDCPHINVS|F||20160721  
OBX|3|CE|30956-7^VACCINE TYPE^LN|3|33^PNEUMOCOCCAL POLYSACCHARIDE PPV23^CVX|F|  
OBX|4|TS|29768-9^DATE VACCINE INFORMATION STATEMENT PUBLISHED^LN|3|20091006|F|  
OBX|5|TS|29769-7^DATE VACCINE INFORMATION STATEMENT PRESENTED^LN|3|20160105|F|  
ORC|RE||9999^EHR|||  
RXA|0|1|20070824|20070824|85^HEP A, UNSPECIFIED FORMULATION^CVX|999||01^HISTORICAL  
INFORMATION - SOURCE UNSPECIFIED^NIP001|CP|A|20160721145604
```

Patient with a Medicaid Number

The following is a sample PID segment for a patient with both a Patient Medicaid Number (MA) and Medical Record Number (MR) in PID-3:

```
PID|1||000067845^MR~123459999002^MA||CASSIDY^BUTCH^M^L||19990101|M||9876  
HOLLY GROVE RD^MANHATTAN^KS^66502^M||^PRN^864^9023322|
```

Vaccine Refusal

The following is a sample RXA segment:

```
RXA|0|1|20091010|20091010|107^DTAP-NOS^CVX|999|00^Parental  
refusal^NIP002|RE|A
```

Deleting a Vaccination

Below is a sample message showing the minimum segments that need to be contained in a delete immunization message. You can only delete an immunization that you first reported.

Initial report of an immunization:

```
RXA|0|1|20150113150100|20150113150100|133^Pneumococcal conjugate vaccine, 13 valent,  
IM^CVX|0.5|mL^UCUM||00^New immunization record^NIP001|  
NPI#^ADMINISTERINGLASTNAME^FIRST^L^NPI|^CTFACILITYCODE|||M35761|20170531000000|PFR^Pfizer, Inc^MVX||CP|A|20160113150100
```

What you would need to submit to delete a vaccination from that patient:

*RXA/0/1/20150113150100/20150113150100/133^Pneumococcal conjugate vaccine, 13 valent,
IM^CVX/0.5/mL^^UCUM//00^New immunization record^NIP001//^^^
CTFACILITYCODE/////////CP/D/20160113150100*