

Joint Venture Hospital Laboratories



HL7 Clinical Results Companion Guide

Based on the HL7 data standards of the American National Standards Institute (ANSI) version 2.3.1 and 2.5.1

Version 2.3
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HL7 Clinical Results Companion Guide

General Information / Introduction

This information is provided by Joint Venture Hospital Laboratories (JVHL), and is to be used as a reference in preparation of clinical results data submitted in conjunction with services contracted to JVHL. These instructions must be used as an adjunct to the ANSI Health Level Seven (HL7) version 2.3.1 and 2.5.1 which is available from the HL7 web site at: www.hl7.org.

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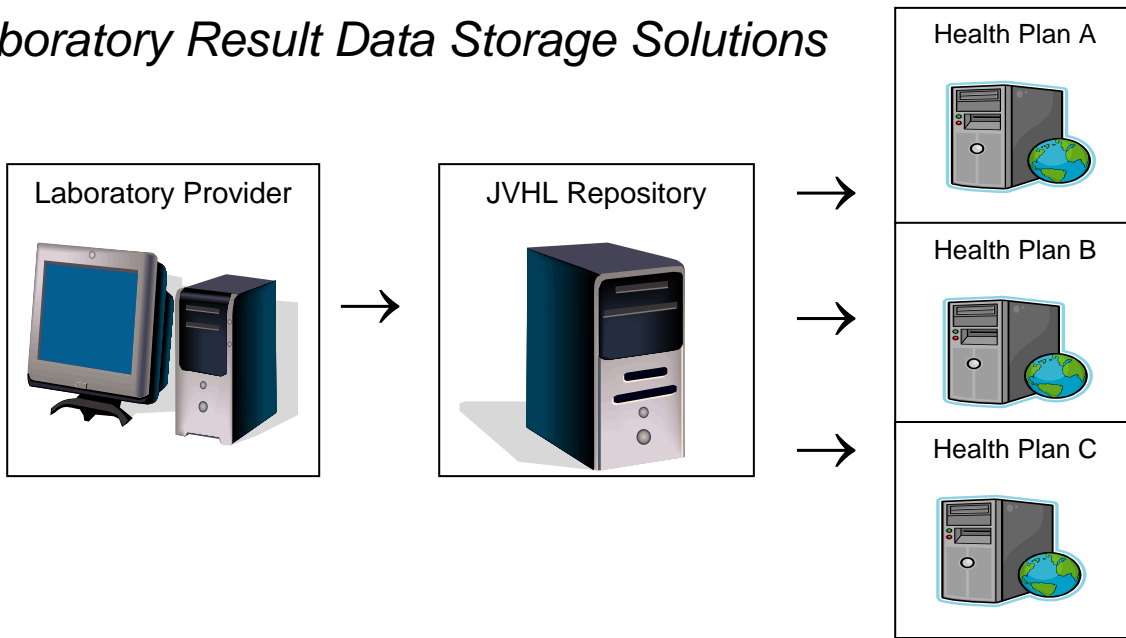
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Purpose

This document is to be used as a companion document to the HL7 Version 2.3.1 and 2.5.1 Implementation Guides. Its use as defined here is to convey clinical Laboratory results data to JVHL.

Laboratory Result Data Storage Solutions



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Interface Operation and Warranties

The JVHL HL7 interface engine without modifications operates as represented substantially in accordance with this specification. JVHL, however, cannot be responsible for data integrity or data loss even when such a loss involves the use of the interface engine.

Data Delivery Methods

Electronic Data Interchange (EDI) provides secure file transfers over the Internet at www.PLMWeb.org. This HIPAA compliant service allows for submission of all patient related information. To establish an account, send a request for an EDI Authorization Request Form and Business Associate Agreement to Rob Ramey at support@jvhl.org. These documents are also available at www.jvhl.org. An account is required to access the 'member' section of the website.

The website supports use of secure web browser or secure file transfer protocol (SFTP). A copy of the user guide for the SFTP-SSH may be requested from support@jvhl.org.

Real time transactions may also be sent to the JVHL interface engine through a secure VPN connection. Contact JVHL for more information regarding this method of delivery.

Required Transactions and Message Sets for the JVHL HL7 Interface

The following sections detail the current specifications for the required HL7 segments in the JVHL HL7 Interface. All other HL7 segments are optional and are used where needed.

MSH – Message Header					
Seq	Element Name	HL7 Length	Type	R/O	Notes
MSH-0	Segment Type Id – MSH	3	ST	R	MSH
MSH-1	Field Separator	1	ST	R	
MSH-2	Encoding Characters	4	ST	R	^~\&
MSH-3	Sending Application	180	HD	O	
MSH-4	Sending Facility	180	HD	R	Assigned by JVHL
MSH-5	Receiving Application	180	HD	R	PLMHL7
MSH-6	Receiving Facility	180	HD	R	382142103
MSH-7	Date/Time of Message	26	TS	R	yyyymmddhhmm
MSH-9	Message Type	7	CM	R	ORU^R01
MSH-10	Message Control ID	20	ST	R	Unique identifier for message
MSH-11	Processing ID	1	ID	R	Production = P, Test = T
MSH-12	Version ID	8	ID	R	Version = 2.3.1 or 2.5.1
PID – Patient Identification					
Seq	Element Name	HL7 Length	Type	R/O	Notes
PID-0	Segment Type Id – PID	3	ST	R	PID
PID-1	Set ID	4	SI	R	Only 1 PID segment, so always default to 1
PID-2	Patient ID	20	CK	R	Financial Account number submitted on claim
PID-3	Patient ID	20	CM	O	Laboratory Account number
PID-4	Patient ID	20	CX	O	Insurance Member ID
PID-5	Patient Name	48	PN	R	<last name>^ <first name>^<middle initial>^<suffix>
PID-7	Date of Birth	26	TS	R	yyyymmdd
PID-8	Sex	1	IS	R	See Table 1 For Values
PID-10	Race	1	IS	O	See Table 2 For Values
PID-11	Patient Address	106	AD	O	<street address>^<other designation>^<city>^<state>^<zip code>
PID-13	Phone Number - Home	40	TN	O	^^^^<Area Code>^<Phone Number>^<Extension>
PID-14	Phone Number - Business	40	TN	O	^^^^<Area Code>^<Phone Number>^<Extension>

OBR – Observation Request					
Seq	Element Name	HL7 Length	Type	R/O/C	Notes
OBR-0	Segment Type ID = 'OBR'	3		R	OBR
OBR-1	Sequence Number	4	SI	R	
OBR-2	Placer Order Number – Specimen Id	75	EI	O	This field will be returned in Audit file
OBR-3	Filler Order Number – Specimen Id	75	EI	O	This field will be returned in Audit file
OBR-4	Observation Battery ID	200	CE	R	<identifier>^<text>^<coding system - see table 3>
OBR-7	Observation/Specimen Collection Date/Time • Format = "YYYYMMDDHHMM"	26	TS	R	Date of Service – Should be same as date sent on claim that was billed
OBR-15	Source of Specimen (Required for some tests).	300	CM	C	<specimen source name or code (see table 5 for valid codes>^<additives>^<free text>^<body site>^<body site modifier>^<collection method modifier code>
OBR-16	Ordering Provider	80	XCN	C	<ID Number>^<Last Name>^First Name^<Middle Name>^<Suffix>^<Prefix>^<Degree>^<Source Table - see table 6 for valid values>
OBR-20	Filler Field 1	60	ST	O	This field will be returned in Audit file

OBX – Observation Result					
Seq	Element Name	HL7 Length	Type	R/O/C	Notes
OBX-0	Segment Type ID ('OBX')	3		R	OBX
OBX-1	Sequence Number	4	SI	R	
OBX-2	Value Type	2	ID	R	See table 7 for valid values
OBX-3	Observation Identifier <ul style="list-style-type: none"> Identifier Text Name of Coding System 	590	CE	R	<identifier>^<text>^ <coding system - see table 3> -- If internal coding system is used a crosswalk must be provided
OBX-5	Observation Value (result)	65536		R	Length of observation value field is variable depending upon the value type. See OBX-2 value
OBX-6	Units of Measure	60	ST	R	
OBX-7	Reference Ranges (low - high, Ex: '1.5 - 10.2')	60	ST	R	Numeric Results: Lower limit - Upper limit Ex. 100 - 200 OR > Lower Limit (no upper limit) Ex. > 100 OR < Upper Limit (no lower limit) Ex. < 100 Non-Numeric Results: The normal value should be reported here, for example 'Negative'
OBX-8	Abnormal Flags:	5	ID	R	See Table 8 for valid codes
OBX-11	Observation Result Status	2	ID	R	Valid Codes: 'C' = Corrected (Final report previously transmitted) 'F' = Result complete and verified (Final) 'P' = Preliminary result; final not yet obtained 'X' = Deleted
OBX-14	Date/Time of Observation (YYYYMMDDHHMM)	26	TS	O	
OBX-15	Producer ID	60	CE	C	If test result was not performed at facility identified in MSH send NPI of this facility.

NTE - Note (Optional)					
Seq	Element Name	HL7 Length	Type	R/O/C	Notes
NTE-0	Segment Type ID ('NTE')	3		R	NTE
NTE-1	Sequence Number	4	SI	R	
NTE-3	Comment	8000	ST	R	Comment information - maximum of 8000 characters total for each result

Table 1: Gender Codes

Value	Description
M	Male
F	Female

Table 2: Race Codes

Value	Description
1	Hispanic, White
2	Hispanic, Black
3	American Indian or Alaska Native
4	Black, Not of Hispanic Origin
5	Asian or Pacific Islander
6	White, Not of Hispanic Origin
7	Unknown

Table 3: Coding System Codes

Value	Description
LOINC or LN	LOINC Codes
CPT4	CPT-4 Codes
L or Blank	Internal Codes

Table 4: Administrative Site Codes

Value	Description	Value	Description
BE	Bilateral Ears	LVL	Left Vastus Lateralis
OU	Bilateral Eyes	NB	Nebulized
BN	Bilateral Nares	PA	Perianal
BU	Buttock	PERIN	Perineal
CT	Chest Tube	RA	Right Arm
LA	Left Arm	RAC	Right Anterior Chest
LAC	Left Anterior Chest	RACF	Right Antecubital Fossa
LACF	Left Antecubital Fossa	RD	Right Deltoid
LD	Left Deltoid	RE	Right Ear
LE	Left Ear	REJ	Right External Jugular
LEJ	Left External Jugular	OD	Right Eye
OS	Left Eye	RF	Right Foot
LF	Left Foot	RG	Right Gluteus Medius
LG	Left Gluteus Medius	RH	Right Hand
LH	Left Hand	RIJ	Right Internal Jugular
LIJ	Left Internal Jugular	RLAQ	Rt Lower Abd Quadrant
LLAQ	Left Lower Abd Quadrant	RLFA	Right Lower Forearm
LLFA	Left Lower Forearm	RMFA	Right Mid Forearm
LMFA	Left Mid Forearm	RN	Right Naris
LN	Left Naris	RPC	Right Posterior Chest
LPC	Left Posterior Chest	RSC	Right Subclavian
LSC	Left Subclavian	RT	Right Thigh
LT	Left Thigh	RUA	Right Upper Arm
LUA	Left Upper Arm	RUAQ	Right Upper Abd Quadrant
LUAQ	Left Upper Abd Quadrant	RUFA	Right Upper Forearm
LUFA	Left Upper Forearm	RVL	Right Vastus Lateralis
LVG	Left Ventragluteal	RVG	Right Ventragluteal

Table 5: Specimen Source Codes

Value	Description	Value	Description	Value	Description
ABS	Abscess	FLU	Body fluid, unsp	SER	Serum
AMN	Amniotic fluid	GAS	Gas	SKN	Skin
ASP	Aspirate	GAST	Gastric fluid/contents	SKM	Skeletal muscle
BPH	Basophils	GEN	Genital	SPRM	Spermatozoa
BIFL	Bile fluid	GENC	Genital cervix	SPT	Sputum
BLDA	Blood arterial	GENL	Genital lochia	SPTC	Sputum - coughed
BBL	Blood bag	GENV	Genital vaginal	SPTT	Sputum - tracheal aspirate
BLDC	Blood capillary	HAR	Hair	STON	Stone (use CALC)
BPU	Blood product unit	IHG	Inhaled Gas	STL	Stool = Fecal
BLDV	Blood venous	IT	Intubation tube	SWT	Sweat
BON	Bone	ISLT	Isolate	SNV	Synovial fluid (Joint fluid)
BRTH	Breath (use EXHLD)	LAM	Lamella	TEAR	Tears
BRO	Bronchial	WBC	Leukocytes	THRT	Throat
BRN	Burn	LN	Line	THRB	Thrombocyte (platelet)
CALC	Calculus (=Stone)	LNA	Line arterial	TISS	Tissue
CDM	Cardiac muscle	LNV	Line venous	TISG	Tissue gall bladder
CNL	Cannula	LIQ	Liquid NOS	TLGI	Tissue large intestine
CTP	Catheter tip	LYM	Lymphocytes	TLNG	Tissue lung
CSF	Cerebral spinal fluid	MAC	Macrophages	TISPL	Tissue placenta
CVM	Cervical mucus	MAR	Marrow	TSMI	Tissue small intestine
CVX	Cervix	MEC	Meconium	TISU	Tissue ulcer
COL	Colostrum	MBLD	Menstrual blood	TUB	Tube NOS
CBLD	Cord blood	MLK	Milk	ULC	Ulcer
CNJT	Conjunctiva	MILK	Breast milk	UMB	Umbilical blood
CUR	Curettage	NAIL	Nail	UMED	Unknown medicine
CYST	Cyst	NOS	Nose (nasal passage)	URTH	Urethra
DIAF	Dialysis fluid	ORH	Other	UR	Urine
DOSE	Dose med or substance	PAFL	Pancreatic fluid	URC	Urine clean catch
DRN	Drain	PAT	Patient	URT	Urine catheter
DUFL	Duodenal fluid	PRT	Peritoneal fluid /ascites	URNS	Urine sediment
EAR	Ear	PLC	Placenta	USUB	Unknown substance
EARW	Ear wax (cerumen)	PLAS	Plasma	VOM	Vomitus
ELT	Electrode	PLB	Plasma bag	BLD	Whole blood
ENDC	Endocardium	PLR	Pleural fluid (thoracentesis fld)	BDY	Whole body
ENDM	Endometrium	PMN	Polymorphonuclear neutrophils	WAT	Water
EOS	Eosinophils	PPP	Platelet poor plasma	WICK	Wick
RBC	Erythrocytes	PRP	Platelet rich plasma	WND	Wound
EYE	Eye	PUS	Pus	WNDA	Wound abscess
EXHLD	Exhaled gas (=breath)	RT	Route of medicine	WNDE	Wound exudate
FIB	Fibroblasts	SAL	Saliva	WNDD	Wound drainage
FLT	Filter	SEM	Seminal fluid	XXX	To be specified in another part of the message
FIST	Fistula				

Table 6: Assigning Authority Codes:

Value	Description
NPI	NPI Number

Table 7: Value Type Codes

Value	Description
CE	Coded Entry
NM	Numeric
ST	String Data
TX	Text
FT	Formatted Text
SN	Structured Number (2.5.1)
CWE	Coded With Exception (2.5.1)

Table 8: Result Interpretation Codes

Value	Description
L	Below Low Normal
LL	Below Panic
H	Above High Normal
HH	Above Panic
A	Abnormal
N	Normal
I	Indeterminate
NA	Not Applicable
AA	Very Abnormal
<	Below Absolute Low
>	Above Absolute High
S	Susceptible
R	Resistant
MS	Moderately Susceptible
VS	Very Susceptible
U	Significant Change Up
D	Significant Change Down
B	Better
W	Worse

Change Summary

This section describes the differences between the current guide and previous guide(s).

Date	Version	Description
11/5/2015	2.0	Reformatted the companion guide and also updated contact information
2/9/2016	2.1	Updated contact information
4/20/2017	2.2	Updated logo
3/27/2018	2.3	Updated logo