

State Electronic Laboratory Reporting (ELR) System Required HL7 Segments and Elements for HIV-Related Test Results Reported to the California Department of Public Health

This document lists the Health Level-7 (HL7) version 2.3.1 legacy segments and elements required for HIV-related test results reported to the California Department of Public Health via the state electronic laboratory reporting (ELR) system. Although HL7 2.3.1 legacy format is accepted for HIV, this format may not satisfy federal requirements for Meaningful Use. Messages formatted in HL7 version 2.5.1 with LOINC and SNOMED vocabulary is required for submitters handling HIV along with other laboratory results reportable to public health under California Code of Regulations (CCR), Title 17, Section [2505](#). Please follow the [HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 \(US Realm\)](#), with additional guidance provided in the [CalREDIE HL7 2.5.1 ELR2PH Companion Guide](#). The five HL7 version 2.3.1 message segments required to be reported with each result are:

1. MSH – Message Header
2. PID – Patient Identification
3. ORC – Common Order
4. OBR – Observation Request
5. OBX – Observation

Messages are segmented at the MSH level, so messages containing HIV-related results should not include results for non-HIV tests. The HL7 version 2.3.1 elements in each segment that are **boldfaced and highlighted below in yellow** are required to be reported by California law (CCR, Title 17, Section [2643.10](#)), whereas those data elements that are highlighted in gray are necessary for the Office of AIDS to process the message properly, match it to the correct record, and to route it to the proper local health jurisdiction.

MSH Segment Elements:

Sequence	Element Name	Length	Comments
1	Field Separator	1	
2	Encoding Characters	4	
3	Sending Application	180	
4	Sending Facility	180	Including Name, Address, Phone, and CLIA
5	Receiving Application	180	
6	Receiving Facility	180	
7	Date/Time Of Message	26	
8	Security	40	
9	Message Type	7	
10	Message Control ID	20	
11	Processing ID	3	
12	Version ID	8	

13	Sequence Number	15	
14	Continuation Pointer	180	
15	Accept Acknowledgment Type	2	
16	Application Acknowledgment Type	2	
17	Country Code	2	
18	Character Set	6	
19	Principal Language Of Message	60	

PID Segment Elements:

Sequence	Element Name	Length	Comments
1	Set ID - Patient ID	4	
2	Patient ID (External ID)	20	
3	Patient ID (Internal ID)	20	
4	Alternate Patient ID - PID	20	
5	Patient Name	48	
6	Mother's Maiden Name	48	
7	Date/Time of Birth	26	
8	Sex	1	
9	Patient Alias	48	
10	Race	1	
11	Patient Address	106	
12	County Code	4	
13	Phone Number - Home	40	
14	Phone Number - Business	40	
15	Primary Language	60	
16	Marital Status	1	
17	Religion	3	
18	Patient Account Number	20	
19	SSN Number - Patient	16	
20	Driver's License Number - Patient	25	
21	Mother's Identifier	20	
22	Ethnic Group	3	
23	Birth Place	60	
24	Multiple Birth Indicator	2	
25	Birth Order	2	
26	Citizenship	4	
27	Veterans Military Status	60	
28	Nationality	80	
29	Patient Death Date and Time	26	
30	Patient Death Indicator	1	

ORC Segment Elements:

Sequence	Element Name	Length	Comments
1	Order Control	2	
2	Placer Order Number	22	Patient's Medical Record Number

3	Filler Order Number	22	
4	Placer Group Number	22	
5	Order Status	2	
6	Response Flag	1	
7	Quantity/Timing	200	
8	Parent	200	
9	Date/Time of Transaction	26	
10	Entered By	120	
11	Verified By	120	
12	Ordering Provider	120	
13	Enterer's Location	80	
14	Call Back Phone Number	40	
15	Order Effective Date/Time	26	
16	Order Control Code Reason	200	
17	Entering Organization	60	
18	Entering Device	60	
19	Action By	120	
20	Advanced Beneficiary Notice Code	40	
21	Ordering Facility Name	60	
22	Ordering Facility Address	106	
23	Ordering Facility Phone Number	48	
24	Ordering Provider Address	106	

OBR Segment Elements:

Sequence	Element Name	Length	Comments
1	Set ID - OBR	4	
2	Placer Order Number	75	Patient's Medical Record Number
3	Filler Order Number	75	Accession Number
4	Universal Service ID	200	
5	Priority	2	
6	Requested Date/time	26	
7	Observation Date/Time #	26	
8	Observation End Date/Time #	26	
9	Collection Volume	20	
10	Collector Identifier	60	
11	Specimen Action Code	1	
12	Danger Code	60	
13	Relevant Clinical Info.	300	
14	Specimen Received Date/Time	26	
15	Specimen Source	300	
16	Ordering Provider	80	
17	Order Callback Phone Number	40	
18	Placer field 1	60	
19	Placer field 2	60	
20	Filler Field 1	60	
21	Filler Field 2	60	
22	Results Rpt/Status Chng -	26	

	Date/Time		
23	Charge to Practice	40	
24	Diagnostic Serv Sect ID	10	
25	Result Status	1	
26	Parent Result	400	
27	Quantity/Timing	200	
28	Result Copies To	150	
29	Parent	150	
30	Transportation Mode	20	
31	Reason for Study	300	
32	Principal Result Interpreter	200	
33	Assistant Result Interpreter	200	
34	Technician	200	
35	Transcriptionist	200	
36	Scheduled Date/Time	26	
37	Number of Sample Containers	4	
38	Transport Logistics of Collected Sample	60	
39	Collector's Comment	200	
40	Transport Arrangement Responsibility	60	
41	Transport Arranged	30	
42	Escort Required	1	
43	Planned Patient Transport Comment	200	

OBX Segment Elements:

Sequence	Element Name	Length	Comments
1	Set ID - OBX	10	
2	Value Type	2	
3	Observation Identifier	590	Including LOINC Code and Test Name
4	Observation Sub-ID	20	
5	Observation Value	65536	
6	Units	60	
7	References Range	10	
8	Abnormal Flags	5	
9	Probability	5	
10	Nature of Abnormal Test	2	
11	Observ Result Status	1	
12	Date Last Obs Normal Values	26	
13	User Defined Access Checks	20	
14	Date/Time of the Observation	26	
15	Producer's ID	60	Performing Laboratory CLIA
16	Responsible Observer	80	
17	Observation Method	60	