SCC

Soft Computer®

170.315(b)(10)
HL7 Result Reporting for EHI Export, release 4.5

Revision: 1.0
Revised: 11/29/2023

SCC Soft Computer
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Medical Device Intended Use Advisory

The Intended Use Advisory provided below is in compliance with Title 21 Chapter I Subchapter H Part 801 of the FDA's Code of Federal Regulations governing medical devices. This Part requires medical device manufacturers to define intended use. With regard to interface specifications reference 801.4 Meaning of intended uses, and 801.5 Medical devices; adequate directions for use.

The interface supporting 170.315(b)(10) Electronic Health Information (EHI) Export has been designed, installed, and configured to meet general requirements for exchange of laboratory results comprising one or more patient histories. It is imperative that you consult with SCC should you require a different form of output or require interfaces to support other needs and workflows. Use of the software for any reason other than originally specified may violate the safety, effectiveness, and design controls of this medical device, and such use could result in an increased risk to users and patients.

Our priority is to provide quality health care technology to your site while ensuring that you have the best possible experience using the tools we provide. Working together with the above advisories in mind, we can prevent potential, unintended patient care issues from occurring.

Application

This specification applies to SoftLab, SoftMic, SoftBank, and SoftGene and related products

Modules: ☑ SoftLab   ☑ SoftMic   ☑ SoftBank   ☑ SoftPathDx   ☑ SoftGene

Interfaces: ☑ Result Reporting

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Document Change Control			
Revision #	Date	Author	Main changes
1.0	11/29/2023	Josh Reynolds Ray Harms	Original Specification

Rev: 1.0	170.315(b)(10) HL7 Result Reporting for EHI Export, release 4.5 Export Query and Output

The EHI Result Reporting interface and associated utility for EHI Export is designed to meet two scenarios as described within 2015 Cures Update measure 170.315(b)(10) Electronic Health Information (EHI) Export:

      1) Single Patient EHI Export - Export all EHI for a single patient at any time the user chooses.

      2) Patient Population EHI Export - Export all EHI for a patient population

Both exports are required to:

      a) Be electronic and in a computable format

      b) Include a publicly accessible hyperlink of the export's format

Exports meeting this criteria are offered in an HL7 Standard format, an industry standard for data exchange in the form of messages. Exports are in an electronically computable format, containing a history of PHI data including clinical lab history as well as billing history. Data within such exports is limited to data maintained within SCC systems. Data residing externally within other systems is not included.

Linked data that is not natively in a computable format may also be exported. If SoftMedia is installed, and files such as PDF reports and images are linked to patient records, they will be exported as well.

Creating an Export

Single Patient Export

To export EHI for a single patient, access the export utility either by launching the **EhiExportConsole** application, or through the **Interfaces console** application, *Tools, EHI Export.* Using the export utility, a user may search for a given patient by MRN and/or name, DOB, and sex. Select a patient from the list presented below the search, and press *Process export* to execute the export.

EHI export

	MRN ▲	First name ▲	Last name ▲	Date of birth ▲	Sex ▲	Address ▲
☐	000008	PATIENT	TEST	2000-03-11	Female	123,CLEARWATE...
☐	000104	JANE	TEST		Female	-
☑	A00006	EXPORT	TEST	1980-07-04	Female	123 NICE AVE,OLDSI
☐	000110	SCCKMCAUT1	TEST	1952-01-01	Female	-
☐	000122	SCCKMCAUT2	TEST	1922-01-01	Female	-
☐	000105	JANE	TEST		Female	-
☐	0000000092	SCC	TEST	1968-12-12	Female	-
☐	000096	NIK	TEST	2017-08-16	Male	-

MRN: [   ]   First name: [   ]   Last name: [TEST]   Date of birth:
[mm/dd/yyyy 🗓]   Sex: [▼]   [Find patients]   [Show audit]

[Process export]   Current Run Id:162   Page 1 / 1   [1]

EHI export processing

☐ Initialization
☐ Results
☐ Media files
☐ Billing data
☐ Finalization

The utility will gather historic result records for the selected patient from all available modules. If linked documents are found in SoftMedia, those documents will be captured as well. Once complete, the 5 status indicators at the bottom of the window will reflect completion, quantity, and types of data found.
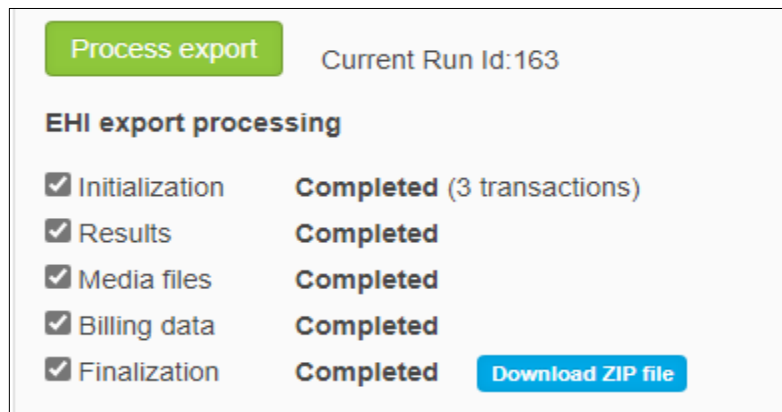
The system will package the export as a .zip file and will ask to confirm or navigate to a location to save the file. By default, the zip file will be saved to the "Downloads" folder of the system running the utility.

An audit trail of previous runs is availble through the "Show audit" button.

CAUTION: Please allow sufficient time for the export utility to capture data. A long patient history with a large number of historic results may require many minutes to run to completion.

Bulk Patient Export

To export EHI for a batch of patients, SCC services will be required to manage the process. An export may be filtered by patient type, clinic code, or order range, or may include the full population of patients held in SCC systems. A bulk export requires management of available resources to format output messages, create and save files, and transport the data. The "Bulk" or "Patient Population" Export also follows the specifications for message structure and content detailed herein. Please contact your SCC representative to arrange for such a procedure.

Contents of the Export

The .zip file will contain:
- HL7 result messages in a .txt file (as per these specifications)
    HL7 batch file syntax is: <patient mrn>_<export run number>_<date/time of run>
- Any patient billing records found in SoftBill/AR in xml form. See separate specifications.
    Billing file syntax is: BILL_<patient mrn>_<export run number>
- Any linked documents found in SoftMedia
    Document file syntax is: <patient mrn>_<order/case/procedure number>_<unique document ID>_<save date>T<time>
- A ReadMe file containing links to the below result and billing export specifications.

    https://www.softcomputer.com/regulatory-affairs/ehi-export/docs/SCC_Standard_EHI_export_rel4.5.pdf

    https://www.softcomputer.com/regulatory-affairs/ehi-export/docs/SCC_EHI_export_Billing_History_rel4.5.pdf

Output formats

HL7 Result formats

SoftLab, SoftMic, SoftBank, and SoftPath results are sent in a parseable structured fomat.

Structured (Discrete) Format

Individual observations are transmitted as separate OBX segments with separate fields defined for identifying the observation, its values, units, normal ranges etc. SoftLab results are sent as structured results.

SoftMic results are unique in that they involve results for Exams, Cultures, Organisms and Sensitivities, each associate with either the ordered procedure or a particular organism.

Structured (Discrete) SoftMic Results I

Exams, culture observations, organisms, organism comments and sensitivities are reported in separate OBX segments. Organisms are reported with a non-empty observation Sub-ID (OBX[4]) unique per organism. This field is used to link each organism to the sensitivity. In this configuration the sensitivity results do NOT immediately follow the corresponding organism. The receiving system will be responsible for proper grouping and displaying the sensitivity results to the end user.

SoftBank results are unique in that they involve results for Tests, Products, and Actions, each associated with different types of results. SoftBank results are sent in Discrete Format.

SoftBank Expanded Discrete Style

Results are formatted as in SoftBank Discrete Short Text style, but with additional OBX segments after each Product result OBX to expand the primary result into discrete components. Separate OBX segments are sent for Unit ABO/Rh, Unit Number, Product Type, Status, Status Date/Time. The expanded elements are distinguished from the primary result segments by use of OBX-4.

Pathology and some Genetics results are largely textual in nature. Please note, the Discrete form is complex, with a structure that is highly dependent on use of the system.

Discrete/Narrative Format

Results are formatted in a largely narrative style, within OBX segments. Separate sections may be sent under different OBX-3 test codes. OBX segments may repeat for each line of narrative text.

AR/SoftBill Billing output

Billing history, if bills were collected through SoftAR or SoftBill, is formatted as an xml output. See the below specifications for format of the output.
Billing that has been performed by another system is not exported. Charge records that were sent to other systems for billing are not exported.
If desired, the billing history may also be exported directly from SoftAR.

https://www.softcomputer.com/regulatory-affairs/ehi-export/docs/SCC_EHI_export_Billing_History_rel4.5.pdf

SoftMedia Documents

Copies of objects that are linked to results may be output along with result messages from SoftLab, SoftMic, PathDx, and Genetics modules. Such objects are files that may represent the PDF copy of a reference lab report, or an image associated with a component result. Generally, documents in SoftMedia may be of PDF, RTF, JPEG, TIFF, BMP, TXT, PNG, HTML, or XML type. Other types are also supported.

Document files may be linked to patients, stays, orders, tests, and other records in SCC. Depending on the SCC module, copies of documents linked to the ordered test, procedure, or individual component may be eligible to be output. No documents linked to the order, stay, or patient records are output.

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1.0	**Rules**

Document Conventions

The conventions described below are used in tables throughout this document.

Shading

Contents	Meaning
Black text, white fill……….…...Item is readily available as a standard part of the interface.	
Grey text, white fill……….……Item is available, but must be specifically requested.	
Black text, grey fill……….……Item is available, but must be specifically requested.	
Grey text, grey fill……….……..Item is not available, use of the element may require a separate Software Change Request.	

Column headers

Seq = HL7 Sequence number

Card = Cardinality, indicating minimum and maximum number of repetitions allowed for a segment.

Type = Data Type as described by HL7 standards. Data type for each element may not match HL7 recommended data types. Possible Data Types used are:

   DT = Date only (CCYYMMDD format)

   ID = Coded value from HL7 list

   NM = Numeric only

   PN = Telephone number

   ST = Short Text (alphanumeric)

   TS = Time Stamp (includes date: CCYYMMDD[hhmm[ss]]-ZZZZ format)

   TX = Long Text, single lines (comments)

R/O = Required/Optional characteristic. Possible values are:

   R = Element is required for the interface to process the message successfully.

   O = Element is optional, and may or may not be sent.

   C = Element requirement is conditional upon other criteria. See specification for details.

   A = Always sent.

Rules = Cross references to applicable Specific Rules on this page.

References

HL7 Messaging Standard Version 2.5.1, An Application Protocol for Electronic Data Exchange in Healthcare Environments, Copyright © 2007

HL7 Version 2.5.1 Implementation Guide: S&I Framework Lab Results Interface, Release 1 – US Realm, July 2012

General Rules

1	Outbound Interface transactions will be HL7 v2.5.1 standard messages.
2	The terms "Foreign System" and "Other System" refer to any non-SCC information system that is interfaced to SCC.
3	The term Inbound refers to data sent to SCC systems; the term Outbound refers to data sent from SCC systems.
4	Outbound messages will be communicated unidirectionally to the foreign system.
5	Segments or elements not currently detailed in the specifications may be sent without detriment to the receiving system.
6	All time values range from 0000 to 2359. The value 2400 is not used.
7	The atomic unit of each message is the ordered test. A separate message is sent for each ordered test. Discrete results may be restricted to only those component tests which have been verified/modified, or to include results previously verified on the ordered test.
8	A single outbound interface will support a single set of business rules. One interface will not support more than one set of rules.
9	The Outbound interface optionally supports utilization of HL7 Escape Sequences when populated with HL7 Encoding Characters. See Specific Rule 6. The fields that support HL7 Escape Sequences are denoted with a footnote for the specific segment.
10	SoftBank is constrained in the number of units per product order which will be sent. A maximum of 48 units per product will be sent from version 21.0 and above.
11	Data sent in SPM segments are stored in SoftLab at the specimen level in specific fields or as specimen attributes. Specimen information in SPM segments will be derived from SoftLab only.
12	In all cases where an Assigning Authority or Assigning Facility are exchanged, the NG_RN Profile requires each to be populated with EITHER a Namespace ID OR the combination of a Universal Identifier and Universal Identifier Type. Exchange of Namespace ID, Universal Identifier AND Universal Identifier Type is also supported.

SCC Standard EHI export rel4.5.xlsx
Rules
Key: Unshaded elements are applicable; shaded elements will not be used at this installation.
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1.0	**Rules**

Specific Rules

	Result Reporting
Rule 1	**Patient MRN - may be sent with or without prefix characters. If received by ADT and stored as a suffix to the MRN, checksum characters are included.**
	MRN is sent as stored, including any multisite prefix characters.
	Note: In some cases a prefix may not be defined for one site.
Rule 2	**Patient MRN - can be prefixed with leading 0's.**
	MRN is sent as received and stored. Value will not be modified.
Rule 3	**Patient Billing Number - may be sent with or without prefix characters.**
	Billing Number is sent as stored, including any multisite prefix characters.
	Note: In some cases a prefix may not be defined for one site.
Rule 4	**Patient Billing Number - can be prefixed with leading 0's.**
	Billing Number is sent as received and stored. Value will not be modified.
Rule 5	**Telephone Numbers - may be sent in one of two different formats, either as a single string or as discrete elements.**
	10-character phone numbers are separated into two elements. The area code is sent as a separate element from the local number in subfields 6 & 7 in the format ^^^^^NNN^NNNNNNN. Other elements such as Use Code, Equipment Type, Country code, extension, and comment may be included as well.
Rule 6	**Embedded Special Characters - Characters that are used by HL7 as delimiters can be converted to "escape sequences" if included in text. Most often, these are characters "|", "^", "&", and "~" but may vary based on the agreed upon value of MSH-2. If converted, the receiving system must be capable of interpreting escape sequences such as "\S\" and "\T\". See also Standard Interface Functionality, Result Reporting section, "HL7 Special Characters" for more information.**
	Embedded special characters found within a specific set of fields are converted to escape sequences. A comment entered as "A total of 4*10^5 objects were observed in ~950 gallons of green & red fluid" would be transmitted as:
	```NTE|||A total of 4*10\S\5 objects were observed in \R\950 gallons of green \T\ red fluid|```
Rule 7	**Text sent in NTE segments**
	Each line of comment data is sent in a separate NTE segment. Multiple NTE segments may be sent.
	Blank lines will be removed when sending comments.
Rule 8	**The basis of the result message is typically the ordered test. The ordered test is considered the Reportable Object and separate messages are usually sent for each ordered test.**
	Results are sent based on the ordered test. Each ordered test is treated as individually reportable. Separate result messages are sent for each ordered test. Grouping of tests to a common SoftLab Order Number is not relevant to reporting by interface.
Rule 9	**When a group test is partially resulted or when a component is corrected, the result message may contain only new results or all reportable results.**
	Each result message will contain OBX segments for all components of the reportable object (see Rule 8). Results are sent in "snapshot" mode.
Rule 10	**Format of result element (OBX-5) and value of OBX-2 when result is numeric.**
	Numeric results are sent in HL7 Numeric form, with symbols and numbers a single component (OBX-5.1) and OBX-2 = "**NM**". Results such as 125.3, -3.25, 65000 are sent in this form. Results such as >=16, =2.45, 10-20, <1:32, 1/2, Positive, >ten, +++, 2,3456.4 are sent as Short Text in OBX-5.1 with OBX-2 = "ST".
	Alternate style, not recommended by Meaningful Use but accepted as conformant.

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1.0	**Rules**

Rule 11	**Canned message (@CODE) codes when entered as results.**	
	Both valid and undefined @CODEs may be posted to the result field. @CODEs may be posted to the result field alone, or together with valid results. If the @CODE can be found as a valid canned message code, the full canned message will be sent as result comments, in NTE segments that follow the result.	
	The interface will <u>always</u> remove the "@" and all following characters. If a result is present before the @CODE, only the result is sent. If no result is present, the result "See below" is sent. Note: If only an undefined code is posted as the result, then OBX-5 is sent as "See below", but no comment will follow.	
Rule 12	**Test components that are verified are sent with the result in OBX-5. Should components with no result be sent, too?**	
	Only verified results are sent.	
	Components that are pending will be sent with the word "Pending" in OBX-5.	
Rule 13	**Reporting of CALLED and M_CALLED events. Added and updated result 'called' information can be sent in result messages comments in NTE segments at the *Result level.***	
	Only CALLED comments are sent in result messages. Upon releasing of results, any available ***'result called'*** comments are sent in NTE segments in the result message.	
Rule 14	**Blood Bank Results format**	
	SoftBank results are sent in Expanded Discrete Format. This format expands on the Short Text Format by adding individual OBX segments for products and actions, repeating the product Code, product Type & Rh, Unit Number, crossmatch/issue Status, and Date/Time as individual results, each in a separate OBX segment with a unique test code. Un-translated OBX[3] test codes are: UTYPE, UPROD, UABO, URH, UNIT#, USTAT, and UDATE. See OBX(B) segment.	
Rule 15	**Micro Culture Comments**	
	Microbiology isolate comments for each test are sent in one or more NTE segment.	
Rule 16	**Micro Organism identification**	
	Organism ID is sent in OBX-5.1 and Organism Name is sent in OBX-5.2.	
Rule 17	**Organism cross-reference to Sensitivity OBR segment**	
	Organisms are cross-referenced to Sensitivity Panel results based on Isolate Number sent in OBX-4 and OBR-26.2.	
Rule 18	**Sending the Significant Occurrence flag in OBX-13 and/or Abnormal flag in OBX-8 with Micro results.**	
	If the Significant Occurrence flag is set for a culture test or exam, flags ('+' or '++') are sent in OBX-13 of the corresponding OBX(P) and/or OBX(E) segments and any related and reportable Isolate (OBX(O) segment) AND an Abnormal Flag ('A^Abnormal') is sent in OBX-8 of the corresponding OBX(P) and/or OBX(E) segments and any related and reportable Isolate (OBX(O) segment).	
	If a significant reportable organism is identified, Significant Occurrence flags ('+' or '++') are sent in OBX-13 of the corresponding OBX(O) for the Isolate and and the corresponding parent OBX(P) and/or OBX(E) segments AND Abnormal Flags ('A^Abnormal') are sent in OBX-8 of the corresponding OBX(O) for the Isolate and the corresponding parent OBX(P)	
	If a Significant Occurrence Flag is set anywhere on the SoftMic order, a flag ('+' or '++') is sent in OBR-21 as an Order-level Significant Occurrence flag.	
	If a significant Occurrence Flag is set anywhere on the SoftMic order, an equivalent flag ('+' or '++') is sent in OBX-13 of all related OBX(S) Sensitivity segments.	
Rule 19	**Microbiology results can be sent with suppressed isolates and antibiotics.**	
	Suppressed or cancelled isolates and drugs are not sent.	
Rule 20	**Result Text sent in OBX segments. (TX-type OBX segments)**	
	Each line of comment data is sent in a separate OBX segment. Multiple OBX segments may be sent.	
Rule 21	**Result Text including rtf control characters that is sent in OBX, NTE, or DSP-Report Format (FT-type narrative results).**	
	Only plain text is sent in narrative results and comment text. No control characters are sent.	

SCC Standard EHI export rel4.5.xlsx
Rules   Key: Unshaded elements are applicable; shaded elements will not be used at this installation.   Page 10
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	Rules

Rule 22	Two Date/Time values are associated with each individual result. One (OBX-19) will always be the Verified or Status Date/Time. The second (OBX-14) can be either the Date/Time the result was Posted/Entered, or the Specimen Collected Date/Time.
	SCC sends the Date/Time the result was Posted/Entered in OBX-14. For Micro results, this may be the date/time the Isolate was entered or the Drug sensitivity was entered. "Observation Date Time" = "Posted/Entered Date/Time"
Rule 23	**Exceptionally long messages may be broken into fragments between segments by use of Continuation Pointers (DSC segments and MSH-14) to send the complete content in multiple messages.**
	Message fragmentation is not used.

	Filtering Criteria
Rule 24	**Patient's stays are flagged in SCC as "updated by HIS". Messages may be filtered based on this flag. Often, outpatients stays are registered only in SCC and thus are not flagged as "updated by HIS".**
	Messages may be sent for all patients and all stays, regardless of origin.
Rule 25	**Transmission of results - may require a Placer Order Number to be sent.**
	Results may be sent for any ordered test, regardless of the presence of a Placer Order Number. ORC/OBR-2 is not a required field.

	Coded element mapping and translation
Rule 26	**Patient Location Codes - each code sent identifies a single defined Ward/Clinic in SCC.**
	Primary Location codes locally defined in SCC are sent. No translation of codes is performed.
Rule 27	**Physician Codes - each code sent identifies a single defined Doctor in SCC.**
	National Provider Index (NPI) codes are used to identify each physician. Codes are sent as defined in the NPI# field of SoftLab Doctors setup. If no NPI is defined, local codes are sent.
Rule 28	**Non-staff (auxiliary) Physician Code - identifying walk-in doctors not defined in the setup database.**
	Users may enter non-staff or walk-in doctors in SCC as "Auxiliary" doctors with the code "*". Such entries are sent with the code: **AUX**
Rule 29	**Microbiology Source Codes (OBR-15.1, SPM-4) - each code sent identifies a single specimen source defined in SCC.**
	Locally defined Micro Specimen Source codes are sent in OBR-15.1. No translation of codes is performed.
	Micro Specimen Source codes that are mapped to Universal Codes are sent in SPM-4
Rule 30	**Priority Codes (OBR-27.6). SCC sends codes "R", "A", "S", "T".**
	Priority codes described above are sent. No translation of codes is performed.
Rule 31	**Ordered Test Codes (OBR-4) - each code sent identifies a single orderable test in SCC. Two codes can be sent in OBR-4. LOINC codes defined in the LOINC field of Test Setup will be sent as one of the test identifiers.**
	LOINC codes are sent as the Primary ID (OBR-4.1). If no LOINC is defined, locally defined Primary codes for the ordered test will be sent.
	Locally defined Primary codes for the ordered test are sent as the Alternate Test ID (OBR-4.4).
Rule 32	**Individual Result Test Codes (OBX-3) - each code sent identifies a single individual test in SCC. Two codes can be sent in OBX-3. LOINC codes defined in the LOINC field of Test Setup will be sent as one of the test identifiers.**
	LOINC codes are sent as the Primary ID (OBX-3.1). If no LOINC is defined, locally defined Primary codes for the component test will be sent.
	Locally defined Primary codes for the component test are sent as the Alternate Test ID (OBX-3.4).

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Rules
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1.0	**Rules**
Rule 33	**SNOMED codes sent as results - Tests defined in setup as "C"oded type tests must capture a SNOMED code as the result.**
	The SNOMED Concept ID is entered and sent as the result and coded element in OBX-5.1
Rule 34	**Abnormal Flag codes, alternate codes (OBX-8.4) - applies only for SoftLab results sent in Discrete Format.**
	Standard HL7 codes (L, LL, H, HH, A, AA) are sent as the Alternate Code in OBX-8.4 to represent abnormal result flags.
Rule 35	**Performing Site code - a code identifying the testing site may be sent with each test result in OBX-15. The receiving system should provide a mechanism to interpret these codes to a full descriptive address.** *Note: More detailed performing site information is available in OBX-23 & 24.*
	Results are sent with the SCC code of the Location for the test. Location code is derived from the performing Workstation for the test. If a Reference Lab provides a performing site code with results, that code is sent.
	Communication
	Message Format: HL7 messages are enclosed by site-configurable characters to form a packet or block. SCC will send one HL7 message per packet or block. No header or trailer information should be added to the HL7 message. The format is as follows:
	<SB>dddd<EB><CR>
	<SB> = START BLOCK character (1 byte). Typically, 0x0B.
	dddd = Variable number of data bytes of data. No length field is required because HL7 uses a delimiter format.
	<EB> = END BLOCK character (1 byte). Typically, 0x1C.
	<CR> = CARRIAGE RETURN character (1 byte). Typically, 0x0D

Segment	Description	Card	Rules	Lab Results	Micro Results	BB Results	Genetics Results
Rev: 1.0	**170.315(b)(10) HL7 Result Reporting for EHI Export** **Message Structures**						
	Message						
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU
	MSH-9.2 Event Code			R01	R01	R01	R01
	ORC-1 Control Code			RE	RE	RE	RE
Common segments							
MSH	Message Header	1..1		R	R	R	R
PID	Patient Identification	1..1		R	R	R	R
{ NTE }	Notes and Comments (for Patient)	0..*	7			/////	
NK1	Next of Kin	0..1					
PV1	Patient Visit	1..1					
{ NTE }	Notes and Comments (for Visit)	0..*	7				
{ IN1 }	Patient Insurance	0..*					
Order segments							
ORC	Common Order	1..1		R	R	R	R
{ NTE }	Notes and Comments (for Order)	0..*	7				
{ NTE }	Notes and Comments (for Specimen)	0..*	7				
OBR	Observation Request	1..1	8	R	R	R	R
{ DG1 }	Diagnosis (for Ordered Test)	0..4				/////	
{ NTE }	Notes and Comments (for Order)	0..*	7				
{ NTE }	Notes and Comments (for Specimen)	0..*	7				
{ NTE }	Notes and Comments (Mic Culture comments)	0..*	7	/////		/////	/////
Discrete & Report Formats							
{	--- OBSERVATION begin	1..*				/////	/////
OBX	Observation (Component Result)	1..1	12,14,20	R	/////	R	/////
{ NTE }	Notes and Comments (for Component Result)	0..*	7		/////		/////
{ NTE }	Blood Bank Pathologist Interpretation	0..*	7	/////	/////		/////
{ OBX(B) }	Observation (Blood Bank Product Detail)	0..*	14	/////	/////	R	/////
}	--- OBSERVATION end					/////	/////
{ SPM }	Specimen Details	1..*		R	/////	R	/////

Segment	Description	Card	Rules	Lab Results	Micro Results	BB Results	Genetics Results
	Message						
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01
	MSH-9.2 Event Code						
	ORC-1 Control Code			RE	RE	RE	RE
Discrete SoftMic Results I							
{ OBX(P) }	Observation (Ordered Procedure)	0..*		/////		/////	/////
{ NTE }	Notes and Comments (previous obx(p) result)	0..*	7	/////		/////	/////
{	--- CULTURE OBSERVATION begin	0..*		/////		/////	/////
{ OBX(E) }	Observation (Exam observations)	0..*		/////	R	/////	/////
{ NTE }	Notes and Comments (previous obx(e) result)	0..*	7	/////		/////	/////
{	--- ORGANISM begin	0..*		/////		/////	/////
{ OBX(O) }	Observation (Organism ID)	1..*	16	/////		/////	/////
{ NTE }	Notes and Comments (previous obx(o) result)	0..*	7	/////		/////	/////
{ OBX(Q) }	Observation (Quantitation)	0..*		/////		/////	/////
{ NTE }	Notes and Comments (previous obx(q) result)	0..*	7	/////		/////	/////
{ NTE(OC) }	Notes and Comments (Organism comments)	0..*	15	/////		/////	/////
{ NTE }	Notes and Comments (previous obx(oc) result)	0..*	7	/////		/////	/////
}	--- ORGANISM end			/////		/////	/////
}	--- CULTURE OBSERVATION end			/////		/////	/////
{ SPM }	Specimen Details	1..*		/////	R	/////	/////
{	--- SENSITIVITY PANEL begin	0..*		/////		/////	/////
ORC(S)	Common Order	1..1		/////		/////	/////
OBR(S)	Observation request (Micro sensitivity panel)	1..1	17	/////		/////	/////
{	--- SENSITIVITY OBSERVATION begin	1..*		/////		/////	/////
OBX(S)	Observation (Antibiotics)	1..1		/////		/////	/////
{ NTE }	Notes and Comments (Antibiotic comments)	0..*	7	/////		/////	/////
{ NTE }	Notes and Comments (previous obx(s) result)	0..*	7	/////		/////	/////
}	--- SENSITIVITY OBSERVATION end			/////		/////	/////
}	--- SENSITIVITY PANEL end			/////		/////	/////

Segment	Description	Card	Rules	Lab Results	Micro Results	BB Results	Genetics Results
	Message						
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01
	MSH-9.2 Event Code						
	ORC-1 Control Code			RE	RE	RE	RE
Discrete Genetics Results							
{	--- Group Test OBSERVATION begin			/////	/////	/////	
OBX(GI)	Group Test level Interpretation.	0..1		/////	/////	/////	R
{ OBX(GR) }	Group Test Result Fields	0..*		/////	/////	/////	R
{ NTE }	Group test level result comments	0..*		/////	/////	/////	
{ NTE }	Group Test Disclaimer/Method/References	0..*		/////	/////	/////	
}	--- Group Test OBSERVATION end			/////	/////	/////	
{	--- Single Test OBSERVATION begins			/////	/////	/////	
{ OBX(SH) }	Single Test Header	0..*		/////	/////	/////	
{ NTE }	Group & Single Test Disclaim/Method/Refs	0..*		/////	/////	/////	
OBX(SI)	Single Test Level Interpretation	0..1		/////	/////	/////	R
{ OBX(SR) }	Single Test Result Fields	0..*		/////	/////	/////	R
{ NTE }	Single Test level result comments.	0..*		/////	/////	/////	
{ NTE }	Single Test Disclaimer/Method/References	0..*		/////	/////	/////	
}	--- Single Test OBSERVATION ends			/////	/////	/////	
{ NTE }	Group & Single Test Disclaim/Method/Refs	0..*		/////	/////	/////	
{ SPM }	Specimen Details	0..*		/////	/////	/////	R

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Messages　　　　　Key:　R = Required, C = Conditionally Required, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.　　　11/29/2023

Rev: 1.0	170.315(b)(10) HL7 Result Reporting for EHI Export, release 4.5 Common & Order Segments								

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type								
	MSH-9.2 Event Code			ORU R01	ORU R01	ORU R01	ORU R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		

MSH Segment

Seq	Element	Output	Type					Rules	Notes
0	MSH	MSH	ID	R	R	R	R		
1	Field Separator			ST	R	R	R	R		
2	Encoding Characters	^~\&	ST	R	R	R	R		Component Separator, Repetition Character, Escape Character, Subcomponent Separator
3	***Sending Application***								
3.1	Namespace ID	<Originating module>	ST	A	A	A	A		**LAB** = SoftLab, **MIC** = SoftMic, **BB** = SoftBank, **GIS** = Genetics Information Suite
3.2	Universal ID	2.16.840.1.113883.3.3013.77.1 2.16.840.1.113883.3.3013.77.2 2.16.840.1.113883.3.3013.77.3 2.16.840.1.113883.3.3013.77.5	ST						OID values for SCC applications, defined in the the *Universal Identifiers* table.
3.3	Universal ID Type	ISO	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
4	***Sending Facility***								NS ID, UID, and UID Type are defined in the *Universal Identifiers* table and are linked to a matching *Code* for Sending Facility in both *Location* setup and the *Universal Identifiers* table.
4.1	Namespace ID	<Sending Organization NS ID>	ST	A	A	A	A		Namespace is based on *Sending Organization* in *Location* setup for Order and Result messages.
4.2	Universal ID	<Sending Organization Universal ID>	ST						ISO Number (OID) or CLIA Number or other identifier.
4.3	Universal ID Type	<Sending Organization UID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
5	***Receiving Application***								
5.1	Namespace ID	EHIEXPORT	ST	A	A	A	A		
6	***Receiving Facility***								
6.1	Namespace ID	EHIEXPORT	ST	A	A	A	A		
7	Date/Time of Message	<Message date/time stamp>	TS						Includes Timezone offset indicator
9	***Message Type***								
9.1	Message Type	<HL7 Message Type>	ID	R	R	R	R		
9.2	Event Code	<HL7 Event Code>	ID	R	R	R	R		
9.3	Message Structure	<Message Type _ Event Code>	ID						
10	Message Control ID	<Message Counter>	ST	R	R	R	R		
11	Processing ID	'P'	ID	R	R	R	R		**P** = Processing
12	Version ID	2.5.1	NM	R	R	R	R		

NTE Segment

Seq	Element	Output	Type					Rules	Notes
0	NTE	NTE	ID	R	R	R	R		
1	Set ID - NTE	<counter>	NM						Increments from 1 to n for each group of segments
2	Source of Comment	L	ST	A	A	A	A		**L** = Filler is source of ALL comments.
3	Comment Text	<comment text>	TX						6, 7, 21	Line of comment. May be blank if user enters blank lines. This field supports use of HL7 Escape sequences.
4	***Comment Type***								
4.1	Identifier	RE	ID	A	A	A	A		**RE** = Remark - all comments are characterized as remarks
4.2	Text	Remark	ST	A	A	A	A		Remark
4.3	Name of Coding System	HL70364	ST	A	A	A	A		HL70364

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
4.4	Alternate Identifier	<Comment Type identifier>							Comment type identifer. **PATCOM** = Patient Comment **STAYCOM** = Stay/Visit Comment **ORDCOM** = Order/Accession Comment **CALLED** = Called Comment **MODCOM** = Modified Order Comment **TCANC** = Ordered Test Cancellation Comment
4.6	Name of Alternate Coding System	L							**L** = Local code. Primary codes are locally defined codes.
4.7	Coding System Version ID	2.5.1	ST	A	A	A	A		2.5.1
4.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
PID Segment									
0	PID	PID	ID	R	R	R	R		
1	Set ID - Patient	1	NM						
3	*Patient Information*								Up to 6 repetitions may be sent containing identifiers stored in SCC systems as MRN, SSN, Secondary ID or MPI, Client ID, Chart Number, and/or External ID.
3[1].1	*1st repetition:* Patient Information - MRN	<Patient MRN>	ST	A	A	A	A	1, 2, 6	MRN includes any checksum characters received from HIS. MRN may be stored in SCC databases with an internal prefix. This prefix is included. This field supports use of HL7 Escape sequences.
3[2].1	*2nd repetition:* Patient Information - SSN	<Patient SSN>	ST						Sent as a string, with no hyphen separators. AA and AF elements are taken from MRN attributes. PID-3[2].5 = SS
3[3].1	*3rd repetition:* Patient Information - Secondary ID or	<Patient Secondary ID>	ST						Sent as a received and posted. AA and AF elements are taken from MRN attributes. PID-3[3].5 = PE
3[4].1	*4th repetition:* Patient Information - Client ID	<Patient Client ID>	ST						Sent as a received and posted. AA and AF elements are taken from MRN attributes. PID-3[4].5 = PN
3[5].1	*5th repetition:* Patient Information - Chart Number	<Patient Chart Number>	ST						Sent as a received and posted. AA and AF elements are taken from MRN attributes. PID-3[5].5 = PI
3[6].1	*6th repetition:* Patient Information - External ID	<Patient External ID>	ST						Sent as a received and posted. AA and AF elements are taken from MRN attributes. PID-3[6].5 = PT
3[n].4	*All repetitions:* *Patient ID Assigning Authority*								
3[n].4.1	Assigning Authority Namespace ID	<MRN AA NS ID>	ST						As received and posted with inbound ADT messages, autoposted when MRN is autogenerated, or manually entered.
3[n].4.2	Assigning Authority Universal ID	<MRN AA UID>	ST						ISO Number (OID) or CLIA Number or other identifier.
3[n].4.3	Assigning Authority Universal ID Type	<MRN AA UID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are
3[n].5	*All repetitions:* Patient ID Number Type		ST						**MR** = Medical Record Number; **SS** = Social Security Number; **PE** = Patient Enterprise Number (Secondary ID/MPI); **PN** = Person Number (Client ID); **PI** = Patient Internal Identifier (Chart Number); **PT** = Patient External Identifier (External ID)
3[n].6	*All repetitions:* *Patient ID Assigning Facility*								
3[n].6.1	Assigning Facility Namespace ID	<MRN AF NS ID>	ST						As received and posted with inbound ADT messages, autoposted when MRN is autogenerated, or manually entered.
3[n].6.2	Assigning Facility Universal ID	<MRN AF UID>	ST						ISO Number (OID) or CLIA Number or other identifier.
3[n].6.3	Assigning Facility Universal ID Type	<MRN AF UID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
5[1]	*Patient Name Information* *(1st repetition)*								

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type								
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
5[1].1.1	Patient Family Name/Surname	<Patient Last Name>	ST	A	A	A	A		
5[1].2	Patient Given Name	<Patient First Name>	ST						
5[1].3	Patient Middle Name	<Patient Middle Name>	ST						
5[1].4	Patient Name Suffix	<Patient Name Suffix>	ST						Suffix can contain values such as "JR", "II", "III", etc.
5[1].5	Patient Name Prefix	<Patient Name Prefix>	ST						
5[1].7	Patient Name Type Code	<Patient Name Type Code>	ST						**A** - Alias; **B** - Birth; **C** - Adopted; **D** - Display; **I** - Licensing; **L** - Legal; **N** - Nickname; **R** - Registered (animals only); **S** - Coded Pseudo-Name; **T** - Tribal Name; **U** - Unspecified
5[1].14	Professional Suffix	<Patient Name Pro Suffix>	ST						
5[2]	**Patient Name Information** **(2nd repetition)**								
5[2].1.1	Patient Family Name/Surname	<Patient Second Last Name>	ST						
5[2].2	Patient Given Name	<Patient Second First Name>	ST						
5[2].3	Patient Middle Name	<Patient Second Middle Name>	ST						
5[2].4	Patient Name Suffix	<Patient Second Name Suffix>	ST						Suffix can contain values such as "JR", "II", "III", etc.
5[2].5	Patient Name Prefix	<Patient Second Name Prefix>	ST						
5[2].7	Patient Name Type Code	<Patient Second Name Type Code>	ST						**A** - Alias; **B** - Birth; **C** - Adopted; **D** - Display; **I** - Licensing; **L** - Legal; **N** - Nickname; **R** - Registered (animals only); **S** - Coded Pseudo-Name; **T** - Tribal Name; **U** - Unspecified
5[2].14	Professional Suffix	<Patient Second Name Pro Suffix>	ST						
6	**Mother's Maiden Name**								
6.1.1	Family Name/Surname	<Mother's Maiden Last Name>	ST						
6.2	Given Name	<Mother's Maiden First Name>	ST						
6.3	Middle Name	<Mother's Maiden Middle Name>	ST						
6.4	Suffix	<Mother's Maiden Name Suffix>	ST						Suffix can contain values such as "JR", "II", "III", etc.
6.5	Prefix	<Mother's Maiden Name Prefix>	ST						
6.7	Name Type Code	<Mother's Maiden Name Type Code>	ST						**M** = Maiden Name
6.14	Professional Suffix	<Mother's Maiden Name Pro Suffix>	ST						
7	Patient Date of Birth	<Patient DOB>	TS						CCYYMMDD[hhmm] format
8	Patient Administrative Sex	<Patient Sex>	ST						**M** = Male; **F** = Female; **U** = Undefined
10	**Patient Race**								May repeat with Gene messages.
10.1	Race Identifier	<Race code>	ST						Other Race code as defined in *HIS Mapping, Race* translation tables
10.2	Race Text	<Race Text>	ST						Race description (text) as defined in *HIS Mapping, Race* translation tables
10.3	Name of Coding System	Race Coding System Name>	ST						Name of Other coding system as defined in *HIS Mapping Tables*. Should refer to an HL7 table such as "HL70005"
10.4	Alternate Identifier	<SCC Patient Race code>	ST						Primary Race code as seen in SCC systems
10.5	Alternate Text	<Race Text>	ST						Race description (text) as defined in *HIS Mapping, Race* translation tables
10.6	Name of Alternate Coding System	L	ST						**L** = Local code. Primary codes are locally defined codes.
10.7	Coding System Version ID	<Race Coding System Version>	ST						Version of Other coding system as defined in *HIS Mapping Tables*. Should refer to an HL7 version such as "2.5.1"
10.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
11[1]	**Patient Address (1st repetition)**								
11[1].1	Street or Mailing Address	<Patient Address #1 line 1>	ST						
11[1].2	Address line 2	<Patient Address #1 line 2>	ST						
11[1].3	City	<Patient Address #1, city>	ST						
11[1].4	State	<Patient Address #1, state>	ST						
11[1].5	Zip Code	<Patient Address #1, zip>	ST						
11[1].6	Country	<Patient Address #1, country code>	ST						

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code								
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
11[1].7	Address Type	<Patient Address #1 Type code>	ST						**C** = Current; **H** = Home; **L** = Legal; **M** = Mailing; **P** = Permanent
11[1].9	County Code	<Patient Address #1, county>	ST						
11[2]	*Patient Address (2nd repetition)*								
11[2].1	Street or Mailing Address	<Patient Address #2 line 1>	ST						
11[2].2	Address line 2	<Patient Address #2 line 2>	ST						
11[2].3	City	<Patient Address #2, city>	ST						
11[2].4	State	<Patient Address #2, state>	ST						
11[2].5	Zip Code	<Patient Address #2, zip>	ST						
11[2].6	Country	<Patient Address #2, country code>	ST						
11[2].7	Address Type	<Patient Address #2 Type code>	ST						**C** = Current; **H** = Home; **L** = Legal; **M** = Mailing; **P** = Permanent
11[2].9	County Code	<Patient Address #2, county>	ST						
13	*Home Phone Number* *(may repeat up to 3X)*	<Home Phone>						5	Primary number is listed first, e-mail is listed last. Use Codes based on database field as follows: **PRN** - Primary Home Phone; **ORN** - Other Home Phone; **NET** - e-Mail Equipment Types: **PH** - Phone; **CP** - Cell Phone; **FX** - Fax; **Internet** - e-Mail **See Common Elements below,** *Phone Number* **for full structure**
14	*Business Phone Number*	<Business Phone>						5	A single number is sent with the following: Use Code: **WPN** - Business Phone Equipment Types: **PH** - Phone; **CP** - Cell Phone; **FX** - Fax **See Common Elements below,** *Phone Number* **for full structure**
15	Primary Language	<Language Code>	ST						As stored either in SoftLab database fields: *patient.ptlang*.
16	Marital Status	<Marital Status Code>	ST						SCC codes are sent with no translation
17	Religion	<Religion Code>	ST						SCC codes are sent with no translation
18	Patient Account Number	<Billing Number>	ST	R	R	R	R	3, 4, 6	Billing Number may be stored in SCC databases with an internal prefix. This prefix is included. This field supports use of HL7 Escape sequences.
22	*Ethnic Group*								
22.1	Ethnic Group Identifier	<Ethnic Group code>	ST						Other Ethnicity code as defined in *HIS Mapping, Ethnic Group* translation tables **H** = Hispanic or Latino; **N** = Not Hispanic or Latino; **U** = Unknown
22.2	Ethnic Group Text	<Ethnic Group Text>	ST						Ethnic Group description (text) as defined in *HIS Mapping, Ethnic Group* translation tables
22.3	Name of Ethnic Group Coding System	<Ethnic Group Coding System Name>	ST						Name of Other coding system as defined in *HIS Mapping Table*. Should refer to an HL7 table such as "HL70189"
22.4	Alternate Identifier	<SCC Ethnic Group code>	ST						Primary Ethnic Group code as seen in SCC systems
22.5	Alternate Text	<Ethnic Group Text>	ST						Ethnic Group description (text) as defined in *HIS Mapping, Ethnic Group* translation tables
22.6	Name of Alternate Coding System	L	ST	A	A	A	A		**L** = Local code. Primary codes are locally defined codes.
22.7	Coding System Version ID	<Ethnic Group Coding System Version>	ST						Version of Other coding system as defined in *HIS Mapping Table*. Should refer to an HL7 version such as "2.5.1"
22.8	Alternate Coding System Version ID	NA	ST	A	A	A	A		**NA** = No versioning applicable for Local codes
29	Patient Death Date/Time	<Patient Death Date/Time>	TS						
30	Patient Death Indicator	<Deceased Flag>	ST						**Y** = Deceased, null otherwise
31	Identity Unknown Indicator	<Identity Flag>	ST						**Y** = Identity Unknown, **N** = Identity Known
33	Last Update Date/Time	<Last Update Date/Time>	TS						
35	*Species*								
35.1	Species Identifier	<Species code>	ST						Other Species code as defined in *HIS Mapping, Species* translation tables: SNOMED code 337915000 = Human
35.2	Species Text	<Species Text>	ST						species description (text) as defined in *HIS Mapping, Species* translation tables
35.3	Name of Coding System	<Species Coding System Name>	ST						Name of Other coding system as defined in *HIS Mapping Table*. Should refer to a universal table such as SNOMED (SCT)

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Common   Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.   Page 19

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Seq	Element	Output	Type	ORU R01 RE Lab	ORU R01 RE Mic	ORU R01 RE BB	ORU R01 RE Gene	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
35.4	Alternate Identifier	<SCC Species code>	ST						Primary Species code as seen in SCC systems (e.g.: **H** = Human)
35.5	Alternate Text	<Species Text>	ST						Species description (text) as defined in *HIS Mapping, Species* translation tables
35.6	Name of Alternate Coding System	L	ST	A	A	A	A		**L** = Local code. Primary codes are locally defined codes.
35.7	Coding System Version ID	<Species Coding System Version>	ST						Version of Other coding system as defined in *HIS Mapping Table.* (Note: SNOMED version is typically expressed as a date)
35.8	Alternate Coding System Version ID	NA	ST	A	A	A	A		**NA** = No versioning applicable for Local codes
40	*Employer Address*								
40.1	Employer Address line 1	<Patient Employer Address line 1>	ST						
40.2	Employer Address line 2	<Patient Employer Address line 2>	ST						
40.3	Employer City	<Patient Employer Address, city>	ST						
40.4	Employer State	<Patient Employer Address, state>	ST						
40.5	Employer Zip	<Patient Employer Address, zip>	ST						
NK1 Segment									
0	NK1	NK1	ID	R	R	R	R		
1	Set ID - Next of Kin	1	NM	A	A	A	A		
2	*Next of Kin Name*								*Contact Person* is used as Next-of-Kin
2.1	Last Name	<Contact Last Name>	ST						
2.2	First Name	<Contact First Name>	ST						
2.3	Middle Name	<Contact Middle Name>	ST						
2.4	Suffix	<Contact Name Suffix>	ST						
2.5	Prefix	<Contact Name Prefix>	ST						
2.7	Name Type Code	<Contact Name Type code>	ST						**A** - Alias; **B** - Birth; **C** - Adopted; **D** - Display; **I** - Licensing; **L** - Legal; **N** - Nickname; **R** - Registered (animals only); **S** - Coded Pseudo-Name; **T** - Tribal Name; **U** - Unspecified
2.14	Professional Suffix	<Contact Name Pro Suffix>	ST						
3	*Next of Kin Relationship*								
3.1	Relationship Identifier	<Contact Relationship code>	ST						Other Relationship code as defined in *HIS Mapping, Relationship* translation tables
3.2	Relationship Text	<Relationship Text>	ST						Relationship description (text) as defined in *HIS Mapping, Relationship* translation tables
3.3	Name of Coding System	<Relationship Coding System Name>	ST						Name of Other coding system as defined in *HIS Mapping Table.* Should refer to an HL7 table such as "HL70063"
3.4	Alternate Identifier	<SCC Contact Relationship code>	ST						Primary Relationship code as seen in SCC systems
3.5	Alternate Text	<Relationship Text>	ST						Relationship description (text) as defined in *HIS Mapping, Relationship* translation tables
3.6	Name of Alternate Coding System	L	ST	A	A	A	A		**L** = Local code. Primary codes are locally defined codes.
3.7	Coding System Version ID	<Relationship Coding System Version>	ST						Version of Other coding system as defined in *HIS Mapping Table.* Should refer to an HL7 version such as "2.5.1"
3.8	Alternate Coding System Version ID	NA	ST	A	A	A	A		**NA** = No versioning applicable for Local codes
4	*Next of Kin Address*								*Contact Person's* address is used as Next-of-Kin's address
4.1	Address line 1	<Contact Address line 1>	ST						
4.2	Address line 2	<Contact Address line 2>	ST						
4.3	City	<Contact Address City>	ST						
4.4	State	<Contact Address State>	ST						
4.5	Zip Code	<Contact Address Zip>	ST						
4.6	Country	<Contact Address Country code>	ST						
4.7	Address Type	<Contact Address Type Code>	ST						**C** = Current; **H** = Home; **L** = Legal; **M** = Mailing; **P** = Permanent
4.9	County Code	<Contact Address County>	ST						

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
5	***Next of Kin Phone #*** *(May repeat up to 3X)*	\<Contact Phone>						5	Primary number is listed first, e-mail is listed last. Use Codes based on database field as follows: **PRN** - Contact Phone; **WPN** - Work Phone; **NET** - e-Mail. Equipment Types: **PH** - Phone; **CP** - Cell Phone; **FX** - Fax; **Internet** - e-Mail. **See Common Elements below,** *Phone Number* **for full structure**
13	***Contact Organization Name***								Used if the "person to contact" is an organization rather than a person
13.1	Organization Name	\<Contact Organization Name>	ST						As received and posted with inbound ADT messages or manually entered.
13.2	Organization Name Type Code	\<Contact Organization Name Type>	ST						**A** = Alias name; **D** = Display name; **L** = Legal name
13.6	***Contact Organization Assigning Authority***								
13.6.1	Assigning Authority Namespace ID	\<Contact Organization AA NS ID>	ST						As received and posted with inbound ADT messages or manually entered.
13.6.2	Assigning Authority Universal ID	\<Contact Organization AA UID>	ST						As received and posted with inbound ADT messages, manually entered, or captured from Universal Identifiers table based on NS ID. Should be ISO Number (OID) or CLIA Number.
13.6.3	Assigning Authority Universal ID Type	\<Contact Organization AA UID Type>	ST						As received and posted with inbound ADT messages, manually entered, or captured from Universal Identifiers table based on NS ID. **ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
13.7	Identifier Type Code	XX	ID						**XX** = Organization Identifier
13.10	Organization Identifier	\<Contact Organization Code>	ST						As received and posted with inbound ADT messages.
PV1 Segment									
0	PV1	PV1	ID	R	R	R	R		
1	Set ID	1	NM						
2	Patient Class	\<SCC Patient Type>	ST	A	A	A	A		SCC code as defined in *Wards/Clinics* setup
3	***Assigned Patient Location***								Name of the patient location when the order was placed.
3.1	Unit/Location/Clinic	\<Patient Location Code>	ST	A	A	A	A	26	SCC coded mnemonic only.
3.2	Room	\<Room>	ST						
3.3	Bed	\<Bed>	ST						
4	***Admission Type***								
4	Admission Type	\<Admission Type>	ST						**A** - Accident; **E** - Emergency; **L** - Labor and Delivery; **R** - Routine; **N** - Newborn (Birth in healthcare facility); **U** - Urgent; **C** - Elective
5	Preadmit Number	\<Billing Number>	ST	A	A	A	A	3, 4, 6	Billing Number may be stored in SCC databases with an internal prefix. This prefix is included. This field supports use of HL7 Escape sequences.
7	***Attending Doctor***	\<Attending Doctor>		A	A	A	A	27, 28	**See Common Elements below,** *Provider Information*
9	***Consulting Doctor***	\<Consulting Doctor>						27, 28	**See Common Elements below,** *Provider Information* Consulting Doctor is not normally stored or accessed in SoftLab
10	Hospital Service	\<Hospital Service Code>	ST						As stored under Stay menu, *Medical Service*.
17	***Admitting Doctor***	\<Admitting Doctor>						27, 28	**See Common Elements below,** *Provider Information*
18	***Patient Type***								
18.1	HIS Patient Type	\<HIS Patient Type>	ST						As stored in SoftLab. Stay Level miscellaneous field.
19	Visit Number	\<Visit Number>	ST					6	As stored under Stay menu, *HIS Visit Number*. This field supports use of HL7 Escape sequences.
36	Discharge Disposition	\<Deceased Indicator>	ST						**20** = Patient is flagged as deceased in SoftLab, null otherwise
39	Servicing Facility	\<HIS Account>	ST					6	Multisite: Appropriate HIS# based on setup of Multisite HIS Acc Setup Table. This field supports use of HL7 Escape sequences.
44	Admit Date/Time	\<Admit Date/Time>	TS						CCYYMMDD format. As stored in the SoftLab database. If the admission time is not present then only the date will be sent.

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code								
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
45	Discharge Date/Time	\<Discharge Date/Time\>	TS						CCYYMMDD format As stored in the SoftLab database. If the discharge time is not present then only the date will be sent.
50	Alternate Visit ID - Visit Number	\<Visit Chart Number\>	ST						Alternate Visit number (a.k.a. Account#/Alternate Visit Account Number) is a Patient ID used on a 3rd party system that is usually manually entered in the the *Account* # field at the stay level.
IN1 Segment									
0	IN1	IN1	ID	R	R	R	R		
1	Set ID - Insurance	\<Set ID/Insurance Priority\>	ST	A	A	A	A		
2	Insurance Plan ID	\<Insurance Code\>	ST	A	A	A	A		A unique ID for each insurance is used.
3	Insurance Company ID	\<Insurance Code\>	ST	A	A	A	A		A unique ID for each insurance is used.
8	Group Number	\<Group Number\>	ST						
12	Plan Effective Date	\<Effective Date\>	ST						
13	Plan Expiration Date	\<Expiration Date\>	ST						
15	Plan Type	\<Family Plan Flag\>	ST						**Y** or **N**
16	*Insured Name*								
16.1	Insured Last Name	\<Insured Last Name\>	ST						
16.2	Insured First Name	\<Insured First Name\>	ST						
16.3	Insured Middle Name	\<Insured Middle\>	ST						
17	Insured's Relationship To Patient	\<Relation to Insured code\>	ST						**I** = Self; **S** = Spouse; **C** = Child; **O** = Other
18	Insured's Date Of Birth	\<Insured's Date of Birth\>	ST						
19	*Insured Address*								
19.1	Ins'd Address line 1	\<Insured Address line 1\>	ST						
19.2	Ins'd Address line 2	\<Insured Address line 2\>	ST						
19.3	Ins'd Address City	\<Insured City\>	ST						
19.4	Ins'd Address State	\<Insured State\>	ST						
19.5	Ins'd Address Zip	\<Insured Zip\>	ST						
19.6	Ins'd Country Code	\<Insured Country\>	ST						
22	Coord Of Ben. Priority	\<Coord. of Benefit Priority\>	ST						Numeric value indicates primary, secondary, tertiary, etc. insurance. Since IN1 segments are sent in this order naturally, this is a repeat of the Set ID in IN1[1].
36	Policy Number	\<Policy Number\>	ST						
43	Insured's Sex	\<Insured's Sex\>	ST						**M** = Male; **F** = Female; **U** = Undefined
ORC Segment									
0	ORC	ORC	ID	R	R	R	R		
1	Order Control	\<HL7 Control Code\>	ID	R	R	R	R		
2	*Placer Order Number*								
2.1	Placer Order Number	\<Placer Order #\>	ST					6, 25	"Foreign System" Placer Request Number. See also OBR-2. This field supports use of HL7 Escape sequences.
2.2	Namespace ID	\<Placer Number NS ID\>	ST						As posted with inbound NW, SN, and NA messages from the placer system
2.3	Universal Identifier	\<Placer Number UID\>	ST						As posted with inbound NW, SN, and NA messages from the placer system. Should be ISO Number (OID) or CLIA Number.
2.4	Universal Identifier Type	\<Placer Number UID Type\>	ST						As posted with inbound NW, SN, and NA messages from the placer system. **ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
3	*Filler Order Number*								

Seq	Element	Output	Type	ORU R01 Lab	ORU R01 Mic	ORU R01 BB	ORU R01 Gene	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
3.1	Filler Order Number	<SCC "LIS #">	ST						SCC Filler Number. See also OBR-3. NS ID, UID, and UID Type are assigned by SCC and defined in the *Universal Identifiers* table.
3.2	Namespace ID	<Order# Namespace ID>	ST						A constant value defined in Universal Identifiers for the *Code* ORDNUM representing the client/installation.
3.3	Universal Identifier	<Order# UID>	ST						An ISO-compliant OID is defined in Universal Identifiers for the *Code* ORDNUM representing the client/installation.
3.4	Universal Identifier Type	ISO	ST						**ISO** = International Standards Organization
4	*Placer Group Number*								
4.1	SCC Order Number	<SoftLab Order Number>	ST	A	A	A	A		SCC Order Number. Multiple tests (OBR segments) may share the same SoftLab Order Number. Taken together, the SoftLab Order Number and Ordered Test Code form a unique combination for the enterprise. NS ID, UID, and UID Type are assigned by SCC and defined in the *Universal Identifiers* table.
4.2	Namespace ID	<Order# Namespace ID>	ST						A constant value is defined in Universal Identifiers for the *Code* ORDNUM representing the client/installation.
4.3	Universal Identifier	<Order# UID>	ST						An ISO-compliant OID is defined in Universal Identifiers for the *Code* ORDNUM representing the client/installation.
4.4	Universal Identifier Type	ISO	ST						**ISO** = International Standards Organization
8	*Parent*								
8.1.1	Parent	<Auxiliary Order #>	ST						A non-unique Placer Order Number that may be saved in SCC's genindex table as AUX#
8.1.2	Namespace ID	<Auxiliary Number NS ID>	ST						As posted with inbound NW, SN, and NA messages from the placer system
8.1.3	Universal Identifier	<Auxiliary Number UID>	ST						As posted with inbound NW, SN, and NA messages from the placer system. ISO Number (OID) or CLIA Number.
8.1.4	Universal Identifier Type	<Auxiliary Number UID Type>	ST						As posted with inbound NW, SN, and NA messages from the placer system. **ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
9	Event Date/Time	<Ordered Date/Time>	TS	A	A	A	A		CCYYMMDDhhmmss format Date & time when the order was placed. Time is sent as 0000 when not entered in SCC.
10	*Entered by*								
10.1	Common ID	<Ordering Tech ID or Pathologist ID>	ST	A	A	A	A		SoftLab/SoftMic/SoftBank/SoftGenetics ID of the technologist who placed the order.
13	*Enterer's Location*							26	
13.1	Ward	<Ordering Ward>	ST	A	A	A	A		SCC ID of the ward where the order was placed
13.2	Ordering Location/Collection Center (a.k.a. Depot)	<Ordering location/collection center a.ka.Depot>	ST						Code of the ordering location/collection center (aka depot) from which the order was placed, as defined in SoftLab Ordering Location/Collection Center Setup. NOTE: Same value as defined in the Multisite HIS Account Setup table.
14	*Callback Phone Number (may repeat up to 5x)*	<Ordering Doctor Phone #>						5	Primary number is listed first, e-mail is listed last. Use Codes based on database field as follows: **WPN** - Primary Office Phone; **WPN** - Other Office Phone; **BPN** - Pager Number; **ORN** - Fax; **NET** - e-Mail Equipment Types based on database field as follows: **PH** - Primary Office Phone; **PH** - Other Office Phone; **BP** - Pager; **FX** - Fax; **Internet** - e-Mail **See Common Elements below, *Phone Number* for full structure**
21	*Ordering Facility Information*								
21.1	Organization Name	<Organization Name - ordering clinic>	ST						Organization Name is defined in *Clinic* setup
21.2	Organization Name Type Code	L	ID	A	A	A	A		Options are: **A** = Alias name; **D** = Display name; **L** = Legal name

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			ORU R01	ORU R01	ORU R01	ORU R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
21.6	*Ordering Facility Assigning Authority*		ST						NS ID, UID, and UID Type are defined in the *Universal Identifiers* table and are linked to a matching *SCC ID* in both *Clinic* setup and the *Universal Identifiers* table.
21.6.1	Assigning Authority Namespace ID	<Ordering Organization NS ID>	ST						
21.6.2	Assigning Authority Universal ID	<Ordering Organization UID>	ST						ISO Number (OID) or CLIA Number or other identifier.
21.6.3	Assigning Authority Universal ID Type	<Ordering Organization UID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
21.7	Identifier Type Code	XX	ID	A	A	A	A		**XX** = Organization Identifier
21.10	Organization Identifier	<Organization code - ordering clinic>	ST						Organization Code from *Clinic* setup. If no Organization is defined, then Clinic code is sent.
22	*Ordering Facility Address*								
22.1	Street or Mailing Address line 1	<Ordering Clinic Address 1>	ST						
22.2	Street or Mailing Address line 2	<Ordering Clinic Address 2>	ST						
22.3	City	<Ordering Clinic City>	ST						
22.4	State or Province	<Ordering Clinic State>	ST						
22.5	Postal Code	<Ordering Clinic Zip>	ST						
22.6	Country	<Ordering Clinic Country>	ST						SCC codes are sent with no translation.
22.7	Address Type	B							Options are: **B** = Firm/Business; **L** = Legal Address; **M** = Mailing; **O** = Office; **P** = Permanent
22.9	County Code	<Ordering Clinic County>	ST						
23	*Ordering Facility Phone Number*	<Ordering Clinic Phone #>						5	A single number is sent with the following: Use Code: **WPN** - Business Phone Equipment Type: **PH** - Phone **See Common Elements below, *Phone Number* for full structure**
24	*Ordering Provider Address*								
24.1	Street or Mailing Address line 1	<Requesting Doctor Address 1>	ST						
24.2	Street or Mailing Address line 2	<Requesting Doctor Address 2>	ST						
24.3	City	<Requesting Doctor City>	ST						
24.4	State or Province	<Requesting Doctor State>	ST						
24.5	Postal Code	<Requesting Doctor Zip>	ST						
24.6	Country	<Requesting Doctor Country>	ST						SCC codes are sent with no translation.
24.7	Address Type	<Requesting Doctor Address Type>	ID						Options are: **B** = Firm/Business; **L** = Legal Address; **M** = Mailing; **O** = Office; **P** = Permanent
24.9	County Code	<Ordering Doctor County>	ST						
31	*Parent Universal Service Identifier*	<Parent Ordered Test>				////			Test code and associated attributes of parent ordered test when this test is a reflex. Matches contents of OBR-50. See also OBR-29 for related parent order number. Valued only when test is a reflex. **See Common Elements below, *Ordered Procedure* for full structure**
OBR Segment									
0	OBR	OBR	ID	R	R	R	R		
1	Set ID – OBR	1	NM						
2	*Placer Order Number*								
2.1	Placer Order Number	<Placer Order #>	ST					6, 25	"Foreign System" Placer Request Number. See also ORC-2. This field supports use of HL7 Escape sequences.

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
2.2	Namespace ID	<Placer Number NS ID>	ST						As posted with inbound NW, SN, and NA messages from the placer system
2.3	Universal Identifier	<Placer Number UID>	ST						As posted with inbound NW, SN, and NA messages from the placer system. Should be ISO Number (OID) or CLIA Number.
2.4	Universal Identifier Type	<Placer Number UID Type>	ST						As posted with inbound NW, SN, and NA messages from the placer system. **ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
3	*Filler Order Number*								
3.1	Filler Order Number	<SCC "LIS #">	ST						SCC Filler Number. See also ORC-3.
3.2	Namespace ID	<Order# Namespace ID>	ST						A constant value defined in *Universal Identifiers* for the *Code* ORDNUM representing the client/installation.
3.3	Universal Identifier	<Order# UID>	ST						An ISO-compliant OID is defined in *Universal Identifiers* for the *Code* ORDNUM representing the client/installation.
3.4	Universal Identifier Type	ISO	ST						**ISO** = International Standards Organization
4	*Ordered Procedure*	<Ordered Test>		A	A	A	A	31	**See Common Elements below, *Ordered Procedure***
7	Observation Date/Time	<Collected Date/Time>	TS						Empty for not collected specimens. Includes Timezone offset indicator
10	Collector Identifier	<Collecting Phlebotomist ID>	ST						Empty for not collected specimens
13	*Relevant Clinical Information*								
13.1	Identifier	<test level Diagnosis Code>	ST						First test level diagnosis code as stored in SoftLab database, SoftLab *Order* menu, *Check Medical Necessity, Service Code modifiers, Test Diagnosis*.
13.2	Text	<dictionary dx description>	ST						Text description of code as defined in Diagnosis setup table
13.3	Name of Coding System	<type of dx code>	ST						From dictionary definition. Should be defined to indicate "I9CDX"
14	Specimen Received Date/Time	<Received Date/Time>	TS						Empty for not received specimens
15	*Specimen Source*			////		////	////		
15.1	Source Code	<Specimen Source Code>	ST	////		////	////	29	SoftMic: Source code as defined by the user in the Microbiology system files. (e.g.: WND)
15.3	Source Name	<Specimen Source Name>	ST	////		////	////		SoftMic: Source name as defined by the user in the Microbiology system files. (e.g.: Abscess Wound). Requires special SoftMic parameter setup.
15.4	Site	<Specimen Site>	ST	////		////	////		SoftMic: Text description of the body site. (e.g.: Right Leg)
16	*Ordering Provider Information*	<Requesting Doctor>		A	A	A	A	27, 28	Matches ORC-12 **See Common Elements below, *Provider Information***
17	*Callback Phone Number (may repeat up to 5x)*	<Ordering Doctor Phone #>						5	Primary number is listed first, e-mail is listed last. Use Codes based on database field as follows: **WPN** - Primary Office Phone; **WPN** - Other Office Phone; **BPN** - Pager Number; **ORN** - Fax; **NET** - e-Mail Equipment Types based on database field as follows: **PH** - Primary Office Phone; **PH** - Other Office Phone; **BP** - Pager; **FX** - Fax; **Internet** - e-Mail **See Common Elements below, *Phone Number* for full structure**
19	Placer field 2	<Visit Number>	ST					6	As stored under Stay menu, HIS Visit Number. This field supports use of HL7 Escape sequences.
21	Filler field 2 (Mic only)		ST	////		////	////	18	Micro Significant Occurrence flag. **+** or **++**
21	Filler field 2 (Bank only)		ST	////	////		////		Describes the content of the Blood Bank result message: 'TEST', 'PRODUCT', 'ACTION' as determined by the 'resultTypeFormat_BB' SoftBank parameter.
21	*Filler field 2 (Gene only)*			////	////	////			*SoftGIS Module Supplemental Reports:*
21.1	Filler field 2, component 1		ST	////	////	////			"<GIS OrderNumber>_<technology>_<report_type>_<report_branch>"
21.2	Filler field 2, component 2		ST	////	////	////			SoftGIS Supplemental: "<report_revision>"
21.3	Filler field 2, component 3		ST	////	////	////			SoftGIS Supplemental: "<report_RecID>"

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Common   Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.   11/29/2023

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
22	Results Rpt/Status Chng - Date/Time	<Last Verified Date/Time>	TS						SoftLab: Latest verified date/time SoftMic: Latest status-change date SoftBank: Date the last test in a group of tests was resulted. Genetics: Sign out date. Includes Timezone offset indicator
24	Diagnostic Serv Sect ID	<Test Department>	ST						Department code for the ordered test as defined in the SoftLab Department Setup File. If none is defined, then the Department code of the first component test is used.
25	**Result Status**								
25.1	Status (ORU-Results)	<Result Status>	ST						**F** – Final – all modules. For SoftLab results, this indicates all tests for the requested procedure are resulted & verified. For all other results, this directly reflects result flags set in each module. **P** – Preliminary – all modules. For SoftLab results, this indicates at least one test on the requested procedure is not yet verified. For all other results, this directly reflects result flags set in each module. All SoftMic status codes are configurable including the result cancellation message. **R** – Revised Report – Micro/Genetics only. **S** – Supplemental Report – Micro/Genetics only. **C** – Corrected – all modules.
26	**Parent Result**					////			Valued only if the test in OBR-4 is created as a reflex test. Valued for result-based reflex tests. Other reflex rules may not provide a parent identity.
26.1.1	Parent Observation Identifier	<Parent test code - indiv test>	ST			////		32	OBX-3.1 of component test that triggered this ordered test as a reflex test. May be LOINC or Local code, depending on contents of OBX-3.
26.1.2	Parent Observation ID Text	<Parent test name>	ST			////		32	OBX-3.2 of component test that triggered this ordered test as a reflex test. Test description may be based on LOINC or Local code, depending on contents of OBX-3.
26.1.3	Parent Observation ID Name of Coding System	LN or L	ST			////			**LN** = LOINC® system, **L** = Local code
26.1.4	Parent Observation Alternate ID	<Other Parent individual test code>	ST			////		32	OBX-3.4 of component test that triggered this ordered test as a reflex test. May be LOINC or Local code, depending on contents of OBX-3.
26.1.5	Parent Observation Alternate ID Text	<Other Parent individual test name>	ST			////		32	OBX-3.5 of component test that triggered this ordered test as a reflex test. Test description may be based on LOINC or Local code, depending on contents of OBX-3.
26.1.6	Parent Observation Name of Alternate Coding System	L or LN	ST			////			**L** = Local code, **LN** = LOINC® system
26.1.9	Parent Observation Name of Alternate Coding System	<Parent test name>	ST			////		32	Same data as OBR-26.1.2
26.3	Parent Observation Value Descriptor	<Parent individual test result>	ST			////			OBX-5 of component test that triggered this ordered test as a reflex test. No formatting. Sent as received from reference labs.
27	**Quantity/Timing**								
27.1	Quantity	<Number of Items>	NM						Null value implies quantity of "1". Applies to SN or NW transactions only.
27.4	Start Date/Time	<Scheduled Collection Date & Time>	TS						a.k.a. To Be Collected Date/Time; same value as ORC-7.4 SoftLab/Genetics: Date and time as on the main Order Entry screen. Time is sent as 0000 when not entered in SCC. Includes Timezone offset indicator
27.6	Priority	<Priority>	ST					30	**S** – Stat; **A** – ASAP (Urgent); **R** – Routine; **T** – Timed
28	**Result Copies To** **(may repeat)**	<Copy-to Doctors>							**See Common Elements below, *Provider Information*** May repeat. See also PV1-8
29	**Parent Number**					////			Order Numbers and associated attributes of parent ordered test when this test is a reflex. See also ORC-31 and OBR-50 for related parent ordered test code. Valued only for Reflex Tests
29.1	**Placer Identifier**					////			

Seq	Element	Output	Type	ORU R01 / Lab	ORU R01 / Mic	ORU R01 / BB	ORU R01 / Gene	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
29.1.1	Placer Entity Identifier	<Parent Placer Order #>	ST			////			OBR-2.1 of parent ordered test that triggered this ordered test as a reflex test.
29.1.2	Placer Namespace ID	<Parent Placer Number NS ID>	ST			////			OBR-2.2 of parent ordered test that triggered this ordered test as a reflex test.
29.1.3	Placer Universal ID	<Parent Placer Number UID>	ST			////			OBR-2.3 of parent ordered test that triggered this ordered test as a reflex test.
29.1.4	Placer Universal ID Type	<Parent Placer Number UID Type>	ST			////			OBR-2.4 of parent ordered test that triggered this ordered test as a reflex test.
29.2	*Filler Identifier*					////			
29.2.1	Filler Entity Identifier	<Parent SCC "LIS #">	ST			////			OBR-3.1 of parent ordered test that triggered this ordered test as a reflex test.
29.2.2	Filler Namespace ID	<Order# Namespace ID>	ST			////			OBR-3.2 of parent ordered test that triggered this ordered test as a reflex test.
29.2.3	Filler Universal ID	<Order# UID>	ST			////			OBR-3.3 of parent ordered test that triggered this ordered test as a reflex test.
29.2.4	Filler Universal ID Type	ISO	ST			////			OBR-3.4 of parent ordered test that triggered this ordered test as a reflex test.
32	*Principal Result Interpreter*								
32.1.1	Common ID	<Tech ID>	ST						SCC User ID who verified the latest result Genetics and PathDx: SCC User ID who signed out the case.
32.1.2	Last Name	<Tech/User Last Name>	ST						Defined in Security or posted from reference labs
32.1.3	First Name	<Tech/User First Name>	ST						Defined in Security or posted from reference labs
32.1.4	Further Given Names or Initials	<Tech/User Middle Name>	ST						Defined in Security or posted from reference labs
32.1.5	Suffix	<Tech/User Suffix>	ST						Defined in Security or posted from reference labs
32.1.6	Prefix	<Tech/User Prefix>	ST						Defined in Security or posted from reference labs
32.1.7	Degree	<Tech/User Professional Suffix>	ST						Defined in Security or posted from reference labs
	Principal Result Interpreter Assigning Authority								NS ID, UID, and UID Type are defined in the *Universal Identifiers* table and are linked to a matching *Code* in both *User* setup in Security and the *Universal Identifiers* table.
32.1.9	Assigning Authority Namespace ID	<Tech/User AA Namespace ID>	ST						Defined in Security or posted from reference labs
32.1.10	Assigning Authority Universal ID	<Tech/User AA Universal ID>	ST						ISO Number (OID) or CLIA Number, defined in Security or posted from reference labs
32.1.11	Assigning Authority Universal ID Type	<Tech/User AA Universal ID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
34	Technician	<Tech ID who last entered a result>	ST						Related to OBR[22] Genetics: SCC Pathologist ID who signed out the case.
45	Procedure Code Modifier	<Service Code Modifiers>	ST						Service Code as stored in the SoftLab database, SoftLab *Order* menu, *Check Medical Necessity, Service Code modifiers.* Service Code may repeat up to a maximum of three times.
47	*Filler Supplemental Service Information*			////	////	////			Valued only with Genetics results.
47.1	Identifier	<Genetics Accession Number>	ST	////	////	////			Accession numbers generated for the ordered test. NOTE: This is a repeating field and will be repeated for every technology for the ordered test being resulted
47.2	Text	<Technology Identifier>	ST	////	////	////			Accession number identifier for the accession number in OBR-47.1. **LAB** - Laboratory; **MIC** - Microbiology; **FLW**- Flow Cytometry; **MOL** - Molecular; **CTG** - Cytogenetics; **BIO** - Biochemistry; **HLA** - Human Leukocyte Antigen; **DXP** - Diagnostic Pathology; **IWS** - Interpretative Workstation
47.3	Name of Coding System	L	ST	////	////	////			**L** - Local codes
50	*Parent Universal Service Identifier*	<Parent Ordered Test>				////		31	Test code and associated attributes of parent ordered test when this test is a reflex. Matches contents of ORC-31. See also OBR-29 for related parent order number. Valued only when test is a reflex. **See Common Elements below, *Ordered Procedure* for full structure**
DG1 Segment									
0	DG1	DG1	ID	R	R	////	R	R	
1	Set ID - DG1	<counter>	NM			////			Increments from 1 to n for each group of segments
3	*Diagnosis*					////			

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			ORU R01	ORU R01	ORU R01	ORU R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
3.1	Diagnosis Code	<test level Diagnosis Code>	ST			////			Test Level diagnosis codes as stored in SoftLab database, SoftLab *Order* menu, *Check Medical Necessity, Test Diagnosis.*
3.2	Text	<dictionary dx description>	ST			////			Text description of code as defined in Diagnosis setup table
3.3	Name of Coding System	<type of dx code>	ST			////			From dictionary definition. Should be defined to indicate "I9CDX"
3.7	Coding System Version ID	<dx code version>	ST			////			From dictionary definition.
SPM Segment									
0	SPM	SPM	ID	R	R	R	R		
1	Set ID - SPM	<counter>	NM						
2	*Specimen ID*								
2.2	*Filler Specimen ID*								
2.2.1	Filler Specimen Number	<Barcode>:<TubeID>	ST						Concatenation of internal Tube ID and Specimen Barcode for the collection tube. System is configurable to send either Dynamic barcode or Printed barcode as Barcode.
2.2.2	Namespace ID	<Order# Namespace ID>	ST						A constant value is defined in *Universal Identifiers* for the *Code* ORDNUM representing the client/installation. Same data as ORC-3.2
2.2.3	Universal ID	<Order# UID>	ST						An ISO-compliant OID is defined in *Universal Identifiers* for the *Code* ORDNUM representing the client/installation. Same data as ORC-3.3
2.2.4	Universal ID Type	ISO	ST						**ISO** = International Standards Organization
4	*Specimen Type*							29	
4.1	Identifier	<Specimen Type Code>	ST						Code defined in *HIS Mapping* Table, *External Code*. SNOMED or HL7 codes recommended.
4.2	Text	<Specimen Type Name>	ST						Defined in *HIS Mapping Table, Description* Column.
4.3	Name of Coding System	<Specimen Type Code System>	ST						Defined in *HIS Mapping* table, *Coding System*, "SCT" (SNOMED) or HL7 table recommended.
4.4	Alternate Identifier	<SCC specimen code>	ST						Specimen Tube Type code or Micro Specimen code formerly sent in OBR-15.1
4.5	Alternate Text	<SCC specimen name>	ST						Defined in Specimen Tube Type setup or Micro Specimens setup
4.6	Name of Alternate Coding System	L	ST						**L** = Local system
4.7	Coding System Version ID	<Specimen Type Coding System Version>	ST						Defined in *HIS Mapping* table *Coding System Version*. (Note: SNOMED version is typically expressed as a date)
4.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
4.9	Original Text	<Specimen Type Name>	ST						Same data as above.
5	*Specimen Type Modifier*								
5.1	Identifier	<Specimen Type Modifier Code>	ST						Code defined in *HIS Mapping* Table, *External Code*. SNOMED or HL7 codes recommended.
5.2	Text	<Specimen Type Modifier Text>	ST						Defined in *HIS Mapping Table, Description* Column.
5.3	Name of Coding System	<Specimen Type Modifier Coding System>	ST						Defined in *HIS Mapping* table, *Coding System*, "SCT" (SNOMED) or HL7 table recommended.
5.4	Alternate Identifier	<SCC Specimen Type Modifier Code>	ST						Specimen Type modifier is defined as a specimen attribute. Content of data will be dependent on specimen attribute definition
5.5	Alternate Text	<SCC Specimen Type Modifier Text>	ST						Specimen Type modifier is defined as a specimen attribute. Content of data will be dependent on specimen attribute definition
5.6	Name of Alternate Coding System	L	ST						**L** = Local system
5.7	Coding System Version ID	<Specimen Type Modifier Coding System Version>	ST						Defined in *HIS Mapping* table *Coding System Version*. (Note: SNOMED version is typically expressed as a date)
5.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
5.9	Original Text	<Specimen Type Modifier Text>	ST						Same data as above.
6	*Specimen Additives*								
6.1	Identifier	<Specimen Additive Code>	ST						Code defined in *HIS Mapping* Table, *External Code*. HL7 codes recommended.
6.2	Text	<Specimen Additive Text>	ST						Defined in *HIS Mapping Table, Description* Column.

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
6.3	Name of Coding System	\<Specimen Additive Coding System\>	ST						Defined in *HIS Mapping* table, *Coding System*. "HL70371" recommended.
6.4	Alternate Identifier	\<SCC Specimen Additive Code\>	ST						Specimen additive is defined as a specimen attribute. Content of data will be dependent on specimen attribute definition
6.5	Alternate Text	\<SCC Specimen Additive Text\>	ST						Specimen additive is defined as a specimen attribute. Content of data will be dependent on specimen attribute definition
6.6	Name of Alternate Coding System	L	ST						**L** = Local system
6.7	Coding System Version ID	\<Specimen Additive Coding System Version\>	ST						*Defined in HIS Mapping Table.*
6.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
6.9	Original Text	\<Specimen Additive Text\>	ST						Same data as above.
7	***Specimen Collection Method***								
7.1	Identifier	\<Specimen Collection Method Code\>	ST						Code defined in *HIS Mapping* Table, *External Code*. SNOMED or HL7 codes recommended.
7.2	Text	\<Specimen Collection Method Text\>	ST						Defined in *HIS Mapping Table, Description* Column.
7.3	Name of Coding System	\<Specimen Collection Method Coding System\>	ST						Defined in *HIS Mapping* table, *Coding System*. "SCT" (SNOMED) or "HL70488" recommended.
7.4	Alternate Identifier	\<Specimen Collection Method Code\>	ST						Specimen Collection method code as stored with the specimen/collection container. NOTE: Specimen draw type code is defined in *SSM, General, SoftLab, Specimens, Specimen Draw Types*
7.5	Alternate Text	\<SCC Specimen Collection Method Text\>	ST						Specimen collection method text as defined in *Draw Type Value* column associated to the Specimen Draw type stored with the specimen/collection container.
7.6	Name of Alternate Coding System	L	ST						**L** = Local system
7.7	Coding System Version ID	\<Specimen Collection Method Coding System Version\>	ST						Defined in *HIS Mapping* table *Coding System Version*. (Note: SNOMED version is typically expressed as a date)
7.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
7.9	Original Text	\<Specimen Collection Method Text\>	ST						Same data as above.
8	***Specimen Source Site***								Micro results: Site text is sent in component 9 with all other components blank.
8.1	Identifier	\<Specimen Site Code\>	ST						Code defined in *HIS Mapping* Table, *External Code*. SNOMED or HL7 codes recommended.
8.2	Text	\<Specimen Site Name\>	ST						Defined in *HIS Mapping Table, Description* Column.
8.3	Name of Coding System	\<Specimen Site Coding System\>	ST						Defined in *HIS Mapping* table, *Coding System*. "SCT" (SNOMED) or HL7 table recommended.
8.4	Alternate Identifier	\<SCC Specimen Site Code\>	ST						Specimen source site is defined as a specimen attribute. Content of data is dependent on specimen attribute definition
8.5	Alternate Text	\<SCC Specimen Site Name\>	ST						Specimen source site is defined as a specimen attribute. Content of data is dependent on specimen attribute definition. For SoftMic results shall contain the Micro site that is free text.
8.6	Name of Alternate Coding System	L	ST						**L** = Local system
8.7	Coding System Version ID	\<Specimen Site Coding System Version\>	ST						Defined in *HIS Mapping* table *Coding System Version*. (Note: SNOMED version is typically expressed as a date)
8.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
8.9	Original Text	\<Specimen Site Name\> or \<Micro Site text\>	ST						For micro, textual Site information is sent here as formerly sent in OBR-15.4, with no other components valued.
9	***Specimen Source Site Modifier***								
9.1	Identifier	\<Specimen Site Modifier Code\>	ST						Code defined in *HIS Mapping Table, External Code.* SNOMED or HL7 codes recommended.
9.2	Text	\<Specimen Site Modifier Text\>	ST						Defined in *HIS Mapping Table, Description* Column.
9.3	Name of Coding System	\<Specimen Site Modifier Coding System\>	ST						Defined in *HIS Mapping* table, Coding System. "SCT" (SNOMED) or HL7 table recommended.
9.4	Alternate Identifier	\<SCC Specimen Site Modifier Code\>	ST						Specimen source site modifier is defined as a specimen attribute. Content of data is dependent on specimen attribute definition.

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
9.5	Alternate Text	<SCC Specimen Site Modifier Text>	ST						Specimen source site modifier is defined as a specimen attribute. Content of data is dependent on specimen attribute definition.
9.6	Name of Alternate Coding System	L	ST						**L** = Local system
9.7	Coding System Version ID	<Specimen Site Modifier Coding System Version>	ST						Defined in *HIS Mapping* table *Coding System Version*. (Note: SNOMED version is typically expressed as a date)
9.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
9.9	Original Text	<Specimen Site Modifier Text>	ST						Same data as above.
12	*Specimen Collection Amount*								
12.1	Quantity	<Specimen Collection Amount>	NM						Amount to be collected defined in Specimen Setup
12.2.1	Units Identifier	<Specimen Collection Units Code>	ST						Defined in *HIS Mapping Table*. Unified Code for Units of Measure (UCUM) codes recommended.
12.2.2	Units Text	<Specimen Collection Units Text>	ST						Defined in *HIS Mapping Table*.
12.2.3	Units Coding System	<Specimen Collection Units Coding System>	ST						Defined in *HIS Mapping Table*. "UCUM" recommended.
12.2.4	Units Alternate Identifier	<SCC Specimen Collection Units Code>	ST						Specimen collection amount is defined as a specimen attribute. Content of data is dependent on specimen attribute definition.
12.2.5	Units Alternate Text	<SCC Specimen Collection Units Text>	ST						Specimen collection amount is defined as a specimen attribute. Content of data is dependent on specimen attribute definition.
12.2.6	Units Alternate Coding System	L	ST						**L** = Local system
12.2.7	Units Coding System Version ID	<Specimen Collection Units Coding System Version>	ST						Defined in *HIS Mapping Table*.
12.2.8	Units Alt. Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
12.2.9	Units Original Text	<Specimen Collection Units Text>	ST						Same data as above.
17	*Specimen Collection Date/Time*								
17.1	Range Start Date/Time	<Specimen Collected D/T>	TS						Includes Timezone offset indicator
17.2	Range End Date/Time	<Specimen Collected End D/T>	TS						Includes Timezone offset indicator
18	Specimen Received Date/Time	<Specimen Received D/T>	TS						Includes Timezone offset indicator
21	*Specimen Reject Reason*								
21.1	Identifier	<Specimen Rejection Reason Code>	ST						Defined in *HIS Mapping Table*. HL7 codes as used in SCC are recommended.
21.2	Text	<Specimen Rejection Reason Text>	ST						Defined in *HIS Mapping Table*.
21.3	Name of Coding System	<Specimen Rejection Reason Coding System>	ST						Defined in *HIS Mapping Table*. "HL70490" recommended.
21.4	Alternate Identifier	<SCC Specimen Rejection Reason Code>	ST						Specimen rejection will be defined as a specimen attribute. Content of data will be dependent on specimen attribute definition. Recommened codes are the following. **EX** = Expired; **QS** = Quantity not sufficient; **RB** = Broken container; **RC** = Clotting; **RD** = Missing collection date; **RA** = Missing patient ID number; **RE** = Missing patient name; **RH** = Hemolysis; **RI** = Identification problem; **RM** = Labeling; **RN** = Contamination; **RP** = Missing phlebotomist ID; **RR** = Improper storage; **RS** = Name misspelling
21.5	Alternate Text	<SCC Specimen Rejection Reason Text>	ST						Specimen rejection will be defined as a specimen attribute. Content of data is dependent on specimen attribute definition.
21.6	Name of Alternate Coding System	L	ST						**L** = Local system
21.7	Coding System Version ID	<Specimen Rejection Reason Coding System Version>	ST						Defined in *HIS Mapping Table*.
21.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
21.9	Original Text	<Specimen Rejection Reason Text>	ST						Same data as above.
24	*Specimen Condition*								
24.1	Identifier	<Specimen Condition Code>	ST						Defined in *HIS Mapping Table*. HL7 codes as used in SCC are recommended.
24.2	Text	<Specimen Condition Text>	ST						Defined in *HIS Mapping Table*.

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
24.3	Name of Coding System	\<Specimen Condition Coding System\>	ST						Defined in *HIS Mapping Table.* "HL70493" recommended.
24.4	Alternate Identifier	\<SCC Specimen Condition Code\>	ST						Code for Condition captured for each specimen during collection. **AUT** = Autolyzed; **CLOT** = Clotted; **CON** = Contaminated; **COOL** = Cool; **FROZ** = Frozen; **HEM** = Hemolyzed; **LIVE** = Live; **ROOM** = Room Temp; **SNR** = Sample Not Received
24.5	Alternate Text	\<SCC Specimen Condition Text\>	ST						Specimen condition is defined as a specimen attribute. Content of data is dependent on specimen attribute definition.
24.6	Name of Alternate Coding System	L	ST						**L** = Local system
24.7	Coding System Version ID	\<Specimen Condition Coding System Version\>	ST						Defined in *HIS Mapping Table*.
24.8	Alternate Coding System Version ID	NA	ST						**NA** = No versioning applicable for Local codes
24.9	Original Text	\<Specimen Condition Text\>	ST						Same data as above.
	Common Elements with subfields								
	Provider Information								Elements marked with ᵠ are sent in OBX-25 as posted with Reference Lab results.
f.1	Physician Code	\<Doctor NPI\>	ST					27, 28	Doctor NPI number as seen in SoftLab Doctor setup files. ᵠ
f.2	Physician Last Name	\<Doctor Last Name\>	ST						ᵠ
f.3	Physician First Name	\<Doctor First Name\>	ST						ᵠ
f.4	Physician Middle Name	\<Doctor Middle Name\>	ST						ᵠ
f.5	Physician Name Suffix	\<Doctor Name Suffix\>	ST						ᵠ
f.6	Physician Name Prefix	\<Doctor Title\>	ST						ᵠ
f.8	Physician Code	\<SCC Doctor code\>	ST	A	A	A	A	27, 28	15-character SCC primary Doctor ID as defined in SoftLab Doctor Setup files.
	Provider ID Assigning Authority								NS ID, UID, and UID Type are defined in the *Universal Identifiers* table and are linked to a matching *Code* in both *Doctors* setup and the *Universal Identifiers* table.
f.9.1	Assigning Authority Namespace ID	\<Doctor AA NS ID\>	ST						ᵠ
f.9.2	Assigning Authority Universal ID	\<Doctor AA UID\>	ST						ISO Number (OID) or CLIA Number or other identifier. ᵠ
f.9.3	Assigning Authority Universal ID Type	\<Doctor AA UID Type\>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable. ᵠ
f.10	Name Type Code	L	ST						Configured to reflect the type of name used. **L** = Legal name; **D** = Display name
f.13	Identifier Type Code	\<Type Code\>	ST						Reflects the type of code sent in subfield 1. **DN** = Doctor number (locally defined); **NPI** = NPI code
	Provider ID Assigning Facility								
f.14.1	Assigning Facility Namespace ID	\<Doctor AF NS ID\>	ST						ᵠ
f.14.2	Assigning Facility Universal ID	\<Doctor AF UID\>	ST						ᵠ
f.14.3	Assigning Facility Universal ID Type	\<Doctor AF UID Type\>	ST						ᵠ
f.21	Professional Suffix	\<SCC Doctor Pro Suffix\>	ST						ᵠ
	Phone Number - Up to 5 repetitions as applicable to the field - Phone number if available, otherwise e-mail address								
f[n].2	Telecommunication Use Code	\<Use Code\>	ID						Based on database field as described for each element. **PRN** - Primary Phone; **ORN** - Other Phone; **WPN** - Business Phone; **BPN** - Pager Number; **NET** - Internet
f[n].3	Telecommunication Equipment Type	\<Equipment Type\>	ST						If *Use Code* represents a phone, as stored in *Equipment Type* field: **PH** - Telephone; **FX** - Fax; **MD** - Modem; **CP** - Cellular Phone; **BP** - Beeper If *Use Code* represents e-mail (NET): **Internet** - Internet Address
f[n].4	e-mail Address	\<e-mail address\>	ST						empty for phone number *Use Codes* PRN, ORN, WPN, BPN
f[n].5	Country Code	\<Phone #, country prefix\>	ST						empty for *Use Code* NET
f[n].6	Area Code	\<Phone #, area code\>	ST					5	empty for *Use Code* NET

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU	ORU	ORU	ORU		
	MSH-9.2 Event Code			R01	R01	R01	R01		
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
f[n].7	Local Phone Number	<Phone #, local #>	ST					5	empty for *Use Code* NET
f[n].8	Extension	<Phone #, extension>	ST						empty for *Use Code* NET
f[n].9	Text	<comment>	ST						
	Ordered Procedure (OBR-4, ORC-31, OBR-50)								
f.1	Universal Service Identifier (LOINC)	<LOINC Code - ordered test> or <SCC Code - ordered test>	ST	R	R	R	R	31	LOINC code as defined in SoftLab Test Setup. If no LOINC code is defined, the test code to be sent in OBR-4.4 is sent here.
f.2	Universal Service Text	<LOINC Name> or <SCC Test Name>	ST						Name as defined in LOINC dictionary. If no LOINC code is defined, SCC test name is mapped to be sent here.
f.3	Name of Universal Service Coding System	LN or L	ST	A	A	A	A		**LN** = LOINC® system; **L** = Local system
f.4	Alternate Universal Service Identifier	<SCC Code - ordered test>	ST	A	A	A	A	31	SCC primary code for the ordered test or procedure as defined in Test Setup dictionaires.
f.5	Alternate Universal Service Text	<SCC Test Name>	ST						
f.6	Name of Alternate Coding System	L	ST	A	A	A	A		**L** = Local system
f.7	Coding System Version ID	<LOINC Version>	ST						As defined in LOINC dictionary
f.8	Alternate Coding System Version ID	NA	ST	A	A	A	A		**NA** = No versioning applicable for Local codes
f.9	Universal Service Text	<LOINC Name> or <SCC Test Name>	ST						Same data as OBR-4.2
	Individual Test Components (OBX-3)								
OBX-3.1	Universal Service Identifier	<LOINC Code - component test>	ST					32	LOINC code is captured from the LOINC field in Test setup when the test is performed in-house and captured with reference lab results when the test was performed by a reference lab.
OBX-3.2	Universal Service Text	<LOINC Name>	ST						As defined in LOINC dictionary.
OBX-3.3	Name of Coding System	LN	ST	A	A	A	A		**LN** = LOINC® system
OBX-3.4	Alternate Universal Service Identifier	<SCC Code - component test>	ST	A	A	A	A	32	SCC primary code for the individual test as defined in Test Setup dictionaires.
OBX-3.5	Alternate Universal Service Text	<SCC Test Name>	ST						
OBX-3.6	Name of Alternate Coding System	L	ST	A	A	A	A		**L** = Local code
OBX-3.7	Coding System Version ID	<LOINC Version>	ST						From LOINC dictionary
OBX-3.8	Alternate Coding System Version ID	NA	ST	A	A	A	A		**NA** = No versioning applicable for Local codes
OBX-3.9	Universal Service Text	<LOINC Name>	ST						Same data as OBX-3.2
	Performing Organization Information								Based on database dictionary elements for in-house tests. As received and posted with results from reference labs.
23.1	Performing Organization Name	<Individual Test Location Name>	ST						
23.2	Performing Organization Name Type Code	<Individual Test Location Name Type>	ST	A	A	A	A		Options are: **A** = Alias name; **D** = Display name; **L** = Legal name
	Performing Org Assigning Authority		ST						NS ID, UID, and UID Type are defined in the *Universal Identifiers* table and are linked to a matching *Code* for Performing Organization in both *Location* setup and the *Universal Identifiers* table.
23.6.1	Assigning Authority Namespace ID	<Performing Org AA NS ID>	ST						
23.6.2	Assigning Authority Universal ID	<Performing Org Universal ID>	ST						ISO Number (OID) or CLIA Number or other identifier.
23.6.3	Assigning Authority Universal ID Type	<Performing Org UID Type>	ST						**ISO** = International Standards Organization; **CLIA** = CLIA number; **L** = local code; others are acceptable.
23.7	Performing Organization Identifier Type Code	XX	ST	A	A	A	A		**XX** = Organization Identifier
23.10	Performing Organization Identifier	<Individual Test Location Code>	ST						
	Performing Organization Address								Based on database dictionary elements for in-house tests. As received and posted with results from reference labs.
24.1.1	Street or Mailing Address line 1	<Location Street Address 1>	ST						Location Setup Address line 1

Seq	Element	Output	Type	ORU R01	ORU R01	ORU R01	ORU R01	Rules	Notes
	MSH-9.1 Message Type			ORU R01	ORU R01	ORU R01	ORU R01		
	MSH-9.2 Event Code								
	ORC-1 Control Code			RE	RE	RE	RE		
	Origin			Lab	Mic	BB	Gene		
24.2	Street or Mailing Address line 2	<Location Street Address 2>	ST						Location Setup Address line 2
24.3	City	<Location City>	ST						Location Setup City
24.4	State or Province	<Location State>	ST						Location Setup State
24.5	Zip Code	<Location Zip>	ST						Location Setup Zip
24.6	Country Code	<Location Country>	ST						Location Setup Country
24.7	Address Type	<Location Address Type>	ST	A	A	A	A		Options are: **B** = Firm/Business; **L** = Legal Address; **M** = Mailing; **O** = Office; **P** = Permanent
24.9	County Code	<Location County>	ST						Location Setup County

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Common   Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.   11/29/2023

Rev: 1.0	**170.315(b)(10) HL7 Result Reporting for EHI Export, release 4.5** **Result Segments**							
Seq	**Data Element**	**Output**	**Type**	**ORU R01 RE Lab**	**ORU R01 RE BB**	**Rules**	**Notes (Discrete Lab)**	**Notes (Discrete BB)**
	MSH-9.1 Message Type			ORU R01 RE Lab	ORU R01 RE BB			
	MSH-9.2 Event Code							
	ORC-1 Control Code							
	Origin							
OBX Segment								
0	OBX	OBX	ID	R	R			
1	Set ID – OBX	<counter>	NM					
2	Value Type	'ST' or 'NM' or 'TX' or 'CWE'	ID	R	R		**ST** = string data **NM** = Numeric **CWE** = Coded Element	**TX** = Textual data
3	*Observation Identifier*	<Test ID>				31	See *Common Elements, Individual Test Components* Represents Individual Test	See *Common Elements, Individual Test Components* Represents Test, Product, or Action
4	Observation Sub-ID	<counter>	ST				Unique index (from 1) to be used when Observation identifiers (OBX-3 values) repeat within a series of OBX segments	Unique index (from 1) to be used when Observation identifiers repeat within a series of OBX segments (Products, Actions)
5	*Observation Value - ST, TX types*							
5.1	Observation Value	<Test Result>	ST	A		6, 11, 12, 20, 33	Non-numeric, non-coded (non-NM, non-CWE) results. This field supports use of HL7 Escape sequences.	Includes BB Short Comment This field supports use of HL7 Escape sequences.
5	*Observation Value - NM type (SN is not used)*				////		**SN form is not used.** Numeric results with comparitors and symbolic separators are sent as ST-type.	Not Used
5.1	Number	<numeric test result with symbols>	NM	A	////		Numeric result including sign character -, +	Not Used
5	*Observation Value - CWE-type*				////		All lab results that are defined in Test Setup as Coded type are assumed to contain codes as results and are sent as CWE type. SNOMED coding system is used.	Not Used
5.1	Identifier	<Result Code>	ST	R	////		A SNOMED code or other coded value as entered as the result.	Not Used
5.2	Text	<Result Text (UC)>	ST		////		Textual description of the code as defined in *SNOMED Codes* table.	Not Used
5.3	Name of Coding System	<Result Coding System (UC)>	ST		////		Coding system as defined in *SNOMED Codes* table.	Not Used
5.7	Coding System Version ID	<Result Coding System Version (UC)>	ST		////		Date value as defined in *SNOMED Codes* table.	Not Used
5.9	Original Text	<Result Text (UC)>	ST		////		Same data as OBX-5.2	Not Used
6	*Units*				////			Not Used
6.1	Units Identifier	<Units (UC)>	ST		////		Universal code for units defined in *HIS Mapping* table. Unified Code for Units of Measure (UCUM) codes recommended. Ref lab tests: sent as received.	Not Used
6.2	Units Text	<Units Text (UC)>	ST		////		Defined in *HIS Mapping* table. Ref lab tests: sent as received.	Not Used
6.3	Units Coding System	<Units Coding System (UC)>	ST		////		Defined in *HIS Mapping Table* "UCUM" recommended. Ref lab tests: sent as received.	Not Used
6.4	Units Alternate Identifier	<SCC Units>	ST		////		Code for units defined in Test setup.	Not Used
6.5	Units Alternate Text	<Units Text>	ST		////		*Value* defined in SSM setup.	Not Used

Seq	Data Element	Output	Type			Rules	Notes (Discrete Lab)	Notes (Discrete BB)
	MSH-9.1 Message Type			ORU R01	ORU R01			
	MSH-9.2 Event Code			ORU R01	ORU R01			
	ORC-1 Control Code			RE	RE			
	Origin			Lab	BB			
6.6	Units Alternate Coding System	L	ST			////	**L** = Local system	Not Used
6.7	Units Coding System Version ID	<Units Coding System Version (UC)>	ST			////	Defined in *HIS Mapping Table* . Ref lab tests: sent as received.	Not Used
6.8	Units Alt. Coding System Version ID	NA	ST			////	**NA** = No versioning applicable for Local codes	Not Used
7	References Range	<Reference Range>	ST			//// 6	text or <lower> - <upper> Ref lab tests: sent as received. This field supports use of HL7 Escape sequences.	Not Used
8	**Abnormal Flags (HL7 v2.5.1)**					////		
8.1	Abnormal Flags ID	<Abnormal Flags (UC)>	ST			////	Universal code for flags defined in *HIS Mapping* table. HL7 codes recommended. Ref lab tests: sent as received.	Universal code for flags defined in *HIS Mapping* table. HL7 codes recommended.
8.2	Text	<Abnormal Flags Text (UC)>	ST			////	Defined in *HIS Mapping Abnormal Flags* table. Ref lab tests: sent as received.	Defined in *HIS Mapping Abnormal Flags* table.
8.3	Name of Coding System	<Abnormal Flags Coding System (UC)>	ST			////	Defined in *HIS Mapping Table* ."HL70078" recommended. Ref lab tests: sent as received.	Defined in *HIS Mapping Table* ."HL70078" recommended.
8.4	Alternate Identifier	<SCC Abnormal Flags>	ST			//// 34	A subset of HL7 standard codes	A subset of HL7 standard codes
8.5	Alternate Text	<Abnormal Flags Text (UC)>	ST			////	Same data as OBX-8.2.	Same data as OBX-8.2.
8.6	Name of Alternate Coding System	L	ST			////	**L** = Local system	**L** = Local system
8.7	Coding System Version ID	<Abnormal Flags Coding System Version (UC)>	ST			////	Defined in *HIS Mapping Table.* Ref lab tests: sent as received.	Defined in *HIS Mapping Table.*
8.8	Alternate Coding System Version ID	NA	ST			////	**NA** = No versioning applicable for Local codes	**NA** = No versioning applicable for Local codes
11	**Observation Result Status**							
11.1	Status	<Result Status>	ST	A	A		**P** - Pending **F** - Final **C** - Correction **X** - Cancelled	**P** - Pending **F** - Final **X** - Cancelled **C** - Corrected
14	Date/Time of the Observation	<Observation Date/Time>	TS			22	Includes timezone indicator	Status Date/Time
15	Producer's ID	<Performing Site Code>	ST			35		
16	**Responsible Observer**							
16.1	Common ID	<Tech ID who entered the result>	ST				SCC User ID	SCC User ID
17	**Observation Method**							
17.1	Method Identifier	<Observation Method Code>	ST				Code defined *HIS Mapping* table. No specific coding system recommended. Ref lab tests: sent as received.	Code defined *HIS Mapping* table. No specific coding system recommended. Ref lab tests: sent as received.
17.2	Text	<Observation Method Text (UC)>	ST				Text defined H*IS Mapping* table. . Ref lab tests: sent as received.	Text defined *HIS Mapping* table. Ref lab tests: sent as received.
17.3	Name of Coding System	<Observation Method Coding System (UC)>	ST				Defined in *HIS Mapping, Coding System.* Ref lab tests: sent as received.	Defined in *HIS Mapping, Coding System.* Ref lab tests: sent as received.
17.7	Coding System Version ID	<Observation Method Coding System Version (UC)>	ST				Defined in *HIS Mapping, Coding System Version* . Ref lab tests: sent as received.	Defined in *HIS Mapping, Coding System Version* . Ref lab tests: sent as received.
19	Resulted Date/Time	<Result Verified Date/Time>	TS				Verified Date/Time	Verified Date/Time
23	**Performing Organization Information**	<Location Info>					See *Common Elements, Performing Organization Information* Ref lab tests: sent as received.	See *Common Elements, Performing Organization Information*

Seq	Data Element	Output	Type			Rules	Notes (Discrete Lab)	Notes (Discrete BB)
	MSH-9.1 Message Type			ORU R01	ORU R01			
	MSH-9.2 Event Code			RE	RE			
	ORC-1 Control Code			Lab	BB			
	Origin							
24	*Performing Organization Address*	\<Location Address\>					See *Common Elements, Performing Organization Address* Ref lab tests: sent as received.	See *Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	\<Location Doctor\>					See *Common Elements, Provider Information* Based on setup. Ref lab tests: sent as received.	See *Common Elements, Provider Information* Based on setup.
OBX Segment (OBX(B))		**Used for transmitting product details as discrete results**						
0	OBX	OBX	ID	////	R		Not Used	
1	Set ID – OBX	\<counter\>	NM	////			Not Used	
2	Value Type	"ST"	ID	////	R		Not Used	ST
3	*Observation Identifier*	\<Test ID\>		////		31	Not Used	See *Common Elements, Individual Test Components* Represents Product or Action
4	Observation Sub-ID	\<counter\>	ST	////			Not Used	Index (from 1:01) reflecting Sub-ID of parent OBX followed by a unique 2-digit counter. Separator character (":") is optional and configurable.
5	Observation Value	\<Test Result\>	ST	////	A	6, 12, 14	Not Used	This field supports use of HL7 Escape sequences.
6	*Units*			////			Not Used	
6.1	Units Identifier	\<Units (UC)\>	ST	////			Not Used	Universal code for units defined in *HIS Mapping* table. Unified Code for Units of Measure (UCUM) codes recommended.
6.2	Units Text	\<Units Text (UC)\>	ST	////			Not Used	Defined in *HIS Mapping* table.
6.3	Units Coding System	\<Units Coding System (UC)\>	ST	////			*Not Used*	Defined in *HIS Mapping Table* "UCUM" recommended.
6.4	Units Alternate Identifier	\<SCC Units\>	ST	////			Not Used	Code for units defined in Test setup.
6.5	Units Alternate Text	\<Units Text\>	ST	////			*Not Used*	*Value* defined in SSM setup.
6.6	Units Alternate Coding System	L	ST	////			Not Used	**L** = Local system
6.7	Units Coding System Version ID	\<Units Coding System Version (UC)\>	ST	////			*Not Used*	Defined in *HIS Mapping Table* .
6.8	Units Alt. Coding System Version ID	NA	ST	////			Not Used	**NA** = No versioning applicable for Local codes
11	Observation Result Status	\<Result Status\>	ST	////			Not Used	**P** - Pending **F** - Final **X** - Cancelled
14	Date/Time of the Observation	\<Observation Date/Time\>	TS	////		22	Not Used	
15	Producer's ID	\<Performing Site Code\>	ST	////		35	Not Used	
16	*Responsible Observer*			////			Not Used	
16.1	Common ID	\<Tech ID who entered the result\>	ST	////			Not Used	Not Used
19	Resulted Date/Time	\<Result Verified Date/Time\>	TS	////			Not Used	
NTE Segment								
0	NTE	NTE	ID	R	R			
1	Set ID - NTE	\<counter\>	NM				Increments from 1 to n for each group of segments	Increments from 1 to n for each group of segments
2	Source of Comment	L	ST	A	A		**L** = Filler is source of comment	**L** = Filler is source of comment
3	Comment Text	\<comment text\>	TX			6, 7, 21	Line of comment. May be blank if user enters blank lines. This field supports use of HL7 Escape sequences.	Line of comment. May be blank if user enters blank lines. This field supports use of HL7 Escape sequences.
4	*Comment Type*							

SCC Standard EHI export rel4.5.xlsx
Results
Key: R = Required, C = Conditionally Required, A = Always Sent, \<empty\> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.
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Seq	Data Element	Output	Type	ORU R01 / RE / Lab	ORU R01 / RE / BB	Rules	Notes (Discrete Lab)	Notes (Discrete BB)
	MSH-9.1 Message Type			ORU R01	ORU R01			
	MSH-9.2 Event Code							
	ORC-1 Control Code			RE	RE			
	Origin			Lab	BB			
4.1	Identifier	RE	ID	A	A		**RE** = Remark - all comments are characterized as remarks	**RE** = Remark - all comments are characterized as remarks
4.2	Text	Remark	ST	A	A			
4.3	Name of Coding System	HL70364	ST	A	A			
4.4	Alternate Identifier	<Comment Type identifier>					**TCOM** = Test Comment **DCKF** = Delta Checking Failure **LPNV** = Low Panic Value **HPNV** = High Panic Value **LANV** = Low Abnormal Value **HANV** = High Abnormal Value **LABV** = Low Absurd Value **HABV** = High Absurd Value **RFRM** = Multiline Reference Range **RRNG** = Multiline Reference Range (Referal Lab (old RFL tag) **ELSG** = *Electronic Signature (Path Review) **RCMS** = Result field with Canned Message Code **FCOM** = Result comments (not generated from canned message in the result field) **RMOD** = Corrected Results text **DMOD** = Demographic Update **MODCOT** = Corrected Result Comments text. **CALLED** = Called text	**RMOD** = Corrected Results text
4.6	Name of Alternate Coding System	L	ST	A	A		**L** = Local code. Primary codes are locally defined codes.	**L** = Local code. Primary codes are locally defined codes.
4.7	Coding System Version ID	2.5.1	ST	A	A		2.5.1	2.5.1
4.8	AlternateCoding System Version ID	NA	ST	A	A		**NA** = No versioning applicable for Local codes	**NA** = No versioning applicable for Local codes

Cell: AD14
Comment: OBX-4, Blood Bank results:

When sending Blood Bank Product results OBX-4 can be:
a) The BB Product Sequence #. The same sequence # is sent for Product segments and Expanded Discrete segments.
b) The BB Product Sequence # for Product segments and the BB Product Sequence # plus a 2-digit counter for Expanded Discrete segments. Note: Delimiters like ':' or '-' can be inserted.
c) The UBP ((DonationNumber)-(ISBT ProductCode)).

Cell: AC16
Comment: OBX-5, Lab results:
When configured to send cancellation as a result event upon cancellation all the components of a group test and OBX[11] will be valued with an "X".

Cell: AD16
Comment: OBX-5, Blood Bank results:
SoftBank Discrete Long Text Style for Discrete, Hybrid, and OBX Report forms of results: OBX[5] is formatted as lines of the printed report, each line containing:
 Tests: Test Name, Interpretation, Short Comment, Status date/time
 Products: Product Name, Unit #, Status, Status date/time
 Actions: Action Name, Lot #, Status, Status date/time

SoftBank Discrete Short Text Style for Discrete and Hybrid forms of results: OBX[5] is formatted as a long string, each line containing:
 Tests: Test Interpretation
 Products: Unit # and Status
 Actions: Lot # and Status

SoftBank Discrete Extended Style for Discrete form of results: OBX[5] is formatted as a long string, each line containing:
 Tests: Test Interpretation
 Products: Unit # and Status
 Actions: Lot # and Status

Cell: AE16
Comment: OBX-5, OBX-Report format:
OBX[5] in OBX-Report format may be sent as null to reflect blank lines in the report. SoftBank results sent in OBX-Report format will adhere to Discrete Long Text Style.
Format of this field (Option 25) affects all other text data sent in NTE Report segments and DSP segments.

Cell: AC41
Comment: OBX-7, Lab Results:
Reference ranges as stored with the results derived from SoftLab Individual Test Setup, Ranges, Age Ranges,, or as stored from reference labs..

Cell: AC47
Comment: OBX-8.4:
HL7 Abnormal Flags that are used are:
L - Low result
LL - Critical (Panic) or Absurd Low
H - High result
HH - Critical (Panic) or Absurd High
A - Abnormal (alphanumeric only)
AA - Critical or Absurd (alphanumeric only)

Cell: AD47
Comment: OBX-8.4:
HL7 Abnormal Flags that are used are:

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Results 11/29/2023
Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.

Cell: AC53
Comment: OBX-11:
   Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: AD74
Comment: OBX-4, Blood Bank expanded components:
   A series of products will all be sent with the same series of test codes representing product type, unit number, blood type, etc.
   The Observation Sub-ID creates a unique ID for a given test for a given product. Once a Sub-ID has been assigned to a test/product, the same Sub-ID will be utilized in all subsequent result messages. The Sub-ID along with the observation ID should be utilized to update the appropriate result in the foreign system.
   A separator character between Parent Sub-ID and Product Detail counter (such as ":") is optional and configurable.

Cell: AC143
Comment: URD-3.1, Display results:
   MRN may be stored in SCC databases with an internal prefix. This prefix is usually stripped from the MRN before messages are sent. If a checksum character was stored as a suffix to the MRN, it is no longer distinguishable from the MRN and will be sent with outbound messages. See Option 1.
   MRN may be stored in SCC databases with or without leading zeros received with inbound messages. If stripped of leading zeros, the MRN may be returned to a fixed length with outbound messages by prefixing with leading zeros to a fixed length. See option 2.

Cell: AC144
Comment: URD-3.2, Display results:
   Billing Number may be stored in SCC databases with an internal prefix. This prefix is usually stripped from the Billing Number before messages are sent. See Option 3.
   Billing Number may be stored in SCC databases with or without leading zeros received with inbound messages. If stripped of leading zeros, the Billing Number may be returned to a fixed length with outbound messages by prefixing with leading zeros to a fixed length. See Option 4.

Cell: AC153
Comment: URD-7.1, Display results:
   F – Final – all modules. For SoftLab results, this indicates all tests for the requested procedure are resulted & verified. For all other results, this directly reflects result flags set in each module.
   P – Preliminary – all modules. For SoftLab results, this indicates at least one test on the requested procedure is not yet verified. For all other results, this directly reflects result flags set in each module.
   All SoftMic status codes are configurable including the result cancellation message.
   R – Revised Report – SoftPath only.
   S – Supplemental Report – SoftPath only.
   C – Corrected – SoftPath only.

Cell: AC154
Comment: URD-7.2, Display results:
   Example: Three iterations of a Preliminary report followed by a Supplemental report would be sent with URD[7] valued as:
      P^a 1st copy of Preliminary report
      P^b 2nd copy of Preliminary report
      P^c 3rd copy of Preliminary report
      S^a 1st copy of Supplemental report

Seq	Data Element	Output	Type		Rules	Micro Type I

170.315(b)(10) HL7 Result Reporting for EHI Export, release 4.5
Rev: 1.0
Discrete Micro Result Segments

Seq	Data Element	Output	Type		Rules	Micro Type I
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			Mic		

OBX Segment (OBX(P))   Generated Test Observations

Seq	Data Element	Output	Type		Rules	Micro Type I
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			Increments for all OBX segments subordinate to an OBR
2	Value Type	<result type>	ID	R		**TX** = Text Results
3	Observation Identifier	<Test ID>	ST	A	32	See *Common Elements, Individual Test Components* Represents Micro Test
5	Observation Value	<Result Data>	TX	A	6	Micro procedure-specific comments This field supports the use of HL7 escape sequences
8	Abnormal Flags	'A^Abnormal' or 'AA^Critical'	ST		18	**A** = Abnormal (Sig Occ + flag is set) **AA** = Critical (Sig Occ ++ flag is set)
11	Observation Result Status	<Result Status>	ST	A		Status of the single component test result from which the organism was isolated **P** - Preliminary or Interim **F** - Final **C** - Corrected **I** - Incomplete; results pending (no status entered) **X** - Cancelled
13	User Defined Access Checks	<Significant Occurrence Flag>	ST		18	**+** = Significant Occurrence **++** = Significant Occurrence
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Includes Timezone indicator
15	Producer's ID	<Performing Site Code>	ST		35	As defined by SoftMic
19	Date/Time of the Analysis	<Status Date/Time>	TS			Includes Timezone indicator
23	*Performing Organization Information*	<Location Info>				See *Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				See *Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				See *Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests. As received and posted with results from reference labs.

OBX Segment (OBX(E))   Micro Exam Observations

Seq	Data Element	Output	Type		Rules	Micro Type I
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			Increments for all OBX segments subordinate to an OBR
2	Value Type	<result type>	ID	R		**TX** = Text Results
3	*Observation Identifier*	<Test ID>		A	32	See *Common Elements, Individual Test Components* Represents Micro Test
5	Observation Value	<Result Data>	NM	A	6	Micro exam/procedure specific comments This field supports the use of HL7 escape sequences
8	Abnormal Flags	'A^Abnormal' or 'AA^Critical'	ST		18	**A** = Abnormal (Sig Occ + flag is set) **AA** = Critical (Sig Occ ++ flag is set)
11	Observation Result Status	<Result Status>	ST	A		Status of the single component test result from which the organism was isolated **P** - Preliminary or Interim **F** - Final **C** - Corrected **I** - Incomplete; results pending (no status entered) **X** - Cancelled
13	User Defined Access Checks	<Significant Occurrence Flag>	ST		18	**+** = Significant Occurrence **++** = Significant Occurrence
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Includes Timezone indicator

Seq	Data Element	Output	Type		Rules	Micro Type I
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			Mic		
15	Producer's ID	\<Performing Site Code>	ST		35	As defined by SoftMic
19	Date/Time of the Analysis	\<Status Date/Time>	TS			Includes Timezone indicator
23	*Performing Organization Information*	\<Location Info>				**See *Common Elements, Performing Organization Information***
24	*Performing Organization Address*	\<Location Address>				**See *Common Elements, Performing Organization Address***
25	*Performing Organization Medical Director*	\<Location Doctor>				**See *Common Elements, Provider Information*** Based on a single doctor code entered in Location Setup for in-house tests. As received and posted with results from reference labs.
OBX Segment (OBX(O))	**Organism/Isolate Identification**					
0	OBX	OBX	ID	R		
1	Set ID – OBX	\<counter>	NM			Increments for all OBX segments subordinate to an OBR
2	Value Type	'CWE'	ID	R		**CWE** = Coded Element
3	*Observation Identifier*	\<Test ID>		A	32	**See *Common Elements, Individual Test Components*** Represents Micro Test
4	Observation Sub-ID	\<Organism Number>	NM	A	17	Numeric index (from 1) used to identify organism number
5	*Observation Value*					
5.1	Identifier	\<Organism ID (UC)> or \<SCC Organism ID>	ST			A SNOMED code, as defined by the client. If no SNOMED code is defined, the organism code to be sent in OBX-5.4 is sent here.
5.2	Text	\<Organism Name (UC)> or \<SCC Organism Name>	ST			Textual description of the code as defined in SNOMED Code Dictionary. If no SNOMED code is defined, SCC organism name is sent here.
5.3	Name of Coding System	\<Coding System (UC)> or 'L'	ST			**SCT** = SNOMED CT Code; **L** = Local code
5.4	Alternate Identifier	\<SCC Organism ID>	ST	A	16	Either name of organism as defined in SoftMic setup or analyzer organism ID code as defined in SoftMic setup.
5.5	Alternate Text	\<SCC Organism Name>	ST		16	Name of organism as defined in SoftMic setup.
5.6	Name of Alternate Coding System	'L'	ST			**L** = Local system
5.7	Coding System Version ID	\<Coding System Version (UC)>	ST			Date value as defined in *SNOMED Codes* table.
5.8	Alternate Coding System Version ID	'NA'	ST			**NA** = No versioning applicable for Local codes
5.9	Original Text	\<Organism Name (UC)>	ST			Same data as OBX-5.2
8	Abnormal Flags	'A^Abnormal' or 'AA^Critical'	ST		18	**A** = Abnormal (Sig Occ + flag is set) **AA** = Critical (Sig Occ ++ flag is set)
11	Observation Result Status	\<Result Status>	ST	A		Status of the single component test result from which the organism was isolated **P** - Preliminary or Interim **F** - Final **I** - Incomplete; results pending (no status entered) **X** - Cancelled
13	User Defined Access Checks	\<Significant Occurrence Flag>	ST		18	**+** = Significant Occurrence **++** = Significant Occurrence
14	Date/Time of the Observation	\<Observation Date/Time>	TS		22	Includes Timezone indicator
15	Producer's ID	\<Performing Site Code>	ST		35	As defined by SoftMic
19	Date/Time of the Analysis	\<Status Date/Time>	TS			Includes Timezone indicator
23	*Performing Organization Information*	\<Location Info>				**See *Common Elements, Performing Organization Information***
24	*Performing Organization Address*	\<Location Address>				**See *Common Elements, Performing Organization Address***
25	*Performing Organization Medical Director*	\<Location Doctor>				**See *Common Elements, Provider Information*** Based on a single doctor code entered in Location Setup for in-house tests. As received and posted with results from reference labs.
OBX Segment (OBX(Q))	**Isolate Quantitation**					
0	OBX	OBX	ID	R		
1	Set ID – OBX	\<counter>	NM			Increments for all OBX segments subordinate to an OBR

Seq	Data Element	Output	Type		Rules	Micro Type I
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			Mic		
2	Value Type	<result type>	ID	R		**TX** = Text Results
3	*Observation Identifier*	<Test ID>		A	32	See *Common Elements, Individual Test Components* Represents Micro Test
4	Observation Sub-ID	<Organism Number>	NM	A		Numeric index (from 1) used to identify organism number
5	Observation Value	<Quantitation>	TX		6	Organism quantitation comments This field supports use of HL7 Escape sequences.
11	Observation Result Status	<Result Status>	ST	A		Status of the single component test result from which the organism was isolated **P** - Preliminary or Interim **F** - Final **C** -Corrected **I** - Incomplete; results pending (no status entered) **X** - Cancelled
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Includes Timezone indicator
15	Producer's ID	<Performing Site Code>	ST		35	As defined by SoftMic
19	Date/Time of the Analysis	<Status Date/Time>	TS			Includes Timezone indicator
23	*Performing Organization Information*	<Location Info>				See *Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				See *Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				See *Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests. As received and posted with results from reference labs.
ORC Segment (ORC(S))	**Antibiotic Sensitivity Panel**					
1	Order Control	RE	ID	R		RE
2	*Placer Order Number*				6	As sent in first ORC segment of Mic results
2.1	Entity Identifier	<Placer Order Number>	ST			Same data as ORC-2.1 of the first ORC segment.
2.2	Namespace ID	<Placer Number NS ID>	ST			Same data as ORC-2.2 of the first ORC segment.
2.3	Universal Identifier	<Placer Number UID>	ST			Same data as ORC-2.3 of the first ORC segment.
2.4	Universal Identifier Type	<Placer Number UID Type>	ST			Same data as ORC-2.4 of the first ORC segment.
3	*Filler Order Number*				6	As sent in first ORC segment of Mic results
3.1	Entity Identifier	<SCC "LIS #">	ST			Same data as ORC-3.1 of the first ORC segment.
3.2	Namespace ID	<Order# Namespace ID>	ST			Same data as ORC-3.2 of the first ORC segment.
3.3	Universal Identifier	<Order# UID>	ST			Same data as ORC-3.3 of the first ORC segment.
3.4	Universal Identifier Type	ISO	ST			Same data as ORC-3.4 of the first ORC segment.
	All other ORC elements are identical to the first ORC segment					
31	*Parent Universal Service Identifier*	<Ordered Test>		A		Test code and associated attributes of parent ordered test. Matches contents of first OBR-4 and following OBR-50. See *Common Elements, Ordered Procedure* for full structure
OBR Segment (OBR(S))	**Antibiotic Sensitivity Panel**					
1	Set ID – OBR	<counter>	NM	R		Increments from 2
2	*Placer Order Number*				6	As sent in first OBR segment of Mic results
2.1	Entity Identifier	<Placer Order Number>	ST			Same data as OBR-2.1 of the first OBR segment.
2.2	Namespace ID	<Placer Number NS ID>	ST			Same data as OBR-2.2 of the first OBR segment.
2.3	Universal Identifier	<Placer Number UID>	ST			Same data as OBR-2.3 of the first OBR segment.
2.4	Universal Identifier Type	<Placer Number UID Type>	ST			Same data as OBR-2.4 of the first OBR segment.
3	*Filler Order Number*				6	As sent in first OBR segment of Mic results
3.1	Entity Identifier	<SCC "LIS #">	ST			Same data as OBR-3.1 of the first OBR segment.
3.2	Namespace ID	<Order# Namespace ID>	ST			Same data as OBR-3.2 of the first OBR segment.
3.3	Universal Identifier	<Order# UID>	ST			Same data as OBR-3.3 of the first OBR segment.
3.4	Universal Identifier Type	ISO	ST			Same data as OBR-3.4 of the first OBR segment.
4	*Ordered Procedure*					

Seq	Data Element	Output	Type		Rules	Micro Type I
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			Mic		
4.1	Universal Service Identifier (LOINC)	\<LOINC Panel code>	ST	A		Values commonly defined in SSM setup. Other additional values may be defined. **50545-3** = MIC panel results **50546-1** = Kirby Bauer panel results **49589-5** = Breakpoint panel results
4.2	Universal Service Text	\<LOINC Panel Name>	ST	A		
4.3	Name of Universal Service Coding System	'LN'	ST	A		
4.4	Alternate Universal Service Identifier	\<SoftMic Panel Code>	ST	A		**MIC** = MIC panel results; **KB** = Kirby Bauer panel results; **BP** = Breakpoint panel results Other additional values may be defined.
4.5	Alternate Universal Service Text	\<Panel Name>	ST	A		Same data as OBR(S)-4.2
4.6	Name of Alternate Universal Service Coding System	'L'	ST	A		**L** = Local system
4.7	Coding System Version ID	'2.40'	ST	A		LOINC version 2.40
4.8	Alternate Coding System Version ID	'NA'	ST	A		**NA** = No versioning applicable for Local codes
4.9	Original Text	\<Panel Name>	ST	A		Same data as OBR(S)-4.2
7	Observation Date/Time	\<Collected Date/Time>	TS			As sent in first OBR segment of Mic results
11	Specimen Action Code	'G'	ID			**L or O**= Original ordered test; **G** = sensitivity panel added to the order
16	*Ordering Provider Information*	\<Requesting Doctor>		A		**See *Common Elements, Provider Information***
22.1	Results Rpt/Status Chng - Date/Time	\<Last Result D/T>	TS			
25	Result Status	\<Result Status>	ST			
26	*Parent Result*					*Parent Result* refers to the OBX(O) segment that was used to report the organism that was found and to which this sensitivity panel applies.
26.1.1	Parent Observation Identifier	\<Parent test code>	ST			Matching test code in OBX-3.1 of parent result. May be LOINC or Local code, depending on contents of OBX(O)-3.
26.1.2	Parent Observation Text	\<Parent test name>	ST			Matching test name in OBX-3.2 of parent result. Test description may be based on LOINC or Local code, depending on contents of OBX(O)-3.
26.1.3	Parent Observation Coding System	'LN' or 'L'	ST			**LN** = LOINC® system, **L** = Local code
26.1.4	Alternate Identifier	\<Other Parent test code>	ST			Matching SCC test code in OBX-3.4 of parent result. May be LOINC or Local code, depending on contents of OBX(O)-3.
26.1.5	Alternate Text	\<Other Parent test name>	ST			Matching test name in OBX-3.5 of parent result. Test description may be based on LOINC or Local code, depending on contents of OBX(O)-3.
26.1.6	Alternate Coding System	'L' or 'LN'	ST			**L** = Local code, **LN** = LOINC® system
26.1.9	Original Text	\<Parent test name>	ST			Matching test name in OBX-3.2 of parent result
26.2	Parent Observation Sub-ID	\<Organism #>	NM		17	Numeric value from OBX-4 of parent result
29	*Parent Number*					
29.1	*Parent Placer Order Number*					
29.1.1	Parent Placer Order Number Entity ID	\<Placer Order Number>	ST			Same data as OBR-2.1.
29.1.2	Parent Placer Order Number Namespace ID	\<Placer Number NS ID>	ST			Same data as OBR-2.2.
29.1.3	Parent Placer Order Number Universal ID	\<Placer Number UID>	ST			Same data as OBR-2.3.
29.1.4	Parent Placer Order Number Universal ID Type	\<Placer Number UID Type>	ST			Same data as OBR-2.4.
29.2	*Parent Filler Number*					
29.2.1	Parent Filler Order Number Entity ID	\<SCC "LIS #">	ST			Same data as OBR-3.1
29.2.2	Parent Filler Order Number Namespace ID	\<Order# Namespace ID>	ST			A constant value is defined by SCC representing the client/installation. Same data as OBR-3.2
29.2.3	Parent Filler Order Number Universal ID	\<Order# UID>	ST			An ISO-compliant OID is defined by SCC representing the client/installation. Same data as OBR-3.3
29.2.4	Parent Filler Order Number Universal ID Type	ISO	ST			**ISO** = International Standards Organization
50	*Parent Universal Service Identifier*	\<Ordered Test>		A		Test code and associated attributes of parent ordered test. Matches contents of first OBR-4 and previous ORC-31. See also OBR-29 for related parent order number. **See *Common Elements, Ordered Procedure* for full structure**

Seq	Data Element	Output	Type		Rules	Micro Type I
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			Mic		
OBX Segment (OBX(S)) Antibiotic Sensitivity						
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			Increments from 1 for all Antibiotics under a single OBR(S)
2	Value Type	'NM'	ID	R		**NM** = Numeric
3	*Observation Identifier*	<Antibiotic>		A	32	See *Common Elements, Individual Test Components* Represents Micro Antibiotics. Local codes and LOINC codes are defined in SoftMic setup files.
4	Observation Sub-ID	<Organism #>	NM	A	17	Numeric index (from 1) matching OBX-4 in parent OBX-O segment and matching OBR-26.2 in parent OBR segment.
5	*Observation Value - NM type*				20	Numeric results with comparitors and symbolic separators are sent as ST-type.
5.1	Number	<numeric test result with symbols>	NM	R		Numeric result including sign character -, +
6	*Units*					Unit codes as defined in SoftMic
6.1	Units Identifier	<MIC Units (UC)>	ST			Universal code for units defined in *HIS Mapping Table*. Unified Code for Units of Measure (UCUM) codes recommended.
6.2	Units Text	<Units Text (UC)>	ST			Defined in *HIS Mapping Table*.
6.3	Units Coding System	<Units Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "UCUM" recommended.
6.4	Alternate Identifier	<SCC Units>	ST			Unit codes as defined in SoftMic
6.5	Alternate Text	<Units Text>	ST			*Value* defined in SSM setup.
6.6	Name of Alternate Coding System	'L'	ST	A		**L** = Local system
6.7	Coding System Version ID	<Units Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
6.8	Alternate Coding System Version ID	'NA'	ST	A		**NA** = No versioning applicable for Local codes
	Abnormal Flags					
8.1	Abnormal Flag ID	<Interpretive Flags (UC)>	ST			Universal code for flags defined in *HIS Mapping Table*. HL7 codes recommended.
8.2	Flag Text	<Interpretive Flags Text (UC)>	ST			Defined in *HIS Mapping Table*.
8.3	Flag Coding System	<Interpretive Flags Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.4	Alternate Identifier	<SCC Interpretive Flags>	ST			**S** - Sensitive; **R** - Resistant; **I** - Intermediate; **MS** - Moderately Sensitive
8.5	Alternate Text	<Interpretive Flags Text (UC)>	ST			Same data as OBX(S)-8.2.
8.6	Name of Alternate Coding System	'L'	ST	A		**L** = Local system
8.7	Coding System Version ID	<Interpretive Flags Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
8.8	Alternate Coding System Version ID	'NA'	ST	A		**NA** = No versioning applicable for Local codes
11	Observation Result Status	<Result Status>	ST	A		Status of the single component test result from which the organism was isolated **P** - Preliminary or Interim **F** - Final **C** - Corrected **I** - Incomplete; results pending (no status entered) **X** - Cancelled
13	User Defined Access Checks	<Significant Occurrence Flag>	ST		18	**+** = Significant Occurrence **++** = Significant Occurrence
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Includes Timezone indicator
15	Producer's ID	<Performing Site Code>	ST		35	As defined by SoftMic
17	Observation Method	<SCC Panel code>	ST			**MIC** = MIC panel results **KB** = Kirby Bauer panel results **BP** = Breakpoint panel results Other additional values may be defined.
19.1	Date/Time of the Analysis	<Result Date/Time>	TS			Includes Timezone indicator
23	*Performing Organization Information*	<Location Info>				See *Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				See *Common Elements, Performing Organization Address*

Seq	Data Element	Output	Type	Rules	Micro Type I
	MSH-9.1 Message Type			ORU	
	MSH-9.2 Event Code			R01	
	ORC-1 Control Code			RE	
	Origin			Mic	
25	***Performing Organization Medical Director***	<Location Doctor>			**See *Common Elements, Provider Information*** Based on a single doctor code entered in Location Setup for in-house tests. As received and posted with results from reference labs.
NTE Segment					
0	NTE	NTE	ID	R	
1	Set ID - NTE	<counter>	NM		Increments from 1 to n for each group of segments
2	Source of Comment	L	ST	A	
3	Comment Text	<comment text>	TX	6, 7	Line of result comment. May be blank if user enters blank lines. This field supports use of HL7 Escape sequences.
4	*Comment Type*				
4.1	Identifier	RE	ID	A	
4.2	Text	Remark	ST	A	**RE** = Remark - all comments are characterized as remarks
4.3	Name of Coding System	HL70364	ST	A	
4.4	Alternate Identifier	<Comment Type identifier>	ST	A	**CULTCOM** = Micro Culture comment **MICOECOM** = Micro Order Entry Comment **DRUGCOM** = Sensitivity comment For corrected results: **PREVMICCOM** = Previously reported Ordered Procedure result **PREVCULTCOM** = Previously reported Exam observation **PREVISOLATE** = Previously reported Isolate **PREVQUANT** = Previously reported Quantitation **PREVISOCOM** = Previously reported Isolate comment **PREVDRUG** = Previously reported Sensitivity result **PREVDRUGCOM** = Previously reported Sensitivity comment
4.6	Name of Alternate Coding System	L	ST	A	**L** = Local code. Primary codes are locally defined codes.
4.7	Coding System Version ID	2.5.1	ST	A	2.5.1
4.8	AlternateCoding System Version ID	NA	ST	A	**NA** = No versioning applicable for Local codes

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	Discrete Genetics Result Segments				

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
OBX Segment (OBX(GI)) Group Test Interpretation						
0	OBX	OBX	ID	R		Only one interpretation is supported at the group test level.
1	Set ID – OBX	<counter>	NM			
2	Value Type	<result type>	ID	R		**TX** = Text Results
3	*Observation Identifier - Option A*	<Test ID>			32	SCC code = 'INTER' SCC Test Name = 'Interpretation' See *Common Elements, Individual Test Components*
4	Observation Sub-ID	<counter>	ST			Observation Sub is derived from the Genetics primary test code for the group test.
5	*Observation Value - ST, TX types*					
5.1	Observation Value	<Result Data>	ST		6, 12	Group Test interpretation as entered in the Genetics Interpretation section of the application. Each line of text separated by the repetition character (~). This field supports the use of HL7 escape sequences.
8	*Abnormal Flags* *(HL7 v2.5.1)*					
8.1	Abnormal Flags ID	<Abnormal Flags (UC)>	ST			Universal code for flags defined in *HIS Mapping Table*. Ref lab tests: sent as received.
8.2	Text	<Abnormal Flags Text (UC)>	ST			Defined in *HIS Mapping Table*. Ref lab tests: sent as received.
8.3	Name of Coding System	<Abnormal Flags Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.4	Alternate Identifier	<SCC Abnormal Flags>	ST		34	A subset of HL7 Standard codes
8.5	Alternate Text	<Abnormal Flags Text (UC)>	ST			Same data as OBX-8.2.
8.6	Name of Alternate Coding System	L	ST			**L** = Local system
8.7	Coding System Version ID	<Abnormal Flags Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
8.8	Alternate Coding System Version ID	NA	ST			**NA** = No versioning applicable for Local codes
11	Observation Result Status	<Result Status>	ST			**P** - Preliminary **F** - Final **C** - Correction **X** - Cancelled
14	Date/Time of the Observation	<Result Date and Time>	TS		22	Case sign-out Date/Time
15	Producer's ID	<Performing Site Code>	ST		35	
16	Responsible Observer	<Tech ID who entered the result>	ST			SCC ID for individual that performed the interpretation as defined in Employee Setup.
19	Resulted Date/Time	<Result Verified Date/Time>	TS			CCYYMMDDhhmm format. Sign Out date and time
23	*Performing Organization Information*	<Location Info>				See *Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				See *Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				See *Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests.

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
OBX Segment (OBX(GR)) Group Test Result Fields						
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			
2	Value Type	<result type>	ID	R		**ST** = String data **TX** = Textual data **NM** = Numeric **CWE** = Coded Element
3	*Observation Identifier*	<Test ID>			32	Composite field containing individual components of the Group test result fields. **See *Common Elements, Individual Test Components***
4	Observation Sub-ID	<counter>	NM			Used only for HLA tests
4	Observation Sub-ID	<sequence counter>	ST			Observation SubID for the Group test. All result fields for a Group test contain the same Observation SubID. All markers contain the panel test code as the Observation SubID.
5	*Observation Value - ST & TX types*					Non-numeric (SN or NM), non-coded (CWE) results
5.1	Observation Value	<Result Text>	ST		6, 12, 20, 21	Length is dependent on data type defined. This field supports use of HL7 Escape sequences.
5	*Observation Value - SN type*				20A	All strictly numeric or numeric/symbolic results are sent as SN type
5.1	Comparator	<comparitor portion of result>	ST			<, >, =, <=, =>, =<, >=
5.2	Number	<numeric portion of result>	NM			Decimal numeric value including sign character -, +
5.3	Separator/Suffix	<non-numeric separator>	ST			:, -, /, +
5.4	Number	<second numeric portion of result>	NM			Decimal numeric value
5	*Observation Value - NM type*				10	**SN form is not used.** Numeric results with comparitors and symbolic separators are sent as ST-type.
5.1	Number	<numeric test result with symbols>	NM			Numeric result including sign character -, +
5	*Observation Value - CWE-type*					Specific tests may be defined to be sent as CWE type. SNOMED coding system is used.
5.1	Identifier	<Result Code>	ST			A SNOMED code or other coded value as entered as the result.
5.2	Text	<Result Text (UC)>	ST			Textual description of the code as defined in *SNOMED Codes* table
5.3	Name of Coding System	<Result Coding System (UC)>	ST			Coding system as defined in *SNOMED Codes* table.
5.7	Coding System Version ID	<Result Coding System Version (UC)>	ST			Coding system version as defined in *SNOMED Codes* table.
5.9	Original Text	<Result Text (UC)>	ST			Same data as OBX-5.2
6	*Units*					
6.1	Units Identifier	<Units (UC)>	ST			Universal code for units defined in *HIS Mapping Table*. Unified Code for Units of Measure (UCUM) codes recommended.
6.2	Units Text	<Units Text (UC)>	ST			Defined in *HIS Mapping Table*.
6.3	Units Coding System	<Units Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "UCUM" recommended.
6.4	Units Alternate Identifier	<SCC Units>	ST			Code for units defined in Test setup.
6.5	Units Alternate Text	<Units Text>	ST			*Value* defined in SSM setup.
6.6	Units Alternate Coding System	L	ST			**L** = Local system
6.7	Units Coding System Version ID	<Units Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
7	References Range	<Reference Range>	ST		6	text or <lower> - <upper> This field supports use of HL7 Escape sequences.
8	*Abnormal Flags* *(HL7 v2.5.1)*					
8.1	Abnormal Flags ID	<Abnormal Flags (UC)>	ST			Universal code for flags defined in *HIS Mapping Table*. HL7 codes recommended.
8.2	Text	<Abnormal Flags Text (UC)>	ST			Defined in *HIS Mapping Table*.
8.3	Name of Coding System	<Abnormal Flags Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
8.4	Alternate Identifier	<SCC Abnormal Flags>	ST		34	Either SCC Codes as printed on SoftGenetics reports or HL7 codes as listed in attached comment.
8.5	Alternate Text	<Abnormal Flags Text (UC)>	ST			Same data as OBX-8.2.
8.6	Name of Alternate Coding System	L	ST			**L** = Local system
8.7	Coding System Version ID	<Abnormal Flags Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.8	Alternate Coding System Version ID	NA	ST			**NA** = No versioning applicable for Local codes
11	Observation Result Status	<Result Status>	ST			**F** - Final **C** - Correction **X** - Cancelled
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Date and time the result is entered in the system.
15	Producer's ID	<Performing Site Code>	ST		35	
16	Responsible Observer	<Tech ID who entered the result>	ST			SCC ID for individual that resulted the Result Field as defined in Employee Setup.
17	*Observation Method*					
17.1	Method Identifier	<Observation Method Code>	ST			Code defined *HIS Mapping Table*. No specific coding system recommended.
17.2	Text	<Observation Method Text (UC)>	ST			Text defined *HIS Mapping Table*.
17.3	Name of Coding System	<Observation Method Coding System (UC)>	ST			Defined in *HIS Mapping Table*.
17.7	Coding System Version ID	<Observation Method Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
19	Resulted Date/Time	<Result Verified Date/Time>	TS			CCYYMMDDhhmm format. Report Released/Sign Out date and time.
23	*Performing Organization Information*	<Location Info>				*See Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				*See Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				*See Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests.
OBX Segment (OBX(SH)) Single Test Header Fields for Disclaimers, Methods, References						
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			
2	Value Type	<result type>	ID	R		**ST** = string data
3	*Observation Identifier*	<Test ID>			32	Composite field of the single test. Contains the code as defined in the Reference Code for Single test. *See Common Elements, Individual Test Components*
5	Observation Value	<Result Data>	ST			Always sent with literal 'DNR'
11	Observation Result Status	<Result Status>				Status of the single test result **P** - Preliminary **F** - Final **C** - Correction **X** - Cancelled
14	Date/Time of the Observation	<Result Date and Time>			22	Date and time a result field was entered for the single test. If multiple results fields exist, first result field will be used.
15	Producer's ID	<Performing Site Code>			35	
19	Resulted Date/Time	<Result Verified Date/Time>				CCYYMMDDhhmm format. Report Released/Sign Out date and time.
23	*Performing Organization Information*	<Location Info>				*See Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				*See Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				*See Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests.
OBX Segment (OBX(SI)) Single Test Interpretation						
0	OBX	OBX	ID			

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
1	Set ID – OBX	<counter>	NM			
2	Value Type	<result type>	ID			**TX** = Text Results
3	*Observation Identifier - Option A*	<Test ID>			32	SCC code = 'INTER' SCC Test Name = 'Interpretation' **See *Common Elements, Individual Test Components***
4	Observation Sub-ID	<sequence counter>	ST			Contains an Observation SubID for single test. All markers contain the panel test code as the Observation SubID. Observation Sub is derived from the Genetics primary test code for the single test.
5	Observation Value	<Result Data>	TX		6, 12, 20, 21	Single Test interpretation. Each line of text separated by the repetition character (~). This field supports the use of HL7 escape sequences.
8	*Abnormal Flags* *(HL7 v2.5.1)*					
8.1	Abnormal Flags ID	<Abnormal Flags (UC)>	ST			Universal code for flags defined in *HIS Mapping Table*. HL7 codes recommended.
8.2	Text	<Abnormal Flags Text (UC)>	ST			Defined in *HIS Mapping Table*.
8.3	Name of Coding System	<Abnormal Flags Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.4	Alternate Identifier	<SCC Abnormal Flags>	ST		34	Either SCC Codes as printed on SoftGenetics reports or HL7 codes as listed in attached comment.
8.5	Alternate Text	<Abnormal Flags Text (UC)>	ST			Same data as OBX-8.2.
8.6	Name of Alternate Coding System	L	ST			**L** = Local system
8.7	Coding System Version ID	<Abnormal Flags Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.8	Alternate Coding System Version ID	NA	ST			**NA** = No versioning applicable for Local codes
11	Observation Result Status	<Result Status>	ST			**P** - Preliminary **F** - Final **C** - Correction **X** - Cancelled
14	Date/Time of the Observation	<Result Date and Time>	TS		22	Result Entered/Posted Date/Time
15	Producer's ID	<Performing Site Code>	ST		35	
16	Responsible Observer	<Tech ID who entered the result>	ST			SCC ID for individual that performed the interpretation as defined in Employee Setup.
19	Resulted Date/Time	<Result Verified Date/Time>	TS			CCYYMMDDhhmm format. Sign Out date and time of the Single Test interpretation.
23	*Performing Organization Information*	<Location Info>				**See *Common Elements, Performing Organization Information***
24	*Performing Organization Address*	<Location Address>				**See *Common Elements, Performing Organization Address***
25	*Performing Organization Medical Director*	<Location Doctor>				**See *Common Elements, Provider Information*** Based on a single doctor code entered in Location Setup for in-house tests.
OBX Segment (OBX(SR)) Single Test Result Field						
0	OBX	OBX	ID	R		
1	Set ID – OBX	<counter>	NM			
2	Value Type	<result type>	ID	R		**ST** = String data **TX** = Textual data **NM** = Numeric **CWE** = Coded Element
3	*Observation Identifier*	<Test ID>			32	Composite field of the single test. Contains the code as defined in the Reference Code for Single test. **See *Common Elements, Individual Test Components*.**
4	Observation Sub-ID	<sequence counter>	NM			Used only for HLA tests

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
4	Observation Sub-ID	<sequence counter>	ST			Contains an Observation SubID for single test. All markers contain the panel test code as the Observation SubID. Observation Sub is derived from the Genetics primary test code for the single test.
5	*Observation Value - ST & TX types*					Non-numeric (SN or NM), non-coded (CWE) results
5.1	Observation Value	<Result Text>	ST		6, 12, 20, 21	Length is dependent on data type defined. This field supports use of HL7 Escape sequences.
5	*Observation Value - SN type*				20A	All strictly numeric or numeric/symbolic results are sent as SN type.
5.1	Comparitor	<comparitor portion of result>	ST			<, >, =, <=, =>, =<, >=
5.2	Number	<numeric portion of result>	NM			Decimal numeric value including sign character -, +
5.3	Separator/Suffix	<non-numeric separator>	ST			:, -, /, +
5.4	Number	<second numeric portion of result>	NM			Decimal numeric value
5	*Observation Value - NM type*				10	**SN form is not used.** Numeric results with comparitors and symbolic separators are sent as ST-type.
5.1	Number	<numeric test result with symbols>	NM			Numeric result including sign character -, +
5	*Observation Value - CWE-type*					Specific tests may be defined to be sent as CWE type. SNOMED coding system is used.
5.1	Identifier	<Result Code>	ST			A SNOMED code or other coded value as entered as the result.
5.2	Text	<Result Text (UC)>	ST			Textual description of the code as defined in *SNOMED Codes* table.
5.3	Name of Coding System	<Result Coding System (UC)>	ST			Coding system as defined in *SNOMED Codes* table.
5.7	Coding System Version ID	<Result Coding System Version (UC)>	ST			Coding system version as defined in *SNOMED Codes* table.
5.9	Original Text	<Result Text (UC)>	ST			Same data as OBX-5.2
6	*Units*					
6.1	Units Identifier	<Units (UC)>	ST			Universal code for units defined in *HIS Mapping Table*. Unified Code for Units of Measure (UCUM) codes recommended.
6.2	Units Text	<Units Text (UC)>	ST			Defined in *HIS Mapping Table*.
6.3	Units Coding System	<Units Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "UCUM" recommended.
6.4	Units Alternate Identifier	<SCC Units>	ST			Code for units defined in Test setup.
6.5	Units Alternate Text	<Units Text>	ST			*Value* defined in SSM setup.
6.6	Units Alternate Coding System	L	ST			**L** = Local system
6.7	Units Coding System Version ID	<Units Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
7	References Range	<Reference Range>	ST		6	text or <lower> - <upper> This field supports use of HL7 Escape sequences.
8	*Abnormal Flags* *(HL7 v2.5.1)*					
8.1	Abnormal Flags ID	<Abnormal Flags (UC)>	ST			Universal code for flags defined in *HIS Mapping Table*. HL7 codes recommended.
8.2	Text	<Abnormal Flags Text (UC)>	ST			Defined in *HIS Mapping Table*.
8.3	Name of Coding System	<Abnormal Flags Coding System (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.4	Alternate Identifier	<SCC Abnormal Flags>	ST		34	Either SCC Codes as printed on SoftGenetics reports or HL7 codes as listed in attached comment.
8.5	Alternate Text	<Abnormal Flags Text (UC)>	ST			Same data as OBX-8.2.
8.6	Name of Alternate Coding System	L	ST			**L** = Local system
8.7	Coding System Version ID	<Abnormal Flags Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*. "HL70078" recommended.
8.8	Alternate Coding System Version ID	NA	ST			**NA** = No versioning applicable for Local codes
11	Observation Result Status	<Result Status>	ST			**F** - Final **C** - Correction **X** - Cancelled
14	Date/Time of the Observation	<Observation Date/Time>	TS		22	Date and time the result is entered in the system.
15	Producer's ID	<Performing Site Code>	ST		35	

Seq	Data Element	Output	Type		Rules	Notes (Discrete, Mixed Technology)
	MSH-9.1 Message Type			ORU		
	MSH-9.2 Event Code			R01		
	ORC-1 Control Code			RE		
	Origin			GIS		
16	Responsible Observer	<Tech ID who entered the result>	ST			SCC ID for individual that resulted the Result Field as defined in Employee Setup.
17	*Observation Method*					
17.1	Method Identifier	<Observation Method Code>	ST			Code defined *HIS Mapping Table*. No specific coding system recommended.
17.2	Text	<Observation Method Text (UC)>	ST			Text defined *HIS Mapping Table*.
17.3	Name of Coding System	<Observation Method Coding System (UC)>	ST			Defined in *HIS Mapping Table*.
17.7	Coding System Version ID	<Observation Method Coding System Version (UC)>	ST			Defined in *HIS Mapping Table*.
19	Resulted Date/Time	<Result Verified Date/Time>	TS			CCYYMMDDhhmm format. Test Released/Sign Out date and time.
23	*Performing Organization Information*	<Location Info>				See *Common Elements, Performing Organization Information*
24	*Performing Organization Address*	<Location Address>				See *Common Elements, Performing Organization Address*
25	*Performing Organization Medical Director*	<Location Doctor>				See *Common Elements, Provider Information* Based on a single doctor code entered in Location Setup for in-house tests.
NTE Segment						
0	NTE		ID	R		
1	Set ID - NTE		NM			Increments from 1 to n for each group of segments
2	Source of Comment	L	ST	R		**L** = Filler is source of comment
3	Comment Text		TX		6, 7, 21	Result comments, Disclaimers, Methods, and References. May be blank if user enters blank lines. This field supports use of HL7 Escape sequences.
4	*Comment Type*					
4.1	Identifier	RE	ID			**RE** = Remark - all comments are characterized as remarks
4.2	Text	Remark	ST			
4.3	Name of Coding System	HL70364	ST			
4.4	Alternate Identifier		ST			RC = Result Comment **DISC** = Disclaimer **METH** = Method **REFM** = Reference **RFRM** = Multiline Reference Range **ELSG** = *Electronic Signature (Path Review) **RCMS** = Result field with Canned Message Code **RMOD** = Corrected Results text **DMOD** = Demographic Update **MODCOT** = Corrected Result Comments text. **CALLED** = Called text
4.6	Name of Alternate Coding System	L	ST			**L** = Local code. Primary codes are locally defined codes.
4.7	Coding System Version ID	2.5.1	ST			2.5.1
4.8	Alternate Coding System Version ID	NA	ST			**NA** = No versioning applicable for Local codes

Cell: T16
Comment: OBX-5, Lab results:
       When configured to send cancellation as a result event upon cancellation all the components of a group test and OBX[11] will be valued with an "X".

Cell: T45
Comment: OBX-7, Lab Results:
       Reference ranges as stored with the results derived from SoftLab Individual Test Setup, Ranges, Age Ranges,, or as stored from reference labs..

Cell: T51
Comment: OBX-8.4:
       HL7 Abnormal Flags that are used are:
       L - Low result
       LL - Critical (Panic) or Absurd Low
       H - High result
       HH - Critical (Panic) or Absurd High
       A - Abnormal (alphanumeric only)
       AA - Critical or Absurd (alphanumeric only)

Cell: T57
Comment: OBX-11:
       Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T87
Comment: OBX-8.4:
       HL7 Abnormal Flags that are used are:
       A - Abnormal (alphanumeric only)
       N - Normal

Cell: T92
Comment: OBX-11
       Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: U92
Comment: OBX-11
       Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: V92
Comment: OBX-11
       Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T142
Comment: OBX-8.4:
       HL7 Abnormal Flags that are used are:
       L - Low result
       LL - Critical (Panic) or Absurd Low
       H - High result
       HH - Critical (Panic) or Absurd High
       A - Abnormal (alphanumeric only)

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Genetics   Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.   11/29/2023

N - Normal

Cell: T150
Comment: OBX-11:
Observation result status of "X" is valued when the interface is configured to send cancellation as a result

Cell: U150
Comment: OBX-11
Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: V150
Comment: OBX-11
Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T169
Comment: Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T188
Comment: OBX-8.4:
HL7 Abnormal Flags that are used are:
A - Abnormal (alphanumeric only)
N - Normal

Cell: T193
Comment: OBX-11:
Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: U193
Comment: OBX-11
Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T243
Comment: OBX-8.4:
HL7 Abnormal Flags that are used are:
L - Low result
LL - Critical (Panic) or Absurd Low
H - High result
HH - Critical (Panic) or Absurd High
A - Abnormal (alphanumeric only)
AA - Critical or Absurd (alphanumeric only)
N - Normal

Cell: T251
Comment: OBX-11:
Observation result status of "X" is valued when the interface is configured to send cancellation as a result

Cell: U251
Comment: OBX-11
    Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: V251
Comment: OBX-11
    Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T275
Comment: OBX-8.4:
    HL7 Abnormal Flags that are used are:
    A - Abnormal (alphanumeric only)
    N - Normal

Cell: T280
Comment: OBX-11:
    Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T304
Comment: OBX-8.4:
    HL7 Abnormal Flags that are used are:
    A - Abnormal (alphanumeric only)
    N - Normal

Cell: T309
Comment: OBX-11:
    Observation result status of "X" is valued only when the interface is configured to send cancellation as result event

Cell: T380
Comment: URD-7.1, Display results:
    F – Final – all modules. For SoftLab results, this indicates all tests for the requested procedure are resulted & verified. For all other results, this directly reflects result flags set in each module.
    P – Preliminary – all modules. For SoftLab results, this indicates at least one test on the requested procedure is not yet verified. For all other results, this directly reflects result flags set in each module.
    All SoftMic status codes are configurable including the result cancellation message.
    R – Revised Report – DxP only.
    S – Supplemental Report – DxP only.
    C – Corrected – DxP only.

Rev:	170.315(b)(10) HL7 Result Reporting for EHI Export, release 4.5				
1.0	**File and Batch Segments**				
Seq	**Data Element**	**Output**	**Type**		**Notes**
	MSH-9.1 Message Type			ORU	
	MSH-9.2 Event Code			R01	
	ORC-1 Control Code			RE	
	Origin			Any	
FHS Segment					
0	FHS	FHS	ID	R	
1	File Field Separator	|	ST	R	
2	File Encoding Characters	^~\&	ST	R	Component Separator, Repetition Character, Escape Character, Subcomponent Separator.
3	File Sending Application	SCC	ST		
4	File Sending Facility	SCC	ST		
5	File Receiving Application	EHIEXPORT	ST		
6	File Receiving Facility	EHIEXPORT	ST		
7	File Creation Date/Time	<Run Date/Time>	TS	R	Date/Time Billing Report was run
9	File Name/ID	<File Name>	ST	R	
10	File Header Comment	<publicly accessible hyperlink>	ST	R	publicly accessible hyperlink to this specification documenting the Electronic Health Information (EHI) export e.g. https://www.softcomputer.com/regulatory-affairs/
FTS Segment					
0	FTS	FTS	ID	R	
1	File Batch Count	<Batch count>	NM	R	Total number of batches (BHS segments) in the file.

SCC Standard EHI export rel4.5.xlsx
Files & Batches   Key: R = Required, C = Conditionally Required, A = Always Sent, <empty> = Optional, / = Not Used by SCC, Shaded elements will not be used at this installation.
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