Description

Mr. William A. Jones is a 51 year old white male who presented with pain, swelling, and redness in several joints including his elbows, wrists, knees, and hips. In order to screen for rheumatoid diseases, Dr. Nicholas Radon ordered an erythrocyte sedimentation rate (ESR or Sed Rate) blood test using the Good Health Clinic's EHR system, specifying that the laboratory's patient service center was to draw the blood specimen from the patient later that same day. Dr Radon also requests that the results be CC'd to Dr Pafford M. Hamlin Sr, a specialist to which he is referring Mr. Jones as well as Dr. Daniel Davison who is Mr. Jones' regular doctor.

The laboratory performs the requested test and the final result was 10 mm/hr, a normal value with the normal reference range being 0-17 mm/hr. The final result report for this lab test was generated by the LIS and transmitted to the patient's record in the Good health Clinic's EHR system used in Dr. Radon's office practice on the same day.

PreCondition

Patient information is pre-loaded in the EHR-S.
No other Pre-Condition.

PostCondition

The test message information received by the EHR-S has been incorporated with the patient's record.

TestObjectives

- Maximally populated message.
- Demonstrate ability to import and incorporate all supported relevant (R,RE,C(a/b)) data elements for the test case, including multiple occurrences:
- Demonstrate the capability to support Timing_Qty Group and Timing/Quantity Segment (TQ1).
- Demonstrate the capability to support Notes and Comments Segments (NTE) that follow the Observation Request Segment (OBR), including multiple occurrences.
- Maximally populated MSH Segment - Demonstrate the capability of the EHR to support all supported data elements including repeating elements in the MSH segment.
- Maximally populated PID Segment - Demonstrate the capability of the EHR to support all supported data elements including repeating elements in the PID segment.
- Maximally populated NTE segment - Demonstrate the capability of the EHR to support all supported data elements including proper handling of formatted text.
- Maximally populated ORC Segment - Demonstrate the capability of the EHR to support all supported data elements including repeating elements in the ORC segment.
- Maximally populated OBR Segment - Demonstrate the capability of the EHR to support all supported data elements including repeating elements in the OBR segment.
- Maximally populated SPM Segment - Demonstrate the capability of the EHR to support all supported data elements in the SPM segment.
- Maximally populated TQ1 Segment - Demonstrate the capability of the EHR to support all supported data elements including repeating elements in the TQ1 segment .
- Specific test points include the use of the NM data type for OBX.2, the value of "10" for results (OBX.5), the value of "N" for abnormal flags (OBX.8), and the observation results status is "F" (OBX.11).

Notes to Testers

In addition to the review of all elements, check that the Notes after the order are properly formatted and displayed.

LRI_1.0_1.1-NG - Maximally Populated SED Rate message - Final Results	
Test Case ID	LRI_1.0_1.1-NG

MSH

Location	Data Element	Data	Categorization
MSH.1	**Field Separator**	|	IG Fixed Data
MSH.2	**Encoding Characters**	^~\&#	IG Fixed Data
MSH.3	**Sending Application**		
MSH.3.1	Namespace ID	NIST Test Lab APP	Configurable Data
MSH.3.2	Universal ID	372520	Configurable Data
MSH.3.3	Universal ID Type	L	Configurable Data
MSH.4	**Sending Facility**		
MSH.4.1	Namespace ID	NIST Lab Facility	Configurable Data
MSH.4.2	Universal ID	372521	Configurable Data
MSH.4.3	Universal ID Type	L	Configurable Data
MSH.6	**Receiving Facility**		
MSH.6.1	Namespace ID	NIST EHR Facility	Configurable Data
MSH.6.2	Universal ID	372523	Configurable Data
MSH.6.3	Universal ID Type	L	Configurable Data
MSH.7	**Date/Time Of Message**		
MSH.7.1	Time	20150926140551	System Generated
MSH.9	**Message Type**		
MSH.9.1	Message Code	ORU	IG Fixed Data
MSH.9.2	Event Type	R01	IG Fixed Data
MSH.9.3	Message Structure	ORU_R01	IG Fixed Data
MSH.10	**Message Control ID**	LRI_1.0_1.1-NG	System Generated
MSH.11	**Processing ID**		
MSH.11.1	Processing ID	D	Changeable Data
MSH.12	**VersionID**		
MSH.12.1	Version ID	2.5.1	IG Fixed Data
MSH.15	**Accept Acknowledgment Type**	AL	IG Fixed Data
MSH.16	**Application Acknowledgment Type**	AL	IG Fixed Data
MSH.21	**Message Profile Identifier**		
MSH.21.1	Entity Identifier	LRI_Common_Component	IG Fixed Data
MSH.21.2	Namespace ID	LRI Base Profile	Changeable Data
MSH.21.3	Universal ID	2.16.840.1.113883.9.16	IG Fixed Data
MSH.21.4	Universal ID Type	ISO	IG Fixed Data
MSH.21[2]	**Message Profile Identifier**		
MSH.21[2].1	Entity Identifier	LRI_NG_Component	IG Fixed Data
MSH.21[2].2	Namespace ID	LRI Base Profile	Changeable Data
MSH.21[2].3	Universal ID	2.16.840.1.113883.9.13	IG Fixed Data
MSH.21[2].4	Universal ID Type	ISO	IG Fixed Data
MSH.21[3]	**Message Profile Identifier**		
MSH.21[3].1	Entity Identifier	LRI_FRU_Component	IG Fixed Data
MSH.21[3].2	Namespace ID	LRI NG Profile	Changeable Data
MSH.21[3].3	Universal ID	2.16.840.1.113883.9.83	IG Fixed Data
MSH.21[3].4	Universal ID Type	ISO	IG Fixed Data

PID

Location	Data Element	Data	Categorization
PID.1	**Set ID - PID**	1	IG Fixed Data
PID.3	**Patient Identifier List**		
PID.3.1	ID Number	PATID1234	Configurable Data
PID.3.4	Assigning Authority		

Location	Data Element	Data	Categorization
PID.3.4.1 Namespace ID	NIST MPI		Changeable Data
PID.3.5	Identifier Type Code	MR	Configurable Data
PID.5	**Patient Name**		
PID.5.1	Family Name		
PID.5.1.1	Surname	Jones	Changeable Data
PID.5.2	Given Name	William	Changeable Data
PID.5.3	Second and Further Given Names or Initials Thereof	A	Changeable Data
PID.5.7	Name Type Code	L	Changeable Data
PID.7	**Date/Time of Birth**		
PID.7.1	Time	19610615	Changeable Data
PID.8	**Administrative Sex**	M	Changeable Data
PID.10	**Race**		
PID.10.1	Identifier	2106-3	Changeable Data
PID.10.2	Text	White	Changeable Data
PID.10.3	Name of the Coding System	HL70005	Changeable Data
PID.10.9	Original Text	White	Changeable Data
PID.10[2]	**Race**		
PID.10[2].1	Identifier	1002-5	Changeable Data
PID.10[2].2	Text	American Indian or Alaska Native	Changeable Data
PID.10[2].3	Name of the Coding System	HL70005	Changeable Data
PID.10[2].9	Original Text	American Indian	Changeable Data
PID.18	**Patient Account Number**		
PID.18.1	ID Number	PATID1234	Configurable Data
PID.18.4	Assigning Authority		
PID.18.4.1	Namespace ID	NIST MPI	Changeable Data
PID.18.5	Identifier Type Code	AN	Configurable Data

ORC

Location	Data Element	Data	Categorization
ORC.1	**Order Control**	RE	Test Case Fixed Data
ORC.2	**Placer Order Number**		
ORC.2.1	Entity Identifier	ORD723222	Changeable Data
ORC.2.2	Namespace ID	NIST EHR	Changeable Data
ORC.3	**Filler Order Number**		
ORC.3.1	Entity Identifier	R-783274	Changeable Data
ORC.3.2	Namespace ID	NIST Lab Filler	
ORC.4	**Placer Group Number**		
ORC.4.1	Entity Identifier	GORD874211	Changeable Data
ORC.4.2	Namespace ID	NIST EHR	
ORC.12	**Ordering Provider**		
ORC.12.1	ID Number	5742200012	Changeable Data
ORC.12.2	Family Name		
ORC.12.2.1	Surname	Radon	Changeable Data
ORC.12.3	Given Name	Nicholas	Changeable Data
ORC.12.4	Second and Further Given Names or Initials Thereof	M	Changeable Data
ORC.12.5	Suffix (e.g., JR or III)	JR	Changeable Data
ORC.12.6	Prefix (e.g., DR)	DR	Changeable Data
ORC.12.9	Assigning Authority		
ORC.12.9.1	Namespace ID	NPI	Changeable Data
ORC.12.10	Name Type Code	L	Changeable Data
ORC.12.13	Identifier Type Code	NPI	Changeable Data

OBR

Location	Data Element	Data	Categorization
OBR.1	**Set ID - OBR**	1	IG Fixed Data

Location	Data Element	Data	Categorization
OBR.2	**Placer Order Number**		
OBR.2.1	Entity Identifier	ORD723222	Changeable Data
OBR.2.2	Namespace ID	NIST EHR	Changeable Data
OBR.3	**Filler Order Number**		
OBR.3.1	Entity Identifier	R-783274	Changeable Data
OBR.3.2	Namespace ID	NIST Lab Filler	Changeable Data
OBR.4	**Universal Service Identifier**		
OBR.4.1	Identifier	30341-2	Test Case Fixed Data
OBR.4.2	Text	Erythrocyte sedimentation rate	Test Case Fixed Data
OBR.4.3	Name of Coding System	LN	Test Case Fixed Data
OBR.4.4	Alternate Identifier	500	Changeable Data
OBR.4.5	Alternate Text	Erythrocyte sedimentation rate	Changeable Data
OBR.4.6	Name of Alternate Coding System	99USL	Changeable Data
OBR.4.7	Coding System Version	2.52	Changeable Data
OBR.4.9	Original Text	Erythrocyte sedimentation rate	Changeable Data
OBR.7	**Observation Date/Time**		
OBR.7.1	Time	201509251400	Changeable Data
OBR.11	**Specimen Action Code**	L	Changeable Data
OBR.16	**Ordering Provider**		
OBR.16.1	ID Number	5742200012	Changeable Data
OBR.16.2	Family Name		
OBR.16.2.1	Surname	Radon	Changeable Data
OBR.16.3	Given Name	Nicholas	Changeable Data
OBR.16.4	Second and Further Given Names or Initials Thereof	M	Changeable Data
OBR.16.5	Suffix (e.g., JR or III)	JR	Changeable Data
OBR.16.6	Prefix (e.g., DR)	DR	Changeable Data
OBR.16.9	Assigning Authority		
OBR.16.9.1	Namespace ID	NPI	Changeable Data
OBR.16.10	Name Type Code	L	Changeable Data
OBR.16.13	Identifier Type Code	NPI	Changeable Data
OBR.22	**Results Rpt/Status Chng - Date/Time**		
OBR.22.1	Time	20150926140551	Changeable Data
OBR.25	**Result Status**	F	Test Case Fixed Data
OBR.28	**Result Copies To**		
OBR.28.1	ID Number	10092000194	Changeable Data
OBR.28.2	Family Name		
OBR.28.2.1	Surname	Hamlin	Changeable Data
OBR.28.3	Given Name	Pafford	Changeable Data
OBR.28.4	Second and Further Given Names or Initials Thereof	M	Changeable Data
OBR.28.5	Suffix (e.g., JR or III)	Sr.	Changeable Data
OBR.28.6	Prefix (e.g., DR)	Dr.	Changeable Data
OBR.28.9	Assigning Authority		
OBR.28.9.1	Namespace ID	NPI	Changeable Data
OBR.28.10	Name Type Code	L	Changeable Data
OBR.28.13	Identifier Type Code	NPI	Changeable Data
OBR.49	**Results Handling**		
OBR.49.1	Identifier	CC	Test Case Fixed Data
OBR.49.2	Text	Copies Requested	Test Case Fixed Data
OBR.49.3	Name of the Coding System	HL70507	IG Fixed Data

———NTE———

Location	Data Element	Data	Categorization
NTE.1	**Set ID - NTE**	1	IG Fixed Data
NTE.3	**Comment**	Patient is extremely anxious about needles used for drawing blood.\.br\If patient is overly frightened, nervous, or anxious	Changeable Data

Location	Data Element	Data	Categorization
		please reschedule blood draw.	

---NTE---

Location	Data Element	Data	Categorization
NTE.1	Set ID - NTE	2	IG Fixed Data
NTE.3	Comment	Patient is allergic to latex	Changeable Data

---TQ1---

Location	Data Element	Data	Categorization
TQ1.1	Set ID - TQ1	1	IG Fixed Data
TQ1.7	Start date/time		
TQ1.7.1	Time	201509251400	Changeable Data
TQ1.8	End date/time		
TQ1.8.1	Time	201509261400	Changeable Data
TQ1.9	Priority		
TQ1.9.1	Identifier	R	Changeable Data
TQ1.9.2	Text	Routine	Changeable Data
TQ1.9.3	Name of the Coding System	HL70485	Changeable Data
TQ1.9.9	Original Text	Routine	Changeable Data

---OBX---

Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	1	IG Fixed Data
OBX.2	Value Type	NM	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	30341-2	Test Case Fixed Data
OBX.3.2	Text	Erythrocyte sedimentation rate	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.4	Alternate Identifier	815117	Changeable Data
OBX.3.5	Alternate Text	ESR	Changeable Data
OBX.3.6	Name of Alternate Coding System	99USL	Changeable Data
OBX.3.7	Coding System Version	2.52	Changeable Data
OBX.3.9	Original Text	Erythrocyte sedimentation rate	Changeable Data
OBX.4	Observation Sub-ID		
OBX.4.2	Group	1	Test Case Fixed Data
OBX.4.3	Sequence	1	Test Case Fixed Data
OBX.4.4	Identifier	1	Test Case Fixed Data
OBX.5	Observation Value	10	Test Case Fixed Data
OBX.6	Units		
OBX.6.1	Identifier	mm/h	Changeable Data
OBX.6.2	Text	millimeter per hour	Changeable Data
OBX.6.3	Name of the Coding System	UCUM	Changeable Data
OBX.6.7	Coding System Version	1.9	Changeable Data
OBX.7	Reference Range	0 to 17	Changeable Data
OBX.8	Abnormal Flags	N	Test Case Fixed Data
OBX.11	Observation Result Status	F	Test Case Fixed Data
OBX.14	Date/Time of the Observation		
OBX.14.1	Time	201509251400	Changeable Data
OBX.19	Date/Time of the Analysis		
OBX.19.1	Time	20150926130550	Changeable Data
OBX.23	Performing Organization Name		
OBX.23.1	Organization Name	Century Hospital	Changeable Data
OBX.23.6	Assigning Authority		
OBX.23.6.1	Namespace ID	CLIA	Changeable Data
OBX.23.7	Identifier Type Code	XX	Changeable Data
OBX.23.10	Organization Identifier	24D9871327	Changeable Data
OBX.24	Performing Organization Address		

Location	Data Element	Data	Categorization
OBX.24.1;	Street Address		
OBX.24.1.1	Street or Mailing Address	2070 Test Park	Changeable Data
OBX.24.3	City	Los Angeles	Changeable Data
OBX.24.4	State or Province	CA	Changeable Data
OBX.24.5	Zip or Postal Code	90067	Changeable Data
OBX.24.6	Country	USA	Changeable Data
OBX.24.7	Address Type	B	Changeable Data
OBX.24.9	County/Parish Code	06037	Changeable Data
OBX.25	**Performing Organization Medical Director**		
OBX.25.1	ID Number	5432178916	Changeable Data
OBX.25.2	Family Name		
OBX.25.2.1	Surname	Knowsalot	Changeable Data
OBX.25.3	Given Name	Phil	Changeable Data
OBX.25.4	Second and Further Given Names or Initials Thereof	J.	Changeable Data
OBX.25.5	Suffix (e.g., JR or III)	III	Changeable Data
OBX.25.6	Prefix (e.g., DR)	Dr.	Changeable Data
OBX.25.9	Assigning Authority		
OBX.25.9.1	Namespace ID	NPI	Changeable Data
OBX.25.10	Name Type Code	L	Changeable Data
OBX.25.13	Identifier Type Code	NPI	Changeable Data
OBX.29	**Observation Type**	RSLT	Test Case Fixed Data
OBX.30	**Observation SubType**	UNSP	Test Case Fixed Data

SPM

Location	Data Element	Data	Categorization
SPM.1	**Set ID - SPM**	1	IG Fixed Data
SPM.2	**Specimen ID**		
SPM.2.1			
SPM.2.1.1		S-2015-66	Configurable Data
SPM.2.1.2		GoodHealthC_EHR	Configurable Data
SPM.2.2			
SPM.2.2.1		S-9911-33	Changeable Data
SPM.2.2.2		NIST Lab Filler	Changeable Data
SPM.4	**Specimen Type**		
SPM.4.1	Identifier	119297000	Changeable Data
SPM.4.2	Text	BLD	Changeable Data
SPM.4.3	Name of the Coding System	SCT	Changeable Data
SPM.4.4	Alternate Identifier	BldSpc	Changeable Data
SPM.4.5	Alternate Text	Blood	Changeable Data
SPM.4.6	Name of Alternate Coding System	99USL	Changeable Data
SPM.4.7	Coding System Version	201509USEd	Changeable Data
SPM.4.9	Original Text	Blood Specimen	Changeable Data
SPM.17	**Specimen Collection Date/Time**		
SPM.17.1	Range Start Date/Time		
SPM.17.1.1	Time	201509251400	Changeable Data
SPM.24	**Specimen Condition**		
SPM.24.1	Identifier	COOL	Changeable Data
SPM.24.2	Text	Cool	Changeable Data
SPM.24.3	Name of the Coding System	HL70493	Changeable Data
SPM.24.4	Alternate Identifier	CL	Changeable Data
SPM.24.5	Alternate Text	Cool	Changeable Data
SPM.24.6	Name of Alternate Coding System	99USL	Changeable Data
SPM.24.9	Original Text	Cool	Changeable Data

Patient Information

Element	Data
Name	William A Jones
Date/Time of Birth	06/15/1961
Administrative Sex	Male
Race	White
Alt Race	
Race[2]	American Indian or Alaska Native
Alt Race[2]	

Order Observation

Ordering Provider

Element	Data
Name	DR Nicholas M Radon JR
Identifier number	5742200012

Observation Details

Element	Data
Observation General Information	
Placer Order Number	ORD723222
Filler Order Number	R-783274
Placer Group Number	GORD874211
Parent Universal Service Identifier	
Identifier	
Text	
Alt Identifier	
Alt Text	
Original Text	
Observation Details	
Universal Service Identifier	Erythrocyte sedimentation rate
Observation Date/Time	09/25/2015 2:00 PM
Observation end Date/Time	
Specimen Action Code	L
Relevant Clinical Information	
Relevant Clinical Information Original Text	
Observation Result Information	
Result Status	F
Results Report/Status Change - Date/Time	09/26/2015 2:05 PM
Results Copy To	
Name	Dr. Pafford M Sr.
Identifier	10092000194
Results Handling	
Standard	
Observation Notes	

Notes and comments	Patient is extremely anxious about needles used for drawing blood.\.br\If patient is overly frightened, nervous, or anxious please reschedule blood draw.
Notes and comments	Patient is allergic to latex

Timing/Quantity Information

Element	Data
Priority	Routine
Start Date/time	09/25/2015 2:00 PM
End Date/time	09/26/2015 2:00 PM

Results Performing Laboratory

Element	Data
Laboratory Name	Century Hospital
Organization identifier	24D9871327
Address	2070 Test Park Los Angeles CA 90067 USA
Director Name	Dr. Phil J. Knowsalot III
Director identifier	5432178916

Specimen Information

Element	Data
Specimen Type	BLD
Alt Specimen Type	Blood
Specimen Original Text	Blood Specimen
Start date/time	201509251400
Specimen Condition	Cool
Alt Specimen Condition	Cool
Condition Original Text	Cool

Lab results

Element	Data							
Test performed	Erythrocyte sedimentation rate							
Test Report date	09/26/2015 14:05							
Result Observation Name	Result	UOM	Range	Abnormal Flag	Status	Date/Time of Observation	Date/Time of Analysis	Notes
Erythrocyte sedimentation rate	10	millimeter per hour	0 to 17	N	F	09/25/2015 14:00	09/26/2015 13:05	

HL7 v2.5 ORU^R01^ORU_R01 Message: Incorporation of Laboratory Results	
Test Case ID	LRI_1.0_1.1-NG
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass ☐ Fail ☐
Reason Failed	
Juror Comments	

This Test Case-specific Juror Document provides a checklist for the Tester to use during testing for assessing the Health IT Module's ability to display and incorporate required data elements from the information received in the LRI message. Additional data from the message or from the Health IT Module are permitted to be displayed and incorporated by the Module. Grayed-out fields in the Juror Document indicate where no data for that data element were included in the LRI message for the given Test Case.

The format of the Display Verification section of this Juror Document is for ease-of-use by the Tester and does not indicate how the Health IT Module display must be designed.

Display Verification

Legend for Display Requirement

Data in **bold red** text: HIT Module must display exact version of stored data

Data in **_bold black italics_** text: HIT Module must display exact version of data received in the LRI message

Data in regular text: HIT Module may display equivalent version of stored data

Patient Information - Display Verification					
Patient Identifier	**Patient Name**	**DOB**	**Sex**	**Race**	**Tester Comment**
PATID1234	_William A Jones_	06/15/1961	M	**White; American Indian or Alaska Native**	
When a given patient has more than one Patient ID Number, the HIT module may display the ID Number that is most appropriate for the context (e.g., inpatient ID Number versus ambulatory ID Number.)					

Lab Results - Display Verification										
Test Performed:	**Erythrocyte sedimentation rate**									
Test Report Date:	09/26/2015 14:05:51									
Result Report Status	F									
Note:	Patient is extremely anxious about needles used for drawing blood. If patient is overly frightened, nervous, or anxious please reschedule blood draw.									
Note:	Patient is allergic to latex									
Result Observation Name	**Result Value**	**UOM**	**Reference Range**	**Abnormal Flag**	**Status**	**Date/Time of Observation**	**End Date/Time of Observation**	**Date/Time of Analysis**	**Tester Comment**	
Erythrocyte sedimentation rate	*10*	*millimeter per hour*	**0 to 17**	N	F	09/25/2015 14:00:		09/26/2015 13:05:50		

Performing Organization Information - Display Verification		
Data Element Name	**Data**	**Tester Comment**
Organization Name	**Century Hospital**	
Organization Address		
Street address	*2070 Test Park*	
Other designation		
City	*Los Angeles*	
State	*CA*	
Zip code	*90067*	

Performing Organization Medical Director Information - Display Verification		
Data Element Name	**Data**	**Tester Comment**
Medical Director Name		
Family Name		
Surname	Knowsalot	
Given Name	Phil	
Second and Further Given Names or Initials Thereof	J.	
Suffix (e.g., JR or III)	III	
Prefix (e.g., DR)	Dr.	

Specimen Information - Display Verification		
Data Element Name	**Data**	**Tester Comment**
Specimen Type(Specimen Source)	**Blood Specimen**	
Specimen Collection Date/Time - Start	09/25/2015 14:00:	
Specimen Collection Date/Time - End		
Specimen Reject Reason		
Specimen Condition	**Cool**	

Order Information - Display Verification		
Data Element Name	**Data**	**Tester Comment**
Relevant Clinical Information		
Placer Order Number Entity ID	ORD723222	
Ordering Provider		
Family Name		
Surname	Radon	
Given Name	Nicholas	
Second and Further Given Names or Initials Thereof	M	
Suffix (e.g., JR or III)	JR	
Prefix (e.g., DR)	DR	
Results Copies To		
Family Name		
Surname	Hamlin	
Given Name	Pafford	
Second and Further Given Names or Initials Thereof	M	
Suffix (e.g., JR or III)	Sr.	
Prefix (e.g., DR)	Dr.	
Timing/Quantity Information		
Start Date/Time	09/25/2015 14:00:	
End Date/Time	09/26/2015 14:00:	
Priority	Routine	

Incorporate Verification

Legend for Store Requirement

S-EX : Store exact

S-TR-R : Translate and store translation (exact value can be re-created from translation any time)

S-EX-A : Store exact by association

S-RC : Process and re-create

S-EQ : Store equivalent

(See **"Instructions to Testers for Verification of Store Requirements"** at the end of this Juror Document for additional details.)

Patient Information Details- Incorporate Verification				
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
PID-3	**Patient Identifier List**			
PID-3.1	ID Number	S-EX-A	PATID1234	
PID-3.4	**Assigning Property**			
PID-3.4.1	Namespace ID	S-EX-A	NIST MPI	
PID-3.4.2	Universal ID	S-EX-A		
PID-3.4.3	Universal ID Type	S-EX-A		
PID-3.5	Identifier Type Code	S-RC	MR	
PID-5	**Patient Name**			
PID-5.1	**Family Name**			
PID-5.1.1	Surname	S-EX-A	Jones	
PID-5.2	Given Name	S-EX-A	William	
PID-5.3	Second and Further Given Names or Initials Thereof	S-EX-A	A	
PID-5.4	Suffix (e.g., JR or III)	S-EX-A		
PID-5.7	Name Type Code	S-RC	L	
PID-7	**Date/Time of Birth**			
PID-7.1	Time	S-EQ	06/15/1961	
PID-8	Administrative Sex	S-TR-R	M	
PID-10	**Race**			
PID-10.1	Identifier	S-RC	2106-3	
PID-10.2	Text	S-RC	White	
PID-10.3	Name of Coding System	S-RC	HL70005	
PID-10	**Race**			
PID-10.1	Identifier	S-RC	1002-5	
PID-10.2	Text	S-RC	American Indian or Alaska Native	
PID-10.3	Name of Coding System	S-RC	HL70005	

Order Information - Incorporate Verification

Location	Data Element Name	Store Requirement	Data	Tester Comment
ORC-2/OBR-2	**Placer Order Number**			
ORC-2.1/OBR-2.1	Entity Identifier	S-EX-A	ORD723222	
ORC-2.2/OBR-2.2	Namespace ID	S-EX-A	NIST EHR	
ORC-2.3/OBR-2.3	Universal ID	S-EX-A		
ORC-2.4/OBR-2.4	Universal ID Type	S-EX-A		
ORC-3/OBR-3	**Filler Order Number**			
ORC-3.1/OBR-3.1	Entity Identifier	S-EX	R-783274	
ORC-3.2/OBR-3.2	Namespace ID	S-EX-A	NIST Lab Filler	
ORC-3.3/OBR-3.3	Universal ID	S-EX-A		
ORC-3.4/OBR-3.4	Universal ID Type	S-EX-A		
ORC-12/OBR-16	**Ordering Provider**			
ORC-12.1/OBR-16.1	ID Number	S-RC	5742200012	
ORC-12.2/OBR-16.2	**Family Name**			
ORC-12.2.1/OBR-16.2.1	Surname	S-RC	Radon	
ORC-12.3/OBR-16.3	Given Name	S-RC	Nicholas	
ORC-12.4/OBR-16.4	Second and Further Given Names or Initials Thereof	S-RC	M	
ORC-12.5/OBR-16.5	Suffix (e.g., JR or III)	S-RC	JR	
ORC-12.6/OBR-16.6	Prefix (e.g., DR)	S-RC	DR	
ORC-12.9/OBR-16.9	**Assigning Authority**			
ORC-12.9.1/OBR-16.9.1	Namespace ID	S-EX-A	NPI	
ORC-12.9.2/OBR-16.9.2	Universal ID	S-EX-A		
ORC-12.9.3/OBR-16.9.3	Universal ID Type	S-EX-A		
ORC-12.10/OBR-16.10	Name Type Code	S-RC	L	
ORC-12.13/OBR-16.13	Identifier Type Code	S-RC	NPI	

Note- Incorporate Verification

Location	Data Element Name	Store Requirement	Data	Tester Comment
NTE-3	Note	S-EX	Patient is extremely anxious about needles used for drawing blood. If patient is overly frightened, nervous, or anxious please reschedule blood draw.	
NTE-3	Note	S-EX	Patient is allergic to latex	

Performing Organization Information - Incorporate Verification				
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
OBX-23	**Performing Organization Name**			
OBX-23.1	Organization Name (Note 1)	S-TR-R	Century Hospital	
OBX-23.6	**Assigning Authority (Note 2)**			
OBX-23.6.1	Namespace ID	S-EX-A	CLIA	
OBX-23.6.2	Universal ID	S-EX-A		
OBX-23.6.3	Universal ID Type	S-EX-A		
OBX-23.7	Identifier Type Code	S-RC	XX	
OBX-23.10	Organization Identifier	S-TR-R	24D9871327	
OBX-24	**Performing Organization Address**			
OBX-24.1	**Street Address**			
OBX-24.1.1	Street or Mailing Address	S-EX-A	2070 Test Park	
OBX-24.2	Other Designation	S-EX-A		
OBX.24.3	City	S-EX-A	Los Angeles	
OBX-24.4	State or Province	S-EX-A	CA	
OBX-24.5	Zip or Postal Code	S-EX-A	90067	
OBX-24.6	Country	S-TR-R	USA	
OBX-25	**Performing Organization Medical Director**			
OBX-25.1	ID Number	S-RC	5432178916	
OBX-25.2	**Family Name**			
OBX-25.2.1	Surname	S-TR-R	Knowsalot	
OBX-25.3	Given Name	S-TR-R	Phil	
OBX-25.4	Second and Further Given Names or Initials Thereof	S-TR-R	J.	
OBX-25.5	Suffix (e.g., JR or III)	S-TR-R	III	
OBX-25.6	Prefix (e.g., DR)	S-TR-R		
OBX-25.9	**Assigning Authority (Note 2)**			
OBX-25.9.1	Namespace ID	S-EX-A	NPI	
OBX-25.9.2	Universal ID	S-EX-A		
OBX-25.9.3	Universal ID Type	S-EX-A		
OBX-25.10	Name Type Code	S-RC	L	
OBX-25.13	Identifier Type Code	S-RC	NPI	

Note 1 - The HIT Module must store the Organization Name or be able to recreate it. If the HIT Module is able to demonstrate Organization Name: ID is always 1:1, then the HIT Module is permitted to store and recreate (S-TR-R).

Note 2 - Determine requirement for support of 2nd component or 3rd and 4th component based on the EI or HD Profile

	Order Information (cont'd) - Incorporate Verification			
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
OBR-4	**Universal Service Identifier (Note 1)**			
OBR-4.1	Identifier	S-TR-R	30341-2	
OBR-4.2	Text	S-EX-A	Erythrocyte sedimentation rate	
OBR-4.3	Name of the Coding System	S-RC	LN	
OBR-4.4	Alternate Identifier	S-TR-R	500	
OBR-4.5	Alternate Text	S-EX-A	Erythrocyte sedimentation rate	
OBR-4.6	Name of Alternate Coding System	S-RC	99USL	
OBR-4.9	Original Text	S-EX	Erythrocyte sedimentation rate	
OBR-7/SPM-17.1	**Observation Date/Time**			
OBR-7.1/SPM-17.1.1	Time	S-EQ	09/25/2015 14:00:	
OBR-8/SPM-17.2	**Observation End Date/Time**			
OBR-8.1/SPM-17.2.1	Time	S-EQ		
OBR-13	**Relevant Clinical Information**			
OBR-13.1	Identifier	S-TR-R		
OBR-13.2	Text	S-EX-A		
OBR-13.3	Name of the Coding System	S-RC		
OBR-13.9	Original Text	S-EX		
OBR-22	**Results Rpt/Status Chng - Date/Time**			
OBR-22.1	Time	S-EQ	09/26/2015 14:05:51	
OBR-25	Result Status	S-TR-R	F	
OBR-28	**Result Copies To**			
OBR-28.1	ID Number	S-RC	10092000194	
OBR-28.2	**Family Name**			
OBR-28.2.1	Surname	S-EX-A	Hamlin	
OBR-28.3	Given Name	S-EX-A	Pafford	
OBR-28.4	Second and Further Given Names or Initials Thereof	S-EX-A	M	
OBR-28.5	Suffix (e.g., JR or III)	S-EX-A	Sr.	
OBR-28.6	Prefix (e.g., DR)	S-EX-A	Dr.	
OBR-28.9	**Assigning Authority**			
OBR-28.9.1	Namespace ID	S-EX-A	NPI	
OBR-28.9.2	Universal ID	S-EX-A		
OBR-28.9.3	Universal ID Type	S-EX-A		
OBR-28.10	Name Type Code	S-TR-R	L	
OBR-28.13	Identifier Type Code	S-RC	NPI	

Note 1 -Store the Identifier and the Text for each populated triplet using the S-EX-A, S-TR-R, or S-EX store requirement as indicated. If Original Text field is populated, MUST store the exact data received.

Result Information - Incorporate Verification				
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
OBX-3	**Observation Identifier (Note 1)**			
OBX-3.1	Identifier	S-TR-R	30341-2	
OBX-3.2	Text	S-EX-A	Erythrocyte sedimentation rate	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R	815117	
OBX-3.5	Alternate Text	S-EX-A	ESR	
OBX-3.6	Name of Alternate Coding System	S-RC	99USL	
OBX-3.9	Original Text	S-EX	Erythrocyte sedimentation rate	
OBX-5	Observation Value	S-EQ	10	
OBX-6	**Units (Note 2)**			
OBX-6.1	Identifier	S-TR-R	mm/h	
OBX-6.2	Text	S-TR-R	millimeter per hour	
OBX-6.3	Name of the Coding System	S-RC	UCUM	
OBX-6.4	Alternate Identifier	S-TR-R		
OBX-6.5	Alternate Text	S-TR-R		
OBX-6.6	Name of Alternate Coding System	S-RC		
OBX-6.9	Original Text	S-EX		
OBX-7	**Reference Range**	S-EX	0 to 17	
OBX-8	**Abnormal Flags**	S-TR-R	N	
OBX-11	**Observation Result Status**	S-TR-R	F	
OBX-14	**Date/Time of the Observation**			
OBX-14.1	Time	S-EQ	09/25/2015 14:00:	
OBX-19	**Date/Time of the Analysis**			
OBX-19.1	Time	S-EQ	09/26/2015 13:05:50	

Note 1 - Store the Identifier and the Text for each populated triplet using the S-EX-A, S-TR-R, or S-EX store requirement as indicated. If Original Text field is populated, MUST store the exact data received.

Note 2 - If both UOM triplets are populated, receiver may choose to store the data received in either triplet; translations must result in equivalent UOM that do not require a change in the numeric result.

Specimen Information - Incorporate Verification				
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
SPM-4	**Specimen Type (Note 1)**			
SPM-4.1	Identifier	S-TR-R	119297000	
SPM-4.2	Text	S-EX-A	BLD	
SPM-4.3	Name of the Coding System	S-RC	SCT	
SPM-4.4	Alternate Identifier	S-TR-R	BldSpc	
SPM-4.5	Alternate Text	S-EX-A	Blood	
SPM-4.6	Name of Alternate Coding System	S-RC	99USL	
SPM-4.9	Original Text	S-EX	Blood Specimen	
SPM-24	**Specimen Condition (Note 1)**			
SPM-24.1	Identifier	S-TR-R	COOL	
SPM-24.2	Text	S-EX-A	Cool	
SPM-24.3	Name of the Coding System	S-RC	HL70493	
SPM-24.4	Alternate Identifier	S-TR-R	CL	
SPM-24.5	Alternate Text	S-EX-A	Cool	
SPM-24.6	Name of Alternate Coding System	S-RC	99USL	
SPM-24.9	Original Text	S-EX	Cool	
Note 1 - The HIT must store the <u>Identifier</u> and the <u>Text</u> for each populated triplet using the S-EX-A, S-TR-R, or S-EX store requirement as indicated. If <u>Original Text</u> field is populated, MUST store the exact data received.				

Timing/Quantity Information- Incorporate Verification				
Location	**Data Element Name**	**Store Requirement**	**Data**	**Tester Comment**
TQ1-7	**Start Date/Time**			
TQ1-7.1	Time	S-EQ	09/25/2015 14:00:	
TQ1-8	**End Date/Time**			
TQ1-8.1	Time	S-EQ	09/26/2015 14:00:	
TQ1-9	**Priority**			
TQ1-9.1	Identifier	S-TR-R	R	
TQ1-9.2	Text	S-EX-A	Routine	
TQ1-9.3	Name of Coding System	S-RC	HL70485	
TQ1-9.9	Original Text	S-EX	Routine	

Instructions to Testers for Verification of Store Requirements

Note: The HIT Module being tested is always allowed to incorporate/store the exact data received in the LRI message even if a given Store Requirement does not explicitly state that the HIT Module is permitted to do so.

Store Requirement	Definition	Instructions for Verification of Requirement During Conformance Testing
S-EX	Store Exact	The HIT Module being tested must be designed to incorporate/store only the exact data received in the LRI message. • Tester must verify that the HIT Module being tested incorporates/stores **in the patient's laboratory result record only the exact data received** in the LRI message, and that the HIT Module does not just store an equivalent of that exact data or just a pointer to the exact data.
S-EX-A	Store exact by association	The HIT Module being tested must be designed (1) to incorporate/store the exact data received in the LRI message OR (2) to use a pointer to a location (e.g., file/table in or accessible to the HIT Module) where the exact data can be obtained. • Tester must verify that the HIT Module being tested incorporates/stores **in the patient's laboratory result record the exact data received** in the LRI message OR that the HIT Module incorporates/stores **in the patient's laboratory result record a pointer to the exact data received** in the LRI message. Example: Placer Number; the HIT-originated Placer Number received in the LRI message may be incorporated/stored using a pointer rather than being stored redundantly in the patient's lab result record.
S-EQ	Store equivalent	The HIT Module being tested must be designed to transform the exact data received in the LRI message to an equivalent format and then incorporate/store the equivalent format. • Tester must verify that the HIT Module being tested transforms the exact data received in the LRI message to an equivalent format and incorporates/stores **the equivalent format in the patient's laboratory result record.**
S-TR-R	Translate and store translation (exact value can be re-created from translation any time)	The HIT Module being tested must be designed to transform the exact data received in the LRI message to an equivalent value and then incorporate/store the equivalent value. • Tester must verify that the HIT Module being tested incorporates/stores **in the patient's laboratory result record the equivalent value.** • Tester must also verify that the HIT Module is able to re-create from this equivalent value the exact data received in the LRI message.
S-RC	Process and re-create	The HIT Module being tested must be designed to process and incorporate/store in an "abstract-able manner" (e.g., using the HIT Module's data model) the exact data received in the LRI message and to re-create the exact data (e.g., from the HIT Module's data model). • Tester must verify that the HIT Module being tested processes and abstractly incorporates/stores **in the patient's laboratory result record the exact data received** in the LRI message. • Tester also must verify that the HIT Module is able to re-create the exact data received in the LRI message by abstracting the data (e.g., from the HIT Module's data model). Example: Identifier Type Code; the HIT Module uses a separate file/table to store Social Security Numbers versus internal Medical Record Numbers, and does not need to retain the Identifier Type Code

MSH|^~\&#|NIST Test Lab APP^372520^L|NIST Lab Facility^372521^L||NIST EHR
Facility^372523^L|20150926140551||ORU^R01^ORU
_R01|LRI_1.0_1.1-NG|D|2.5.1||||AL|AL|||||LRI_Common_Component^LRI Base Profile^2.16.840.1.113883.9.16^ISO~LRI_NG_Componen
t^LRI Base Profile^2.16.840.1.113883.9.13^ISO~LRI_FRU_Component^LRI NG Profile^2.16.840.1.113883.9.83^ISO

PID|1||PATID1234^^^NIST MPI^MR||Jones^William^A^^^^L||19610615|M||2106-3^White^HL70005^^^^^^White~1002-5^American
India
n or Alaska Native^HL70005^^^^^^American Indian|||||||PATID1234^^^NIST MPI^AN

ORC|RE|ORD723222^NIST EHR|R-783274^NIST Lab Filler|GORD874211^NIST
EHR||||||||5742200012^Radon^Nicholas^M^JR^DR^^^NPI^L
^^^NPI

OBR|1|ORD723222^NIST EHR|R-783274^NIST Lab Filler|30341-2^Erythrocyte sedimentation rate^LN^500^Erythrocyte sedimentati
on rate^99USL^2.52^^Erythrocyte sedimentation rate|||201509251400||||L|||||5742200012^Radon^Nicholas^M^JR^DR^^^NPI^L^^^N
PI||||||20150926140551|||F||10092000194^Hamlin^Pafford^M^Sr.^Dr.^^^NPI^L^^^NPI|||||||||||||||||||||CC^Copies Requested^
HL70507

NTE|1||Patient is extremely anxious about needles used for drawing blood.\.br\If patient is overly frightened, nervous,
or anxious please reschedule blood draw.

NTE|2||Patient is allergic to latex

TQ1|1|||||||201509251400|201509261400|R^Routine^HL70485^^^^^^Routine

OBX|1|NM|30341-2^Erythrocyte sedimentation rate^LN^815117^ESR^99USL^2.52^^Erythrocyte sedimentation rate|^1^1^1|10|mm/h
^millimeter per hour^UCUM^^^^1.9|0 to 17|N|||F|||201509251400|||||20150926130550||||Century Hospital^^^^^CLIA^XX^^^24D98
71327|2070 Test Park^^Los
Angeles^CA^90067^USA^B^^06037|5432178916^Knowsalot^Phil^J.^III^Dr.^^^NPI^L^^^NPI||||RSLT|UNSP

SPM|1|S-2015-66&GoodHealthC_EHR^S-9911-33&NIST Lab
Filler||119297000^BLD^SCT^BldSpc^Blood^99USL^201509USEd^^Blood Speci
men|||||||||||201509251400|||||||COOL^Cool^HL70493^CL^Cool^99USL^^^Cool