

### Description

Based on LRI\_1.0\_Sed\_Rate and LRI\_1.1\_Sed\_Rate:

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 rule out rheumatoid arthritis, Dr. Nicholas Radon ordered an erythrocyte sedimentation rate (ESR or Sed Rate) blood test to be performed, specifying that the laboratory was to draw the blood specimen from the patient the same day. The final result of this test 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 ambulatory EHR used in Dr. Radon's office practice later that same day.

The ESR test instrument was recalibrated and the ESR specimen was re-analyzed. After the recalibration and re-analysis, the result value for Mr. Jones' ESR test changed from 10 mm/hr to 20 mm/hr. A Corrected result report with a result value of 20 mm/hr and an abnormal flag of "H" was generated by the LIS and transmitted to the patient's record in the ambulatory EHR used in Dr. Radon's office practice.

### Comments

This test case is evaluating the correct use of the status codes in OBR-25 and OBX-11.

### PreCondition

LRI\_1.0\_1.1-NG/LRI\_1.0\_1.1-NG have been previously sent which includes specific content in which the data type for OBX.2 is NM, the result is "10" (OBX.5), the abnormal flag is "N" (OBX.8), and the observation results status is "F" (OBX.11).

### PostCondition

No Post Condition.

### TestObjectives

- Demonstrate the ability to message corrected results based on previous results.
- Specific test points include the use of the NM data type for OBX.2, the value of "20" for results (OBX.5), the value of "H" for abnormal flags (OBX.8), and the observation results status is "C" (OBX.11).

### Notes to Testers

Run LRI\_1.0\_1.1-NG\_Sed\_Rate\_Final test case prior to this test case. Note that this test case is explicitly requiring the use of the NM data type for OBX-2 (even though the SN data type is equally correct).

Note that data element SPM-24 is provided in the test data. This element is optional for the sender and required-but maybe empty for the receiver. This element is not subject to conformance testing for this test case (sender).

## Test Case Information

## LRI\_1.0\_2.1-NG - Maximally Populated SED Rate message - Corrected Results

Test Case ID

LRI\_1.0\_2.1-NG

## MSH

Location	Data Element	Data	Categorization
<b>MSH.1</b>	<b>Field Separator</b>		IG Fixed Data
<b>MSH.2</b>	<b>Encoding Characters</b>	^~&#	IG Fixed Data
<b>MSH.3</b>	<b>Sending Application</b>		
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
<b>MSH.4</b>	<b>Sending Facility</b>		
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
<b>MSH.6</b>	<b>Receiving Facility</b>		
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
<b>MSH.7</b>	<b>Date/Time Of Message</b>		
MSH.7.1	Time	20150926140551	System Generated
<b>MSH.9</b>	<b>Message Type</b>		
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
<b>MSH.10</b>	<b>Message Control ID</b>	LRI_1.0_2.1-NG	System Generated
<b>MSH.11</b>	<b>Processing ID</b>		
MSH.11.1	Processing ID	D	Changeable Data
<b>MSH.12</b>	<b>VersionID</b>		
MSH.12.1	Version ID	2.5.1	IG Fixed Data
<b>MSH.15</b>	<b>Accept Acknowledgment Type</b>	AL	IG Fixed Data
<b>MSH.16</b>	<b>Application Acknowledgment Type</b>	AL	IG Fixed Data
<b>MSH.21</b>	<b>Message Profile Identifier</b>		
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
<b>MSH.21[2]</b>	<b>Message Profile Identifier</b>		
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
<b>MSH.21[3]</b>	<b>Message Profile Identifier</b>		
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
<b>PID.1</b>	<b>Set ID - PID</b>	1	IG Fixed Data
<b>PID.3</b>	<b>Patient Identifier List</b>		
PID.3.1	ID Number	PATID1234	Configurable Data
PID.3.4	Assigning Authority		

<b>PID.3.4.1</b>	<b>Namespace ID</b>	<b>NIST MPI</b>	<b>Changeable Data</b>
<b>Location</b>	<b>Data Element</b>	<b>Data</b>	<b>Categorization</b>
PID.3.5	Identifier Type Code	MR	Configurable Data
<b>PID.5</b>	<b>Patient Name</b>		
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
<b>PID.7</b>	<b>Date/Time of Birth</b>		
PID.7.1	Time	19610615	Changeable Data
<b>PID.8</b>	<b>Administrative Sex</b>	M	Changeable Data
<b>PID.10</b>	<b>Race</b>		
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
<b>PID.10[2]</b>	<b>Race</b>		
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
<b>PID.18</b>	<b>Patient Account Number</b>		
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

<b>Location</b>	<b>Data Element</b>	<b>Data</b>	<b>Categorization</b>
<b>ORC.1</b>	<b>Order Control</b>	RE	Test Case Fixed Data
<b>ORC.2</b>	<b>Placer Order Number</b>		
ORC.2.1	Entity Identifier	ORD723222	Changeable Data
ORC.2.2	Namespace ID	NIST EHR	Changeable Data
<b>ORC.3</b>	<b>Filler Order Number</b>		
ORC.3.1	Entity Identifier	R-783274	Changeable Data
ORC.3.2	Namespace ID	NIST Lab Filler	
<b>ORC.4</b>	<b>Placer Group Number</b>		
ORC.4.1	Entity Identifier	GORD874211	Changeable Data
ORC.4.2	Namespace ID	NIST EHR	
<b>ORC.12</b>	<b>Ordering Provider</b>		
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

<b>Location</b>	<b>Data Element</b>	<b>Data</b>	<b>Categorization</b>
<b>OBR.1</b>	<b>Set ID - OBR</b>	1	IG Fixed Data

<b>OBR.2</b>	<b>Location</b>	<b>Placer Order Number</b>	<b>Data Element</b>	<b>Data</b>	<b>Categorization</b>
OBR.2.1		Entity Identifier		ORD723222	Changeable Data
OBR.2.2		Namespace ID		NIST EHR	Changeable Data
<b>OBR.3</b>		<b>Filler Order Number</b>			
OBR.3.1		Entity Identifier		R-783274	Changeable Data
OBR.3.2		Namespace ID		NIST Lab Filler	Changeable Data
<b>OBR.4</b>		<b>Universal Service Identifier</b>			
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
<b>OBR.7</b>		<b>Observation Date/Time</b>			
OBR.7.1		Time		201509251400	Changeable Data
<b>OBR.11</b>		<b>Specimen Action Code</b>		L	Changeable Data
<b>OBR.16</b>		<b>Ordering Provider</b>			
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
<b>OBR.22</b>		<b>Results Rpt/Status Chng - Date/Time</b>			
OBR.22.1		Time		20150926140551	Changeable Data
<b>OBR.25</b>		<b>Result Status</b>		C	Test Case Fixed Data
<b>OBR.28</b>		<b>Result Copies To</b>			
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
<b>OBR.49</b>		<b>Results Handling</b>			
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

<b>Location</b>	<b>Data Element</b>	<b>Data</b>	<b>Categorization</b>
<b>NTE.1</b>	<b>Set ID - NTE</b>	1	IG Fixed Data
<b>NTE.3</b>	<b>Comment</b>	Patient is extremely anxious about needles used for drawing blood.\.brIf 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	20	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	H	Test Case Fixed Data
OBX.11	Observation Result Status	C	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.24.1.1	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
<b>OBX.25</b>	<b>Performing Organization Medical Director</b>		
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
<b>OBX.29</b>	<b>Observation Type</b>	RSLT	Test Case Fixed Data
<b>OBX.30</b>	<b>Observation SubType</b>	UNSP	Test Case Fixed Data

NTE

Location	Data Element	Data	Categorization
NTE.1	Set ID - NTE	1	IG Fixed Data
NTE.3	Comment	Specimen re-analyzed per request of ordering provider.	Changeable Data

SPM

Location	Data Element	Data	Categorization
<b>SPM.1</b>	<b>Set ID - SPM</b>	1	IG Fixed Data
<b>SPM.2</b>	<b>Specimen ID</b>		
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
<b>SPM.4</b>	<b>Specimen Type</b>		
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
<b>SPM.17</b>	<b>Specimen Collection Date/Time</b>		
SPM.17.1	Range Start Date/Time		
SPM.17.1.1	Time	201509251400	Changeable Data
<b>SPM.24</b>	<b>Specimen Condition</b>		
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	Location	Alternate Text	Data Element	Cool	Data	Changeable	Category
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	C
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	20	millimeter per hour	0 to 17	H	C	09/25/2015 14:00	09/26/2015 13:05	Specimen re-analyzed per request of ordering provider.

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\_2.1-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||C||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|20|mm/h  
^millimeter per hour^UCUM^^^^1.9|0 to 17|H||C||201509251400||||20150926130550|||Century Hospital^^^^CLIA^XX^^24D98  
71327|2070 Test Park^^Los  
Angeles^CA^90067^USA^B^^06037|5432178916^Knowsallot^Phil^J.^III^Dr.^^^NPI^L^^^NPI||||RSLT|UNSP

NTE|1||Specimen re-analyzed per request of ordering provider.

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