

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

No Pre-condition.

PostCondition

No Post Condition.

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 support 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

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_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		

PID.3.4.1	Namespace ID	NIST MPI	Changeable Data
Location	Data Element	Data	Categorization
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

OBR.2	Location	Placer Order Number	Data Element	Data	Categorization
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.\.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	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		

OBX.24.1 Location	Street Address 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
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	

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