-Description

Mr. William A. Jones is a 51 year old white male who presented with a complaint of diarrhea times 3 days. Dr. Nicholas Radon ordered a stool culture test to be performed. A stool specimen for the microbiology test was collected from the patient and sent to the clinical lab at Century Hospital, 2070 Test Park, Los Angeles, CA, 90067, for processing. The stool specimen was analyzed and preliminary result are sent 24 hours later, identifying E. coli O157:H7, Salmonella and Shigella flexneri.

Approximately 48 hours later the Final results, including susceptibility testing of Shigella flexneri are available. The final result report 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 proper use of OBR-22 to establish chronological order of reports and correct use of the status codes in OBR-25 and OBX-11.

Special case test aspects include ensuring that the system can correctly process the data elements for linking parent/child results in accordance with the requirements specified in the implementation guide for the FRN and FRU profiles.

-PreCondition-

Patient information is pre-loaded in the EHR-S.

and Test case LRI 4.0 1.1-NG message has been received and incorporated.

-PostCondition

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

-TestObjectives

 Determine if the system can correctly import and incorporate a valid Parent-Child message for a final Stool Culture/Susceptibility microbiology test report.

Notes to Testers

Run LRI_4.0_1.1-NG prior to this test case. This test case requires display verification only.

Concentrate on the following areas:

Result Report Status (OBR-25) changed from P to F

3 different results (OBX-5) and their interpretations (OBX-8) for the same test are properly displayed; Result Status (OBX-11) changed from P to F

Check that the parent-child linkage is correctly implemented:

The susceptibility test results are linked to the correct result that spawned the respective susceptibility testing, e.g. once for "Salmonella I, group O:4" and once for "Shigella flexneri", both results of the same parent order (Stool culture).

-Test Case Information-

LRI_4.1_2.1-NG_FRU - Culture-Escherichia coli, Salmonella, Shigella - Parent/Child Susceptibility - Final

Test Case ID LRI_4.1_2.1-NG_FRU

-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.4	Sending Facility		
MSH.4.1	Namespace ID	NIST Lab Facility	Configurable Data
MSH.6	Receiving Facility		
MSH.6.1	Namespace ID	NIST EHR Facility	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_4.1_2.1-NG_FRU	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.21.3	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].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].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-

TID				
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	
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.7Location	Date/Time of Bital Element	Data	Categorization
PID.7.1	Time	19610627	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.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-

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	ORD723222-4	Changeable Data
ORC.2.2	Namespace ID	NIST EHR	Changeable Data
ORC.3	Filler Order Number		
ORC.3.1	Entity Identifier	R-783274-4	Changeable Data
ORC.3.2	Namespace ID	NIST Lab Filler	Changeable Data
ORC.4	Placer Group Number		
ORC.4.1	Entity Identifier	GORD874211	Changeable Data
ORC.4.2	Namespace ID	NIST EHR	Changeable Data
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.12.9	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	Placer Order Number		
OBR.2.1	Entity Identifier	ORD723222-4	Changeable Data
OBR.2.2	Namespace ID	NIST EHR	Changeable Data
OBR.3	Filler Order Number		
OBR.3.1	Entity Identifier	R-783274-4	Changeable Data
OBR.3.2	Namespace ID	NIST Lab Filler	Changeable Data
OBR.4	Universal Service Identifier		
OBR.4.1	Identifier	625-4	Test Case Fixed Data
OBR.4.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data
OBR.4.3	Name of Coding System	LN	Test Case Fixed Data
OBR.4.4	Alternate Identifier	3456543	Changeable Data
OBR.4.5	Alternate Text	CULTURE STOOL	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	Stool Culture	Changeable Data
OBR.7	Observation Date/Time		
OBR.7.1	Time	201509231400	Changeable Data
OBR.16	Ordering Provider		
OBR.16.1	ID Number	5742200012	Changeable Data

OBRocation	Family Nampata Element	Data	Categorization
OBR.16.2.1	Surname	Radon	Changeable Data
OBR.16.3	Given Name	Nicholas	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.28.9	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.47	Filler Supplemental Service Information		
OBR.47.1	Identifier	MIC	Test Case Fixed Data
OBR.47.2	Text	Observation of type microbiology	Test Case Fixed Data
OBR.47.3	Name of the Coding System	HL70411	IG Fixed Data
OBR.47.7	Coding System Version	2.5.1	IG Fixed 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

-OBX-

Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	1	IG Fixed Data
OBX.2	Value Type	CWE	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	625-4	Test Case Fixed Data
OBX.3.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.7	Coding System Version	2.52	Changeable Data
OBX.3.9	Original Text	Stool Culture	Test Case Fixed Data
OBX.4	Observation Sub-ID		
OBX.4.2	Group	1	Changeable Data
OBX.4.3	Sequence	1	Changeable Data
OBX.4.4	Identifier	Islt-1	Changeable Data
OBX.5	Observation Value		
OBX.5.1	Identifier	103429008	Changeable Data
OBX.5.2	Text	Enterohemorrhagic Escherichia coli, serotype O157:H7	Changeable Data
OBX.5.3	Name of the Coding System	SCT	Changeable Data
OBX.5.7	Coding System Version	201509USEd	Changeable Data
OBX.5.9	Original Text	Shiga toxin producing E. coli O157:H7 isolated	Changeable Data
OBX.8	Abnormal Flags	A	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	201509231400	Changeable Data
	Date/Time of the Analysis		

OB Location	Time Data Element	201509251930 Data	Changeallegorization
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	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.24.7	Address Type	В	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.25.9	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

-NTE-

Location	Data Element	Data	Categorization
NTE.1	Set ID - NTE	1	IG Fixed Data
NTE.3	Comment	Susceptibility testing for E.coli is not performed, because antibiotics should not be used to treat this infection. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of hemolytic-uremic syndrome (HUS). Antidiarrheal agents like Imodium may also increase that risk. Non-specific supportive therapy, including hydration, is important.	Changeable Data

-OBX-

Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	2	IG Fixed Data
OBX.2	Value Type	CWE	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	625-4	Test Case Fixed Data
OBX.3.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.7	Coding System Version	2.52	Changeable Data
OBX.3.9	Original Text	Stool Culture	Test Case Fixed Data
OBX.4	Observation Sub-ID		
OBX.4.2	Group	2	Changeable Data
OBX.4.3	Sequence	1	Changeable Data
OBX.4.4	Identifier	Islt-2	Changeable Data
OBX.5	Observation Value		
OBX.5.1	Identifier	398567006	Changeable Data
OBX.5.2	Text	Salmonella I, group O:4	Changeable Data

OB Yocation	Name of the Coding System	SCT Data	Changeahlegorization
OBX.5.7	Coding System Version	201509USEd	Changeable Data
OBX.5.9	Original Text	Salmonella I, group O:4 isolated	Changeable Data
OBX.8	Abnormal Flags	A	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	201509231400	Changeable Data
OBX.19	Date/Time of the Analysis		
OBX.19.1	Time	201509251930	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	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.24.7	Address Type	В	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.25.9	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

-NTE-

Location	Data Element	Data	Categorization
NTE.1	Set ID - NTE	1	IG Fixed Data
NTE.3	Comment	Salmonella gastrointestinal infections usually resolve in 5-7 days and most do not require treatment other than oral fluids. Persons with severe diarrhea may require rehydration with intravenous fluids. Antibiotic therapy can prolong the duration of excretion of non-typhoidal Salmonella and is recommended only for patients with severe illness (e.g., those with severe diarrhea, high fever, bloodstream infection, or who need hospitalization) or those at risk of severe disease or complications, including young infants, older adults (over 65 years old) and immunocompromised persons. Antibiotic resistance is increasing among some Salmonella bacteria; therefore, susceptibility testing can help guide appropriate therapy. Choices for antibiotic therapy for severe infections include fluoroquinolones, third-generation cephalosporins, and ampicillin (for susceptible infections).	

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Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	3	IG Fixed Data
OBX.2	Value Type	CWE	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	625-4	Test Case Fixed Data
OBX.3.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.7	Coding System Version	2.52	Changeable Data
OBX.3.9	Original Text	Stool Culture	Test Case Fixed Data
OBX.4	Observation Sub-ID		
OBX.4.2	Group	3	Changeable Data
OBX.4.3	Sequence	1	Changeable Data
OBX.4.4	Identifier	Islt-3	Changeable Data
OBX.5	Observation Value		Changeable Data
OBX.5.1	Identifier	85729005	Changeable Data
OBX.5.2	Text	Shigella flexneri	Changeable Data Changeable Data
OBX.5.3	Name of the Coding System	SCT SCT	Changeable Data Changeable Data
OBX.5.7	Coding System Version	201509USEd	Changeable Data
OBX.5.9	Original Text	Shigella flexneri isolated	Changeable Data
			Test Case Fixed Data
OBX.8	Abnormal Flags	A	
OBX.11	Observation Result Status	F	Test Case Fixed Data
OBX.14	Date/Time of the Observation	201700221400	C1 11 D
OBX.14.1	Time	201509231400	Changeable Data
OBX.19	Date/Time of the Analysis		
OBX.19.1	Time	201509251930	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	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.24.7	Address Type	В	Changeable Data
	Performing Organization Medical		
OBX.25	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.25.9	Assigning Authority		
OBX.25.9.1	Namespace ID	NPI	Changeable Data
	Name Type Code	L	Changeable Data
OBX-25-10	Name Type Code		
OBX.25.10 OBX.25.13	Identifier Type Code	NPI	Changeable Data

-NTE-

Location	Data Element	Data	Categorization
NTE.1	Set ID - NTE	1	IG Fixed Data
		Antibiotic treatment is recommended for patients with severe disease, bloody	

Location	Data Element	diarrhea, or compropised immune systems. Resistance to traditional first-line drugs like	Categorization
NTE.3	Comment	ampicillin and trimethoprim- sulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When an ampicillin- or trimethroprim-sulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin.	Changeable 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	119339001	Changeable Data
SPM.4.2	Text	Stool specimen	Changeable Data
SPM.4.3	Name of the Coding System	SCT	Changeable Data
SPM.4.7	Coding System Version	201509USEd	Changeable Data
SPM.4.9	Original Text	Stool	Changeable Data
SPM.17	Specimen Collection Date/Time		
SPM.17.1	Range Start Date/Time		
SPM.17.1.1	Time	201509231400	Changeable Data

-ORC-

		ORC	
Location	Data Element	Data	Categorization
ORC.1	Order Control	RE	Test Case Fixed Data
ORC.3	Filler Order Number		
ORC.3.1	Entity Identifier	R-783274-6	Changeable Data
ORC.3.2	Namespace ID	NIST Lab Filler	Changeable Data
ORC.4	Placer Group Number		
ORC.4.1	Entity Identifier	GORD874211	Changeable Data
ORC.4.2	Namespace ID	NIST EHR	Changeable Data
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.12.9	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	2	IG Fixed Data
OBR.3	Filler Order Number		
OBR.3.1	Entity Identifier	R-783274-6	Changeable Data
OBR.3.2	Namespace ID	NIST Lab Filler	Changeable Data
OBR.4	Universal Service Identifier		
OBR.4.1	Identifier	50545-3	Test Case Fixed Data

OBR.4.2	Text Data Element	Bacterial susceptibility and in Isolate by Minimum inhibitory concentration (MIC)	Categorization Test Case Fixed Data
OBR.4.3	Name of Coding System	LN	Test Case Fixed Data
OBR.4.7	Coding System Version	2.52	Changeable Data
OBR.4.9	Original Text	Bacteria susceptibility	Changeable Data
OBR.7	Observation Date/Time		Change work Butta
OBR.7.1	Time	201509231400	Changeable Data
OBR.11	Specimen Action Code	G	Test Case Fixed Data
OBR.16	Ordering Provider		1 COV CUISC 1 II CU D UM
OBR.16.1	ID Number	5742200012	Changeable Data
OBR.16.2	Family Name	3712200012	Changeable Bata
OBR.16.2.1	Surname	Radon	Changeable Data
OBR.16.3	Given Name	Nicholas	Changeable Data
OBR.16.9	Assigning Authority	T (CHOMS	Changeage Bata
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.10.13	Results Rpt/Status Chng - Date/Time	112.1	Changeaoic Data
OBR.22.1	Time	20150927112054	Changeable Data
	Result Status	F	Test Case Fixed Data
OBR.25	Parent Result	1	1081 Case Pixeu Data
OBR.26	Parent Result Parent Observation Identifier		
OBR.26.1.1	Identifier	625-4	Test Case Fixed Data
		1	
OBR.26.1.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data
OBR.26.1.3	Name of the Coding System	LN	Test Case Fixed Data
OBR.26.1.7	Coding System Version	2.52	Changeable Data
OBR.26.1.9	Original Text	Stool Culture	Changeable Data
OBR.26.2	Parent Observation Sub-Identifier		m . G . Bi . 1B .
OBR.26.2.2	Group	2	Test Case Fixed Data
OBR.26.2.3	Sequence	1	Test Case Fixed Data
OBR.26.2.4	Identifier	Islt-2	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.28.9	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.29	Parent		
OBR.29.1	Placer Assigned Identifier		
OBR.29.1.1	Entity Identifier	ORD723222-4	Changeable Data
OBR.29.1.2	Namespace ID	NIST EHR	Changeable Data
OBR.29.2	Filler Assigned Identifier		
OBR.29.2.1	Entity Identifier	R-783274-4	Changeable Data
OBR.29.2.2	Namespace ID	NIST Lab Filler	Changeable Data
OBR.47	Filler Supplemental Service Information		
OBR.47.1	Identifier	MIC	Test Case Fixed Data
OBR.47.2	Text	Observation of type microbiology	Test Case Fixed Data
OBR.47.3	Name of the Coding System	HL70411	IG Fixed Data
OBR.47.7	Coding System Version	2.5.1	IG Fixed Data
OBR.49	Results Handling		
OBR.49.1	Identifier	CC	Test Case Fixed Data
OBR.49.2	Text	Copies Requested	Test Case Fixed Data

-OBX-

Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	1	IG Fixed Data
OBX.2	Value Type	SN	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	28-1	Test Case Fixed Data
OBX.3.2	Text	Ampicillin [Susceptibility] by Minimum inhibitory concentration (MIC)	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.7	Coding System Version	2.52	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	Islt-2	Test Case Fixed Data
OBX.5	Observation Value		
OBX.5.1	Comparator	<	Test Case Fixed Data
OBX.5.2	Num1	0.06	Test Case Fixed Data
OBX.6	Units		
OBX.6.1	Identifier	ug/mL	Changeable Data
OBX.6.3	Name of the Coding System	UCUM	Changeable Data
OBX.6.7	Coding System Version	1.9	Changeable Data
OBX.8	Abnormal Flags	S	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	201509231400	Changeable Data
OBX.19	Date/Time of the Analysis		
OBX.19.1	Time	201509261100	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	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.24.7	Address Type	В	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.25.9	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	SUR	Test Case Fixed Data

OBX-

Location Data Element Data Categorization

OBX Location	Set ID - OB AData Element	2 Data	IG Fix Calegiorization
OBX.2	Value Type	SN	Test Case Fixed Data
OBX.3	Observation Identifier		
OBX.3.1	Identifier	267-5	Test Case Fixed Data
OBX.3.2	Text	Gentamicin [Susceptibility] by Minimum inhibitory concentration (MIC)	Test Case Fixed Data
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data
OBX.3.7	Coding System Version	2.52	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	Islt-2	Test Case Fixed Data
OBX.5	Observation Value		
OBX.5.2	Num1	0.05	Test Case Fixed Data
OBX.6	Units		
OBX.6.1	Identifier	ug/mL	Changeable Data
OBX.6.3	Name of the Coding System	UCUM	Changeable Data
OBX.6.7	Coding System Version	1.9	Changeable Data
OBX.8	Abnormal Flags	S	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	201509231400	Changeable Data
OBX.19	Date/Time of the Analysis		
OBX.19.1	Time	201509261100	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	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.24.7	Address Type	В	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.25.9	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	SUR	Test Case Fixed Data

-OBX-

Location	Data Element	Data	Categorization
OBX.1	Set ID - OBX	3	IG Fixed Data
OBX.2	Value Type	SN	Test Case Fixed Data
OBX.3	Observation Identifier		

Identifier Data Element	185-9 Data	Test Cost Fixed Dates
Text	Ciprofloxacin [Susceptibility] by Minimum inhibitory concentration (MIC)	Test Case Fixed Data
Name of the Coding System	LN	Test Case Fixed Data
Coding System Version	2.52	Changeable Data
Observation Sub-ID		
Group	1	Test Case Fixed Data
Sequence	1	Test Case Fixed Data
Identifier	Islt-2	Test Case Fixed Data
Observation Value		
Num1	0.05	Test Case Fixed Data
Units		
Identifier	ug/mL	Changeable Data
Name of the Coding System	UCUM	Changeable Data
Coding System Version	1.9	Changeable Data
Abnormal Flags	S	Test Case Fixed Data
Observation Result Status	F	Test Case Fixed Data
Date/Time of the Observation		
Time	201509231400	Changeable Data
Date/Time of the Analysis		
Time	201509261100	Changeable Data
Performing Organization Name		
	Century Hospital	Changeable Data
	CLIA	Changeable Data
1		Changeable Data
1		Changeable Data
	2070 Test Park	Changeable Data
		Changeable Data
-		Changeable Data
		Changeable Data
		Changeable Data
**	В	Changeaole Data
	5432178916	Changeable Data
Family Name		
Surname	Knowsalot	Changeable Data
Surname Given Name	Knowsalot Phil	
		Changeable Data Changeable Data Changeable Data
Given Name Second and Further Given Names or Initials Thereof	Phil	Changeable Data
Given Name Second and Further Given Names or Initials Thereof Assigning Authority	Phil	Changeable Data Changeable Data
Given Name Second and Further Given Names or Initials Thereof Assigning Authority Namespace ID	Phil J. NPI	Changeable Data Changeable Data Changeable Data
Given Name Second and Further Given Names or Initials Thereof Assigning Authority Namespace ID Name Type Code	Phil J. NPI L	Changeable Data Changeable Data Changeable Data Changeable Data
Given Name Second and Further Given Names or Initials Thereof Assigning Authority Namespace ID	Phil J. NPI	Changeable Data Changeable Data Changeable Data
	Text Name of the Coding System Coding System Version Observation Sub-ID Group Sequence Identifier Observation Value Numl Units Identifier Name of the Coding System Coding System Version Abnormal Flags Observation Result Status Date/Time of the Observation Time Date/Time of the Analysis Time Performing Organization Name Organization Name Assigning Authority Namespace ID Identifier Type Code Organization Identifier Performing Organization Address Street Address Street Address City State or Province Zip or Postal Code Address Type Performing Organization Medical Director ID Number	Text Ciprofloxacin [Susceptibility] by Minimum inhibitory concentration (MIC) Name of the Coding System

-ORC-

Location	Data Element	Data	Categorization
ORC.1	Order Control	RE	Test Case Fixed Data
ORC.3	Filler Order Number		
ORC.3.1	Entity Identifier	R-783274-7	Changeable Data
ORC.3.2	Namespace ID	NIST Lab Filler	Changeable Data
ORC.4	Placer Group Number		
ORC.4.1	Entity Identifier	GORD874211	Changeable Data

OR Location	Namespace Data Element	NIST EHR Data	Changeallegorization
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.12.9	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	3	IG Fixed Data	
OBR.3	Filler Order Number	Order Number		
OBR.3.1	Entity Identifier	R-783274-7	Changeable Data	
OBR.3.2	Namespace ID	NIST Lab Filler	Changeable Data	
OBR.4	Universal Service Identifier			
OBR.4.1	Identifier	50545-3	Test Case Fixed Data	
OBR.4.2	Text	Bacterial susceptibility panel in Isolate by Minimum inhibitory concentration (MIC)	Test Case Fixed Data	
OBR.4.3	Name of Coding System	LN	Test Case Fixed Data	
OBR.4.7	Coding System Version	2.52	Changeable Data	
OBR.4.9	Original Text	Bacteria susceptibility	Changeable Data	
OBR.7	Observation Date/Time			
OBR.7.1	Time	201509231400	Changeable Data	
OBR.11	Specimen Action Code	G	Test Case Fixed 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.16.9	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	20150927112054	Changeable Data	
DBR.25 Result Status F		F	Test Case Fixed Data	
OBR.26	Parent Result			
OBR.26.1	Parent Observation Identifier			
OBR.26.1.1	Identifier	625-4	Test Case Fixed Data	
OBR.26.1.2	Text	Bacteria identified in Stool by Culture	Test Case Fixed Data	
OBR.26.1.3	Name of the Coding System	LN	Test Case Fixed Data	
OBR.26.1.7	Coding System Version	2.52	Changeable Data	
OBR.26.1.9	Original Text	Stool Culture	Changeable Data	
OBR.26.2	Parent Observation Sub-Identifier			
OBR.26.2.2	Group	3	Test Case Fixed Data	
OBR.26.2.3	Sequence	1	Test Case Fixed Data	
OBR.26.2.4	Identifier	Islt-3	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.28.9	Assigning Authority			
OBR.28.9.1	Namespace ID	NPI	Changeable Data	

OBRocation	Name Type Sade Element	L Data	Changeablegorization
OBR.28.13	Identifier Type Code	NPI	Changeable Data
OBR.29	Parent		
OBR.29.1	Placer Assigned Identifier		
OBR.29.1.1	Entity Identifier	ORD723222-4	Changeable Data
OBR.29.1.2	Namespace ID	NIST EHR	Changeable Data
OBR.29.2	Filler Assigned Identifier		
OBR.29.2.1	Entity Identifier	R-783274-4	Changeable Data
OBR.29.2.2	Namespace ID	NIST Lab Filler	Changeable Data
OBR.47	Filler Supplemental Service Information		
OBR.47.1	Identifier	MIC	Test Case Fixed Data
OBR.47.2	Text	Observation of type microbiology	Test Case Fixed Data
OBR.47.3	Name of the Coding System	HL70411	IG Fixed Data
OBR.47.7	Coding System Version	2.5.1	IG Fixed 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

-OBX-

Location	Data Element	Data	Categorization	
OBX.1	Set ID - OBX	1	IG Fixed Data Test Case Fixed Data	
OBX.2	Value Type	SN		
OBX.3	Observation Identifier			
OBX.3.1	Identifier	28-1	Test Case Fixed Data	
OBX.3.2	Text	Ampicillin [Susceptibility] by Minimum inhibitory concentration (MIC)	Test Case Fixed Data	
OBX.3.3	Name of the Coding System	LN	Test Case Fixed Data	
OBX.3.7	Coding System Version	2.52	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	Islt-3	Test Case Fixed Data	
OBX.5	Observation Value			
OBX.5.1	Comparator	<	Test Case Fixed Data	
OBX.5.2	Num1	16	Test Case Fixed Data	
OBX.6	Units			
OBX.6.1	Identifier	ug/mL	Changeable Data	
OBX.6.3	Name of the Coding System	UCUM	Changeable Data	
OBX.6.7	Coding System Version	1.9	Changeable Data	
OBX.8	Abnormal Flags	I	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	201509231400	Changeable Data	
OBX.19	Date/Time of the Analysis			
OBX.19.1	Time	201509261100	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	Street Address			
OBX.24.1.1	Street or Mailing Address	2070 Test Park	Changeable Data	
OBX.24.3	City	Los Angeles	Changeable Data	

OB X 244ion	State or Propined Element	CA Data	Change attegorization	
OBX,24.5	Zip or Postal Code	90067	Changeable Data	
OBX.24.7	Address Type	В	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.25.9	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	SUR	Test Case Fixed Data	

1 attent information			
Ele me nt	Data		
Name	William A Jones		
Date/Time of Birth	06/27/1961		
Administrative Sex	Male		
Race	White		
Alt Race			

Order Observation[*]

Order Observation

Ordering Provider-

Element	Data
Name	Nicholas Radon
Identifier number	5742200012

Observation Details

Data	
ORD723222-4	
R-783274-4	
GORD874211	_
Bacteria identified in Stool by Culture	
09/23/2015 2:00 PM	
F	
09/26/2015 2:05 PM	
Pafford	_
10092000194	
	ORD723222-4 R-783274-4 GORD874211 Bacteria identified in Stool by Culture 09/23/2015 2:00 PM F 09/26/2015 2:05 PM Pafford

Element	Data
Priority	
Start Date/time	
End Date/time	

Results Performing Laboratory-

Data
Century Hospital
24D9871327
2070 Test Park Los Angeles CA 90067
Phil J. Knowsalot
5432178916

Specimen Information-

Element	Data
Specimen Type	Stool specimen
Alt Specimen Type	
Specimen Original Text	Stool
Start date/time	201509231400

-Lab results-

Element		Data						
Test performed		Stool Culture						
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

	Stool Culture	Shiga toxin producing E. coli O157:H7 isolated		A	F	09/23/2015 14:00	09/25/2015 19:30	Susceptibility testing for E.coli is not performed, because antibiotics should not be used to treat this infection. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of hemolytic-uremic syndrome (HUS). Antidiarrheal agents like Imodium may also increase that risk. Nonspecific supportive therapy, including hydration, is important.
								gastrointestinal infections usually resolve in 5-7 days and most do not require treatment other than oral fluids. Persons with severe diarrhea may require rehydration with intravenous fluids. Antibiotic therapy can prolong the duration of excretion of non-typhoidal Salmonella and is recommended only for

Stool Culture	Salmonella I, group O:4 isolated		A	F	09/23/2015 14:00	09/25/2015	patients with severe illness (e.g., those with severe diarrhea, high fever, bloodstream infection, or who need hospitalization) or those at risk of severe disease or complications, including young infants, older adults (over 65 years old) and immunocompromise persons. Antibiotic resistance is increasing among some Salmonella bacteria; therefore, susceptibility testing can help guide appropriate therapy. Choices for antibiotic therapy for severe infections include fluoroquinolones, third-generation cephalosporins.
							cephalosporins, and ampicillin (for susceptible infections).

Stool Culture	Shigella flexneri isolated			A	F	09/23/2015 14:00	09/25/2015 19:30	Antibiotic treatment is recommended for patients with severe disease, bloody diarrhea, or compromised immune systems. Resistance to traditional first-line drugs like ampicillin and trimethoprim-sulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When an ampicillin- or trimethroprim-sulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin.	-
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Order Observation-

Ordering Provider

Element	Data		
Name	Nicholas Radon		
Identifier number	5742200012		

Observation Details

Element	Data				
Observation General Information					
Placer Order Number					
Filler Order Number	R-783274-6				
Placer Group Number	GORD874211				

Identifier	
Text	
Alt Identifier	
Alt Text	
Original Text	
Observation Details	
Observation Details	D . 11
Universal Service Identifier	Bacterial susceptibility panel in Isolate by Minimum inhibitory concentration (MIC)
Observation Date/Time	09/23/2015 2:00 PM
Observation end Date/Time	
Specimen Action Code	G
Relevant Clinical Information	
Relevant Clinical Information Original Text	
Observation Result Information	
Result Status	F
Results Report/Status Change - Date/Time	09/27/2015 11:20 AM
Results Copy To	
Name	Pafford
Identifier	10092000194
Results Handling	
Standard	
Observation Notes	

-Timing	/Onar	ntity	Inforn	nation-

Element	Data
Priority	
Start Date/time	
End Date/time	

Results Performing Laboratory

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

-Lab results-

Element				Data					
Test perform	Test performed			Bacteria susceptibility					
Test Report	Test Report date			09/27/2015 11:20					
Result Observation Name	Result	UOM	Range	Abnormal Flag	Status	Date/Time of Observation	Date/Time of Analysis	Notes	

Ampicillin [Susceptibility by Minimum inhibitory concentration (MIC)	< 0.06	ug/mL	S	F	09/23/2015 14:00	09/26/2015 11:00	
Gentamicin [Susceptibility by Minimum inhibitory concentration (MIC)	0.05	ug/mL	S	F	09/23/2015 14:00	09/26/2015 11:00	
Ciprofloxacin [Susceptibility by Minimum inhibitory concentration (MIC)	v] 0.05	ug/mL	S	F	09/23/2015 14:00	09/26/2015 11:00	

Order Observation

Ordering Provider

Element	Data		
Name	Nicholas Radon		
Identifier number	5742200012		

Observation Details

Element	Data
Observation General Information	
Placer Order Number	
Filler Order Number	R-783274-7
Placer Group Number	GORD874211
Parent Universal Service Identifier	
Identifier	
Text	
Alt Identifier	
Alt Text	
Original Text	
Observation Details	
Universal Service Identifier	Bacterial susceptibility panel in Isolate by Minimum inhibitory concentration (MIC)
Observation Date/Time	09/23/2015 2:00 PM
Observation end Date/Time	
Specimen Action Code	G
Relevant Clinical Information	
Relevant Clinical Information Original Text	
Observation Result Information	
Result Status	F
Results Report/Status Change - Date/Time	09/27/2015 11:20 AM
Results Copy To	
Name	Pafford

Identifier	10092000194					
Results Handling						
Standard						
Observation Notes						

-Timing/	Ouan	tity In	forma	ition

	· ·
Element	Data
Priority	
Start Date/time	
End Date/time	

Results Performing Laboratory

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

Lab results

Element				Data	Data					
Test performed			Bacteria sus	ceptibility						
Test Report date			09/27/2015	11:20						
Result Observation Name	Result	UOM	Range	Abnormal Flag	Status	Date/Time of Observation	Date/Time of Analysis	Notes		
Ampicillin [Susceptibility by Minimum inhibitory concentration (MIC)	< 16	ug/mL		I	F	09/23/2015 14:00	09/26/2015 11:00			

HL7 v2.5 ORU^R01^ORU_R01 Message: Incorporation of Laboratory Results									
Test Case ID	LRI_4.1_2.1-NG_FRU								
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	Sex	Race	Tester Comment						
PATID1234	William A Jones	06/27/1961	M	White					
	When a given patient has more than one Patient ID Number, the HIT module may display the ID Number that is most appropriate or the context (e.g., inpatient ID Number versus ambulatory ID Number.)								

	Lab Results - Display Verification								
Test Performed:	Test Performed: Stool Culture								
Test Report Date:	09/26/201	09/26/2015 14:05:51							
Result Report Status									
							1		
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
Stool Culture	Shiga toxin producing E. coli O157:H7 isolated			A		09/23/2015 14:00:		09/25/2015 19:30:	
Susceptibility testing for E.coli is not performed, because antibiotics should not be used to treat thi infection. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of hemolytic-uremic syndrome (HUS). Antidiarrheal agents like Imodium may also increase that risk. Non-specific supportive therapy, including hydration, is important.						ntibiotics may dium may also			

]	Lab Result	s - Disp	lay Verificatio	on		
Test Performed:	Stool Culture								
Test Report Date:	09/26/2015 14:05:51								
Result Report Status	F								
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
Stool Culture	Salmonella I, group O:4 isolated			A	F	09/23/2015 14:00:		09/25/2015 19:30:	
Note	Salmonella gastrointestinal infections usually resolve in 5-7 days and most do not require treatment other than oral fluids. Persons with severe diarrhea may require rehydration with intravenous fluids. Antibiotic therapy can prolong the duration of excretion of non-typhoidal Salmonella and is recommended only for patients with severe illness (e.g., those with severe diarrhea, high fever, bloodstream infection, or who need hospitalization) or those at risk of severe disease or complications, including young infants, older adults (over 65 years old) and immunocompromised persons. Antibiotic resistance is increasing among some Salmonella bacteria; therefore, susceptibility testing can help guide appropriate therapy. Choices for antibiotic therapy for severe infections include fluoroquinolones, third-generation cephalosporins, and ampicillin (for susceptible infections).								
Ampicillin [Susceptibility] by Minimum inhibitory concentration (MIC)	< 0.06			S	F	09/23/2015 14:00:		09/26/2015 11:00:	
Gentamicin [Susceptibility] by Minimum inhibitory concentration (MIC)	0.05			S	F	09/23/2015 14:00:		09/26/2015 11:00:	
Ciprofloxacin [Susceptibility] by Minimum inhibitory concentration (MIC)	0.05			S	F	09/23/2015 14:00:		09/26/2015 11:00:	

Lab Results - Display Verification									
Test Performed: Stool Culture									
Test Report Date:	109/76/7012 1412:21								
Result Report Status									
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
Stool Culture	Shigella flexneri isolated			A	F	09/23/2015 14:00:		09/25/2015 19:30:	
Antibiotic treatment is recommended for patients with severe disease, bloody diarrhea, or compromised immune systems. Resistance to traditional first-line drugs like ampicillin and trimethoprim-sulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When an ampicillin- or trimethroprim-sulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin.									
Ampicillin [Susceptibility] by Minimum inhibitory concentration [MIC]	< 16			I	F			09/26/2015 11:00:	

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

Specimen Information - Display Verification							
Data Element Name	Tester Comment						
Specimen Type(Specimen Source)	Stool						
Specimen Collection Date/Time - Start	09/23/2015 14:00:						
Specimen Collection Date/Time - End							
Specimen Reject Reason							
Specimen Condition							

Order Information - Display Verification						
Data Element Name	Data	Tester Comment				
Relevant Clinical Information						
Placer Order Number Entity ID	ORD723222-4					
Ordering Provider						
Family Name						
Surname	Radon					
Given Name	Nicholas					
Second and Further Given Names or Initials Thereof						
Suffix (e.g., JR or III)						
Prefix (e.g., DR)						
Results Copies To						
Family Name						
Surname	Hamlin					
Given Name	Pafford					
Second and Further Given Names or Initials Thereof						
Suffix (e.g., JR or III)						
Prefix (e.g., DR)						

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.)

	Patie	nt 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	06/27/1961	
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	

	(Order Informa	tion - Incorporate Verifi	cation
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	ORD723222-4	
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-783274-4	
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		
16.5	Sumx (e.g., JR or m)	S-RC		
ORC-12.6/OBR- 16.6	Prefix (e.g., DR)	S-RC		
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	

	Performin	g Organization	Information - Incorp	orate 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		
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		
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

Location	Data Element Name	Store	Data	Tester Comment
Location	Data Element Name	Requirement	Data	rester comment
OBR-4	Universal Service Identifier (Note 1)			
OBR-4.1	Identifier	S-TR-R	625-4	
OBR-4.2	Text	S-EX-A	Bacteria identified in Stool by Culture	
OBR-4.3	Name of the Coding System	S-RC	LN	
OBR-4.4	Alternate Identifier	S-TR-R	3456543	
OBR-4.5	Alternate Text	S-EX-A	CULTURE STOOL	
OBR-4.6	Name of Alternate Coding System	S-RC	99USL	
OBR-4.9	Original Text	S-EX	Stool Culture	
OBR-7/SPM-17.1	Observation Date/Time			
OBR-7.1/SPM- 17.1.1	Time	S-EQ	09/23/2015 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		
OBR-28.5	Suffix (e.g., JR or III)	S-EX-A		
OBR-28.6	Prefix (e.g., DR)	S-EX-A		
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			NPI	

Note 1 -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.

		Result Inform	ation - Incorporate Verifi	cation
Location	Data Element Name	Store Requirement	Data	Tester Comment
OBX-3	Observation Identifier (Note 1)			
OBX-3.1	Identifier	S-TR-R	625-4	
OBX-3.2	Text	S-EX-A	Bacteria identified in Stool by Culture	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX	Stool Culture	
OBX-5	Observation Value			
OBX-5.1	Identifier	S-TR-R	103429008	
OBX-5.2	Text	S-EX-A	Enterohemorrhagic Escherichia coli, serotype O157:H7	
OBX-5.3	Name of the Coding System	S-RC	SCT	
OBX-5.4	Alternate Identifier	S-TR-R		
OBX-5.5	Alternate Text	S-EX-A		
OBX-5.6	Name of Alternate Coding System	S-RC		
OBX-5.9	Original Text	S-EX	Shiga toxin producing E. coli O157:H7 isolated	
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R		
OBX-6.2	Text	S-TR-R		
OBX-6.3	Name of the Coding System	S-RC		
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		
OBX-8	Abnormal Flags	S-TR-R	A	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1	Time	S-EQ	09/25/2015 19:30:	
		<u> </u>	<u> </u>	II.

Note 1 - 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.

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.

	Note - Incorporate Verification						
Location	Data Element Name	Store Requirement	Data	Tester Comment			
NTE-3	Note	S-EX	Susceptibility testing for E.coli is not performed, because antibiotics should not be used to treat this infection. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of hemolytic-uremic syndrome (HUS). Antidiarrheal agents like Imodium may also increase that risk. Nonspecific supportive therapy, including hydration, is important.				

T	D (El	Store		Tr. C
Location	Data Element Name	Requirement	Data	Tester Comment
OBX-3	Observation Identifier (Note 1)			
OBX-3.1	Identifier	S-TR-R	625-4	
OBX-3.2	Text	S-EX-A	Bacteria identified in Stool by Culture	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX	Stool Culture	
OBX-5	Observation Value			
OBX-5.1	Identifier	S-TR-R	398567006	
OBX-5.2	Text	S-EX-A	Salmonella I, group O:4	
OBX-5.3	Name of the Coding System	S-RC	SCT	
OBX-5.4	Alternate Identifier	S-TR-R		
OBX-5.5	Alternate Text	S-EX-A		
OBX-5.6	Name of Alternate Coding System	S-RC		
OBX-5.9	Original Text	S-EX	Salmonella I, group O:4 isolated	
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R		
OBX-6.2	Text	S-TR-R		
OBX-6.3	Name of the Coding System	S-RC		
OBX-6.4	Alternate Identifier	S-TR-R		
OBX-6.5		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		
OBX-8	Abnormal Flags	S-TR-R	A	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1		S-EQ	09/25/2015 19:30:	

Note 1 - 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.

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.

	Note - Incorporate Verification						
Location	Data Element Name	Store Requirement	Data	Tester Comment			
NTE-3	Note	S-EX	Salmonella gastrointestinal infections usually resolve in 5-7 days and most do not require treatment other than oral fluids. Persons with severe diarrhea may require rehydration with intravenous fluids. Antibiotic therapy can prolong the duration of excretion of non-typhoidal Salmonella and is recommended only for patients with severe illness (e.g., those with severe diarrhea, high fever, bloodstream infection, or who need hospitalization) or those at risk of severe disease or complications, including young infants, older adults (over 65 years old) and immunocompromised persons. Antibiotic resistance is increasing among some Salmonella bacteria; therefore, susceptibility testing can help guide appropriate therapy. Choices for antibiotic therapy for severe infections include fluoroquinolones, thirdgeneration cephalosporins, and ampicillin (for susceptible infections).				

	Order Information (cont'd) Child Information - Incorporate Verification				
Location	Data Element Name	Store Requirement	Data	Tester Comment	
ORC-3/OBR-3	Filler Order Number				
ORC-3.1/OBR- 3.1	Entity Identifier	S-EX	R-783274-6		
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			
OBR-4	Universal Service Identifier (Note 1)				
OBR-4.1	Identifier	S-TR-R	50545-3		
OBR-4.2	Text	S-EX-A	Bacterial susceptibility panel in Isolate by Minimum inhibitory concentration (MIC)		
OBR-4.3	Name of the Coding System	S-RC	LN		
OBR-4.4	Alternate Identifier	S-TR-R			
OBR-4.5	Alternate Text	S-EX-A			
OBR-4.6	Name of Alternate Coding System	S-RC			

	Order Information (cont'd) Child Information - Incorporate Verification				
Location	Data Element Name	Store Requirement	Data	Tester Comment	
OBR-4.9	Original Text	S-EX	Bacteria susceptibility		
OBR-26	Parent Result				
OBR-26.1	Parent Observation Identifier (Note 2)				
OBR-26.1.1	Identifier	S-EX-A	625-4		
OBR-26.1.2	Text	S-EX-A	Bacteria identified in Stool by Culture		
OBR-26.1.3	Name of the Coding System	S-EX-A	LN		
OBR-26.1.4	Alternate Identifier	S-EX-A			
OBR-26.1.5	Alternate Text	S-EX-A			
OBR-26.1.6	Name of Alternate Coding System	S-EX-A			
OBR-26.2	Parent Observation Sub- Identifier				
OBR-26.2.2	Group	S-EX-A	2		
OBR-26.2.3	Sequence	S-EX-A	1		
OBR-26.2.4	Identifier	S-EX-A	Islt-2		
OBR-29	Parent (Note 2)				
OBR-29.1	Placer Assigned Identifier				
OBR-29.1.1	Entity Identifier	S-EX-A	ORD723222-4		
OBR-29.1.2	Namespace ID	S-EX-A	NIST EHR		
OBR-29.1.3	Universal ID	S-EX-A			
OBR-29.1.4	Universal ID Type	S-EX-A			
OBR-29.2	Filler Assigned Identifier				
OBR-29.2.1	Entity Identifier	S-EX-A	R-783274-4		
OBR-29.2.2	Namespace ID	S-EX-A	NIST Lab Filler		
OBR-29.2.3	Universal ID	S-EX-A			
OBR-29.2.4	Universal ID Type	S-EX-A			

Note 2 - The HIT Module must display the relationship to the parent, but is not required to store the actual received data when the association to a specific result is achieved, otherwise use S-EX to save the information.

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	28-1	
OBX-3.2	Text	S-EX-A	Ampicillin [Susceptibility] by Minimum inhibitory concentration (MIC)	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX		
OBX-5	Observation Value			
OBX-5.1	Comparator	S-EX	<	
OBX-5.2	Num1	S-EQ	0.06	
OBX-5.3	Separator/Suffix	S-EX		
OBX-5.4	Num2	S-EQ		
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R	ug/mL	
OBX-6.2	Text	S-TR-R		
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		
OBX-8	Abnormal Flags	S-TR-R	S	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1	Time	S-EQ	09/26/2015 11:00:	

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	267-5	
OBX-3.2	Text	S-EX-A	Gentamicin [Susceptibility] by Minimum inhibitory concentration (MIC)	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX		
OBX-5	Observation Value			
OBX-5.1	Comparator	S-EX		
OBX-5.2	Num1	S-EQ	0.05	
OBX-5.3	Separator/Suffix	S-EX		
OBX-5.4	Num2	S-EQ		
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R	ug/mL	
OBX-6.2	Text	S-TR-R		
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		
OBX-8	Abnormal Flags	S-TR-R	S	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1	Time	S-EQ	09/26/2015 11:00:	

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	185-9		
OBX-3.2	Text	S-EX-A	Ciprofloxacin [Susceptibility] by Minimum inhibitory concentration (MIC)		
OBX-3.3	Name of the Coding System	S-RC	LN		
OBX-3.4	Alternate Identifier	S-TR-R			
OBX-3.5	Alternate Text	S-EX-A			
OBX-3.6	Name of Alternate Coding System	S-RC			
OBX-3.9	Original Text	S-EX			
OBX-5	Observation Value				
OBX-5.1	Comparator	S-EX			
OBX-5.2	Num1	S-EQ	0.05		
OBX-5.3	Separator/Suffix	S-EX			
OBX-5.4	Num2	S-EQ			
OBX-6	Units (Note 2)				
OBX-6.1	Identifier	S-TR-R	ug/mL		
OBX-6.2	Text	S-TR-R			
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				
OBX-6.9	Original Text	S-EX			
OBX-7	Reference Range	S-EX			
OBX-8	Abnormal Flags	S-TR-R	S		
OBX-11	Observation Result Status	S-TR-R	F		
OBX-14	Date/Time of the Observation				
OBX-14.1	Time	S-EQ	09/23/2015 14:00:		
OBX-19	Date/Time of the Analysis				
OBX-19.1	Time	S-EQ	09/26/2015 11:00:		

Location Data Element Name Store Data Tester Comment				
Location	Data Element Name	Requirement	Data	rester Comment
OBX-3	Observation Identifier (Note 1)			
OBX-3.1	Identifier	S-TR-R	625-4	
OBX-3.2	Text	S-EX-A	Bacteria identified in Stool by Culture	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX	Stool Culture	
OBX-5	Observation Value			
OBX-5.1	Identifier	S-TR-R	85729005	
OBX-5.2	Text	S-EX-A	Shigella flexneri	
OBX-5.3	Name of the Coding System	S-RC	SCT	
OBX-5.4	Alternate Identifier	S-TR-R		
OBX-5.5	Alternate Text	S-EX-A		
OBX-5.6	Name of Alternate Coding System	S-RC		
OBX-5.9	Original Text	S-EX	Shigella flexneri isolated	
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R		
OBX-6.2	Text	S-TR-R		
OBX-6.3	Name of the Coding System	S-RC		
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		
OBX-8	Abnormal Flags	S-TR-R	A	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1	Time	S-EQ	09/25/2015 19:30:	

	Note - Incorporate Verification					
Location	Data Element Name	Store Requirement	Data	Tester Comment		
NTE-3	Note	S-EX	Antibiotic treatment is recommended for patients with severe disease, bloody diarrhea, or compromised immune systems. Resistance to traditional first-line drugs like ampicillin and trimethoprimsulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When an ampicillin- or trimethroprimsulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin.			

Order Information (cont'd) Child Information - Incorporate Verification				
Location	Data Element Name	Store Requirement	Data	Tester Comment
ORC-3/OBR-3	Filler Order Number			
ORC-3.1/OBR- 3.1	Entity Identifier	S-EX	R-783274-7	
ORC-3.2/OBR-	Namespace ID	S-EX-A	NIST Lab Filler	
ORC-3.3/OBR-	Universal ID	S-EX-A		
ORC-3.4/OBR- 3.4	Universal ID Type	S-EX-A		
OBR-4	Universal Service Identifier (Note 1)			
OBR-4.1	Identifier	S-TR-R	50545-3	
OBR-4.2	Text	S-EX-A	Bacterial susceptibility panel in Isolate by Minimum inhibitory concentration (MIC)	
OBR-4.3	Name of the Coding System	S-RC	LN	
OBR-4.4	Alternate Identifier	S-TR-R		
OBR-4.5	Alternate Text	S-EX-A		
OBR-4.6	Name of Alternate Coding System	S-RC		
OBR-4.9	Original Text	S-EX	Bacteria susceptibility	
OBR-26	Parent Result			
OBR-26.1	Parent Observation Identifier (Note 2)			
OBR-26.1.1	Identifier	S-EX-A	625-4	
OBR-26.1.2	Text	S-EX-A	Bacteria identified in Stool by Culture	
OBR-26.1.3	Name of the Coding System	S-EX-A	LN	
OBR-26.1.4	Alternate Identifier	S-EX-A		

	Order Information (cont'd) Child Information - Incorporate Verification				
Location	Data Element Name	Store Requirement	Data	Tester Comment	
OBR-26.1.5	Alternate Text	S-EX-A			
OBR-26.1.6	Name of Alternate Coding System	S-EX-A			
OBR-26.2	Parent Observation Sub- Identifier				
OBR-26.2.2	Group	S-EX-A	3		
OBR-26.2.3	Sequence	S-EX-A	1		
OBR-26.2.4	Identifier	S-EX-A	Islt-3		
OBR-29	Parent (Note 2)				
OBR-29.1	Placer Assigned Identifier				
OBR-29.1.1	Entity Identifier	S-EX-A	ORD723222-4		
OBR-29.1.2	Namespace ID	S-EX-A	NIST EHR		
OBR-29.1.3	Universal ID	S-EX-A			
OBR-29.1.4	Universal ID Type	S-EX-A			
OBR-29.2	Filler Assigned Identifier				
OBR-29.2.1	Entity Identifier	S-EX-A	R-783274-4		
OBR-29.2.2	Namespace ID	S-EX-A	NIST Lab Filler		
OBR-29.2.3	Universal ID	S-EX-A			
OBR-29.2.4	Universal ID Type	S-EX-A			

Note 2 - The HIT Module must display the relationship to the parent, but is not required to store the actual received data when the association to a specific result is achieved, otherwise use S-EX to save the information.

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	28-1	
OBX-3.2	Text	S-EX-A	Ampicillin [Susceptibility] by Minimum inhibitory concentration (MIC)	
OBX-3.3	Name of the Coding System	S-RC	LN	
OBX-3.4	Alternate Identifier	S-TR-R		
OBX-3.5	Alternate Text	S-EX-A		
OBX-3.6	Name of Alternate Coding System	S-RC		
OBX-3.9	Original Text	S-EX		
OBX-5	Observation Value			
OBX-5.1	Comparator	S-EX	<	
OBX-5.2	Num1	S-EQ	16	
OBX-5.3	Separator/Suffix	S-EX		
OBX-5.4	Num2	S-EQ		
OBX-6	Units (Note 2)			
OBX-6.1	Identifier	S-TR-R	ug/mL	
OBX-6.2	Text	S-TR-R		
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		
OBX-8	Abnormal Flags	S-TR-R	Ι	
OBX-11	Observation Result Status	S-TR-R	F	
OBX-14	Date/Time of the Observation			
OBX-14.1	Time	S-EQ	09/23/2015 14:00:	
OBX-19	Date/Time of the Analysis			
OBX-19.1	Time	S-EQ	09/26/2015 11:00:	

	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	119339001		
SPM-4.2	Text	S-EX-A	Stool specimen		
SPM-4.3	Name of the Coding System	S-RC	SCT		
SPM-4.4	Alternate Identifier	S-TR-R			
SPM-4.5	Alternate Text	S-EX-A			
II 5PW-4.0	Name of Alternate Coding System	S-RC			
SPM-4.9	Original Text	S-EX	Stool		

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|NIST Lab Facility||NIST EHR Facility|20150926140551||ORU^R01^ORU_R01|LRI_4.1_2.1-NG_FRU|D|2. 5.1|||AL|AL|||||LRI_Common_Component^^2.16.840.1.113883.9.16^ISO~LRI_NG_Component^^2.16.840.1.113883.9.13^ISO~LRI_FRU_Component^^2.16.840.1.113883.9.83^ISO

 $PID|1||PATID1234^{\wedge\wedge}NIST\ MPI^{MR}||Jones^{William^{\wedge\wedge\wedge\wedge}L}||19610627|M||2106-3^{White}^{HL70005}|||||||PATID1234^{\wedge\wedge}NIST\ MPI^{AN}||PATID1234^{\wedge\wedge}NIST\ MPI^{AN}||PATID1234^{\wedge\wedge}NIST\$

ORC|RE|ORD723222-4^NIST EHR|R-783274-4^NIST Lab Filler|GORD874211^NIST EHR|||||||||5742200012^Radorr^Nicholas^^^^^NPI^L^^^NPI

NTE[1] Susceptibility testing for E.coli is not performed, because antibiotics should not be used to treat this infect ion. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of he molytic-uremic syndrome (HUS). Antidiarrheal agents like Imodium may also increase that risk. Non-specific supportive the erapy, including hydration, is important.

NTE[1||Salmonella gastrointestinal infections usually resolve in 5-7 days and most do not require treatment other than oral fluids. Persons with severe diarrhea may require rehydration with intravenous fluids. Antibiotic therapy can prolon g the duration of excretion of non-typhoidal Salmonella and is recommended only for patients with severe illness (e.g., those with severe diarrhea, high fever, bloodstream infection, or who need hospitalization) or those at risk of severe d isease or complications, including young infants, older adults (over 65 years old) and immunocompromised persons. Antibi otic resistance is increasing among some Salmonella bacteria; therefore, susceptibility testing can help guide appropria te therapy. Choices for antibiotic therapy for severe infections include fluoroquinolones, third-generation cephalosporins, and ampicillin (for susceptible infections).

NTE[1][Antibiotic treatment is recommended for patients with severe disease, bloody diarrhea, or compromised immune systems. Resistance to traditional first-line drugs like ampicillin and trimethoprim-sulfamethoxazole is common, and resistance to some other antibiotics is increasing. With this in mind, antibiotic susceptibility testing can help guide appropriate therapy. When an ampicillin- or trimethroprim-sulfamethoxazole-resistant strain is isolated, choices for therapy include fluoroquinolones, ceftriaxone, and azithromycin.

ORC|RE||R-783274-6^NIST Lab Filler|GORD874211^NIST EHR||||||||5742200012^Radon^Nicholas^^^^NPI^L^^^NPI

 $OBR|2||R-783274-6^{NIST} Lab\ Filler|50545-3^{Bacterial} susceptibility\ panel\ in\ Isolate\ by\ Minimum\ inhibitory\ concentration\ (MIC)^{LN^{^2}.52^{Bacteria}} susceptibility|||201509231400||||G|||||5742200012^{Radon^{Nicholas^{^{^*}.NPI^{L^{^*}.NPI}}||||201509231400|||G|||||5742200012^{Radon^{Nicholas^{^*}.NPI^{L^{^*}.NPI}}||||20150927112054|||F|625-4&Bacteria\ identified\ in\ Stool\ by\ Culture&LN&&&&2.52&&Stool\ Culture^&2&1&Islt-2||10092000194^{Hamlin^{Pa}} fford^{^{^*}.NPI^{L^{^*}.NPI}}||NIC^{^*}.NPI^{C^{^*}.NPI^{C^{^*}.NPI}}||NIC^{^*}.S1||CC^{^*}.Copies\ Requested^{^*}.HL70507$

 $OBX|1|SN|28-1^{Ampicillin} \ [Susceptibility] \ by \ Minimum \ inhibitory \ concentration (MIC)^{LN}^{2.52}|^{1^1^1Slt-2}|<^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug/mL^{0.06}|ug$

 $OBX[2|SN|267-5^Gentamic in [Susceptibility] \ by \ Minimum \ inhibitory \ concentration (MIC)^LN^^^2.52|^1^1^1Slt-2|^0.05|ug/mL^0UCUM^^1.9||S|||F|||201509231400|||||201509261100||||Century \ Hospital^^^CLIA^XX^^24D9871327|2070 \ Test \ Park^Los \ Angeles^CA^90067^B|5432178916^Knowsalot^Phil^J.^^^NPI||||RSLT|SUR$

OBX|3|SN|185-9^Ciprofloxacin [Susceptibility] by Minimum inhibitory concentration (MIC)^LN^^^2.52|^1^1^Islt-2|^0.05|ug

ORC|RE||R-783274-7^NIST Lab Filler|GORD874211^NIST EHR||||||||5742200012^Radon^Nicholas^^^^^NPI^L^^^NPI

 $OBX|1|SN|28-1^Ampicillin \ [Susceptibility] \ by \ Minimum \ inhibitory \ concentration \ (MIC)^LN^^^2.52|^1^1^ISlt-3|<^16|ug/mL^^UCUM^^^1.9||I||F|||201509231400|||||201509261100||||Century \ Hospital^^^^CLIA^XX^^^224D9871327|2070 \ Test \ Park^^Los \ Angeles^CA^90067^^B|5432178916^Knowsalot^Phil^J.^^^^NPI^L^^^NPI|||RSLT|SUR$