NAACCR Standards for Cancer Registries, Laboratory Electronic Pathology Reporting Guidelines, Version 5.1

Appendix E. Samples, Examples, and FAQs

This appendix contains a collection of examples that illustrate the use of the encoding described in Volume V. There are examples of narrative and synoptic reports following a simple use case, as well as examples that illustrate some of the very complex Use Cases that occasionally arise in cancer pathology reporting. Each example is laid out showing the report as it might appear printed or on the screen, followed by the Health Level Seven (HL7) message that carries the example report to the registry. Finally, there are questions and answers that refer to specific items that may be challenging to determine how to encode, shown in that example. At the end of this section, there are a set of general Frequently Asked Questions about implementing the HL7 messages as per Volume V specifications.

Note that in all example HL7 messages below, the segment endings are explicitly marked in the document with the four-character string "<CR>". These four characters are NOT part of the message content, and are present here only to aid readability, as some segments wrap across multiple print lines in this document. If these messages are used verbatim in testing software, these four characters "<CR>" will cause conformance validation errors if not removed before processing. They are here only for human readability of the example messages.

E.1 Narrative Report examples

E.1.1 Simplest Narrative Report

The following example shows a very simple HL7 cancer registry message containing a single pathology report, transmitted only as narrative text. This example shows the simplest format, where there are no sections of the report, just continuous running text. Note that although this represents the simplest possible encoding of a report from the viewpoint of the sending system, it consequently burdens the cancer registry with a very difficult task of extracting information from the transcription text. For this reason, this simplest format is discouraged.

E.1.1.1 Example: Simplest

MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200506021339||ORU^R01^ORU_R01|20050602
13390045|P|2.5.1|||||||VOL_V_51_ORU_R01^NAACCR_CP<CR>

PID|1||00466144^^^Albany Medical Center&123465&NPI^MR^Albany Medical Center~123456789^^^
USSSA^SS^USSSA ||Cane^Candy||19570706|F||2106- 3^White^HL70005|495 East Overshoot Driv
e^^Delmar^NY^12054^^H||||M<CR>

ORC|RE|||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208||43
New Scotland Ave.^^Albany^NY^12208<CR>

OBR|1||06-123456-MH|22049-1^**Flow Cytometry Analysis**^LN|||200505021212|||||||20050531113
0|^Bone marrow|^B.J.^Healing^^^^M.D.|2033271605|||||200505311332|||F|||||||1097723451&P
ATHOLOGIST&QUINCY&&&Dr.&MD&&NPI<CR>

OBX|1|TX|22633-2^**nature of specimen**^LN|1|**Bone marrow**.|||N|||F|||200505021212|33D1234567^
Independent Lab Services^CLIA<CR>

OBX|2|TX|22636-5^**clinical history**^LN|1|Evaluate for non-Hodgkin's lymphoma:ALL: myelodysp
lastic syndromes: chronic Lymphoproliferative disorders, CLL. Prior therapy: chemothera
py, Fludarabine more than one month ago. CBC report received.|||N|||F|||200505021212|33D
1234567^Independent Lab Services^CLIA<CR>

OBX|3|TX|22638-1^**comments**^LN|1|Correlation with a comprehensive bone marrow morphology exa
mination, CBC data/blood smear, and other relevant clincial and laboratory data is recomme
nded.|||N|||F|||200505021212|33D1234567^Independent Lab Services^CLIA<CR>

OBX|4|TX|22637-3^**final diagnosis**^LN|1|A small population of monoclonal B-cells (Kappa) is p
resent in the bone marrow. The antigenic profile is consistent with chronic lymphocytic le

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ukemia/small lymphocytic lymphoma (CLL/SLL).|||N|||F|||200505021212|33D1234567^Indepe
ndent Lab Services^CLIA<CR>
OBX|5|TX|22049-1^phenotype^LN|1|1. A monoclonal kappa B-cell population co- expressing CD5
and CD23 is present. 2. ~92% maturing myeloid elements are present.|||N|||F|||20050502121
2|33D1234567^Independent Lab Services^CLIA<CR>
SPM|1|^06-123456-MH-1&ILSPCID||TISS^Tissue^HL70487|||||||||||||200505021212|2005050312
00||||||||||||0704500123^^^33D1234567&INDEPENDENT LAB SERVICES<CR>
```

E.1.2 Simple Narrative Report with Sections

The anatomic pathology report example below is a typical simple report whose content is to be transmitted from a laboratory or hospital to a cancer registry.

Report as it might appear printed or on a display:

PATHOLOGY REPORT

Report Identification		Patient Information			
Facility ID:	33D1234567	Chart/MRN:	00466144	Address	495 East Overshoot Drive
Requision ID	7654098				
Accession ID:	97 810430	SSN/SIN:	123456789		
Specimen ID	3567829				
Report Date:	2004-07-28	Surname:	CANE	City/Town:	Delmar
Report Type:	Final	Given Name:	CANDY	State/Prov:	NY
Requester ID:	594110NY	Sex:	F	Zip/Post Code:	12054
Requester:	CARING, CAREN M.D. Albany Medical Center, 43 New Scotland Ave. NY, Albany 12208	Date of Birth:	1957-07-06	Country:	
Procedure Date:	2004-07-20	Age:	47 (at procedure date)		
Surgeon ID:	123456	Insurer:	USHC		
Surgeon:	MYELOMUS, JOHN	Insurance No:	3270686987		
Pathologist ID:	109771	Race:	White		
Pathologist:	GLANCE, JUSTIN	Ethnicity:			

Clinical Dx/ Comment	Carcinoma of breast. Post operative diagnosis: same.
Clinical History	47-year-old white female with (L) UOQ breast mass
Tissue Submitted	left breast biopsy apical axillary tissue contents of left radical mastectomy
Gross Pathology	Part #1 is labeled “left breast biopsy” and is received fresh after frozen section preparation. It consists of a single firm nodule measuring 3 cm in circular diameter and 1.5 cm in thickness surrounded by adherent fibrofatty tissue. On section a pale gray, slightly mottled appearance is revealed. Numerous sections are submitted for permanent processing. Part #2 is labeled "apical left axillary tissue" and is received fresh. It consists of two amorphous fibrofatty tissue masses without grossly discernible lymph nodes therein. Both pieces are rendered into numerous sections and submitted in their entirety for history. Part #3 is labeled "contents of left radical mastectomy" and is received flesh. It consists of a large ellipse of skin overlying breast tissue, the ellipse measuring 20 cm in length and 14 cm in height. A freshly sutured incision extends 3 cm directly lateral from the areola, corresponding to the closure for removal of part #1. Abundant amounts of fibrofatty connective tissue surround the entire breast and the deep aspect includes

	an 8 cm length of pectoralis minor and a generous mass of overlying pectoralis major muscle. Incision from the deepest aspect of the specimen beneath the tumor mass reveals tumor extension gross to within 0.5 cm of muscle. Sections are submitted according to the following code: DE – deep surgical resection margins; SU, LA, INF, ME — full thickness radial samplings from the center of the tumor superiorly, laterally, inferiorly and medially, respectively: NI – nipple and subjacent tissue. Lymph nodes dissected free from axillary fibrofatty tissue from levels I, II, and III will be labeled accordingly.
Microscopic	Sections of part #1 confirm frozen section diagnosis of infiltrating duct carcinoma. It is to be noted that the tumor cells show considerable pleomorphism, and mitotic figures are frequent (as many as 4 per high power field). Many foci of calcification are present within the tumor. Part #2 consists of fibrofatty tissue and single tiny lymph node free of disease. Part #3 includes 18 lymph nodes, three from Level III, two from Level II and thirteen from Level I. All lymph nodes are free of disease with the exception of one Level I lymph node, which contains several masses of metastatic carcinoma. All sections taken radially from the superficial center of the resection site fail to include tumor, indicating the tumor to have originated deep within the breast parenchyma. Similarly, there is no malignancy in the nipple region, or in the lactiferous sinuses. Sections of deep surgical margin demonstrate diffuse tumor infiltration of deep fatty tissues; however, there is no invasion of muscle. Total size of primary tumor is estimated to be 4 cm in greatest dimension.
Final Dx	Infiltrating duct carcinoma left breast. Lymph node, no pathologic diagnosis, left axilla. Ext. of tumor into deep fatty tissue. Metastatic carcinoma, left axillary lymph node (1) Level I. Free of disease 17 of 18 lymph nodes – Level I (12), Level II (2) and Level III (3).
INDEPENDENT LAB SERVICES	
DELMAR, NY 12054	
INDEPENDENT LABORATORY SERVICES, INC.	

E.1.2.1 HL7 Message Encoding of this Report

There are several ways to encode this report, depending upon whether the source system divides the sections and the handling of specimen information.

This first example shows the report where all sections are combined, with no splitting or differentiation based on the tissue specimens. The text sections are encoded using FT (formatted text) to preserve the line endings and other formatting present on the printed report.

E.1.2.1.1 Example 1: Combined specimen sections

```
MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200407281339||ORU^R01^ORU_R01|2004
    072813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||0046614412^^^Albany Medical Center&1234567891&NPI^MR^Albany Medical Center~123456
    789^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005|495 East Overshoo
    t Drive^^Delmar^NY^12054^^H|||||M<CR>
ORC|RE|||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208||43
    New Scotland Ave.^^Albany^NY^12208<CR>
OBR|1||97 810430|11529-5^Surgical Pathology Study^LN|||200707251630|||123456^MYELOMUS^JO
    HN|||||TISS^Tissue^HL70487|594110NY^CARING^C AREN^^M.D.^^^^NY_PHYSICIANLICENSE^^^^M
    D|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|FT|22637-3^Path report.final diagnosis^LN|1|Carcinoma of breast. Postoperative diagn
    osis: same.||||||F<CR>
OBX|2|FT|22636-5^Path report.relevant Hx^LN|1|47-year old white female with (L) UOQ breast m
    ass||||||F<CR>
OBX|3|FT|22633-2^Path report.site of origin^LN|1|left breast biopsy\X0D\\X0A\apical axilla
    ry tissue\X0D\\X0A\contents of left radical mastectomy||||||F<CR>
OBX|4|FT|22634-0^Path report.gross description^LN|1|Part #1 is labeled "left breast biopsy"
    and is received fresh after frozen section preparation. It consists of a single firm nodule
    measuring 3 cm in circular diameter and 1.5 cm in thickness surrounded by adherent fibrofat
    ty tissue. On section a pale gray, slightly mottled appearance is revealed. Numerous secti
    ons are submitted for permanent processing.\X0D\\X0A\Part #2 is labeled "apical left axil
```

lary tissue" and is received fresh. It consists of twoamorphous fibrofatty tissue masses w
ithout grossly discernible lymph nodes therein. Both piecesare rendered into numerous sec
tions and submitted in their entirety for history.\X0D\\X0A\Part #3 is labeled "contents o
f left radical mastectomy" and is received flesh. It consists of a large ellipse of skin ove
rlying breast tissue, the ellipse measuring 20 cm in length and 14 cm in height. A freshly su
tured incisionextends 3 cm directly lateral from the areola, corresponding to the closure
for removal of part #1. Abundant amounts of fibrofatty connective tissue surround the enti
re breast and the deep aspect includes an 8 cm length of pectoralis minor and a generous mass
ofoverlying pectoralis major muscle. Incision from the deepest aspect of the specimen ben
eath the tumor mass reveals tumor extension gross to within 0.5 cm of muscle. Sections are s
ubmitted according to the following code: DE – deep surgical resection margins; SU,
LA, INF, ME -- full thickness radial samplings from the center of the tumor superi
orly, laterally, inferiorly and medially, respectively: NI – nipple and subjacent t
issue. Lymph nodes dissected free from axillary fibrofatty tissue from levels I, II
, and III will be labeled accordingly.||||||F<CR>

OBX|5|FT|22635-7^Path report.**microscopic observation**^LN|1|Sections of part #1 confirm froz
en section diagnosis of infiltrating duct carcinoma. It is to be noted that thetumor cells s
how considerable pleomorphism, and mitotic figures are frequent (as many as 4 per high powe
r field). Many foci of calcification are present within the tumor. Part #2 consists of fibro
fatty tissue and single tiny lymph node free of disease. Part #3 includes 18 lymph nodes, th
ree from Level III, two from Level II and thirteen fromLevel I. All lymph nodes are free of d
isease with the exception of one Level I lymph node, which contains several masses of metast
atic carcinoma. All sections taken radially from the superficial center of the resection s
ite fail to include tumor, indicating thetumor to have originated deep within the breast pa
renchyma. Similarly, there is no malignancy in the nipple region, or in the lactiferous sin
uses. Sections of deep surgical margin demonstrate diffuse tumor infiltration of deep fatt
y tissues, however, there is no invasion of muscle. Total size of primary tumor is estimated
to be 4 cm in greatest dimension.||||||F<CR>

OBX|6|FT|22637-3^Path report.**final diagnosis**^LN|1|1. Infiltrating duct carcinoma, left
breast.\X0D\\X0A\2. Lymph node, no pathologic diagnosis, left axilla.\X0D\\X0A\3.
Ext. of tumor into deep fatty tissue. Metastatic carcinoma, left axillary lymph nod
e (1) Level I. Free of disease 17 of 18 lymph nodes – Level I (12), Level II (2) an
d Level III (3).||||||F<CR>

SPM|1|^3567829||TISS^**Tissue**^HL70487|K||||||||||||200407200930|200407211500||||||||||||
97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

The same report also can be encoded without using formatted text. This next example shows this and illustrates the additional structure of using the OBX-4 Observation Sub-ID to link those areas of the report that are specific to the particular specimen (shown with numbers in the printed report above).

E.1.2.1.2 Example 2: Reporting by specimen

MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200407281339||ORU^R01^ORU_R01|20040
72813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>

PID|1||00466144^^^Albany Medical Center&1234567891&NPI^MR^Albany Medical Center~123456789
^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005|495 East Overshoot Dr
ive^^Delmar^NY^12054^^H|||||M<CR>

ORC|RE|||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208||43
New Scotland Ave.^^Albany^NY^12208<CR>

OBR|1|3567829|97 810430| 60567-5^Comprehensive pathology report
panel^LN|||200707251630|||
123456^MYELOMUS^JOHN|||||TISS^Tissue^HL70487|594110NY^CARING^C AREN^^M.D.^^^^
NY_PHYSICIANLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYSICIANLIC
ENSE<CR>

OBX|1|TX|22637-3^Path report.**final diagnosis**^LN|1|Carcinoma of breast. Postoperative diagn
osis: same.||||||F<CR>

OBX|2|TX|22636-5^Path report.**relevant Hx**^LN|1|47-year old white female with (L) UOQ breast m
ass||||||F<CR>

SPM|1|3567829^97 810430||TISS^**Tissue**^HL70487|K||||||||||||200407200930|200407211500||||
||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|2|3567829|97 810430-1|11529-5^**Surgical Pathology Study**^LN|||200707251630|||
123456^MYELOMUS^JOHN|||||TISS^Tissue^HL70487|594110NY^CARING^C AREN^^M.D.^^^^
NY_PHYSICIANLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYS ICIANLI
CENSE<CR>

OBX|1|TX|22633-2^Path report.**site of origin**^LN|2|left breast biopsy||||||F<CR>

OBX|2|TX|22634-0^Path report.**gross description**^LN|2|Part #1 is labeled "left breast biopsy"
and is received fresh after frozen section preparation. It consists of a single firm nodule
measuring 3 cm in circular diameter and 1.5 cm in thickness surrounded by adherent fibrofat
ty tissue. On section a pale gray, slightly mottled appearance is revealed. Numerous secti
ons are submitted for permanent processing.||||||F<CR>

OBX|3|TX|22635-7^Path report.**microscopic observation**^LN|2|Sections of part #1 confirm froz
en section diagnosis of infiltrating duct carcinoma. It is to be noted that thetumor cells s
how considerable pleomorphism, and mitotic figures are frequent (as many as 4 per high powe
r field). Many foci of calcification are present within the tumor||||||F<CR>

OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|2|1. Infiltrating duct carcinoma, left bre
ast.||||||F<CR>

SPM|2|3567829^97 810430-1||TISS^**Tissue**^HL70487|K|||||||||||200407200930|
200407211500|||||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|3|3567829|97 810430-2|11529-5^**Surgical Pathology Study**^LN|||200707251630|||
123456^MYELOMUS^JOHN|||||TISS^Tissue^HL70487|594110NY^CARING^C AREN^^M.D.^^^^
NY_PHYSICIANLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYS ICIANLI
CENSE<CR>

OBX|1|TX|22633-2^Path report.**site of origin**^LN|3|apical axillary tissue||||||F<CR>

OBX|2|TX|22634-0^Path report.**gross description**^LN|3|Part #2 is labeled "apical left axillar
y tissue" and is received fresh. It consists of two amorphous fibrofatty tissue masses with
out grossly discernible lymph nodes therein. Both pieces are rendered into numerous sectio
ns and submitted in their entirety for history.||||||F<CR>

OBX|3|TX|22635-7^Path report.**microscopic observation**^LN|3|Part #2 consists of fibrofatty t
issue and single tiny lymph node free of disease. ||||||F<CR>

OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|3|2. Lymph node, nopathologic diagnosis,
left axilla.||||||F<CR>

SPM|3|3567829^97 810430-2||TISS^**Tissue**^HL70487|K|||||||||||200407200930|200407211500
|||||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|4|3567829|97 810430-3|11529-5^**Surgical Pathology Study**^LN|||200707251630|||
123456^MYELOMUS^JOHN|||||TISS^Tissue^HL70487|594110NY^CARING^C AREN^^M.D.^^^^
NY_PHYSICIANLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYS ICIANLI
CENSE<CR>

OBX|1|TX|22633-2^Path report.**site of origin**^LN|4|contents of left radical mastectomy|||||
|F<CR>

OBX|2|TX|22634-0^Path report.**gross description**^LN|4|Part #3 is labeled "contents ofleft rad
ical mastectomy" and is received flesh. It consists of a large ellipse of skin overlying bre
ast tissue, the ellipse measuring 20 cm in length and 14 cm in height.A freshly sutured inc
ision extends 3 cm directly lateral from the areola, corresponding to the closure f
or removal of part #1. Abundant amounts of fibrofatty connective tissue surround th
e entire breast and the deep aspect includes an 8 cm length of pectoralis minor and
a generous mass of overlying pectoralis major muscle. Incision from the deepest as
pect of the specimen beneath the tumor mass reveals tumor extension gross to within
0.5 cm of muscle. Sections are submitted according to the following code: DE - dee
p surgical resection margins; SU, LA, INF, ME -- full thickness radial samplings fr
om the center of the tumor superiorly, laterally, inferiorly and medially, respecti
vely: NI - nipple and subjacent tissue. Lymph nodes dissected free from axillary fi
brofatty tissue from levels I, II, and III will be labeled accordingly.||||||F<CR>

OBX|3|TX|22635-7^Path report.**microscopic observation**^LN|4|
Part #3 includes 18 lymph nodes, three from Level III, two from Level II and thirteen fromLe
vel I. All lymph nodes are free of disease with the exception of one Level I lymph node, whic
h contains several masses of metastatic carcinoma. All sections taken radially from the su

perficial center of the resection site fail to include tumor, indicating thetumor to have o
riginated deep within the breast parenchyma. Similarly, there is no malignancy in the nipp
le region, or in the lactiferous sinuses. Sections of deep surgical margin demonstrate dif
fuse tumor infiltration of deep fatty tissues, however, there is no invasion of muscle. Tot
al size of primary tumor is estimated to be 4 cm in greatest dimension.||||||F<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|4|3. Ext. of tumor into deep fatty tissue. M
etastatic carcinoma, left axillary lymph node (1) Level I. Free of disease 17of18 lymph no
des - Level I (12), Level II (2) and Level III (3).||||||F<CR>
SPM|4|3567829^97 810430-3||TISS^**Tissue**^HL70487|K|||||||||||200407200930|200407211500|
||||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

E.1.3 Structured Narrative Report: "SPM segment style" HL7 v. 2.5.1 example for multiple specimens

E.1.3.1 Example 1: SPM segment style

MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|ECLRS|NYSCR|200407281339||ORU^R01^OR
U_R01|2004072813390045|P|2.5.1||||||||VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||123456789^^^^SS|000039^^^^LR|Cane^Candy^^^Ms.||19570706|F||2106-3|495 East Overs
hoot Drive^^Delmar^NY^12054^^H||^^^^^518^5559999|||M|||4442331235<CR>
PV1|1|N|||||594110NY^CARING^CAREN^^^DR|59411ONY^CARING^CAREN^^^DR<CR>
ORC|RE|||||||||||||||||||Albany Medical Center^^123456^^^AHA|43 NewScotland Ave^^Albany
^NY^12208|^^^^^518^3334444|100 Provider St^^Albany^NY^12205<CR>
OBR|1|3567829|97 810430|60567-5^**Comprehensive pathology report panel**^LN^^
PATHOLOGY REPORT^L|||20040720||||||||123456^MYELOMUS^JOHN^^MD|^^^^^518^4244243|
||||20040728|||F|||||||109771&GLANCE&JUSTIN&A&MD&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|TX|22636-5^**CLINICAL HISTORY**^LN|1|47-year old white female with (L) UOQ breast mass|||
|||F|||200407200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|2|TX|22638-1^**COMMENTS**^LN|1|Carcinoma of breast. Post operative diagnosis:same||||||F|
||200407200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
SPM|1|3567829^97 810430||TISS^Tissue^HL70487|K|||||||||||200407200930|200407211500||||
||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|2|3567829|97 810430-1|11529-5^**SURGICAL PATHOLOGY STUDY**^LN^^PATHOLOGY REPORT^L|||
20040720||||||||123456^MYELOMUS^JOHN^^MD|^^^^^518^4244243|||||20040728|||F|||||||1
09771&GLANCE&JUSTIN&A&MD&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|TX|22633-2^Pathology report.**site of origin**^LN^^L47^SUBMITTED TISSUE^L|2|left breas
t biopsy||||||F|||200407200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|2|TX|22634-0^**Gross Pathology**^LN^L567^GROSS PATHOLOGY^L|2|Part #1 is labeled "left brea
st biopsy" and is received fresh after frozen section preparation. It consists of a single f
irm nodule measuring 3 cm in circular diameter and 1.5 cm in thicknesssurrounded by adheren
t fibrofatty tissue. On section a pale gray, slightly mottled appearance is revealed. Nume
rous sections are submitted for permanent processing.||||||F|||200407280841|33D1234567^
INDEPENDENT LABSERVICES^CLIA<CR>
OBX|3|TX|22635-7^**Microscopic Pathology**^LN^L589^MICROSCOPIC^L|2|Sections of part #1 confir
m frozen section diagnosis of infiltrating duct carcinoma. It is to be noted that the tumor
cells show considerable pleomorphism, and mitotic figures are frequent (asmany as 4 per hi
gh power field). Many foci of calcification are present within the tumor.||||||F|||200407
200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|2|1. Infiltrating duct carcinoma,left
breast.||||||F|||200407280841|33D1234567^INDEPENDENT LAB SERVICES^CLIASPM|2|^97 8104
30-2&ILSPCID||TISS^Tissue^HL70487|||||||||||||200407200930|20040702115000||||||||||
|0704500123^^^33D1234567&INDEPENDENT LAB SERVICES<CR>
SPM|2|3567829^97 810430-1||TISS^**Tissue**^HL70487|||||||||||||200407200930|20040702115000|
||||||||||0704500123^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|3|3567829|97 810430-2|11529-5^**SURGICAL PATHOLOGY STUDY**^LN^^PATHOLOGY REPORT^L|||
20040720||||||||123456^MYELOMUS^JOHN^^MD|^^^^^518^4244243|||||20040728|||F||||||
|109771&GLANCE&JUSTIN&A&MD&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|TX|22633-2^Pathology report.**site of origin**^LN^^L47^SUBMITTED TISSUE^L|3|apical axil

lary tissue||||||F|||200407200930|33D1234567^INDEPENDENT LABSERVICES^CLIA<CR>
OBX|2|TX|22634-0^**Gross Pathology**^LN^L567^GROSS PATHOLOGY^L|3|Part #2 is labeled"apical left axillary tissue" and is received fresh. It consists of two amorphous fibrofatty tissue masses without grossly discernible lymph nodes therein. Both pieces arerendered into numerous sections and submitted in their entirety forhistory.||||||F|||200407280841|33D1234567^INDEPENDENT LABSERVICES^CLIA<CR>
OBX|3|TX|22635-7^**Microscopic Pathology**^LN^L589^MICROSCOPIC^L|3|Part #2 consistsof fibrofatty tissue and single tiny lymph node free of disease.||||||F|||200407200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|3|2. Lymph node, no pathologicdiagnosis, left axilla.||||||F|||200407280841|33D1234567^INDEPENDENT LAB SERVICES^CLIA
SPM|3|3567829^97 810430-2||TISS^**Tissue**^HL70487|||||||||||||200407200930|2004070211500||||||||||0704500123^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|4|3567829|97 810430-3|11529-5^**SURGICAL PATHOLOGY STUDY**^LN^^PATHOLOGY REPORT^L|||20040720|||||||||123456^MYELOMUS^JOHN^^MD|^^^^^518^4244243|||||20040728|||F||||||109771&GLANCE&JUSTIN&A&MD&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|TX|22633-2^Pathology report.**site of origin**^LN^^L47^SUBMITTED TISSUE^L|4|contents of left radical mastectomy ||||||F|||200407200930|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|2|TX|22634-0^**Gross Pathology**^LN^L567^GROSS PATHOLOGY^L|4|Part #3 is labeled "contents of left radical mastectomy" and is received flesh. It consists of a large ellipse of skin overlying breast tissue, the ellipse measuring 20 cm in length and 14 cm in height. A freshly sutured incision extends 3 cm directly lateral from the areola, corresponding to the closure for removal of part #1. Abundant amounts of fibrofatty connective tissue surround the entire breast and the deep aspect includes an 8 cm length of pectoralis minor and a generous mass of overlying pectoralis major muscle. Incision from the deepest aspect of the specimen beneath the tumor mass reveals tumor extension gross to within 0.5 cm of muscle. Sections are submitted according to the following code: DE – deep surgical resection margins; SU, LA, INF, ME -- full thickness radial samplings from the center of the tumor superiorly, laterally, inferiorly and medially, respectively: NI – nipple and subjacent tissue. Lymph nodes dissected free from axillary fibrofatty tissue from levels I, II, and III will be labeled accordingly. ||||||F|||200407280841|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|3|TX|22635-7^**Microscopic Pathology**^LN^L589^MICROSCOPIC^L|4|Part #3 includes 18 lymph nodes, three from Level III, two from Level II and thirteen from Level I. All lymphnodes are free of disease with the exception of one Level I lymph node, which contains several masses of metastatic carcinoma. All sections taken radially from the superficial center of the resection site fail to include tumor, indicating the tumor to have originateddeep within the breast parenchyma. Similarly, there is no malignancy in the nipple region, or in the lactiferous sinuses. Sections of deep surgical margin demonstrate diffuse tumor infiltration of deep fatty tissues, however, there is no invasion of muscle. Total size of primary tumor is estimated to be 4 cm in greatest dimension.||||||F|||200704110841|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|4|3. Ext. of tumor into deep fatty tissue. Metastatic carcinoma, left axillary lymph node (1) Level I. Free of disease 17of 18 lymph nodes – Level I (12), Level II (2) and Level III (3).||||||F|||200407280841|33D1234567^INDEPENDENT LAB SERVICES^CLIA<CR>
SPM|4|3567829^97 810430-3||TISS^**Tissue**^HL70487|||||||||||||200407200930|2004070211500|||||||||||0704500123^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

E.1.3.1.1 Example 2: Multiple specimens with overall case diagnosis and individual specimen level diagnoses.

MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|ECLRS|NYSCR|200407281339||ORU^R01^ORU_R01|2004072813390045|P|2.5.1|||||||||VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||123456789^^^^SS|000039^^^^LR|Cane^Candy^^^Ms.||19570706|F||2106-3|495 East Overshoot Drive^^Delmar^NY^12054^^H||^^^^^518^5559999|||M|||4442331235<CR>

PV1|1|N|||||594110NY^CARING^CAREN^^^DR|59411ONY^CARING^CAREN^^^DR<CR>
ORC|RE|||||||||||||||||||Albany Medical Center^^123456^^^AHA|43 NewScotland Ave^^Albany^NY^12208|^^^^^518^3334444|100 Provider St^^Albany^NY^12205<CR>
OBR|1|T2000317579|2825588^QDX^31D2026917^CLIA **|60567-5^Comprehensive pathology report panel^LN**|||202106300000||||A||||TISS&Tissue&HL70487 |4813323451^Smith^John^^^^MD^^^^^NPI|||||||||F|||||||1024123451&Mahmood&Shahid&&&&MD&&NPI<CR>
OBX|1|CE**|76540-4^Pathologist Assigned ICD Code^LN|1|C61^Malignant Neoplasm of Prostate ^I10C~N40.0^Benign prostatic hyperplasia without lower urinary tract symptoms^I10C**|
|A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA |10241^Bentley^James D.|
||202107061751<CR>
OBX|2|TX|21612-7^**Reported Age**^LN||73|yr^years^ANS+|1|A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA |10241^Bentley^James D.|||202107061751<CR>
OBX|3|TX|22636-5^Pathology report.**relevant Hx**^LN|1|Elevated PSA, ICD-10: R97.20|||A^Abnormal^HL70078|||F |||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D. |||202107061751<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|1|Adenocarcinoma of Prostate. \X0D\\X0A\ Gleason Score: 8(4+4) \X0D\\X0A\ Grade Group: 4 \X0D\\X0A\ Tumor Length(cm): 0.1 \X0D\\X0A\ Core Length(cm): 1.3 \X0D\\X0A\ Involving 10% of toal surface area, and 1 of 1 core, discontinuously (D). Perineural invasion not seen.|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
SPM|1|^2825588&QDX&31D2026917&CLIA||TISS^**Tissue**^HL70487|S^Slide^HL70541|||^^^G0416^Surgical pathology, gross and microscopic examination for prostate needle saturation biopsy sampling, 1-20 specimens^C4^^Prostate Gland|||||||||20210630000000|20210630000000<CR>

OBR|2|T2000317579|2825588-A^QDX^31D2026917^CLIA|**11529-5^Surgical Pathology Study^LN** ||
|202106300000||||A||||TISS&Tissue&HL70487 |4813367891^Smith^John^^^^MD^^^^^^NPI||||
|||||F|||||||1024167891&Mahmood&Shahid&&&&MD&&NPI<CR>
OBX|1|TX|22633-2^Pathology report.**site of origin**^LN|2|Prostate, Left Apex|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|2|TX|22634-0^Pathology report.**gross observation**^LN|2|Specimen: Left Apex;\X0D\\X0A\ Cores: 1; \X0D\\X0A\ Length: 1.4cm; \X0D\\X0A\Ink:|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|3|TX|22635-7^Path report.**microscopic observation**^LN|2|Any specific microscopic observation at the specimen level detail should be placed here.|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|2|Adenocarcinoma of Prostate. \X0D\\X0A\ Gleason Score: 7(4+3) \X0D\\X0A\ Grade Group: 3 \X0D\\X0A\ Tumor Length(cm): 0.9 \X0D\\X0A\ Core Length(cm): 1.1 \X0D\\X0A\ Involving 20% of total surface area, and 1 of 1 core. Perineural invasion not seen.|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|5|CE|76540-4^Pathologist Assigned ICD Code^LN|2|C61^Malignant Neoplasm of Prostate ^I10C|||A^Abnormal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
SPM|2|^2825588-A&QDX&31D2026917&CLIA||TISS^**Tissue**^HL70487|S^Slide^HL70541|||C61.9^Prostate Gland^HL79100^G0416^Surgical pathology, gross and microscopic examination for prostate needle saturation biopsy sampling, 1-20 specimens^C4|||||||||20210707000000|20210707000000<CR>

OBR|3|T2000317579|2825588-C^QDX^31D2026917^CLIA|**11529-5^Surgical Pathology Study ^LN**|||202106300000||||A||||TISS&Tissue&HL70487|4813367891^Smith^John^^^^MD^^^^^^NPI|||||||||F|||||||1024167891&Mahmood&Shahid&&&&MD&&NPI<CR>
OBX|1|TX|22633-2^Pathology report.**site of origin**^LN|3|Prostate, Left Mid|||N^Normal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|2|TX|22634-0^Pathology report.**gross observation**^LN|3|Specimen: Left Mid;\X0D\\X0A\ Cores: 1; \X0D\\X0A\ Length: 1.5cm; \X0D\\X0A\Ink:|||N^Normal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
OBX|3|TX|22635-7^Path report.**microscopic observation**^LN|3|Any specific microscopic observation for this specimen level detail should be placed here.|||N^Normal^HL70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>

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OBX|4|TX|22637-3^Path report.final diagnosis^LN|3|Benign prostatic tissue|||N^Normal^H
   L70078|||F|||202106301751|31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751
   <CR>
OBX|5|CE|76540-4^Pathologist Assigned ICD Code^LN|3|N40.0^Benign prostatic hyperplasia
    without lower urinary tract symptoms^I10C|||A^Abnormal^HL70078|||F|||202106301751|
   31D2026917^QDX^CLIA|10241^Bentley^James D.|||202107061751<CR>
SPM|3|^2825588-C&QDX&31D2026917&CLIA||TISS^Tissue^HL70487|S^Slide^HL70541|||C61.9^Pros
   tate Gland^HL79100^G0416^Surgical pathology, gross and microscopic examination for
   prostate needle saturation biopsy sampling, 1-20 specimens^C4|||||||||2021070700000
   0|20210707000000<CR>
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E.1.4 Complex Reports

As described in Section 2.2.3.2, a laboratory that has sent a case out for a consult or special study may report its original report data and the consult (or special study) from a different institution in the same message that is sent to a cancer registry. This example illustrates the format and linkage of these two reports from different institutions being sent in the same message to a registry.

INDEPENDENT LAB SERVICES, PID 6767676767 October 30, 2010

TISSUE SUBMITTED
A: Right colon
B: Rectosigmoid @ 15 cm

GROSS PATHOLOGY
A: The anatomical site is not specified on the container's label. The specimen consists of a solitary pinkish-tan tissue fragment measuring 0.6 cm in greatest dimension. The specimen is entirely submitted in block A.
B: The anatomical site is not specified on the container's label. The specimen consists of a single dark tan, multi-lobulated sessile polyp that measures 2.1 in greatest diameter x 1.4 in height and 0.9 cm in thickness. Black ink is applied to mark the line of resection. The polyp is serially sectioned and entirely submitted in blocks B1 and B2.

MICROSCOPIC
A: Sections show two biopsies of colon in which there is mild chronic inflammation in the lamina propria. The colonic glands are regular, and the goblet cell population is preserved. There is no evidence of dysplasia or malignancy in the plane of sections examined. B: Sections show invasive, moderately differentiated adenocarcinoma. The tumor is forming complex glands that are lined by severely dysplastic epithelium and show necrosis within the glandular lumens. The tumor glands infiltrate the lamina propria, the muscularis mucosa and the stroma beyond the muscularis mucosa. There is associated with acute and chronic inflammation and stromal reaction. The malignant glands are 2.4 mm from the closest point of the cauterized resection margin of the polyp. Surface ulceration is noted. The background shows underlying villous adenoma.

DIAGNOSIS
A: BIOPSIES OF RIGHT COLON – NO EVIDENCE OF DYSPLASIA OR MALIGNANCY. (PLEASE SEE COMMENTS).
B: COLON AND RECTUM: Polypectomy. Tumor Site – Rectosigmoid, at 15 cm.
Specimen Integrity – Intact.
Polyp Size
Greatest dimension: 2.1 cm. Additional dimensions: 1.9 x 1.4 cm.
Polyp Configuration – Sessile. (Please see Comments). Size of Invasive Carcinoma:
Greatest dimension: 1.9 cm. Histologic Type – Adenocarcinoma. Histologic Grade:
Low-grade (well differentiated to moderately differentiated) Microscopic Tumor Extension:
– Invasion (deepest) – submucosa. Margins:
Deep Margin (Stalk Margin) Uninvolved by invasive carcinoma. Mucosal/Lateral Margin
Uninvolved by invasive carcinoma.
Vascular Invasion – Indeterminate. (Please see comments). Type of Polyp in Which Invasive Carcinoma Arose:
– Villous adenoma.
Ancillary Studies – IHC performed.

The case is referred to Dr.M. Yyyyy at HITECK PATH LAB for Consultation. (Please see Comments).

COMMENTS
A: There is no evidence of dysplasia or malignancy in the plane of sections examined. Correlation with endoscopic findings and if dysplasia/malignancy is a clinical possibility, repeat biopsy is recommended.

B: The polyp grossly is a sessile polyp, morphologically is a malignant polyp. At the tip of the polyp, there is intramucosal carcinoma; however, most of the polyp shows invasive moderately differentiated adenocarcinoma. In block #2, there is a portion of adjacent mucosa suggestive of a small stalk, that measures 0.5 cm in length, 0.6 cm in diameter; however, this could represent adjacent mucosa. Based on routine H&E alone, there is no evidence of lymphovascular invasion. Immunohistochemical stain with D2- 40 is non conclusive. The tumor glands are 2.1 mm from the closest point of the cauterized polypectomy resection line.

The case was verbally communicated with Dr. A. Wwwww on 19/10/10. Electronically signed by Dr. J. Glance, MD. 21/10/10
Consultation Report
HITECK PATH LAB, PID 6767676767 October 29, 2010

SPECIMENS SUBMITTED
Colon and rectum

DIAGNOSIS
Right colon, biopsy (S10-1234, Part A):
COLONIC MUCOSA WITH NO SIGNIFICANT HISTOLOGIC ABNORMALITY. Rectosigmoid colon, biopsy (S10-1234, Part B):
ADENOCARCINOMA IN A BACKGROUND OF A TUBULAR ADENOMA. Specimen
Tumor Site: Other (specify): Rectosigmoid colon @ 15 cm Specimen Integrity: Intact
Polyp Size Dimensions: 2.1 cm
Polyp Configuration: Sessile Tumor
Histologic Type: Adenocarcinoma
Histologic Grade: Low-grade (well-differentiated to moderately differentiated) Extent
Size of invasive Carcinoma Dimensions: 1.9 cm
Microscopic Tumor Extension: Submucosa Margins
Deep Margin (stalk margin): Uninvolved by invasive carcinoma Distance of Invasive Carcinoma from margin (mm): 2.5
Mucosal / Lateral Margin: Uninvolved by invasive carcinoma Accessory Findings
Lymph-Vascular Invasion: Not identified
Type of Polyp in Which Invasive Carcinoma Arose: Tubular adenoma Special Studies
Ancillary Studies: Not performed Additional Non-Tumor
Additional Pathologic Findings: None identified

Reported by Mxxxx Yyyyy, MD, address zzzz (October 28, 2010) October 29, 2010

E.1.4.1 Example for complex combined narrative and synoptic summary reports:

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MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||201010301339||ORU^R01^ORU_R01|2
    004072813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||6767676767^^^Central Hospital Ltd&1234567891&NPI^MR^Central Hospital Ltd&12345
    67891&NPI~123456789^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70
    005|495 East Overshoot Drive^^Delmar^ON^O8D 6L7^CAN^H|||||M<CR>
ORC|RE|||||||||||||||||||Central Hospital Ltd.|43 New Scotland Ave.^^Ancaster^ON^L9G
    4V5^CAN||43 New Scotland Ave.^^Ancaster^ON^L9G 4V5^CAN<CR>
OBR|1||97 810430|60567-5^Comprehensive pathology report panel^LN|||201010191600|||123
    456^MYELOMUS^JOHN||||201010201600|TISS^Tissue^HL70487|594111^CARING^CAREN^^M.D.
    ^^^^ONTARIOLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&ONTARIOLICEN
    SE<CR>
OBX|1|FT|22638-1^Pathology report comments^LN|1|The case was verbally communicated
    with Dr. A. Wwwww on 21/10/10. Electronically signed by Dr. J. Glance, MD.
    21/10/10||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>
SPM|1|^97 810430||TISS^Tissue^HL70487|||||||||||||2010101901600|201010201600<CR>

OBR|2||97 810430-A|11529-5^Surgical Pathology Study^LN|||2010101901600|||
    123456^MYELOMUS^JOHN||||201010201600|TISS^Tissue^HL70487|594110^CARING^CAR EN^^M
```

.D.^^^^ONTARIOLICENSE^^^^MD|||||||||F||||^97 810430|||109771&GLANCE&JUSTIN&&&&&&
ONTARIOLICENSE<CR>

OBX|1|FT|22633-2^Pathology report.**site of origin**^LN^^TISSUE SUBMITTED^L|2|A: Biopsies of Right colon||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|2|FT|22634-0^Pathology report.**gross observation**^LN|2|A: The anatomical site is not specified on the container's label. The specimen consists of a solitary pinkish-tan tissue fragment measuring 0.6 cmin greatest dimension. The specimen is entirely submitted in block A.||||||F|||201010210800|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|3|FT|22635-7^Path report.**microscopic observation**^LN|2|A:Sections show two biopsies of colon in which there is mild chronic inflammation in thelamina propria.The colonic glands are regular and the goblet cell populationis preserved.There is no evidence of dysplasia or malignancy in the plane of sections examined.||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|4|FT|22637-3^**Pathology report final diagnosis**^LN|2|A: NO EVIDENCE OF DYSPLASIA OR MALIGNANCY. PLEASE SEE COMMENTS.||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|8|FT|22638-1^**Pathology report comment**s^LN|2|A:There is no evidence of dysplasiaor malignancy in the plane of sections examined. Correlation with endoscopic findings and if dysplasia/malignancy is a clinical possibility, repeat biopsy is recommended.||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

SPM|2|^97 810430-A|^97 810430|TISS^Tissue^HL70487||||||||||||||201010201600<CR>

OBR|3||97 810430-B|**11529-5**^**Surgical Pathology Study**^LN|||2010101901600|||123456^MYELOMUS^JOHN||||201010201600|TISS^Tissue^HL70487|594110^CARING^CAR EN^^M.D.^^^^ONTARIOLICENSE^^^^MD|||||||||F||||^97 810430|||109771&GLANCE&JUSTIN&&&&&&
ONTARIOLICENSE<CR>

OBX|1|FT|22633-2^Pathology report.**site of origin**^LN^^TISSUE SUBMITTED^L|3|B: Rectosigmoid @ 15 cm||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|2|FT|22634-0^Pathology report.**gross observation**^LN|3|B: The anatomical site is not specified on the container's label. The specimen consists of a single dark tan, multi-lobulated sessile polyp that measures 2.1 in greatest diameter x 1.4 in height and 0.9cm in thickness. Black ink is applied to marked the lineof resection. The polyp is serially sectioned and entirely submitted in blocks B1 and B2.||||||F|||201010210800|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|3|FT|22635-7^Path report.**microscopic observation**^LN|3|B: Sections show invasive, moderately differentiated adenocarcinoma. The tumor is forming complex glands that are lined by severely dysplastic epithelium and show necrosis within the glandular lumens. The tumor glands in infiltrate the lamina propria, the muscularis mucosa and thestroma beyond the muscularis mucosa. There is associated with acute and chronic inflammation and stromal reaction. The malignant glands are 2.4 mm from the closest point of the cauterized resection margin of the polyp. Surface ulceration is noted. The background shows underlying villous adenoma.||||||F|||201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>

OBX|4|FT|22637-3^**Pathology report final diagnosis**^LN|3|Tumor Site – Rectosigmoid, at 15 cm. \X0D\\X0A\Specimen Integrity – Intact. \X0D\\X0A\
Polyp Size \X0D\\X0A\ Greatest dimension: 2.1 cm. \X0D\\X0A\ Additional dimensions: 1.9 x 1.4 cm.\X0D\\X0A\ Polyp Configuration – Sessile.(Please see Comments). \X0D\\X0A\ Size of Invasive Carcinoma:\X0D\\X0A\Greatest dimension: 1.9 cm.\X0D\\X0A\ Histologic Type –Adenocarcinoma. \X0D\\X0A\
Histologic Grade:\X0D\\X0A\Low-grade (well differentiated to moderately differentiated)\X0D\\X0A\Microscopic Tumor Extension: \X0D\\X0A\– Invasion (deepest) – submucosa. \X0D\\X0A\ Margins: \X0D\\X0A\ Deep Margin (Stalk Margin) \X0D\\X0A\ Uninvolved by invasive carcinoma.\X0D\\X0A\ Mucosal/Lateral Margin\X0D\\X0A\Uninvolved by invasive carcinoma.\X0D\\X0A\ Vascular Invasion – Indeterminate.(Please see comments).\X0D\\X0A\ Type of Polyp in Which Invasive Carcinoma Arose:\X0D\\X0A\– Villous adenoma. \X0D\\X0A\ Ancillary Studies – IHC performed. \X0D\\X0A\ The case is referred to Dr.M. Yyyyy at HITECK PATH LAB for Consultation. Please see Comments).|||||F|||

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    201010210930|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>
OBX|5|FT|22638-1^Pathology report comments^LN|3|B: The polyp grossly is a sessilepolyp,
    morphologically is a malignant polyp. At the tip of the polyp there is intramucosal carc
    inoma; however, most of the polyp shows invasive moderately differentiated adenocarci
    noma. In block #2 there is a portion of adjacent mucosa suggestive of small stalk, that m
    easures 0.5 cm in length, 0.6 cm in diameter, however this could represent adjacent muco
    sa.  Based on routine H\T\E alone there is no evidence of lymphovascular invasion.
    Immunohistochemical stain with D2-40 is non conclusive. The tumor glandsare 2.1 mm fro
    m the closest point of the cauterized polypectomy resection line.||||||F|||2010102109
    30|01D0301145^INDEPENDENT LAB SERVICES^CLIA<CR>
SPM|3|^97 810430-B|^97 810430|TISS^Tissue^HL70487|||||||||||||
    2010101901600|201010201600<CR>

OBR|4||S10-1234|60570-9^Consultation note^LN|||2010101901600|||||||2010102801600|TI
    SS^Tissue^HL70487|109771^GLANCE^JUSTIN^^M.D.^^^^ONTARIOLICENS ^^^^MD
    |||||||||F|||||||7878787&Yyyyyy&Mxxxx&&&&&&ONTARIOLICENSE<CR>
OBX|1|FT|22633-2^Pathology report.site of origin^LN^^TISSUE SUBMITTED^L|4|Colon and
    rectum||||||F|||201010290930|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|2|FT|22637-3^Pathology report final diagnosis^LN|4|Right colon, biopsy (S10-1234, P
    art A):\X0D\\X0A\- COLONIC MUCOSA WITH NO SIGNIFICANT HISTOLOGIC ABNORMALITY.||||||F
    |||201010291430|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|3|FT|22637-3^Pathology report final diagnosis^LN|4|Rectosigmoid colon, biopsy
    (S10-1234, Part B):\X0D\\X0A\ - ADENOCARCINOMA IN A BACKGROUND OF A TUBULAR ADEN
    OMA.\X0D\\X0A\Specimen\X0D\\X0A\ Tumor Site:
    Other (specify): Rectosigmoid colon @ 15 cm\X0D\\X0A\ Specimen Integrity:
    Intact\X0D\\X0A\ Polyp Size\X0D\\X0A\ Dimensions: 2.1 cm\X0D\\X0A\
    Polyp Configuration: Sessile\X0D\\X0A\ Tumor\X0D\\X0A\ Histologic Type:
    Adenocarcinoma \X0D\\X0A\ Histologic Grade: Low-grade (well-differentiated
    to moderately differentiated) \X0D\\X0A\ Extent\X0D\\X0A\ Size of invasive Carcinoma\
    X0D\\X0A\ Dimensions: 1.9 cm\X0D\\X0A\Microscopic Tumor Extension:
    Submucosa\X0D\\X0A\Margins\X0D\\X0A\ Deep Margin (stalk margin):
    Uninvolved by invasive carcinoma\X0D\\X0A\Distance of Invasive Carcinoma frommargin
    (mm):2.5\X0D\\X0A\Mucosal / Lateral Margin: Uninvolved by invasive carcinoma\X0D\\X0
    A\Accessory Findings\X0D\\X0A\Lymph- Vascular Invasion:Not identified\X0D\\X0A\Typ
    e of Polyp in Which Invasive Carcinoma Arose:Tubular adenoma\X0D\\X0A\ Special Studies
    \X0D\\X0A\Ancillary Studies:Not performed\X0D\\X0A\Additional Non-Tumor\X0D\\X0A\
    Additional Pathologic Findings:    None identified||||||F|||201010281430|
    01D0301145^HITECK PATH LAB^CLIA<CR>
SPM|4|^S10-1234|^97 810430&01D0301145&INDEPENDENT LAB SERVICES&CLIA
    |TISS^Tissue^HL70487|||||||||||||2010101901600|201010281600<CR>
```

E.2 Synoptic Report Examples

Synoptically reports are textual reports but are formatted in a style where each collected clinical data item is on its own line and labeled appropriately. Every line on the displayed or printed report is transmitted in the message.

E.2.1 Simple Report – Single Site, Single Primary

The anatomic pathology report example below is a typical simple report whose content is to be transmitted from a laboratory or hospital to a cancer registry.

PATHOLOGY REPORT

Report Identification		**Patient Information**			
Facility ID:	33D1234567	Chart/MRN:	**00466144**	Address	**495 East Overshoot Drive**
Requision ID	7654098				
Accession ID:	97 810430	SSN/SIN:	**123456789**		

Specimen ID	3567829				
Report Date:	2004-07-28	Surname:	**CANE**	City/Town:	**Delmar**
Report Type:	Final	Given Name:	**CANDY**	State/Prov:	**NY**
Requester ID:	594110NY	Sex:	**F**	Zip/Post Code:	**12054**
Requester:	CARING, CAREN M.D. Albany Medical Center, 43 New Scotland Ave. NY, Albany 12208	Date of Birth:	**1957-07-06**	Country:	
Procedure Date:	2004-07-20	Age:	**47** (at procedure date)		
Surgeon ID:	123456	Insurer:	**USHC**		
Surgeon:	MYELOMUS, JOHN	Insurance No:	**3270686987**		
Pathologist ID:	109771	Race:	**White**		
Pathologist:	GLANCE, JUSTIN	Ethnicity:			

Clinical Dx/ Comment	Carcinoma of breast. Post operative diagnosis: same.
Clinical History	47-year old white female with (L) UOQ breast mass
Tissue Submitted	Left breast lesion – short stitch superior. Long stitch lateral.
Gross Pathology	SPECIMEN SITE DESCRIBED ON CONTAINER: left breast lesion SPECIMEN DESCRIPTION Tissue/s: consistent with breast lumpectomy, with attached skin ellipse Handling Prior to Receipt in Lab: specimen received intact Clinical Orientation: attached short suture, described on requisition as “superior” and attached long suture, described as “lateral” – used for the orientation of the specimen (below) Resection Margins: inked: red medial and lateral blue superior green inferior black deep Other Handling in Lab: sectioned and left for overnight fixation Approximate Fixation Time: > 48 hours/ < 7 days Specimen Size: breast 7.1 x 6.2 x 2.5 cm in greatest dimensions skin ellipse 3.3 x 0.6 cm Diagnostic Imaging for Identification of Suspect Area/s: not required Breast Tumor: present – see below Size: difficult to measure accurately; a 0.6 cm area of hemorrhage immediately adjacent tumor, obscuring tumor margin approximately 2.0 x 1.2 cm in greatest dimensions Location: 11 o’clock – as per prior clinical history Appearance: spiculated, ill-defined, firm, grey-white Evidence of Spread or Complications: none Resection Lines: 0.3 cm from the closest resection margin – the deep 0.8 cm from the next closest resection margin – the junction of the superior and inferior (superficially) 1.2 cm from all remaining resection margins, the next closest being the medial Other Breast: moderately fibrous centrally, and surrounding tumor Nipple: not applicable – not included with specimen Skin: normal Lymph Nodes: none seen Axillary Tissue: not applicable – none included with specimen Other Abnormalities/ Comments: none MATERIAL SUBMITTED FOR HISTOLOGY: entire tumor, and other representative sections BLOCKS SUBMITTED TO HISTOLOGY: A,B complete cross-section of tumor, in its largest dimension – split in two C tumor including closest (deep) resection margin D-G ? tumor including deep margin H fibrous breast including inferior resection margin I breast including lateral resection margin breast including medial resection margin section immediately superficial, but perpendicular to that in A,B including superior margin, and skin ellipse
Microscopic	Neoadjuvant Treatment: unknown – not provided clinically Specimen Type: lumpectomy Lymph Node Sampling: sentinel lymph node biopsy Specimen Size: Greatest Dimension (cm): 7.1 Comments: as described grossly Laterality: left Comments: as described clinically Features of Malignancy: Tumor Site: not specified clinically

	Comments: described as “11 o’clock” in the Clinical History for a previous core biopsy (S*-*****) - likely the same site as the tumor in the specimen here Invasive Carcinoma: present Histologic Type: invasive ductal carcinoma Comments: with prominent lobular differentiation; for instance, the carcinoma spreads as individual cells and small groups of cells at the edge of the main tumor mass Tumor Distribution: single focus only Comments: seen in the area described grossly Size of Invasive Component: Greatest Dimension (cm): 1.1 Comments: exact size difficult to be certain of, because of the effect of previous biopsy, but appearing greater than 1.0 cm in largest dimension, from the microscopic slides Histologic Grade: Tubule Formation: 3/3 Nuclear Pleomorphism: 2/3 Mitotic Count (40x): 1/3 Modified Nottingham Grade: Grade II/III – moderately differentiated Skin Involvement: absent Chest Wall Involvement: not applicable – none included with the specimen Venous/Lymphatic Invasion: absent Block(s) for Receptor Studies: being sent to: LHO Blocks Submitted: G In Situ Carcinoma: absent Comments: except in some very minute foci in and around the invasive tumor Lymph Nodes: Lymph Nodes Present: yes Number Examined: 1 Number Involved: 0 AJCC Staging: Additional pTNM Descriptors: not applicable Primary Tumor (pT): pT1c – tumor more than 1.0 cm but not more than 2.0 cm in greatest dimension Distant Metastasis (pM): pMx – cannot be assessed Resection Margin(s): Involvement by Invasive Carcinoma: absent Closest Margin(s): deep, in a number of slides – and particularly close in Slide G Distance to Closest Margin (mm): 1 Comments: (0.1 cm) Correlation with IOC: not applicable Additional Pathologic Findings: reactive fibrosis around the carcinoma changes around the carcinoma consistent with the effect of previous biopsy some immunohistochemistry will be ordered to confirm some of the findings above – that will be reported in an Addendum Report to follow fibrocystic change in the background reactive changes in the lymph node
Final Dx	SKIN ELLIPSE AND UNDERLYING BREAST AND ADIPOSE TISSUE (LEFT), LUMPECTOMY: INVASIVE DUCTAL CARCINOMA – ADDENDUM AND CONSULTATION REPORTS WITH RECEPTOR STATUS TO FOLLOW
INDEPENDENT LAB SERVICES	
DELMAR, NY 12054	
INDEPENDENT LABORATORY SERVICES, INC.	

E.2.1.1 CAP Synoptic Summary Report (retired)

Note that all data in the report is of value type (OBX-2) text (“TX”). The report style is informational only. It must not be used for CAP eCP reporting – Use the CAP eCP style instead.

```
MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200407281339||ORU^R01^ORU_R01|2004
   072813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||00466144^^^Albany Medical Center&1234567891&NPI^MR^Albany Medical Center~12345678
   9^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005|495 East Overshoot D
   rive^^Delmar^NY^12054^^H|||||M<CR>
ORC|RE||||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208||43
   New Scotland Ave.^^Albany^NY^12208<CR>
OBR|1||19SF-7337^SFML^05D0576873^CLIA|11529-5^Surgical Pathology Study^LN|||20070725163
   0|||123456^MYELOMUS^JOHN|||||TISS^Tissue^HL70487|594110NY^CARING^CAREN^^M.D.^^^^NY_
   PHYSICIANLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYSICIANLICENS
   E<CR>
OBX|1|TX|22636-5^Path report.relevant Hx^LN|1|47-year old white female with (L) UOQ breast m
```

```
   ass. Long stitch lateral.||||||F|||20190703114458|SFML^05D0576873^CLIA<CR>
OBX|2|TX|22633-2^Path report.site of origin^LN|1|Left breast lesion - short stitch sup
   erior.||||||F|||20190703114458|SFML^05D0576873^CLIA<CR>
OBX|3|TX|22637-3^Path report.final diagnosis^LN|1|SKIN ELLIPSE AND UNDERLYING BREAST AN
   D ADIPOSE TISSUE (LEFT), LUMPECTOMY: INVASIVE DUCTAL CARCINOMA - ADDENDUM AND CONSUL
   TATION REPORTS WITH RECEPTORSTATUS TO FOLLOW||||||F|||20190703114458|SFML^05D057687
   3^CLIA<CR>
SPM|1|3567829^19SF-7337||TISS^Tissue^HL70487|K||||||||||||200407200930|200407211500
   ||||||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|2||19SF-7337^SFML^05D0576873^CLIA|60568-3^Synoptic Report^LN|||2019070100|||||||201
   907011709|1|1306182530^Chalmers^Brenna^^^^^^CMS^L^^^NPI|^WPN^PH^^1^714^9923978~^WPN
   ^FX^^^714^9923928|||||20190702|||F||||||^^|1528402427&John&Sand hya&&&&&&CMS<CR>
OBX|1|ST|60573-3^Report template source^LN|2|CAP Synoptic Summary|||||F|||20190703114458
   |SFML^05D0576873^CLIA<CR>
OBX|2|CWE|60572-5^Report template ID^LN|2|169.1000043^Breast BiomarkerReporting Template
   ^CAPECP||||||F |||20190703114458|SFML^05D0576873^CLIA<CR>
OBX|3|ST|60574-1^Report template version ID^LN|2|1.003.001.1000043||||||F|||201907031144
   58|SFML^05D0576873^CLIA<CR>
OBX|4|TX|33746-9 ^Pathologic Findings^LN|2|Test(s) Performed: Estrogen Receptor (ER) Statu
   s (Note A) \X0D\\X0A\ Test(s) Performed: Progesterone Receptor (PgR) Status (NoteA)\X0D\\
   X0A\ Test(s) Performed: HER2 by Immunohistochemistry (Note B) \X0D\\X0A\ ER Results: Nega
   tive (less than 1%)\X0D\\X0A\ ER Test Control Status: Internal control cells present and s
   tain as expected \X0D\\X0A\ Test Type: Laboratory-developed test \X0D\\X0A\ Primary Antib
   ody: SP1 \X0D\\X0A\PgR Results: Negative (less than 1%) \X0D\\X0A\ PgR Test Control Status
   : Internal control cells present and stain as expected \X0D\\X0A\ Test Type: Laboratory-de
   veloped test\X0D\\X0A\Primary Antibody: 312 \X0D\\X0A\ HER2 IHC Results: Negative (Score
   1+) \X0D\\X0A\ Test Type: Laboratory-developed test \X0D\\X0A\ Primary Antibody: CB11 \X0
   D\\X0A\ Cold Ischemia and Fixation Times: Meet requirements specified in latest version of
    the ASCO/ CAP Guidelines \X0D\\X0A\ Fixative: Formalin \X0D\\X0A\||||||F|||20190703114
   458|SFML^05D0576873^CLIA<CR>
SPM|2|3567829^19SF-7337||TISS^Tissue^HL70487|K||||||||||||200407200930|200407211500
   ||||||||||||97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>
```

E.2.1.2 Non-CAP Synoptic Segmented Report

Note that all data in the report that is carried in this message is of value type (OBX-2) text ("TX"). Note also that this illustrates the recommended use of OBX-4 Observation Sub-ID to link groups of observations with their heading title. The non-synoptic portion of the report is shown in the initial OBR.

```
MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200407281339||ORU^R01^ORU_R01|200
   4072813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||00466144^^^Albany Medical Center&1234567891&NPI^MR^Albany Medical Center~123456
   789^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005|495 East Oversho
   ot Drive^^Delmar^NY^12054^^H|||||M<CR>
ORC|RE|||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208|
   |43 New Scotland Ave.^^Albany^NY^12208<CR>
OBR|1||97 810430|11529-5^Surgical Pathology Study^LN|||200707200930|||123456^MYELOMUS^
   JOHN||||200407211500|TISS^Tissue^HL70487|594110NY^CARING^CAREN^^M.D.^^^^NY_PHYSICIA
   NLICENSE^^^^MD|||||||||F|||||||109771&GLANCE&JUSTIN&&&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|TX|22637-3^Path report.final diagnosis^LN|1|SKIN ELLIPSE AND UNDERLYING BREAST A
   ND ADIPOSE TISSUE (LEFT), LUMPECTOMY: INVASIVE DUCTAL CARCINOMA - ADDENDUM AND CONS
   ULTATION REPORTS WITH RECEPTORSTATUS TO FOLLOW||||||F<CR>
OBX|2|TX|22636-5^Path report.relevant Hx^LN|1|47-year old white female with (L) UOQ br
   east mass||||||F<CR>
OBX|3|TX|22633-2^Path report.site of origin^LN|1|Left breast lesion - short stitch sup
   erior.||||||F<CR>
OBX|4|TX|22633-2^Path report.site of origin^LN|1|Long stitch lateral.||||||F<CR>
SPM|1|^3567829||TISS^Tissue^HL70487|K||||||||||||200407200930|200407211500||||||||||||
```

97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>

OBR|2||97 810430|**60568-3^Synoptic report**^LN|||200407200930|||123456^MYELOMUS^JOHN||||200407211500|TISS^Tissue^HL70487|594110NY^CARING^CAREN^^M.D.^^^^NY_PHYSICIANLICENSE^^^^MD|||||||||F|60567-5&Comprehensive pathology report panel&LN|||^97 810430|||109771&GLANCE&JUSTIN&&&&&&NY_PHYSICIANLICENSE<CR>
OBX|1|ST|**60573-3^Report template source**^LN||non-CAP **Synoptic Segmented**||||||F
OBX|2|ST|**60572-5^Report template ID**^LN||Local **Invasive Ductal Carcinoma of the Breast Template**||||||F<CR>
OBX|3|ST|**60574-1^Report template version ID**^LN||**Release 2.1**||||||F<CR>
OBX|4|TX|SPECIMEN SITE DESCRIBED ON CONTAINER:||left breast lesion||||||F<CR>
OBX|5|TX|Header|1|SPECIMEN DESCRIPTION||||||F<CR>
OBX|6|TX|Tissue/s:|1
|consistent with breast lumpectomy, with attached skin ellipse||||||F<CR>
OBX|7|TX|Handling Prior to Receipt in Lab: |1|specimen received intact||||||F<CR>
OBX|8|TX|Clinical Orientation:||attached short suture, described on requisition as "superior" and attached long suture, described as "lateral" - used for the orientation of the specimen (below)||||||F<CR>
OBX|9|TX|Header|2|Resection Margins:||||||F<CR>
OBX|10|TX|Header|2.1|inked:||||||F<CR>
OBX|11|TX|red|2.1|medial and lateral||||||F<CR>
OBX|12|TX|blue|2.1|superior||||||F<CR>
OBX|13|TX|green|2.1|inferior||||||F<CR>
OBX|14|TX|black|2.1|deep||||||F<CR>
OBX|15|TX|Other Handling in Lab:|2|sectioned and left for overnight fixation|||||F<CR>
OBX|16|TX|Approximate Fixation Time:|2|> 48 hours/ < 7 days||||||F<CR>
OBX|17|TX|Specimen Size:|2|breast 7.1 x 6.2 x 2.5 cm in greatest dimensions skin ellipse 3.3 x 0.6 cm||||||F<CR>
OBX|18|TX|Diagnostic Imaging for Identification of Suspect Area/s:|2
|not required||||||F<CR>
OBX|19|TX|Breast Tumor:|2|present - see below||||||F<CR>
OBX|20|TX|Size:|3|difficult to measure accurately; a 0.6 cm area of hemorrhage immediately adjacent tumor, obscuring tumor margin approximately 2.0 x 1.2 cm in greatest dimensions||||||F<CR>
OBX|21|TX|Location:|3|11 o'clock - as per prior clinical history||||||F<CR>
OBX|22|TX|Appearance:|3|spiculated, ill-defined, firm, grey-white||||||F<CR>
OBX|23|TX|Evidence of Spread or Complications:|3|none||||||F<CR>
OBX|24|TX|Resection Lines:|4|0.3 cm from the closest resection margin - the deep 0.8 cm from the next closest resection margin - the junction of the superior and inferior (superficially) 1.2 cm from all remaining resection margins, the next closest being the medial||||||F<CR>
OBX|25|TX|Other Breast:|4|moderately fibrous centrally, and surrounding tumor||||||F<CR>
OBX|24|TX|Nipple:|4|not applicable - not included with specimen||||||F<CR>
OBX|25|TX|Skin:|4|normal||||||F<CR>
OBX|26|TX|Lymph Nodes:|4|none seen||||||F<CR>
OBX|27|TX|Axillary Tissue:|5|not applicable - none included with specimen||||||F<CR>
OBX|28|TX|Other Abnormalities/ Comments:|5|none||||||F<CR>
OBX|29|TX|MATERIAL SUBMITTED FOR HISTOLOGY:
||entire tumor, and other representative sections||||||F<CR>
OBX|30|TX|Header|6|BLOCKS SUBMITTED TO HISTOLOGY:||||||F<CR>
OBX|31|TX|A,B|6|complete cross-section of tumor, in its largest dimension - split in two||||||F<CR>
OBX|32|TX|C|6|tumor including closest (deep) resection margin||||||F<CR>
OBX|33|TX|D-G|6|? tumor including deep margin||||||F<CR>
OBX|34|TX|H|6|fibrous breast including inferior resection margin||||||F<CR>
OBX|35|TX|I|7|breast including lateral resection margin||||||F<CR>
OBX|36|TX|J|6|breast including medial resection margin||||||F<CR>
OBX|37|TX|K|6|section immediately superficial, but perpendicular to that in A,B including superior margin, and skin ellipse||||||F<CR>
OBX|38|TX|Neoadjuvant Treatment:||unknown - not provided clinically||||||F<CR>
OBX|39|TX|Specimen Type:||lumpectomy||||||F<CR>

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OBX|40|TX|Lymph Node Sampling:||sentinel lymph node biopsy||||||F<CR>
OBX|41|TX|Header|7|Specimen Size:||||||F<CR>
OBX|42|TX|Greatest Dimension (cm):|7|7.1||||||F<CR>
OBX|43|TX|Comments:|7|as described grossly||||||F<CR>
OBX|44|TX|Laterality:|8|left||||||F<CR>
OBX|45|TX|Comments:|8|as described clinically||||||F<CR>
OBX|46|TX|Header|9|Features of Malignancy:||||||F<CR>
OBX|47|TX|Tumor Site:|9.1|not specified clinically||||||F<CR>
OBX|48|TX|Comments:|9.1|described as "11 o'clock" in the Clinical History for a previo
   us core biopsy (S******) - likely the same site as the tumor in the specimen here||
   ||||F<CR>
OBX|49|TX|Invasive Carcinoma:|9|present||||||F<CR>
OBX|50|TX|Histologic Type:|9.2|invasive ductal carcinoma||||||F<CR>
OBX|51|TX|Comments:|9.2|with prominent lobular differentiation; for instance, the carc
   inoma spreads as individual cells and small groups of cells at the edge of the main
    tumor mass||||||F<CR>
OBX|52|TX|Tumor Distribution:|9.3|single focus only||||||F<CR>
OBX|53|TX|Comments:|9.3|seen in the area described grossly||||||F<CR>
OBX|54|TX|Size of Invasive Component:|9.4|Greatest Dimension (cm): 1.1||||||F<CR>
OBX|55|TX|Comments:|9.4|exact size difficult to be certain of, because of the effect o
   f previous biopsy, but appearing greater than 1.0 cm in largest dimension, from the
    microscopic slides||||||F<CR>
OBX|56|TX|Header|9.5|Histologic Grade:||||||F<CR>
OBX|57|TX|Tubule Formation:|9.5|3/3||||||F<CR>
OBX|58|TX|Nuclear Pleomorphism:|9.5|2/3||||||F<CR>
OBX|59|TX|Mitotic Count (40x):|9.5|1/3||||||F<CR>
OBX|60|TX|Modified Nottingham Grade:|9.5|Grade II/III - moderately differentiated|||||
   |F<CR>
OBX|61|TX|Skin Involvement:||absent||||||F<CR>
OBX|62|TX|Chest Wall Involvement:||not applicable - none included with the specimen|||
   |||F<CR>
OBX|63|TX|Venous/Lymphatic Invasion:||absent||||||F<CR>
OBX|64|TX|Block(s) for Receptor Studies:|9.6|being sent to: LHO||||||F<CR>
OBX|65|TX|Blocks Submitted:|9.6|G||||||F<CR>
OBX|66|TX|In Situ Carcinoma:|9.7|absent||||||F<CR>
OBX|67|TX|Comments:|9.7|except in some very minute foci in and around the invasive tum
   or||||||F<CR>
OBX|68|TX|Header|10|Lymph Nodes:||||||F<CR>
OBX|69|TX|Lymph Nodes Present:|10|yes||||||F<CR>
OBX|70|TX|Number Examined:|10|1||||||F<CR>
OBX|71|TX|Number Involved:|10|0||||||F<CR>
OBX|72|TX|Header|11|AJCC Staging:||||||F<CR>
OBX|73|TX|Additional pTNM Descriptors:|11|not applicable||||||F<CR>
OBX|74|TX|Primary Tumor (pT):|11|pT1c - tumor more than 1.0 cm but not more than 2.0 c
   m in greatest dimension||||||F<CR>
OBX|75|TX|Distant Metastasis (pM):|11|pMx - cannot be assessed||||||F<CR>
OBX|76|TX|Header|12|Resection Margin(s):||||||F<CR>
OBX|77|TX|Involvement by Invasive Carcinoma:|12|absent||||||F<CR>
OBX|78|TX|Closest Margin(s):|12|deep, in a number of slides - and particularly close i
   n Slide G|||||F<CR>
OBX|79|TX|Distance to Closest Margin (mm):|12.1|1||||||F<CR>
OBX|80|TX|Comments:|12.1|(0.1 cm)||||||F<CR>
OBX|81|TX|^Correlation with IOC:||not applicable||||||F<CR>
OBX|82|TX|^Additional Pathologic Findings:||reactive fibrosis around the carcinoma||||
   ||F<CR>
OBX|83|TX|^Additional Pathologic Findings:||changes around the carcinoma consistent wi
   th the effect of previous biopsy||||||F<CR>
OBX|84|TX|^Additional Pathologic Findings:||some immunohistochemistry will be ordered
   to confirm some of the findings above - that will be reported in an Addendum Report
    to follow||||||F<CR>
OBX|85|TX|^Additional Pathologic Findings:||fibrocystic change in the background||||||
   F<CR>
OBX|86|TX|^Additional Pathologic Findings:||reactive changes in the lymph node||||||F<
```

```
   CR>
OBX|87|TX|22637-3^Pathology report final diagnosis^LN||SKIN ELLIPSE AND UNDERLYING BRE
   AST AND ADIPOSE TISSUE (LEFT), LUMPECTOMY: INVASIVE DUCTAL CARCINOMA – ADDENDUM AND
    CONSULTATION REPORTS WITH RECEPTORSTATUS TO FOLLOW||||||F<CR>
SPM|2|^3567829||TISS^Tissue^HL70487|K|||||||||||200407200930|200407211500||||||||||||
   97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>
```

E.2.1.3 *Narrative and Synoptically Segmented styles for the same content*

The following is a simple message illustrating the structure of a comprehensive report panel, including both a narrative report and a synoptically segmented report with the same content. Note the use of the comprehensive report panel as a "container" for the two reports having the same content but different styles of reporting. The example report includes just the pathology section of a larger case report and illustrates the transmission of just this pathology information to the registry.

PROCEDURE

6/15 Bilateral pelvic lymphadenectomy with radical retropubic prostatectomy

PATHOLOGY

Lymphadenectomy and prostatectomy:
Gross description: Specimen #1 "right pelvic obturator lymph nodes" consists of two portions of adipose tissue measuring 2.5 x 1 x 0.8 cm and 2.5 x 1 x 0.5 cm. There are two lymph nodes measuring 1 x 0.7 cm and
x 0.5 cm. The entire specimen is cut into several portions and totally embedded. Specimen #2 labeled "left pelvic obturation lymph nodes" consists of an adipose tissue measuring 4 x 2 x 1 cm. There are two lymph nodes measuring 1.3 x 0.8 cm and 1 x 0.6 cm. The entire specimen is cut into several portions and totally embedded. Specimen #3 labeled "prostate" consists of a prostate. It measure 5 x 4.5 x 4 cm. The external surface shows a very small portion of seminal vesicles attached in both sides with tumor induration. External surface also shows tumor induration especially in the right side. External surface is stained with green ink. The cut surface shows diffuse tumor induration especially in right side. The tumor appears to extend to excision margin.
Microscopic description: Section #1 reveals lymph node. There is no evidence of metastatic carcinoma. Section #2 reveals lymph node with tumor metastasis in section of large lymph node as well as section of small lymph node. Section #3 reveals adenocarcinoma of prostate, Gleason score 9 (5 + 4). The tumor shows extension to periprostatic tissue as well as margin involvement. Seminal vesicle attached to prostate tissue shows tumor invasion.

Adenocarcinoma of prostate, Gleason score 9, with both lobe involvement and seminal vesicle involvement (T3b)
There is lymph node metastasis (N1)
Distance metastasis cannot be assessed (MX)
Excision margin is positive and there is tumor extension to periprostatic tissue

FINAL DIAGNOSIS
Adenocarcinoma of prostate

This same report, synoptically structured, might appear as:

Date: 6/15/2009

Procedure: Bilateral pelvic lymphadenectomy with radical retropubic prostatectomy Prostate size: 5 x 4.5 x 4 cm
Lymph Node Sampling: Pelvic lymph node dissection Histologic Type: Adenocarcinoma
Histologic Grade: Gleason Pattern Primary Pattern: 5
Secondary Pattern: 4 Tertiary Pattern: N/A Total Gleason Score: 9
Extraprostatic Extension: Present, Nonfocal (established, extensive), periprostatic tissue, bilateral seminal vesicles
Seminal Vesicle Invasion: Present Pathologic Staging (pTNM):
Primary Tumor (pT): pT3 Regional Lymph Nodes (pN): pN1 Number examined: 4
Number involved: 2
Margins: Excision margin is positive Distant Metastasis (pM): cannot be assessed

The message containing both reports would be encoded as:

E.2.1.3.1 Example: Narrative and Non-CAP Synoptically Segmented

```
MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||200907281339||ORU^R01^ORU_R01
|2004072813390045|P|2.5.1|||||||| VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||00466144^^^ Albany Medical Center&1234567891&NPI ^MR^ Albany Medical Center
~123456789^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005
|495 East Overshoot Drive^^Delmar^NY^12054^^H|||||M<CR>
ORC|RE||||||||||||||||||||Albany Medical Center|43 New ScotlandAve.^^Albany^NY^12208
||43 New Scotland Ave.^^Albany^NY^12208<CR>
OBR|1||97810430|11529-5^Surgical pathology study^LN|||200907261500|||||||TISS
|164341^SURGEON^HANNAH^^^DR|||||||||F|60567- 5&Comprehensive pathology report panel&LN||
   |^97810430|||5555555591&Welby&Marcus&&&Dr.&MD&&NPI<CR>
OBX|1|FT|22633-2^Path report.site of origin^LN|1|Lymphadenectomy and prostatectomy||||||F
   |||200906151400|INDEPENDENT LAB SERVICES^33D1234567^CLIA<CR>
OBX|2|FT|22634-0^Pathology report gross observation^LN|1|Specimen #1 "right pelvic obt
   urator lymph nodes" consists of two portions of adipose tissue measuring 2.5 x 1 x
   0.8 cm and 2.5 x 1 x 0.5 cm.There are two lymph nodes measuring 1 x 0.7 cm and 0.5
   x 0.5 cm.The entire specimen is cut into several portions and totally embedded.Spec
   imen #2 labeled "left pelvic obturation lymph nodes" consists of an adipose tissue
   measuring 4 x2 x 1 cm.There are two lymph nodes measuring 1.3 x 0.8 cm and 1 x 0.6 c
   m.The entire specimen is cut into several portions and totally embedded.Specimen #3
   labeled "prostate" consists of a prostate.It measure 5 x 4.5 x 4 cm.The external su
   rface shows very small portion of seminal vesicles attached in both sides with tumo
   r induration.External surface also shows tumor induration especially in right side.
   External surface is stained with green ink.The cut surface shows diffuse tumor indu
   ration especially in right side.The tumor appears to extend to excision margin.||||
   ||F|||200906151400|INDEPENDENT LAB SERVICES^33D1234567^CLIA<CR>
OBX|3|FT|22635-7^Path report.microscopic observation^LN|1|Section #1 reveals lymph node. T
   here is no evidence of metastatic carcinoma. Section #2 reveals lymph node with tumor metas
   tasis in section of large lymph node as well as section of small lymph node.Section #3 revea
   ls adenocarcinoma of prostate, Gleason score 9 (5+ 4).The tumor shows extension to peripro
   static tissue as well asmargin involvement.Seminal vesicle attached to prostate tissue sh
   ows tumor invasion.\X0D\\X0A\A. Adenocarcinoma ofprostate, Gleason score 9, with both lob
   e involvement and seminal vesicle involvement (T3b)\X0D\\X0A\B.There is lymph nodemetast
   asis (N1)\X0D\\X0A\C.Distance metastasis cannot be assessed (MX)\X0D\\X0A\D.Excision ma
   rgin is positive and there is tumor extension to periprostatic tissue||||||F|||2009061516
   00|INDEPENDENT LAB SERVICES^33D1234567^CLIA<CR>
OBX|4|FT|22637-3^Path report.final diagnosis^LN|1|Adenocarcinoma of prostate||||||F
|||200906151600|INDEPENDENT LAB SERVICES^33D1234567^CLIA<CR>
SPM|1|^97810430&HITECKSPCID&01D0301145&CLIA||TISS^Tissue^HL70487||||||||||||200704020
   930|200704021500||||||||||||0704500123^^^33D1234567&Independent Lab
   Services&CLIA<CR>

OBR|2||97810430|60568-3^Synoptic report^LN|||200506151630|||||||TISS|164341^SURGEON^HA
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   NNAH^^^DR|||||||||F|60567-5&Comprehensive pathology report panel&LN
|||^97810430|||5555555591&Welby&Marcus&&&Dr.&MD&&NPI<CR>
OBX|1|ST|60573-3^Report template source^LN|2|Institution Cancer Checklists Synoptic Segmen
   ted||||||F|||200906151630<CR>
OBX|2|ST|60572-5^Report template ID^LN|2|PROSTATEGLAND||||||F|||200906151630<CR>
OBX|3|ST|60574-1^Report template version ID^LN|2|2.6||||||F|||200906151630<CR>
OBX|4|TX|Procedure||Bilateral pelvic lymphadenectomy with radical retropubic prostatectomy
   ||||||F|||200906151630<CR>
OBX|5|TX|Prostate size:||5 x 4.5 x 4 cm||||||F|||200906151630<CR>
OBX|6|TX|Lymph Node Sampling:||Pelvic lymph nodedissection||||||F|||200906151630<CR>
OBX|7|TX|Histologic Type:||Adenocarcinoma||||||F|||200906151630<CR>
OBX|8|TX|Histologic Grade:|1|Gleason Pattern||||||F|||200906151630<CR>
OBX|9|TX|Primary Pattern:|1|5||||||F|||200906151630<CR>
OBX|10|TX|Secondary Pattern:|1|4||||||F|||200906151630<CR>
OBX|11|TX|Tertiary Pattern:|1|N/A||||||F|||200906151630<CR>
OBX|12|TX|Total Gleason Score:|1|9||||||F|||200906151630<CR>
OBX|13|TX|Extraprostatic Extension:||Present, Nonfocal (established, extensive), peripros
   tatic tissue, bilateral seminal vesicles||||||F|||200906151630<CR>
OBX|14|TX|Seminal Vesicle Invasion:||Present||||||F|||200906151630<CR>

OBX|15|TX|Header|2|Pathologic Staging (pTNM):||||||F|||200906151630<CR>
OBX|16|TX|Primary Tumor (pT):|2|pT3||||||F|||200906151630<CR>
OBX|17|TX|Regional Lymph Nodes (pN):|3|pN1||||||F|||200906151630<CR>
OBX|18|TX|Number examined:|3|4||||||F|||200906151630<CR>
OBX|19|TX|Number involved:|3|2||||||F|||200906151630<CR>
OBX|20|TX|Margins:||Excision margin is positive||||||F|||200906151630<CR>
OBX|21|TX|Distant Metastasis (pM):||cannot beassessed||||||F|||200906151630<CR>
SPM|2|^97810430&HITECKSPCID&01D0301145&CLIA||TISS^Tissue^HL70487||||||||||||200704020
   930|200704021500||||||||||||0704500123^^^33D1234567&Independent Lab Services&CLIA
   <CR>
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E.2.1.4 *Complex Report: Multiple Sites, Multiple Primaries; Narrative and Synoptic Segmented*
There are many complexities relative to incorporating multiple specimens and/or multiple primary cancers in a single cancer report, and there remain some outstanding issues. These are under discussion by the CAP Cancer Committee at the time of publication of this document. In the meantime, the following recommendations are explained for packaging such information into an HL7 message consistent with this Guide.

Several guidelines form a pattern for reporting complex cases with multiple primary cancers and/or multiple specimens in the same report. These guidelines are as follows:

- The entire case report is in a single HL7 message, which is likely to contain multiple OBR segments.
- The first OBR segment in the message may identify the comprehensive report panel and collects all the report types and styles that pertain to the case. Associated with this first OBR, there may be one or more OBX segments which contain information that is not specific to a particular specimen or a particular cancer, or a particular site, such as clinical history.
- Multiple OBX segments that represent parts of the same observation (same value in OBX-3 Observation ID) should have the same value in OBX-4 Observation sub-ID. This may occur when systems “break up” a long text result field across multiple segments, or when a group of findings across several OBX segments should be logically kept together. The example below shows several observations that are indicated as having been reviewed and electronically signed by a certain physician. These all share the same OBX-4 Observation sub-ID. In addition, many reports follow a templated pattern where there may be headers for groups of related documented items,

such as “Margins:”. All the OBX segments documenting this group share the same OBX-4 Observation Sub-ID value.

- Each individually identified specimen in the case has its own OBR and SPM segments.
- The observations and findings specific to a certain specimen are reported in the OBX segments following the OBR for that specimen. All OBX segments associated with an SPM segment should have the OBX-4 Observation Sub-ID field reported with the same value in OBR-1 and SPM-1 fields of the associated OBR and SPM segments.

Below is a complex example. The lengthy HL7 message following the case report illustrates how the rules defined in this version of the Guide may be applied to properly encode such a case in an HL7 ORU_R01 message conformant to this Specification and Guide.

This example case shows a multi-specimen with multi-primary report. Note that this report also has identified separate specific sections. This case and report are of invasive urothelial carcinoma, and adenocarcinoma of the colon, combined in one report, with text and synoptic reports, plus separate sections. It includes observations particular to specimens, as well as information related to the overall case. The example also shows the report being transmitted with part of the report as **Narrative** style, and part as **synoptically segmented** format in the same message.

Accession #: 97810430

CLINICAL HISTORY

Bladder tumor, rectal cancer metastasis or post radiation therapy necrosis

TISSUE SUBMITTED

A. Bladder tumor

B. Symphysis pubis bone

C. Prostate and bladder

D. Left pelvic lymph nodes

E. Partial symphysiotomy

F. Left pubic ramus biopsy

G. Right pelvic lymph node dissection

H. Rectum

GROSS PATHOLOGY

Gross Description

The specimen consists of numerous rubbery tan fragments measuring approximately 5 cm in aggregate. The fragments range in size from a few mm up to 1.5 cm. Several fragments are submitted in (A1FS&A2FS). BFS: The specimen consists of multiple irregular fragments of soft tissue and bone, the largest measures approximately 2 cm in maximum dimension. Representative soft tissue is submitted in B1FS and B2FS.

Preliminary Diagnosis

Bladder tumor, biopsy: positive for malignancy.

Reviewed and electronically signed by: J. Pathdoc, MD- 2007/04/03 11:26

BFS: Biopsy of symphysis pubis bone and soft tissue: positive for malignancy. Reviewed and electronically signed by: J. Pathdoc, MD- 2007/04/03 13:10

A: Please see description at time of Intraoperative Consultation.

B: Please see description at time of Intraoperative Consultation.

C: The specimen consists of a cystoprostatectomy, which measures 10 cm in length and 10 cm in width. The bladder and prostate measure 7 cm in length and 3.2 x 2.2 x 1.2 cm, respectively. The anterior surface of the specimen, which is non-peritonealized, is inked in green and black on the right and left sides, respectively.

The right and the left ureters are identified by sutures and measure 2.5 x 0.4 cm and 2.3 x 0.4 cm, respectively. The anterior surface (non-peritonealized) is firm on palpation. Sectioning through the bladder reveals a very firm and thickened bladder wall, which measures a maximum of 1.6 cm. The mucosa of the bladder is irregular and denuded on the anterior aspect, which extends to the dome of the bladder. Further sectioning through the thickened wall reveals a pale tan firm lesion, which appears to involve the bladder wall through its full thickness. Sectioning of the prostate and seminal vesicles is unremarkable.

Sections submitted are as follows: (C1) ureteric margins in face; (C2-3) (C4) (C5-6) full thickness section of bladder showing firm pale tan lesion; (C7) bladder neck; (C8, 9) anterior wall of bladder; (C10, 11) posterior wall of bladder; (C12) (C13-14) full thickness sectioning showing dome of bladder; (C15, 16) trigone of bladder; (C17) sections right ureter; (C18) sections left ureter; (C19-22) right seminal vesicle in toto; (C23) base of right seminal vesicle; (C24) apex of right lobe of prostate; (C25) base of right lobe of prostate; (C26-31) cross sections of prostate in toto from apex to base; (C32-33) left seminal vesicle in toto; (C34) base of left seminal vesicle; (C35) apex of left lobe of prostate; (C36) base of left lobe of prostate; (C37-43) left lobe of prostate in toto from apex to base.

D: The specimen consists of a fragment of adipose tissue, which measures 6.5 x 3.5 x 0.5 cm. Palpation reveals possible nodes. Sections submitted are as follows: (D1) possible five node; (D2) possible five nodes; (D3) possible four nodes.

E: Gross description to follow decalcification. Supplemental report to follow.

F: The specimen consists of pale tan fragments of bony tissue which measures 2 x 1.1 x 0.5 cm. All tissue embedded in one cassette and submitted for decalcification (F1).

G: The specimen consists of multiple fragments of dark tan adipose tissue, which vary in size from 1 x 0.5 x 0.3 cm to 5 x 2 x 2.5 cm. Palpation reveals possible nodes. Sections submitted are as follows: (G1) possible three nodes; (G2) possible four nodes; (G3) possible five nodes.

H: The specimen consists of a mesorecta excision, which is comprised of the sigmoid colon, rectum, anal canal, and anus. The specimen measures 30 cm in length and 6 cm along its maximum diameter. Externally, the serosa of the large bowel is dark tan, smooth, and shiny for the most part except for an area that appears firm and subtly puckered and feels firm. It is located at 18 cm from the proximal resection margin and 10 cm from the distal resection margin. The anterior bare area of the mesorectum is inked in blue, while the posterior bare area of mesorectum is inked in black. The mesorectum is intact and bulky. There are no defects, no coning of the specimen, and no abnormally firm areas. The specimen has been previously opened as per the MRE protocol. Internally, underneath the puckered area there is an exophytic, pale tan lesion, which measures 2.6 x 2.5 x 2.3 cm. This lesion is located at 18 cm from the proximal resection margin and 10 cm from the distal resection margin. It is located at 2.5 cm from the radial resection margin. There is a small polyp measuring 1.1 cm along its maximum

dimensions located at 8 cm from the proximal resection margin. There are no other lesions or masses identified elsewhere. The proximal, distal, and radial resection margins have been inked in black prior to submitting sections. Sectioning of the exophytic mass reveals that grossly it does not appear to have invaded beyond the muscularis propria. There is a small polyp noted measuring 1.1 cm along its maximum dimensions and located at 8 cm from the proximal resection margin.

Sections submitted are as follows: (H1) proximal resection margin; (H2) distal resection margin; (H3) radial resection margin/circumferential resection margin; (H4-6) full thickness sectioning showing exophytic pale tan lesion; (H7-8) full thickness section showing exophytic pale tan lesion; (H9) uninvolved large bowel; (H10) possible four nodes; (H11) one node bisected into two; (H12) possible four nodes; (H13) possible four nodes; (H14) one node bisected into two; (H15) possible one node bisected into two; (H16) polyp in toto.

MICROSCOPIC

A: Sections examined.

B: Sections examined.

C: Sections of the bladder show invasive urothelial carcinoma, high grade. It is extending through the muscularis propria into the perivesical. The anterior margin/anterior surface of the bladder is positive for malignancy. The ureteric margins are negative. There is no evidence of lymphatic, vascular or perineural invasion. There is a significant amount of fibroinflammatory reaction present on the peritoneal surface raising suspicion of focal penetration. However, no tumor is appreciated on the peritoneal surface in the tissue sections examined. Sections of prostate show focal areas of atrophic glands. There is no evidence of prostatic adenocarcinoma, PIN, ASAP, active and chronic inflammation. The urothelial carcinoma does not appear to involve the prostate, seminal vesicles, or bowel.

D: Sections examined.

G: Sections examined.

H: COLON AND RECTUM: Resection, Including Transanal Disk Excision of Rectal Neoplasms Tissue(s) received: sigmoid colon. rectum, anal canal, anus

Specimen type: abdominoperineal resection
Histologic Type: adenocarcinoma
Histologic Grade: low grade (well to moderately differentiated)
Tumor Site: rectum
Depth of Invasion: invasion into muscularis propria (pT2)
Tumor Border Configuration: infiltrating
Lymphovascular (Small Vessel) Invasion: absent
Venous (Large Vessel) Invasion: absent
Perineural Invasion: absent
Host Response: Conspicuous lymphocytes at invasive edge (not in aggregates): absent
Lymphoid aggregates in surrounding tissues: absent
Intratumoral lymphocytic infiltrate: absent
Resection Margins:
Proximal: uninvolved by invasive carcinoma
Distal: uninvolved by invasive carcinoma
Radial: uninvolved by invasive carcinoma
Distance of invasive carcinoma from closest margin: 2.5 from radial margin
Lymph Node Status: no malignancy in 11 regional lymph nodes (pN0)

Additional Pathological Findings: adenoma(s)
Pathological Stage: pT2N0Mx

DIAGNOSIS

A: Bladder tumor, biopsy: positive for invasive urothelial carcinoma.

B: Biopsy, symphysis pubis bone and soft tissue: positive for urothelial carcinoma.
C: Prostate and bladder, cystoprostatectomy:
invasive urothelial carcinoma, high grade;
extending through muscularis propria;
anterior margin/anterior surface of the bladder positive for tumor;
ureteric margins negative;
no evidence of lymphatic, vascular or perineural invasion;
prostate unremarkable.

D: Left pelvic lymph node, excisional biopsy: 7 nodes negative for malignancy.

E: Partial symphyectomy: pending decalcification, supplemental report to follow.

F: Biopsy, left pubic ramus: pending decalcification, supplemental report to follow.

G: Right pelvic lymph nodes, excisional biopsy: 11 lymph nodes negative for malignancy.
H: Sigmoid colon, rectum, anus, abdominoperineal resection: adenocarcinoma of the colon (see synoptic report); arising in villous adenoma.

Case reviewed with…, M.D., Resident CLASSIFICATION

Topography: C679 C187 Morphology: 81203 81403 Laterality:

E.2.1.4.1 Example: Structured Narrative and CAP Synoptic Segmented (non-eCP)
This example illustrates the HL7 Message encoding of the above example report. There are three OBR segments: one for the overall summary report, one for the **structured narrative** report, and one for the **CAP synoptic segmented** report, based on a CAP Cancer Protocol (non-eCP). Note that the "CAP eCP" format (See section E.2.3) must now be used for systems using the CAP eCPs.

There are eight SPM segments, one for each of the eight individually identified and documented tissue specimens in the case. Local codes for OBX-3 values are “made up” in this example, as the narrative report above does not identify such codes; these are required because the OBX-3 is a CE field and must have a coded value to identify what is being reported in the OBX-5 Observation Value field.

In the example below, the string “<CR>” is used at the end of every segment to indicate the end of the segment, rather than a line-break for long text. This is not part of the legal HL7 message, but is a construct used here to make the message more readable. The example also illustrates a situation where the different specimen parts have all been accessioned differently, but there is a single surgical path number for the entire case (97810430).

```
MSH|^~\&|TESTLAB1|HITECK PATH LAB^01D0301145^CLIA|||200704281800||ORU^R01^ORU_R01|20040
   42813390045|P|2.5.1|||||||||VOL_V_51_ORU_R01^NAACCR_CP <CR>
PID|1||123456789^^^^SS~000039^^^^PI|CANE^Candy^^^Ms.||19570706|F||2106-3|495 East Overs
   hoot Drive^^Delmar^NY^12054^^H||^^^^^518^5559999|||M|||4442331235 <CR>
ORC|RE|||||||||||||||||||||General Hospital^^123456^^^AHA|857 Facility Lane^^Albany^NY^12
   205|^^^^^518^3334444|100 Provider St^^Albany^NY^12205 <CR>
OBR|1||97810430|60567-5^Comprehensive pathology report panel^LN|||200704261530|||||||200
```

704261800|TISS^Tissue^HL70487|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|518)424-424
3|||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI <CR>
OBX|1|TX|22636-5^**clinical history**^LN|1|Bladder tumor, rectal cancer metastasis or post rad
iation therapy necrosis||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|1|The specimen c
onsists of numerous rubbery tan fragments measuring approximately 5 cm in aggregate.The fr
agments range in size from a few mm up to 1.5 cm. Several fragments are submitted in (A1FS&A2
FS).BFS: The specimen consists of multiple irregular fragments of soft tissue and bone, th
e largest measures approximately 2 cm in maximum dimension. Representative soft tissue iss
ubmitted in B1FS and B2FS.||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|3|TX|44833-2^**Diagnosis.preliminary**^LN|1|Bladder tumor, biopsy: positive for malignanc
y.||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|4|TX|44833-2^**Diagnosis.preliminary**^LN|1|BFS: Biopsy of symphysis pubis bone andsoft ti
ssue: positive for malignancy.||||||F|||200407201500|01D0301145^HITECK PATH LAB^CLIA
<CR>
OBX|5|CWE|21855-2^**Primary site Cancer**^LN|1|C679^Bladder Wall^ICDO3||||||F|||200704281500
|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|6|CWE|21855-2^**Primary site Cancer**^LN|1|C187^Sigmoid Colon^ICDO3||||||F|||20070428150
0|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|7|CWE|59848-2^Morphology.**ICD-O-3**^LN|1|81203^Transitional CellCarcinoma, NOS^ICDO3||
||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|8|CWE|59848-2^Morphology.**ICD-O-3**^LN|1|81403^Adenocarcinoma NOS^ICDO3||||||F|||20070
4281500|01D0301145^HITECK PATH LAB^CLIA<CR>
SPM|1|^97810430&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487|||||||||||||200704020
930|200704021500|||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|2||97810430A|**11529-5^Surgical Pathology Study**^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI <CR>
OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|2|A. Bladder tumor|
|||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|2|A:
Pleasesee description at time of Intraoperative Consultation.||||||F|||200704110841|01
D0301145^HITECK PATH LAB^CLIA <CR>
OBX|3|TX|22635-7^Path Report.**Microscopic Observation**^LN^L589^MICROSCOPIC^L|2|A:Sections
examined.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|2|A: Bladder tumor, biopsy: positive for in
vasive urothelial carcinoma.||||||F|||200704110841|01D0301145^HITECK PATH LAB^
CLIA<CR>
SPM|2|^97810430A&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487|||||||||||||20070402
0930|200704021500|||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|3||97810430B|11529-5^Surgical Pathology Study^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>
OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|3|B. Symphysis pubis
bone||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|3|B:
Please see description at time of Intraoperative Consultation.||||||F|||200704110841|0
1D0301145^HITECK PATH LAB^CLIA <CR>
OBX|3|TX|22635-7^Path Report.**Microscopic Observation**^LN^L589^MICROSCOPIC^L|3|B:Sections
examined.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|3|B: Biopsy, symphysis pubis bone and soft
tissue: positive for urothelial carcinoma.||||||F|||200704110841|01D0301145^HITECK PAT
H LAB^CLIA <CR>
SPM|3|^97810430B&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487|||||||||||||20070402
0930|200704021500|||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|4||97810430C|11529-5^Surgical Pathology Study^LN|||200704261530|||||||

200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|4|C. Prostate and bladder||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|4|C:The specimen consists of a cystoprostatectomy, which measures 10 cm in length and 10 cm in width. The bladder and prostate measure 7 cm in length and 3.2 x 2.2 x 1.2 cm, respectively.The anterior surface of the specimen, which is non-peritonealized, is inked in green and black on the right and left sides, respectively. The right and the left ureters are identified by sutures and measure 2.5 x 0.4 cm and 2.3 x 0.4 cm, respectively. The anterior surface (non-peritonealized) is firm on palpation. Sectioning through the bladder reveals a very firm and thickened bladder wall, which measures a maximum of 1.6 cm. The mucosa of the bladder is irregular and denuded on the anterior aspect, which extends to the dome of the bladder. Further sectioning through the thickened wallreveals a pale tan firm lesion, which appears to involve the bladder wall through its full thickness. Sectioning of the prostate and seminal vesicles is unremarkable.Sections submitted are as follows: (C1) ureteric margins en face; (C2-3) (C4) (C5-6) full thickness section of bladder showing firm pale tan lesion; (C7) bladder neck; (C8, 9) anterior wall of bladder; (C10, 11) posterior wall of bladder; (C12) (C13-14) full thickness sectioning showing dome of bladder; (C15, 16) trigone of bladder; (C17) sections right ureter; (C18) sections left ureter; (C19-22) right seminal vesicle in toto; (C23) base of right seminal vesicle; (C24) apex of right lobe of prostate; (C25) base of right lobe of prostate; (C26-31) cross sections of prostate in toto from apex to base; (C32-33) left seminal vesicle in toto; (C34) base of left seminal vesicle; (C35) apex of left lobe of prostate; (C36) base of left lobe of prostate; (C37-43) left lobe of prostate in toto from apex to base.||||||F|||200704110841|01D0301145^HITECK PATHLAB^CLIA <CR>

OBX|3|TX|22635-7^PathReport.**MicroscopicObservation**^LN^L589^MICROSCOPIC^L|4|C:Sections of the bladder show invasive urothelial carcinoma,high grade. It is extending through the muscularis propria into the perivesical. The anterior margin/anterior surface of the bladder is positive for malignancy. The ureteric margins are negative. There is no evidence of lymphatic, vascular, or perineural invasion. There is a significant amountof fibroinflammatory reaction present on the peritoneal surface raising suspicion of focal penetration. However, no tumor is appreciated on the peritoneal surface in the tissue sections examined. Sections of prostate show focal areas of atrophic glands. There is no evidence of prostatic adenocarcinoma, PIN, ASAP, active and chronic inflammation. The urothelial carcinoma does not appear to involve the prostate, seminal vesicles or bowel.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|4|C: Prostate and bladder, cystoprostatectomy: \X0D\\X0A\ - invasive urothelial carcinoma, high grade; \X0D\\X0A\ - extending through muscularis propria; \X0D\\X0A\ - anterior margin/anterior surface of the bladder positivefor tumor; \X0D\\X0A\ - ureteric margins negative; \X0D\\X0A\ - no evidence of lymphatic, vascular or perineural invasion; \X0D\\X0A\ - prostate unremarkable.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

SPM|4|^97810430C&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487|||||||||||||20070402
0930|200704021500|||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|5||97810430D|11529-5^Surgical Pathology Study^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|5|D. Left pelvic lymph nodes||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|5|The specimen consists of a fragment of adipose tissue, which measures 6.5 x 3.5 x 0.5 cm. Palpation reveals possible nodes. Sections submitted are as follows: (D1) possible five node; (D2) possible five nodes; (D3) possible four nodes.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22635-7^Path Report.**Microscopic Observation**^LN^L589^MICROSCOPIC^L|5|D:Sections examined.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|5|D: Left pelvic lymph node,excisional bio

psy: 7 nodes negative for malignancy.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

SPM|5|^97810430D&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487||||||||||||20070402 0930|200704021500||||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|6||97810430E|11529-5^Surgical Pathology Study^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|6|E. Partial symphy ectomy||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSSPATHOLOGY^L|6|E. Gross description to follow decalcification. Supplemental report to follow.||||||F|||20 0704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22637-3^Path report.**final diagnosis**^LN|6|E:Partial symphyectomy: pending decalci fication, supplemental report tofollow.||||||F|||200704110841|01D0301145^HITECK PATH L AB^CLIA <CR>

SPM|6|^97810430E&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487||||||||||||20070402 0930|200704021500||||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|7||97810430F|11529-5^Surgical Pathology Study^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|7|F: Left pubic ramu s biopsy||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|7|F:The specimen consists of pale tan fragments of bony tissue, which measures 2 x 1.1 x 0.5 cm. All tissue em bedded in one cassette and submitted for decalcification (F1).||||||F|||200704110841|01 D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22637-3^Path report.**final diagnosis**^LN|7|F: Biopsy, left pubic ramus: pending deca lcification, supplemental report tofollow.||||||F|||200704110841|01D0301145^HITECK PA TH LAB^CLIA <CR>

SPM|7|^97810430F&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487||||||||||||20070402 0930|200704021500||||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|8||97810430G|11529-5^Surgical Pathology Study^LN|||200704261530|||||||
200704261800|TISS^Tissue^|1234567891^Myeolmus^John^^^Dr^MD^^^^^^NPI|(518)424-4243||
||||||F|||||||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.**Site of origin**^LN^L47^SUBMITTED TISSUE^L|8|G. Right pelvic lymph node dissection||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA<CR>

OBX|2|TX|22634-0^Path Report.**Gross Observation**^LN^L567^GROSS PATHOLOGY^L|8|G.The specime n consists of multiple fragments of dark tan adipose tissue, which vary in size from 1x 0.5 x 0.3 cm to 5 x 2 x 2.5 cm. Palpation reveals possible nodes. Sections submitted are as follow s: (G1) possible three nodes; (G2) possible four nodes; (G3) possible five nodes.||||||F|| |200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22635-7^Path Report.**Microscopic Observation**^LN^L589^MICROSCOPIC^L|8|G:Sections examined.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|4|TX|22637-3^Path report.**final diagnosis**^LN|8|G: Right pelvic lymph nodes,excisional b iopsy: 11 lymph nodes negative for malignancy.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

SPM|8|^97810430G&HITECKSPCID&01D0301145&CLIA||TISS^**Tissue**^HL70487||||||||||||20070402 0930|200704021500||||||||||||0704500123^^^01D0301145&HITECK PATH LAB&CLIA<CR>

OBR|9||97810430C|**11529-5^Surgical Pathology Study**^LN|||20040426|||||||
|TISS^Tissue^HL70487|1234567^Myeolmus^John^^MD|(518)424-4243|||||||F||||^97810430|
||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|22633-2^Path Report.Site of origin^LN^L47^SUBMITTEDTISSUE^L|9|H. Rectum||||||F |||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|2|TX|22634-0^**Path Report.Gross Observation**^LN^L567^GROSS PATHOLOGY^L|9| H: The specimen consists of a mesorecta excision, which is comprised of the sigmoid colon, rectum, anal canal, and anus. The specimen measures 30 cm in length and 6 cm along

its maximum diameter. Externally, the serosa of the large bowel is dark tan, smooth, and shiny for the most part except for an area that appears firm and subtly puckered and feels firm. It is located at 18 cm from the proximal resection margin and 10 cm from the distal resection margin. The anterior bare area of the mesorectum is inked in blue, while the posterior bare area of mesorectum is inked in black. The mesorectum is intact and bulky. There are no defects, no coning of the specimen, and no abnormally firm areas. The specimen has been previously opened as per the MRE protocol. Internally, underneath the puckered area there is an exophytic, pale tan lesion, which measures 2.6 x 2.5 x 2.3 cm. This lesion is located at 18 cm from the proximal resection margin and 10 cm from the distal resection margin. It is located at 2.5 cm from the radial resection margin. There is a small polyp measuring 1.1 cm along its maximum dimensions located at 8 cm from the proximal resection margin. There are no other lesions or masses identified elsewhere. The proximal, distal, and radial resection margins have been inked in black prior to submitting sections. Sectioning of the exophytic mass reveals that grossly it does not appear to have invaded beyond the muscularis propria. There is a small polyp noted measuring 1.1 cm along its maximum dimensions and located at 8 cm from the proximal resection margin.
Sections submitted are as follows: (H1) proximal resection margin; (H2) distal resection margin; (H3) radial resection margin/circumferential resection margin; (H4-6) full thickness sectioning showing exophytic pale tan lesion; (H7-8) full thickness section showing exophytic pale tan lesion; (H9) uninvolved large bowel; (H10) possible four nodes; (H11) one node bisected into two; (H12) possible four nodes; (H13) possible four nodes; (H14) one node bisected into two; (H15) possible one node bisected into two; (H16) polyp in toto.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22635-7^Path Report.**Microscopic Observation**^LN^L589^MICROSCOPIC^L|9|H: COLON AND RECTUM: Resection, Including Transanal Disk Excision of Rectal Neoplasms Tissue(s) received: sigmoid colon. rectum, anal canal, anus||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|3|TX|22637-3^Path report.**final diagnosis**^LN|9|H: Sigmoid colon, rectum, anus, abdominoperineal resection: \X0D\\X0A\ - adenocarcinoma of the colon (see synoptic report); \X0D\\X0A\ - arising in villous adenoma.||||||F|||200704110841|01D0301145^HITECK PATH LAB^CLIA <CR>

SPM|9|^97810430H&HITECKSPCID||TISS^**Tissue**^HL70487||||||||||||200704020930|200704021500||||||||||||0704500123^^^01D0301145&HITECK PATH LAB^CLIA<CR>

OBR|10||97810430|**11529-5^Surgical Pathology Study**^LN^L5671^COLON AND RECTUM: Resection,Including Transanal Disk Excision of Rectal Neoplasms^L|||20070405|||||||1234567^Myeolmus^John^^MD|(518)424-4243|||||||F||||^S91-1700|||1234567891&PATHDOC&Jason&A&&DR&&&NPI<CR>

OBX|1|TX|**60573-3^Report template source**^LN||**CAP Synoptic Segmented**||||||F|||200906151630<CR>

OBX|2|TX|**60572-5^Report template** ID^LN||**Colon and Rectum: Resection, Including Transanal Disk Excision of Rectal Neoplasms**||||||F|||200906151630<CR>

OBX|3|TX|**60574-1^Report template version ID**^LN||**2.6**||||||F|||200906151630<CR>

OBX|4|TX|22633-2^Pathology report.**site of origin**^LN^L6223^Tissue(s) received^L|10|sigmoid colon, rectum, anal canal, anus||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|5|TX|^^^L6235^**Specimen type**^L|10|abdominoperineal resection||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|6|TX|^^^L6257^**Histologic Type**^L|10|adenocarcinoma||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|7|TX|^^^L6259^Histologic Grade^L|10|low grade (well to moderately differentiated)|||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|8|TX|^^^L6303^**Tumor Site**^L|10|rectum||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|9|TX|^^^L6378^**Depth of Invasion**^L|10|invasion into muscularis propria (pT2)||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|10|TX|^^^L6389^**Tumor Border Configuration**^L|10|infiltrating||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

OBX|11|TX|^^^L6345^**Lymphovascular (Small Vessel) Invasion**^L|10|absent||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>

```
OBX|12|TX|^^^L6356^Venous (Large Vessel) Invasion^L|10|absent||||||F|||200704281500|01
    D0301145^HITECK PATH LAB^CLIA <CR>
OBX|13|TX|^^^L6367^Perineural Invasion^L|10|absent||||||F|||200704281500|01D0301145^HI
    TECK PATH LAB^CLIA <CR>
OBX|14|TX|^^^L6369^Host Response: Conspicuous lymphocytes at invasive edge (not in agg
    regates)^L|10|absent||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|15|TX|^^^L6371^Lymphoid aggregates in surrounding tissues^L|10|absent||||||F|||200
    704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|16|TX|^^^L6373^Intratumoral lymphocytic infiltrate^L|10|absent||||||F|||2007042815
    00|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|17|TX|^^^L6375^Resection Margins: Proximal^L|10|uninvolved by invasive carcinoma||
    ||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|18|TX|^^^L6376^Resection Margins: Distal^L|10|uninvolved by invasive carcinoma||||
    ||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|19|TX|^^^L6376^Resection Margins: Radial^L|10|uninvolved by invasive carcinoma||||
    ||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|20|TX|^^^L6379^Distance of invasive carcinoma from closest margin^L|10|2.5 mm|||||
    |F|||200704281500|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|21|TX|^^^L6383^Lymph Node Status^L|10|no malignancy in 11 regional lymph nodes (pN0
    )||||||F|||200704281500|01D0301145^HITECK PATH LAB^CLIA <CR>
OBX|22|TX|^^^L7355^Additional Pathological Findings^L|10|adenoma(s)||||||F|||200704281
    500|01D0301145^HITECK PATH LAB^CLIA<CR>
OBX|23|TX|^^^L6476^Pathological Stage^L|10|pT2N0Mx||||||F|||200704281500|01D0301145^HI
    TECK PATH LAB^CLIA <CR>
SPM|10|^97810430&HITECKSPCID||TISS^Tissue^HL70487||||||||||||200704020930|20070402150
    0||||||||||||0704500123^^^01D0301145&HITECK PATH LAB^CLIA<CR>
```

E.2.2 CAP Synoptic Segmented (non-eCP) Report Example

If the synoptic report is derived from a **CAP eCP** message template, then skip this section and follow the instructions in the next section for CAP eCP reports.

The first 3 OBX segments of a synoptic segmented message contain report metadata as described in Chapter 3. All remaining OBX question/answer rows under the parent OBR will contain the actual content of the pathology report in synoptic format, using one question-answer pair per OBX row. OBX rows for section headers and sub-headers may be interspersed as needed. The OBX rows for question/answer pairs will place the text of each question into OBX-3.2 and the answer text into OBX-5. A synoptic segmented message must not have any OBX segment that contains more than one question-answer pair.

Because the synoptic segmented message may be derived from a formatted text report with little or no computer-readable metadata, no codes, terminologies, or data types (other than TX [text]) will be available in many cases.

```
MSH|^~\&||INDEPENDENT LAB SERVICES^33D1234567^CLIA|||201907281339||
    ORU^R01^ORU_R01|20190728133900045|P|2.5.1|||||||VOL_V_51_ORU_R01^NAACCR_CP<CR>
PID|1||00466144^^^Albany Medical Center&1234567891&NPI^MR^Albany Medical Center~1234567
    89^^^USSSA^SS^USSSA||Cane^Candy||19570706|F||2106-3^White^HL70005|495 East Overshoo
    t Drive^^Delmar^NY^12054^^H|||||M<CR>
ORC|RE|||||||||||||||||||Albany Medical Center|43 New Scotland Ave.^^Albany^NY^12208|
    |43 New Scotland Ave.^^Albany^NY^12208<CR>
OBR|1||123456789|60568-3^Synoptic report^LN|||201907261530|||||||TISS^Tissue^HL70487|
    164341^SURGEON^HANNAH^^^DR|||||||||F|60567-5&Comprehensive pathology report panel&L
    N|||^97810430|||5555555591&Welby&Marcus&&&Dr.&MD&&NPI<CR>
OBX|1|ST|60573-3^Report template source^LN||CAP Synoptic Segmented||||||F|||20190726153
    0<CR>
```

```
OBX|2|ST|60572-5^Report template ID^LN||128.1000043^PROSTATE GLAND: Radical Prostatect
   omy^CAPECP ||||||F|||201907261530<CR>
OBX|3|ST|60574-1^Report template version ID^LN||4.0.4.0||||||F|||201907261530<CR>

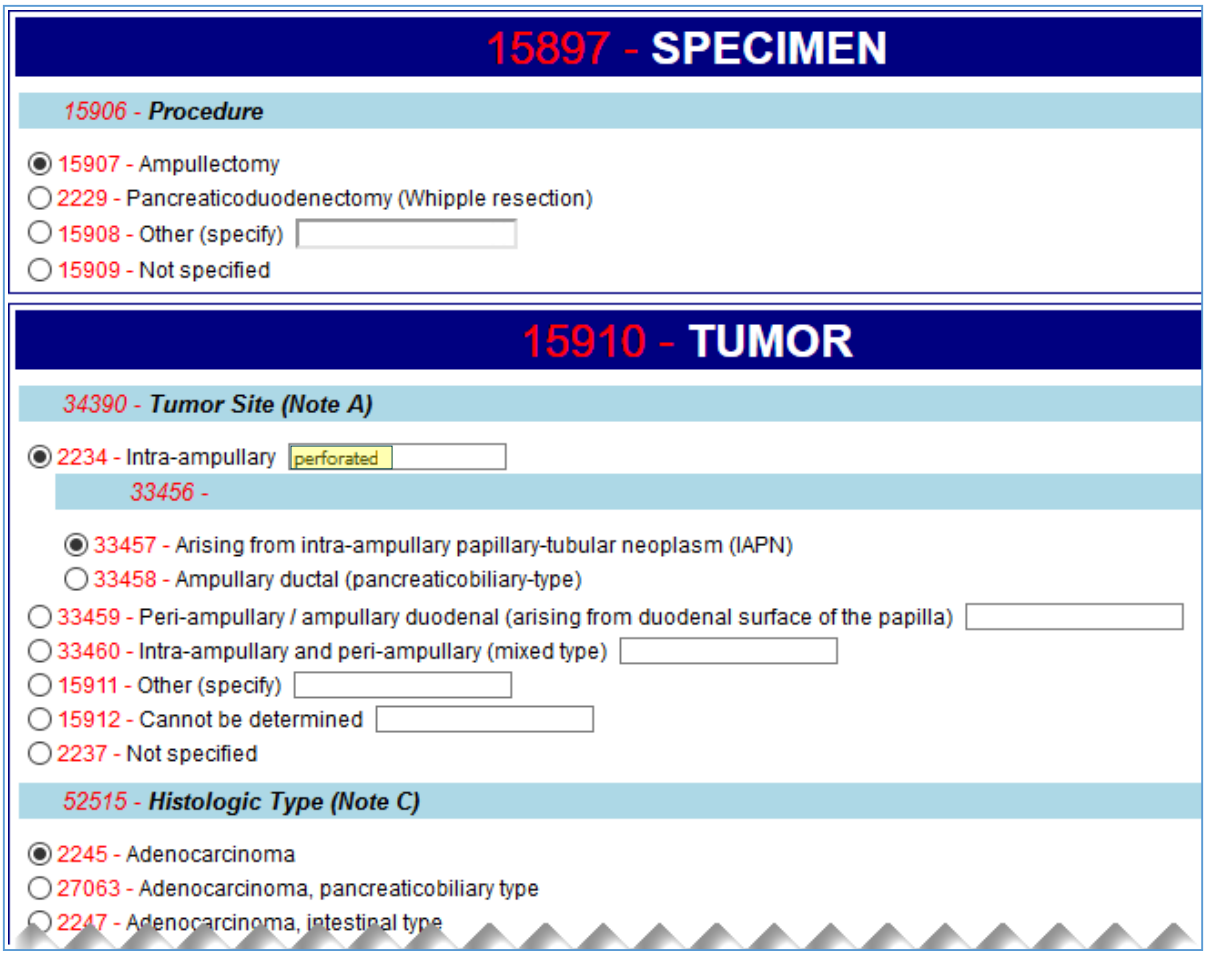
OBX|4|TX|Procedure:|1|Radical prostatectomy||||||F<CR>
OBX|5|TX|Header|2|Prostate Size||||||F<CR>
OBX|6|TX|Prostate weight|2|47.2g||||||F<CR>
OBX|7|TX|Size|2|4.5 x 4.0 x 4.0 cm||||||F<CR>
OBX|8|TX|Lymph Node Sampling||No lymph nodes present||||||F<CR>
OBX|9|TX|Histologic type||Adenocarcinoma (acinar, not otherwise specified)||||||F<CR>
OBX|10|TX|Header|3|Histologic grade||||||F<CR>
OBX|11|TX|Header|3.1|Gleason Pattern||||||F<CR>
OBX|12|TX|Primary Pattern|3.1|3||||||F<CR>
OBX|13|TX|Secondary Pattern|3.1|4||||||F<CR>
OBX|14|TX|Total Gleason score|3.1|7||||||F<CR>
OBX|15|TX|Header|4|Tumor Quantitation||||||F<CR>
OBX|16|TX|Proportion (percent) of prostate involved by tumor|4|15%||||||F<CR>
OBX|17|TX|Tumor size:|4|Not applicable||||||F<CR>
OBX|18|TX|Extraprostatic extension||Not identified||||||F<CR>
OBX|19|TX|Urinary Bladder Neck Invasion||Not identified|||||||F<CR>
OBX|20|TX|Seminal vesicle invasion||Not identified||||||F<CR>
OBX|21|TX|Margins||Margins uninvolved by invasive carcinoma|||||F<CR>
OBX|22|TX|Lymph-Vascular invasion||Not identified||||||F<CR>
OBX|23|TX|Treatment Effect on Carcinoma||Not identified||||||F<CR>
OBX|24|TX|Header|5|Pathologic staging (pTNM)||||||F<CR>
OBX|25|TX|TNM Descriptors|5|Not applicable||||||F<CR>
OBX|26|TX|Primary Tumor (pT)|5|pT2||||||F<CR>
OBX|27|TX|Regional Lymph Nodes (pN)|5|No nodes submitted or found||||||F<CR>
OBX|28|TX|Distant Metastasis (pM)|5|Not applicable||||||F<CR>

SPM|1|^3567829||TISS^Tissue^HL70487|K||||||||||200407200930|200407211500||||||||||||
   97 810430^^^33D1234567&INDEPENDENT LAB SERVICES<CR>
```

E.2.3 Sample Message Using CAP eCP Style

The following is part of a CAP eCP data-entry form that was automatically generated from the SDC XML template for Ampulla of Vater[1] This example was selected to illustrate several features that were difficult to cover in Chapter 3, including nesting with the use of OBX-4 and the handling of untitled Questions.

[1] College of American Pathologists electronic Cancer Checklists (CAP eCP). August 2019 release. Available to registries with a free license from the CAP, 325 Waukegan Road, Northfield, IL 60093, mailto: capecp@cap.org.



In the above image, eCP IDs are shown in red, with the CAP namespace (.100004300) removed to save space. **Sections** have a dark blue background. **Questions** have a light blue background. Note that the sub-Question with ID 33456 is untitled, and this sub-Question is a child of the LIR with ID 2234. This LIR (2234) is selected and contains a user's Response ("perforated"). Note that the two other Questions (with IDs 34390 and 52515) are subsumed by a parent Section (15910 Tumor). All of these features will be represented in the resultant set of OBX rows in the message.

The next page shows the part of the original SDC XML that was used to automatically generate the above data entry form; the user's responses also have been included in the SDC XML to simulate the data available in an eCP-based software system. The XML parts required for HL7 message creation are formatted as described in detail in Chapter 3 (section 3.5.1) and other important XML areas for HL7 messaging are highlighted. This XML sample contains some SDC attributes (e.g., **name**and **order**) that are not covered in this document, but these will be ignored in this example.

```
<?xml version="1.0" encoding="utf-8"?>
<FormDesign xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema- instance" ID="Ampulla.Res.131_3.001.001.REL_sdcFDF"
baseURI="www.cap.org/eCP"
fullURI="_baseURI=www.cap.org/eCP&amp;_lineage=Ampulla.Res.131&amp;_version=3.001.001.REL&amp;_d
ocTyp e=sdcFDF" formTitle="AMPULLA OF VATER" lineage="Ampulla.Res.131"
filename="Ampulla.Res.131_3.001.001.REL_sdcFDF.xml" version="3.001.001.REL"

xmlns="urn:ihe:qrph:sdc:2016">
 <Property name="Copyright" type="CAPeCP_static_text" styleClass="copyright" order="1"
 propName="Copyright" val="(c) 2019 College of American Pathologists. All rights reserved.
 License required for use." />
 <Property name="GenericHeaderText" type="CAPeCP_static_text" order="2"
 propName="GenericHeaderText" val="Surgical Pathology Cancer Case Summary" />
```

```
<Property name="Category" type="CAPeCP_meta" order="3" propName="Category" val="Digestive
System" />
<Property name="OfficialName" type="CAPeCP_meta" order="4" propName="OfficialName" val="AMPULLA
OF VATER" />
<Property name="CAP_ProtocolName" type="CAPeCP_meta" order="5" propName="CAP_ProtocolName"
val="Ampulla of Vater" />
<Property name="CAP_ProtocolShortName" type="CAPeCP_meta" order="6"
propName="CAP_ProtocolShortName" val="Ampulla" />
<Property name="CAP_ProtocolVersion" type="CAPeCP_meta" order="7"
propName="CAP_ProtocolVersion" val="4.0.0.0" />
<Property name="TemplateID" type="CAPeCP_meta" order="8" propName="TemplateID"
 val="131.100004300"/>
<Property name="Restrictions" type="CAPeCP_meta" order="9" propName="Restrictions" val="Please
refer to the cancer protocol cover page (www.cap.org/cancerprotocols) for information about
which tumor types and procedures can be reported using this template." />
<Property name="CAP_Required" type="CAPeCP_meta" order="10" propName="CAP_Required" val="true"
/>
<Property name="AccreditationDate" type="CAPeCP_meta dt.dateTime" order="11"
propName="AccreditationDate" val="2/28/2018" />
<Property name="WebPostingDate" type="CAPeCP_meta dt.dateTime" order="12"
propName="WebPostingDate" val="2/27/2019" />
<Property name="ApprovalStatus" type="CAPeCP_meta" order="13" propName="ReleaseStatus"
val="REL" />
<Property name="AJCC_Version" type="CAPeCP_meta" order="14" propName="AJCC_Version" val="8th
Edition" />
<Body name="Body" order="15" ID="Ampulla.Res.131_3.001.001.REL_sdcFDF_Body">
 <ChildItems name="ch_Body" order="16">
  <Section name="S_15897" order="17" ID="15897.100004300" title="SPECIMEN">
   <ChildItems name="ch_15897_1" order="18">
    <Question name="Q_15906" order="19" ID="15906.100004300" title="Procedure">
     <ListField name="lf_15906_1" order="20">
      <List name="lst_15906_2" order="21">
       <ListItem name="LI_15907" order="22" ID="15907.100004300" title="Ampullectomy"
        selected="true"/>
       <ListItem name="LI_2229" order="23" ID="2229.100004300" title="Pancreaticoduodenectomy
       (Whipple resection)" />
       <ListItem name="LI_15908" order="24" ID="15908.100004300" title="Other (specify)">
        <Property name="p_rptTxt_15908_1" order="25" propName="reportText" val="{no text}" />
        <ListItemResponseField name="lirf_15908_2" order="26" responseRequired="true">
         <Response name="rsp_15908_3" order="27">
          <string name="str_15908_4" order="28" />
         </Response>
        </ListItemResponseField>
       </ListItem>
       <ListItem name="LI_15909" order="29" ID="15909.100004300" title="Not specified" />
      </List>
     </ListField>
    </Question>
   </ChildItems>
  </Section>
  <Section name="S_15910" order="30" ID="15910.100004300" title="TUMOR">
   <ChildItems name="ch_15910_1" order="31">
    <Question name="Q_34390" order="32" ID="34390.100004300" title="Tumor Site (Note A)">
     <Property name="p_rptTxt_34390_1" order="33" propName="reportText" val="Tumor Site" />
     <ListField name="lf_34390_2" order="34">
      <List name="lst_34390_3" order="35">
       <ListItem name="LI_2234" order="36" ID="2234.100004300" title="Intra-ampullary"
        selected="true">
        <ListItemResponseField name="lirf_2234_1" order="37">
         <Response name="rsp_2234_2" order="38">
          <string name="str_2234_3" val="perforated"/>
         </Response>
        </ListItemResponseField>
        <ChildItems name="ch_2234_4" order="40">
         <Question name="Q_33456" order="41" ID="33456.100004300" mustImplement="false"
          minCard="0">
          <Property name="p_altTxt_33456_1" order="42" propName="altText" val="Intra-ampullary
          Type"/>
          <ListField name="lf_33456_2"l order="43">
           <List name="lst_33456_3" order="44">
            <ListItem name="LI_33457" order="45" ID="33457.100004300" title="Arising from
```

```
            intra- ampullary papillary-tubular neoplasm (IAPN)" selected="true"/>
           <ListItem name="LI_33458" order="46" ID="33458.100004300" title="Ampullary ductal
           (pancreaticobiliary-type)" />
          </List>
         </ListField>
        </Question>
       </ChildItems>
      </ListItem>
      <ListItem name="LI_33459" order="47" ID="33459.100004300" title="Peri-ampullary /
      ampullary duodenal (arising from duodenal surface of the papilla)">
       <ListItemResponseField name="lirf_33459_1" order="48">
        <Response name="rsp_33459_2" order="49">
         <string name="str_33459_3" order="50" />
        </Response>
       </ListItemResponseField>
      </ListItem>
      <ListItem name="LI_33460" order="51" ID="33460.100004300" title="Intra-ampullary and
      peri- ampullary (mixed type)">
       <ListItemResponseField name="lirf_33460_1" order="52">
        <Response name="rsp_33460_2" order="53">
         <string name="str_33460_3" order="54" />
        </Response>
       </ListItemResponseField>
      </ListItem>
      <ListItem name="LI_15911" order="55" ID="15911.100004300" title="Other (specify)">
       <Property name="p_rptTxt_15911_1" order="56" propName="reportText" val="{no text}" />
       <ListItemResponseField name="lirf_15911_2" order="57" responseRequired="true">
        <Response name="rsp_15911_3" order="58">
         <string name="str_15911_4" order="59" />
        </Response>
       </ListItemResponseField>
      </ListItem>
      <ListItem name="LI_15912" order="60" ID="15912.100004300" title="Cannot be determined">
       <ListItemResponseField name="lirf_15912_1" order="61">
        <Response name="rsp_15912_2" order="62">
         <string name="str_15912_3" order="63" />
        </Response>
       </ListItemResponseField>
      </ListItem>
      <ListItem name="LI_2237" order="64" ID="2237.100004300" title="Not specified" />
     </List>
    </ListField>
   </Question>
   <Question name="Q_52515" order="65" ID="52515.100004300" title="Histologic Type (Note C)">
    <Property name="p_rptTxt_52515_1" order="66" propName="reportText" val="Histologic Type"/>
    <ListField name="lf_52515_2" order="67">
     <List name="lst_52515_3" order="68">
      <ListItem name="LI_2245" order="69" ID="2245.100004300" title="Adenocarcinoma"
      selected="true"/>
      <ListItem name="LI_27063" order="70" ID="27063.100004300" title="Adenocarcinoma,
      pancreaticobiliary type" />
      <ListItem name="LI_2247" order="71" ID="2247.100004300" title="Adenocarcinoma,
      intestinal type" />
```

... XML truncated here...

All message-related information can be extracted from the SDC XML (or from the data entry form software), including, for example, **ID**s, and **title** text.

In the table below, information required to create an HL7 2.5.1 synoptic message has been extracted. Information not found in the SDC XML includes demographic information for the PID, ORC, and OBR, specimen information for the SPM segment, and code map data for SNOMED CT and ICD-O-3.

Demographic and specimen data must be extracted from the laboratory information system, and code maps for SNOMED CT and ICD-O-3 are available from CAP. Access to code maps can be requested from CAP by email at capeCP@cap.org, and additional information can be found on the CAP eCP website at www.cap.org/capeCP.

In the table below, truncated IDs are shown without the CAP namespace, to save space. Note that child → parent eCP linkages are handled in OBX-4, and those OBX-4 IDs are prefixed with "+", indicating a hierarchical parent node ID. Gray cells are empty for the OBX. Formatting styles are described in detail in Chapter 3.

OBX-1	Data Type (OBX-2)	Question or Section ID (OBX-3.1)	Question or Section title (OBX-3.2)	Parent ID (OBX-4)	ListItem ID (OBX-5)	Response val	ListItem title	Comments
OBX|4|	ST	15897	SPECIMEN	NULL	SECTION			▶No parent in OBX-4
OBX|5|	CWE	15906	Procedure	+15897	15907		Ampullectomy	
OBX|6|	ST	15910	TUMOR	NULL	SECTION			▶No parent in OBX-4
OBX|7|	CWE	34390	Tumor Site	+15910	2234		Intra-ampullary	▶OBX-3.2 is derived from the reportText Property, not from title. ▶ICDO3=C24.1^Ampulla of Vater^ICDO3
OBX|8|	TX	34390	Tumor Site	2234		perforated		▶OBX-3.2 is derived from the reportText Property, not from title. ▶The OBX row is duplicated to carry the LIR response. ▶OBX-4 contains the LIR ID (2234) from the previous OBX.
OBX|9|	CWE	33456	Intra-ampullary Type	+34390	33457		Arising from intra-ampullary papillary-tubular neoplasm (IAPN)	▶OBX-3.2 has no title content, and no reportText Property to define a reported value. However, an altText Property is present, and this is used to populate OBX-3.2 when title and a reportText Property are both missing.
OBX|10|	CWE	52515	Histologic Type	+2234	2245		Adenocarcinoma	▶OBX-3.2 is derived from the reportText Property, not from title. ▶The parent in OBX-4 is a ListItem. ▶ICDO3 = 81403 (slash is removed)

OBX rows constructed from the above data are shown below. OBR information would be drawn from the host system for the eCP template, and in this case, is simply copied from prior examples in this document. The first 3 metadata OBX segments are shown before the content OBX rows from the above table. The symbol "<CR>" indicates a line break in the actual message; this consists of ASCII code 13 followed by ASCII code 10.

```
OBR|1||123456789|60568-3^Synoptic Report^LN|||201907261530|||||||TISS|164341^SURGEON
    ^HANNAH^^^DR|||||||||F|60567-5&Comprehensive pathology report panel&LN|||^97810430|
    ||5555555591&Welby&Marcus&&&Dr.&MD&&NPI<CR>

OBX|1|ST|60573-3^Report template source^LN||CAP eCP||||||F|||201907261530<CR>
OBX|2|CWE|60572-5^Report template ID^LN||131.100004300^AMPULLA OF VATER^CAPECP|
    |||||F|||201907261530<CR>
OBX|3|ST|60574-1^Report template version ID^LN||3.001.001.REL||||||F|||201907261530<CR>

OBX|4|ST|15897.100004300^SPECIMEN^CAPECP||SECTION||||||F|||201907261530<CR>
OBX|5|CWE|15906.100004300^Procedure^CAPECP|+15897.100004300|15907.100004300^
    Ampullectomy^CAPECP||||||F|||201907261530<CR>
OBX|6|ST|15910.100004300^TUMOR^CAPECP||SECTION||||||F|||201907261530<CR>
```

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OBX|7|CWE|34390.100004300^Tumor Site^CAPECP|+15910.100004300|2234.100004300^Intra-ampu
llary^CAPECP^C24.1^Ampulla of Vater^ICDO3||||||F|||201907261530<CR>
OBX|8|TX|34390.100004300^Tumor Site^CAPECP|2234.100004300|perforated||||||F|||20190726
1530<CR>
OBX|9|CWE|33456.100004300^Intra-ampullary Type^CAPECP|+34390.100004300|33457.100004300^
Arising from intra-ampullary papillary-tubular neoplasm (IAPN)^CAPECP||||||F|||201907261
530<CR>
OBX|10|CWE|52515.100004300^Histologic Type^CAPECP|+2234.100004300|2245.100004300^
Adenocarcinoma^CAPECP^81403^Adenocarcinoma, NOS^ICDO3||||||F|||201907261530<CR>
```

E.3 Messaging Examples General Questions and Answers

The questions and answers in this section make up a "Frequently Asked Questions" (FAQ) about implementing HL7 messages using the information in this Guide. For detailed information about the implementation of synoptic reporting using the coded CAP Cancer Checklists, see Chapter 3.

Question 1: How should the version field in CE and CWE data types be populated?

Answer: Every code system has a release version. Some code systems, such as SNOMED-CT, have a date for this, represented as a month and year, such as "January 2008." Other code systems, such as LOINC, may alternatively have a numeric version identifier, such as "2.24." Whatever the coding system publisher declares as the version identifier is the string to be used in the code system version component of the coded data types. Note, however, that the curation process for IDs is such that no version needs to be populated; CAP IDs may be deprecated, but not deleted and will never be repurposed for another clinical concept. When IDs are transmitted in a CE or CWE field, the code system version is not populated.

Question 2: Is a separate OBR used to identify different sections in the report?

Answer: No. Separate OBRs are used to identify different reports, not sections. When completely different reports, such as both a text report and a synoptic report, are included in the same message, then there is an OBR for each of the Reports. Use the OBR-Set ID (OBR-1) as a unique and sequential identifier for these multiple OBRs if they are present. For different report sections, the OBX will be used, with the OBX-3 identifying the section header using LOINC or local codes. These sections are typically items such as "Clinical History," "Gross Observation," "Microscopic," etc. Refer to Section 1.5.3 for more detail.

Question 3: How will local/state/provincial/territorial-specific data items be handled?

Answer: The sending anatomic pathology laboratory and the receiving cancer registry need to agree on the data item, associated codes, data type, and code system identifiers. Wherever possible, LOINC and/or SNOMED CT codes should be used for the question and answer components: OBX-3 and OBX-5. Note that local jurisdictions may acquire their own namespace identifier from CAP for the definition of jurisdiction- specific ID; as the namespace ID is part of the ID value, this provides unique codes.

Question 4: What coding system should be used for Units of Measure in OBX-6?

Answer: In the United States, Units of Measure in laboratories may be communicated using the coding systems "ISO+," "ANSI+," or "UCUM." In the United States, UCUM is preferred. In Canada, the coding system SI (Systeme Internationale) is usually required; this is a constraint on UCUM, so the OBX-6.3 should be "UCUM" when the OBX-6.1 carries an SI unit.

Question 5: Pathology data on a single specimen, reported in a single ORC segment, may contain multiple primaries. Some information on each of the multiple primaries is contained in the OBR segment. Some of the fields in the OBR segment are of particular interest to cancer registration, for example, OBR-7 (Path-Date Spec Collection), OBR-16 (Path Ordering Client/Phys), OBR-17 (Path Ordering Client/Phys Phone), and OBR-21 (Path Lab phone number). Is this information always

identical across the multiple primaries because it is the same specimen, so there is no need for any repeating OBR?

Answer: Yes, the information in those fields will usually be identical and contained in the OBR segments in the message. This information should be in the first OBR specifying the Comprehensive Report Panel.

Question 6: In cases with multiple specimens, some of the specimen-specific information (ie OBR-14 Specimen Received Date/Time and OBR-15 Specimen Source) is in the OBR. If there is only one OBR for the message, how can this handle multiple specimens?

Answer: You must use the SPM segment, and the message construction that includes the specimen-specific information in the group of segments starting with the SPM and optionally including one or more associated OBX segments when constructing an HL7 ORU_R01 message for a Cancer Pathology Report containing multiple individually identified specimens.

Question 7: How should Addendum and Supplemental Reports be used?

Answer: Addendum reports are a variety of ancillary reports that contain additional information from subsequent testing that are usually completed after the definitive pathology report is released. Supplemental reports are different kinds of reports that provide additional information about the diagnosed case. Many kinds of supplemental reports have been assigned specific LOINC codes. These reports should be submitted using the appropriately assigned LOINC code for the test and if no code exists then the general code for addendum reports [35265-8] should be used. The use of LOINC code 22639-9 for general supplemental reports is deprecated and should not be used in any new or updated interfaces.

Question 8: How should updated reports be handled with messaging?

Answer: Currently, updates to original reports are not transmitted as separate Volume V messages. Modifications to individual reports are merged or appended to the original Volume V message, and then the entire updated message should be re-transmitted, with a report status code in OBR-25 of "C" for "Correction to results." Note that addenda (new content, not corrections) may be sent separately in their own OBR, with a status of "F" for "Final" as part of the Comprehensive Report Collection. Since the entire collection is being updated or added to, the OBR-25 for the Collection should carry the status "C" for "Correction to results."

Question 9: Some synoptic checklists may contain headers that help to organize the paper document (e.g., "Margins:" or "Histology:") but have no entered data as "answers." Should these be sent in the HL7 message?

Answer:Yes, ideally the Section Headers should be transmitted as described in Chapter 3. This applies to eCP reports as well: Each Section should generate a new OBX row.

Question 10: In situations with a single cancer pathology report that contains multiple cancers, should each cancer be linked to the respective specimens or parts, and, if so, how?

Answer: A single checklist is usually used to cover all specimens from a single surgical procedure. In some circumstances, there may be multiple checklists. These are not explicitly linked to the specimens, as the observations explicitly related to the specimens are (e.g., macroscopic observations during specimen processing), even though the message may contain SPM segments for the separate specimens. Each CAP checklist has its own OBR and associated OBX segments, without using the SPM and observations related specifically to the SPM parts of the message definition for its data.

Question 11: When a patient is diagnosed with more than one primary cancer, (that is, with multiple primaries, where multiple primary malignancies are defined as those arising in different sites and/or are of a different histology or morphology group), how should those be submitted and encoded into a single HL7 version 2.5.1 message?

Answer: The single HL7 message should contain at least two OBR segments, each specific to the multiple primary being examined, where *each* OBR is followed by an OBX segment, and one SPM segment specific to that primary. Depending on how the information is being submitted, narrative style or synoptic message style, the structure of the single HL7 message will differ. A synoptic message style can contain data from multiple specimens that are not uniquely identified in the report. In such situations, the identifier at the case level should be used. If the synoptic message style is used, it will be based on CAP checklists that are specific to that site/histology/behavior combination. For example, in the case of two breast primaries (one primary being Ductal carcinoma, infiltrating (M-8521/3), and the other primary being Lobular and ductal carcinoma.

(M-8522/3) and both occurring in the *left* breast—the OBR will *generally* contain the same information, and there will be two CAP checklists completed. Each OBR will be followed by an SPM and OBX segment(s), which contains the identical checklist identifiers. Use the OBR-Set ID (OBR-1) as well as SPM segment identifier (SPM-30) as the reports unique and sequential identifier. There will be one of these for each checklist instance. The existence of additional OBRs (each with a different sequential identifier in OBR-2) and unique SPM identifiers will indicate more than one checklist in the message or associated text pathology data. The type of report, as specified in OBR-4, can be used in this case, since two different OBR and SPM segments with different sequence numbers, but the same report type and style, will indicate this circumstance where two different cancers are documented for the same case in the same message.