Patient:
Hospital No:
Date of Birth:
Age/Sex:
Location:

Pathologist:
Assistant:
Date of Procedure:
Date Received:

Accession Number:
Ordering M.D.:
Copies To:

SURGICAL PATHOLOGY REPORT

********** Addendum - Please See End of Report **********
Reason for Addendum #1: Additional studies/stains/opinion(s)

DIAGNOSIS:

A. LEFT TUBE AND OVARY, LEFT SALPINGO-OOPHORECTOMY:
- **Left ovary with endometrioid adenocarcinoma with squamous differentiation, FIGO Grade 2** Per TSS, 2% squamous.
  - **Tumor size: 20.5 cm**
- **Benign fallopian tube**
- **Tuboovarian serosal adhesions and reactive mesothelial reaction**

B. RIGHT TUBE AND OVARY, RIGHT SALPINGO-OOPHORECTOMY:
- **Benign ovary with surface stromal proliferations**
- **Benign fallopian tube**
- **Tubo-ovarian serosal adhesions and reactive mesothelial reaction**
- **No tumor present**

C. UTERUS, TOTAL ABDOMINAL HYSTERECTOMY:
- **Endometrioid adenocarcinoma with squamous differentiation. FIGO Grade 2, involving the upper endocervix, lower uterine segment and uterine corpus, see comment**
  - **Endocervical mucosal involvement with focal endocervical stromal invasion (slide C12)**
  - **Superficial myometrial invasion present**
  - **Few intravascular tumor cells identified, see comment**
- **Single intramural leiomyoma, 3.0 cm**
- **Uterine serosal adhesions**

D. SIGMOID ADHESION, BIOPSY:
- **Fibrovascularized tissue with fibrosis and reactive mesothelial proliferation**
- **No tumor present**

E. LEFT PELVIC LYMPH NODE, EXCISION:
- **One lymph node, negative for tumor (0/1)**

F. LEFT PARAAORTIC, EXCISION:
- **Four lymph nodes, negative for tumor (0/4)**

G. LYMPH NODE, RIGHT PELVIC, EXCISION:
- **Five lymph nodes, negative for tumor (0/5)**

H. RIGHT COLON ADHESION, BIOPSY:
- **Fibrinous and fibrous adhesion,**

ICD-O-3
Adenocarcinoma, endometrioid 8380/3
Site Endometrium C54.1
JW 8/11/14

Patient Case(s):

- **Negative for malignancy**

I. APPENDIX, APPENDECTOMY:
- **Benign appendix with acute serositis and adhesions**
- **Negative for malignancy**

J. OMENTUM, "#1", PARTIAL OMENTECTOMY:
- **Omental fat with focal adhesions, patchy acute and chronic inflammaton and reactive mesothelial reaction**
- **Negative for malignancy**

K. OMENTUM, "#2", PARTIAL OMENTECTOMY:
- **Omental fat with focal adhesions, patchy acute and chronic inflammaton and reactive mesothelial reaction**
- **Negative for malignancy**

L. OMENTUM, "#3", PARTIAL OMENTECTOMY:
- **Omental fat with focal adhesions, patchy acute and chronic inflammaton and reactive mesothelial reaction**
- **Negative for malignancy**

M. UMBILICAL HERNIA, REPAIR:
- **Fibrovascularized tissue with patchy acute inflammation and focal hemosiderin laden histiocytic reaction**
- **Negative for malignancy**

COMMENT: There is endometrioid adenocarcinoma involving the left ovary and the endometrium. The former is presenting as a 20.0 cm mass. The endometrial tumor involves the the endocervical mucosa and stroma (slide C2). These two tumors are favored to represent synchronous primary neoplasms. Sections of the endometrial tumor show few foci of intravascular tumor cells (example slide C12). It is uncertain if these represent true lymphovascular invasion or artifactual displacement of tumor cells. Definite endometriotic implants are not identified although there are extensive serosal adhesions, focal hemosiderin laden marcophages and reactive mesothelial cell reaction.

Selected slides were also shown to (slides A10 ovarian tumor, C2 for endocervical stromal invasion and C12 for possible lymphovascular invasion).

Macroscopic

Procedure:	Total abdominal hysterectomy and bilateral salpingo-oophorectomy
Lymph Node Sampling:	Pelvic lymph nodes Para-aortic lymph nodes

Microscopic

Histologic Type:	Endometrioid adenocarcinoma, not otherwise characterized
Histologic Grade:	FIGO grade II
Tumor Site:	Corpus Fundus Lower uterine segment
Tumor Size:	Cannot be determined (see Comment)

	Comment(s): Involves the entire endometrial cavity both anterior and posterior wall
Myometrial Invasion:	Less than 50% myometrial invasion
Involvement of Cervix:	Invasion of cervical stromal connective tissue
Extent of Involvement of Other Organs:	None
Margins:	Uninvolved by invasive carcinoma
Lymphovascular Invasion:	Indeterminate

Pathologic Staging (pTNM) AJCC 7th Edition 2010

Primary Tumor (pT):	pT2 : Tumor invades stromal connective tissue of the cervix, but does not extend beyond uterus
Regional Lymph Nodes (pN):	pN0: No regional lymph node metastasis
Number of pelvic lymph nodes examined:	6
Number of pelvic lymph nodes involved:	0
Number of para-aortic lymph nodes examined:	4
Number of para-aortic lymph nodes involved:	0
Number of common iliac lymph nodes examined:	0
Number of common iliac lymph nodes involved:	0
FIGO Stage:	II

SYNOPTIC REPORT:

Applies To:
A : LEFT TUBE AND OVARY FS

Macroscopic

Procedure:	Right salpingo-oophorectomy Left salpingo-oophorectomy Hysterectomy Omentectomy Peritoneal biopsies
Lymph Node Sampling:	Performed
Specimen Integrity, right ovary:	Capsule intact
Specimen Integrity, left ovary:	Capsule intact
Primary tumor site:	Left ovary
Ovarian surface involvement:	Not identified
Tumor Size:	Left ovarian tumor, greatest dimension: 20cm

Microscopic

Histologic Type:	Endometrioid carcinoma
Histologic Grade:	G2: Moderately differentiated
Summary of Organs/Tissues Microscopically Involved by Tumor:	Left ovary

Lymphovascular Invasion: Not Identified

Pathologic Staging (pTNM) (AJCC 7th Edition, 2010)

Primary Tumor (pT): pT1a : Tumor limited to one ovary; capsule intact, no tumor on ovarian surface.
Regional Lymph Nodes (pN): pN0: No regional lymph node metastasis
Number of lymph nodes identified: 10
Number of lymph nodes involved: 0
FIGO Stage: IA

HISTORY:
large left ovarian mass, hemorrhagic ascites, uterine endometrioid adenocarcinoma fibroid uterus and umbilical hernia

MICROSCOPIC FINDINGS:
See diagnosis.

IMMUNOHISTOCHEMISTRY:

Study / Test (Clone)	Block	Result
Cytokeratin 7 (RN7)	A11 (ovary)	Positive
Cytokeratin 20 (PW31)	A11	Negative
Estrogen Receptor QL (SP1)	A11	Positive
CDX-2 (EPR2764Y)	A11	Positive
PAX-8	**A11**	**Negative**
PAX-8	**C2 (endometrial)**	**Positive (patchy 1+-2+)**
CDX-2 (EPR2764Y)	C2	Positive
Estrogen Receptor QL (SP1)	C2	Positive
Cytokeratin 20 (PW31)	C2	Negative
Cytokeratin 7 (RN7)	C2	Positive (patchy)

*These studies were interpreted in conjunction with appropriate positive and negative controls which demonstrated the expected positive and negative reactivity.

GROSS:
A. LEFT TUBE AND OVARY FS
Patient name, label: signated "left tube and ovary FS"
Specimen type: Left salpingo-oophorectomy
Received: Fresh for intraoperative consultation and subsequently fixed in formalin
Specimen integrity: Intact
Specimen weight: 1,745 gram
Specimen size:
Ovary: 20.5 x 13.8 x 12.5 cm in the collapsed/partially collapsed state
Fallopian tube: 8.1 cm in length, 0.7 to 0.9 cm in diameter
Pathologic findings of ovary:
Tumor: Present
Tumor size: Multilobulated solid tumor replacing the entire ovary;

	approximately 20 cm; no recognizable residual normal ovarian tissue identified
Ovarian capsule:	Intact
Serosal surface:	With fibrinous adhesions
Ovarian tumor configuration:	Multilobulated
Cystic tumor component:	Cystic/necrotic degeneration; no definite benign cystic lesion identified
Solid tumor component:	Predominantly solid (90%)
Papillary tumor component:	None identified
Tumor necrosis:	Present (20-30%)
Intratumoral hemorrhage(s):	Present
Tumor-associated calcifications:	Not identified
Other tumor-associated findings:	None

Additional (non-neoplastic) ovarian findings:

Non-neoplastic cyst(s):	Not identified
Adhesion(s):	Present on serosal surface
Other finding(s):	None

Pathologic findings of fallopian tube:

Tumor:	None
Other (non-neoplastic) findings:	Not identified

Pathologic findings of adnexal ligaments:

Tumor:	Not identified
Other (non-neoplastic findings):	None

The gross specimen is photographed. Representative portions are submitted and a portion is released to Tumor Bank.

Slide key:
A1. Remnant of FSA1 - 1
A2. Cross section of base of fallopian tube and fimbria longitudinally bisected - 3
A3. Mid section of fallopian tube and surrounding adnexal ligament and soft tissue - 1
A4-A12 Tumor- 2 each

B. RIGHT TUBE AND OVARY FS

Labeled ", designated "right tube and ovary", received fresh and subsequently fixed in formation is an 11 gram specimen consisting of a 3.4 x 1.7 x 0.7 cm collapsed ovary and fallopian tube (4.5 cm in length and 0.5-0.8 cm in diameter). Within the ovary is a 0.3 cm serosal nodularity. The fallopian tube is unremarkable.

The gross specimen is photographed. Representative portions are submitted and a portion is released to Tumor Bank.

Slide key:
B1. Base and mid cross sections of tube and fimbria longitudinally sectioned - 4
B2. Representative ovary with tan-yellow nodule and representative ovary with tan-white intraparenchymal nodule - 2
B3. Representative adnexal ligament and representative ovary - 2

C. UTERUS AND CERVIX FS

Patient name, label:	designated "uterus and cervix"
Specimen type:	Subtotal hysterectomy

Received:	fresh for intraoperative consultation and subsequently fixed in formalin
Specimen integrity:	Intact
Specimen weight:	191 gram
Specimen size:	
Overall uterine dimensions:	11.0 x 5.4 x 4.0 cm
Cervix alone:	4.6 cm in length, up to 3.4 cm in diameter
Vaginal cuff:	Absent
Endometrial cavity:	7.0 cm in length, up to 4.1 cm in width
Endometrial thickness:	Ranging from 0.5 up to 2.5 cm in thickness
Myometrial thickness:	Up to 1.5 cm
Left parametrium:	Absent
Right parametrium:	Absent

Pathologic findings:

Tumor:

Location:	Upper endocervix, lower uterine segment corpus and fundus involved
Size:	9.0 x 4.0 x 4.0 cm
Color:	Tan-white
Consistency:	Friable/granular
Configuration:	Polypoid
Myometrial invasion:	Present, less than 50% of myometrial thickness
Grossly evident vascular invasion:	Absent
Uterine serosal involvement:	Absent
Cervical involvement:	Upper endocervix grossly involved
Parametrial involvement:	Not applicable

Other Findings:

Non-neoplastic endometrium:	Not evident
Endometrial polyp(s):	Not identified
Leiomyoma(s):	Present. One measuring 3.0 x 3.0 x 2.0 cm intramural
Other myometrial lesion(s):	None
Uterine serosa:	Hemorrhagic and with moderate adhesions
Cervix:	Tumor involves upper endocervix
Vaginal cuff:	Not applicable
Additional findings:	None

The specimen is photographed.

Ink key:
Uterine serosa - black.

A portion of tumor is released to the biorepository per standard operation procedure. Small representative sections are submitted.

Slide key:
C1. Remnant of FSC - 2
C2-C3. Endocervix with tumor x 2 - 2
C4-C5. Uterine corpus with tumor - 1
C6. Portion of leiomyoma - 2
C7. Endocervix with tumor - 1

C8. Uterine fundus with tumor- 1
C9. Uterine fundus with fallopian tube - 1
C10, C11. Endometrial tumor - 1
C12. Tumor closest to serosal surface with cervix and lower uterine segment - 1
C13,C14. Uterine corpus full thickness (nodule in C14) – 1 each

D. SIGMOID ADHESION
Labeled , designated "sigmoid adhesion", received in formalin are three fragments of tan-red fibrous tissue measuring 2.5 x 2.0 x 0.4 cm in aggregate with pieces ranging from 1.5 to 2.5 cm in greatest dimension. No grossly identifiable nodules are present. Specimen is entirely embedded.
D1. 3

E. LEFT PELVIC LYMPH NODE
Labeled signated "left pelvic lymph node", received fresh for intraoperative consultation and subsequently fixed in formalin is one lymph node measuring 3.3 x 1.0 x 0.8 cm, bisected and entirely frozen in FSE1.
E1. Frozen section remnant of FSE1 - 1
E2. Remainder of fragment - 2

F. LEFT PARAAORTIC
Labeled esignated "left paraaortic", received in formalin is one fragment of adipose tissue measuring 2.5 x 1.0 x 0.6 cm. Dissection reveals three lymph nodes ranging from 1.0 cm to 1.6 cm in greatest dimension.
F1. Three possible lymph nodes - 3
F2. Remainder of fat - multiple

G. RIGHT PELVIC
Labeled designated "right pelvic", received in formalin is one fragment of fibrous fatty tissue measuring 2.3 x 1.5 x 1.0 cm in. Sectioning reveals five possible lymph nodes ranging from 0.5 cm to 1.5 cm in greatest dimension. The largest is bisected.
G1. Largest node bisected - 2
G2. Four possible lymph nodes - 4
G3. Remainder of fat - Multiple

H. RIGHT COLON ADHESION
Labeled designated "right colon adhesion", received in formalin is fragments of tan-red fibrous tissue measuring 3.5 x 1.1 x 0.2 cm in aggregate, fragments ranging from 0.6 cm to 1.5 cm in greatest dimension. No nodules are grossly identified. The specimen is entirely embedded.
H1. Multiple

I. APPENDIX

Labeled , designated "appendix" received in formalin is an unremarkable vermiform appendix measuring 4.0 cm in length and 0.5 to 0.6 cm in diameter. There are no lesions or perforations identified
Ink key:
Black - proximal presumed resection margin
Representative sections are submitted.
I1. Base and mid cross sections plus tip longitudinally bisected - 3
I2. Other half of tip longitudinally bisected - 1

J. OMENTUM #1

Labeled , designated "omentum #1", received in formalin is one piece of adipose tissue measuring 18.0 x 5.5 x 1.0 cm. There is one firm nodule measuring 1.0 cm x 0.9 cm x 0.5 cm, the rest of the specimen is unremarkable. Representative sections are submitted.
J1. Suspicious firm nodule - 2
J2-J4. Representative sections of omentum - 1 each

K. OMENTUM #2
Labeled ", designated "omentum #2", received in formalin is one piece of adipose tissue measuring 11.0 x 5.5 x 0.5 cm. Gross palpation reveals no firm nodules. Representative sections are submitted.
K1-K3. Multiple each

L. OMENTUM #3
Labeled , designated "omentum #3", received in formalin is a piece of adipose tissue measuring 13.0 cm x 6.0 x 0.4 cm. Cut sectioning and gross dissection reveal no firm nodules or suspicious lesions. Representative sections are submitted.
L1-L3. Representative sections - multiple each

M. UMBILICAL HERNIA
Labeled , designated "umbilical hernia", received in formalin is two fragments of fibrous fatty tissue measuring 6.5 x 2.5 x 1.0 cm and 3.5 x 2.0 x 1.5 cm. One side of each piece is covered in smooth, glistening, tan-pink tissue while the other is fibrous and fatty. Representative sections are submitted.
M1-M3. 2 each

Gross dictated by

INTRAOPERATIVE CONSULTATION:
OPERATIVE CALL
OPERATIVE CONSULT (FROZEN):

FSA, Left tube and ovary:
- Endometrioid adenocarcinoma, intermediate grade
FSC, Uterus and cervix:
- Endometrial cavity with endometrioid type adenocarcinoma
FSE, Left pelvic lymph node:
- Lymph node, negative for metastatic carcinoma

The findings were communicated to via telephone by

I have personally examined the specimen, interpreted the results, reviewed the report and signed it electronically.
Electronically signed

***** ADDENDUM *****

IMMUNOHISTOCHEMICAL DETECTION OF DNA MISMATCH REPAIR PROTEINS

RESULTS:

Intact expression of all four DNA mismatch repair proteins, MLH1, MSH2, MSH6, and PMS2.

INTERPRETIVE COMMENTS:
No evidence for loss of expression of DNA mismatch repair proteins was identified. Lynch syndrome is unlikely. However, if Lynch syndrome is clinically suspected, MSI testing should be performed and referral to should be considered, even when the IHC and MSI tests are negative.

Immunohistochemical Staining Pattern:

Protein	Block	Percent (%) of tumor cells with intact expression
MLH1	C12	>90%
MSH2	C12	>90%
MSH6	C12	10-20%
PMS2	C12	>90%

Immunohistochemistry is approximately 90-95% sensitive for detection of microsatellite instability (MSI) compared to PCR-based analysis*. Immunohistochemical stains were performed on paraffin-embedded endometrioid adenocarcinoma tissue using antibodies against DNA mismatch repair enzymes MLH1, MSH2, MSH6, and PMS2. Controls (including internal positive control) were appropriate for each stain.

*PCR-based tests for microsatellite instability are not currently available in the However, they can be ordered from another institution upon request.

I have personally examined the specimen, interpreted the results, reviewed the report and signed it electronically.

Criteria lw 2/5/14	Yes	No
Diagnosis Discrepancy		
Primary Tumor Site Discrepancy		
HIPAA Discrepancy NOTE		
Prior Malignancy History		
Dual/Synchronous Primary Noted		
Case is (circle): QUALIFIED / DISQUALIFIED		
Reviewer Initials Date Reviewed:		