GYN Malignancies

FCDS 2012/2013 Educational Webcast Series
October 18, 2012
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Updated for 2012 Requirements and CSv02.04
Presentation Outline

- Anatomy of the Female Reproductive System
- Overview of Major GYN Cancer Characteristics
- Multiple Primary and Histology Coding Rules
- Collaborative Stage Data Collection System (CSv2)
- C.S. Site Specific Factors
- Treatment Options
Presentation Outline

- Cervix, Vagina, Vulva – SCC & HPV and Melanoma
- Corpus Uteri – Epithelial (carcinoma, Mullerian tumor)
- Corpus Uteri – Mesenchymal (pure sarcoma)
- Corpus Uteri – Mixed Tumors (adenosarcoma)
- Ovary/Fallopian Tube – Epithelial Stromal Tumors (serous, mucinous, endometrioid)
- Ovary/Fallopian Tube – Germ Cell Tumors
- Ovary/Fallopian Tube – Borderline Malignancy
- Primary Peritoneal Malignancy
Female Reproductive System
Female Reproductive System
Female Reproductive System
Female Reproductive System
Female Reproductive System

- Fallopian tube
- Uterus
- Ovary
- Cervix
- Internal os
- External os
- Vagina
- Labium minus
Female Reproductive System

Female External Genitalia

- Clitoris
- Mons pubis
- Labia minora
- Labia majora
- Anus
- Prepuce
- Urethral orifice
- Vagina

SEER Training Modules, Anatomy and Physiology Module. U. S. National Institutes of Health, National Cancer Institute. 1 April 2011
Typical Chain of Events

- General History & Physical
- Gynecologic Exam – routine or symptoms
- PAP/D&C – cytology
- Colposcopy/Biopsy – histology
- Conization – Biopsy or Treatment
- Hysterectomy – Treatment
- TAH/BSO – Treatment
- Omentectomy (debulking)
Overview – Cervix, Vagina, Vulva

- Incidence and Mortality
- Causes & Risk Factors
- Signs and Symptoms
- WHO Classification
- MP/H Rules
- Collaborative Stage Core Items
- Collaborative Stage SSFs
- Treatment Guidelines
Incidence and Mortality

- **Cervix – 2012 estimates**
  - U.S. New Cases – 12,170
  - U.S. Deaths – 4,220
  - FL. New Cases – 910
  - FL. Deaths – 300

- **Vulva – 2012 estimates**
  - U.S. New Cases – 4,490
  - U.S. Deaths – 950
  - FL. New Cases – 340
  - FL. Deaths – 70

- **Vagina – 2012 estimates**
  - U.S. New Cases – 2,680
  - U.S. Deaths – 840
  - FL. New Cases – 187
  - FL. Deaths – 63
Figure 12. International Variation in Age-Standardized Cervical Cancer Incidence Rates

Source: Global Cancer Facts & Figures 2007
Causes and Risk Factors

Environmental
- HPV Infection
- Birth Control Pills
- Smoking
- Not Getting Screened

Genetic
- Median age at dx 48
- DES Exposure
- Family History
Signs and Symptoms

- #1 - HPV Infection
- Unusual vaginal discharge
- Vaginal bleeding between periods
- Bleeding after menopause
- Bleeding or pain during sex

http://www.medicinenet.com/cervical
PAP and HPV Testing

- >6 Million Women in U.S. have HPV Infection – at risk
- >33% of Women Eligible for Screen are NOT Screened
- Routine Screening detects most cancers pre-invasive
- PAP/HPV Screening detects >90% of cancers
- Annual PAP No Longer Routine
- Post-Menopausal Risk
- Other HPV Cancers
WHO Histologic Classification

- Squamous cell carcinoma
- Adenocarcinoma
- Adenosquamous carcinoma
Other Characteristics

- Not Reportable Non-invasive carcinoma (after 1/1/96)
  - CIS (cervix)
  - CIN III
- Reportable Intraepithelial Neoplasia
  - CIS (except cervix)
  - Vulva VIN III
  - Vaginal VAIN III
- Skin of vulva – reportable as C51.9
Overview – Corpus Uteri

- U.S. Incidence and Mortality
- Causes & Risk Factors
- Signs and Symptoms
- WHO Classification
- MP/H Rules
- Collaborative Stage Core Items
- Collaborative Stage SSFs
- Treatment Guidelines
Incidence and Mortality

- Uterine Corpus – 2012 estimates
  - U.S. New Cases – 47,130
  - FL. New Cases – 2,910
  - U.S. Deaths – 8,010
  - FL. Deaths – 494
Causes and Risk Factors

Environmental
- Birth Control pills
- Smoking
- Obesity
- Diabetes,
- High-fat-diet
- Early age at menarche
- Reproductive and menstrual history
- Nulliparity
- Late menopause
- Tamoxifen (hormone replacement)
- Radiation Therapy

Genetic
- Family history
- Lynch syndrome
- Older age (55 years or older)
Signs and Symptoms

- Abnormal vaginal bleeding (other than during menstruation) spotting
- Abnormal vaginal discharge
- Pelvic pain
- Pain during intercourse
- Pain or difficulty when emptying the bladder
WHO Histologic Classification

- **Adenosarcoma**
  - 8380

- **Carcinoma and Carcinosarcoma**
  - 8000-8790, 8980-8981, 9700-9701

- **Sarcoma**
  - 8890-8898, 8930-8931
Other Characteristics

- ICD-O-3 term “stromal endometriosis” [8931/3] - Reportable
Overview – Ovary

- U.S. Incidence and Mortality
- Causes & Risk Factors
- Signs and Symptoms
- WHO Classification
- MP/H Rules
- Collaborative Stage Core Items
- Collaborative Stage SSFs
- Treatment Guidelines
Incidence and Mortality

- Ovary – 2012 estimates
  - U.S. New Cases – 22,280
  - U.S. Deaths – 15,500
  - FL. New Cases - 1495
  - FL Deaths - 1040

- Primary Peritoneal New Cases - ??
- Primary Peritoneal Deaths - ??

- Impact on Change in Classification - ??
Causes and Risk Factors

Environmental
- Investigated but not conclusively associated with the development of this neoplasm
- Oophorectomy reduces risk of ovarian and fallopian tube cancer but may increase risk for primary peritoneal cancer after prophylactic salpingo-oophorectomy

Genetic
- Family history
- BRCA1 and BRCA2 mutations
- Lynch syndrome
- HNPCC syndrome (hereditary nonpolyposis colorectal cancer)
- Fallopian Tube-NCCN-suggested that these cancer may be the origin of some ovarian and primary peritoneal cancers
Signs and Symptoms

- Suspicious/palpable pelvic mass detected on abdominal/pelvic exam
- Ascites
- Abdominal distention
- Bloating
- Pelvic or abdominal pain
- Difficulty eating or feeling full quickly eating or feeling full quickly
- Urinary symptoms (urgency or frequency) without other obvious source of malignancy
Screening Options – not supported
  > Transvaginal Ultrasound
  > Pelvic Examination
  > CA-125

CA-125 is a tumor marker for ovarian cancer - monitor disease progression.

Normal is , 35 U/ml
WHO Histologic Classification

- **Ovarian Epithelial**
  - Serous cystadenocarcinoma
  - Mucinous cystadenocarcinoma
  - Endometrioid adenocarcinoma
  - Clear cell cystadenocarcinoma

- **Ovarian Germ Cell Tumors**
  - Dysgerminoma
  - Embryonal carcinoma
  - Choriocarcinoma
  - Teratoma – malignant reportable

- **Borderline Malignant Neoplasms**
<table>
<thead>
<tr>
<th>WHO Histologic Classification</th>
<th>Pathology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granulosa cell tumors</td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>Malignant</td>
</tr>
<tr>
<td>Juvenile</td>
<td>Malignant</td>
</tr>
<tr>
<td>Thecoma</td>
<td></td>
</tr>
<tr>
<td>Thecomas typical</td>
<td>Benign</td>
</tr>
<tr>
<td>Thecomas, lutenized</td>
<td>Malignant potential</td>
</tr>
<tr>
<td>Thecoma with increased mitotic figures</td>
<td>Malignant potential</td>
</tr>
<tr>
<td>Fibroma</td>
<td></td>
</tr>
<tr>
<td>Cellular fibroma</td>
<td></td>
</tr>
<tr>
<td>Cellular fibroma with increased mitotic figures</td>
<td>Malignant potential</td>
</tr>
<tr>
<td>Fibrosarcoma</td>
<td>Malignant</td>
</tr>
<tr>
<td>Stromal tumor with minor sex cord elements</td>
<td>Benign</td>
</tr>
<tr>
<td>Sclerosing stromal tumor</td>
<td>Benign</td>
</tr>
<tr>
<td>Signet ring stromal tumors</td>
<td>Benign</td>
</tr>
<tr>
<td>Unclassified</td>
<td>Malignant potential</td>
</tr>
<tr>
<td>Sertoli-Leydig cell tumors</td>
<td></td>
</tr>
<tr>
<td>Well differentiated</td>
<td>Malignant potential</td>
</tr>
<tr>
<td>Intermediate differentiation</td>
<td>Malignant</td>
</tr>
<tr>
<td>Poorly differentiated</td>
<td>Malignant</td>
</tr>
<tr>
<td>Sertoli-Leydig tumors with heterologous elements</td>
<td>Malignant</td>
</tr>
<tr>
<td>Sertoli cell tumors</td>
<td></td>
</tr>
<tr>
<td>Leydig cell tumors</td>
<td></td>
</tr>
<tr>
<td>Stromal-Leydig cell tumors</td>
<td></td>
</tr>
<tr>
<td>Sex cord tumors with annular tubules (SCTAT)</td>
<td></td>
</tr>
<tr>
<td>Microscopic SCTAT associated with Peutz-Jeghers syndrome</td>
<td>Malignant</td>
</tr>
<tr>
<td>Gynandroblastoma</td>
<td></td>
</tr>
<tr>
<td>Unclassified sex cord stromal tumors</td>
<td></td>
</tr>
<tr>
<td>Steroid cell tumors</td>
<td></td>
</tr>
</tbody>
</table>
Other Characteristics

- Changes in classification of ovarian neoplasms
- Changes in case reportable rules
  - Borderline Malignancy
  - Primary Peritoneal
  - Primary Ovarian
Other Characteristics

Borderline Neoplasm of Ovary

- 1973 – 1989  Not Reportable  ICD-O
- 2015 –  Not Reportable  ICD-O-4
Other Characteristics

- Epithelial Neoplasms – Ovary
  - Serous cystadenocarcinomas.
  - Mucinous cystadenocarcinomas.
  - Endometrioid adenocarcinomas.
  - Clear cell cystadenocarcinomas.
  - Other & Mixed
Epithelial Neoplasms – Peritoneum

› Serous cystadenocarcinomas.
› Mucinous cystadenocarcinomas.
› Endometrioid adenocarcinomas.
› Clear cell cystadenocarcinomas.
› Other & Mixed
Other Characteristics

- Epithelial Neoplasms – Ovary/Peritoneum
  - Bulky Disease at First Presentation
  - Common Sites for Seeding
    - Peritoneum
    - Diaphragm
    - Liver Surface
  - Pulmonary & Pleural Involvement Common
Other Characteristics

- Historical Assessment

- Classified as Ovarian in Origin
  - Serous Tumors with Ovarian Involvement
  - Mucinous Tumors with Ovarian Involvement

- Current Evaluation Criteria – evolving

- Improvements in Imaging and IHC/FISH expected to reduce misclassification
Serous Tumors forming 6mm mass in ovary should be considered ovarian primaries.

Serous Tumors forming multiple small ovarian masses should be considered peritoneal if the disease is mainly extraovarian.

Mucinous neoplasms metastatic to ovary are often misclassified as ovarian primaries.
Multiple Primary and Histology Coding Rules

ALL GYN Sites – See Other Sites

• Terms & Definitions
• Multiple Primary Rules
• Histology Coding Rules
Terms and Definitions

- **Parametrium** - Connective tissue of the pelvic floor extending from the fibrous subserous coat of the supracervical portion of the uterus laterally between the layers of the broad ligament.

- **Uterine adnexa** - Appendages of the uterus, namely the ovaries, fallopian tubes, and ligaments that hold the uterus in place.
### Other Sites Terms and Definitions

**Other Sites Equivalent Terms, Definitions and Tables**
Excludes Head and Neck, Colon, Lung, Melanoma of Skin, Breast, Kidney, Renal Pelvis, Ureter, Bladder, Brain, Lymphoma and Leukemia

<table>
<thead>
<tr>
<th>Column 1: Required Histology</th>
<th>Column 2: Combined with Histology</th>
<th>Column 3: Combination Term</th>
<th>Column 4: Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gyn malignancies with two or more of the histologies in column 2</td>
<td>Clear cell Endometroid Mucinous Papillary Serous Squamous Transitional (Brenner)</td>
<td>Mixed cell adenocarcinoma</td>
<td>8323</td>
</tr>
</tbody>
</table>
Multiple Primary Rules

M7
Are there bilateral epithelial tumors (8000-8799) of the ovary within 60 days of diagnosis?
YES -> SINGLE Primary
NO

M8
Are there tumors in both the left and right sides of a paired site (Table 1)?
YES -> MULTIPLE Primaries
NO

M9
Is the diagnosis adenocarcinoma in adenomatous polyposis coli (familial polyposis) with one or more malignant polyps?
YES -> SINGLE Primary
NO

Table 1 - Paired Organs and Sites with Laterality
Tumors may be present in a single or multiple segments of the colon, rectosigmoid, rectum.
Multiple Primary Rules

M10
Are there tumors diagnosed more than one (1) year apart?

YES
MULTIPLE Primaries**

NO

M15
Is there an **invasive** tumor following an **in situ** tumor more than 60 days after diagnosis?

YES
MULTIPLE Primary**

NO

1. The purpose of this rule is to ensure that the case is counted as an incident (invasive) case when incidence data are analyzed.

2. Abstract as multiple primaries even if the medical record/physician states it is recurrence or progression of disease.
Histology Coding Rules

H13

Is there cancer/malignant neoplasm, NOS (8000) and a more specific histology?

NO

Is there carcinoma, NOS (8010) and a more specific carcinoma?

NO

Is there squamous cell carcinoma, NOS (8070) and a more specific squamous cell carcinoma?

NO

Is there adenocarcinoma, NOS (8140) and a more specific adenocarcinoma?

NO

Is there melanoma, NOS (8720) and a more specific melanoma?

NO

Is there sarcoma, NOS (8800) and a more specific sarcoma?

NO

Code the most specific histologic term.

The specific histology may be identified as type, subtype, predominantly, with features of, major, or with ______ differentiation. The terms architecture and pattern are subtypes only for in situ cancer.

Example 1: Adenocarcinoma, predominantly mucinous. Code mucinous adenocarcinoma 8480.

Histology Coding Rules

H21

Is the diagnosis in situ squamous intraepithelial neoplasia grade III of the vulva (VIN III) vagina (VAIN III), or anus (AIN III)?

YES

Code 8077/2 (squamous intraepithelial neoplasia, grade III).

NO

1. VIN, VAIN, and AIN are squamous cell carcinomas. Code 8077 cannot be used for glandular intraepithelial neoplasia such as prostatic intraepithelial neoplasia (PIN) or pancreatic intraepithelial neoplasia (PAIN).

2. This code may be used for reportable by agreement cases.
Histology Coding Rules

Does the tumor have **multiple specific histologies** or is there a non-specific histology with **multiple specific histologies**?

- **YES**
  - Code the appropriate combination/mixed code (Table 2)

- **NO**

The specific histologies may be identified as type, subtype, predominantly, with features of, major, or with _____ differentiation.

**Example 1** (multiple specific histologies): Mucinous and papillary adenocarcinoma. Code 8255 (adenocarcinoma with mixed subtypes)

**Example 2** (multiple specific histologies): Combined small cell and squamous cell carcinoma. Code 8045 (combined small cell carcinoma)

**Example 3** (non-specific with multiple specific histologies): Adenocarcinoma with papillary and clear cell features. Code 8255 (adenocarcinoma with mixed subtypes)
Staging GYN Cancers

Federation Internationale de Gynecologie et d'Obstetrique (FIGO)
Use the FIGO stage stated in the medical record by the clinician or pathologist.

When both FIGO stage and extension detail are available, record the code with extension detail in preference to a statement of FIGO stage.

FIGO, TNM, CS are nearly identical – CS has more details.

Examples:
- 100 FIGO Stage I
- 112 FIGO Stage IA2 (cervix)
- 220 FIGO Stage IIB
- 330 FIGO Stage IIIc
- 331 FIGO Stage IIIc1 (corpus)
- 410 FIGO Stage IVA
## Staging

### Table 1

**American Joint Committee on Cancer (AJCC)**  
**TNM and FIGO Staging System for Ovarian and Primary Peritoneal Cancer (7th ed., 2010)**

#### Primary Tumor (T)

<table>
<thead>
<tr>
<th>TNM</th>
<th>FIGO</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td></td>
<td>Primary tumor cannot be assessed</td>
</tr>
<tr>
<td>T0</td>
<td>I</td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>T1</td>
<td>I</td>
<td>Tumor limited to ovaries (one or both)</td>
</tr>
<tr>
<td>T1a</td>
<td>IA</td>
<td>Tumor limited to one ovary; capsule intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings</td>
</tr>
<tr>
<td>T1b</td>
<td>IB</td>
<td>Tumor limited to both ovaries; capsules intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings</td>
</tr>
<tr>
<td>T1c</td>
<td>IC</td>
<td>Tumor limited to one or both ovaries with any of the following: capsule ruptured, tumor on ovarian surface, malignant cells in ascites or peritoneal washings</td>
</tr>
<tr>
<td>T2</td>
<td>II</td>
<td>Tumor involves one or both ovaries with pelvic extension</td>
</tr>
<tr>
<td>T2a</td>
<td>IIA</td>
<td>Extension and/or implants on uterus and/or tube(s). No malignant cells in ascites or peritoneal washings</td>
</tr>
<tr>
<td>T2b</td>
<td>IIB</td>
<td>Extension to and/or implants on other pelvic tissues. No malignant cells in ascites or peritoneal washings</td>
</tr>
<tr>
<td>T2c</td>
<td>IIC</td>
<td>Pelvic extension and/or implants (T2a or T2b) with malignant cells in ascites or peritoneal washings</td>
</tr>
</tbody>
</table>

#### TNM | FIGO |
| T3   | III  | Tumor involves one or both ovaries with microscopically confirmed peritoneal metastasis outside the pelvis |
| T3a  | IIIA | Microscopic peritoneal metastasis beyond pelvis (no macroscopic tumor) |
| T3b  | IIIB | Macroscopic peritoneal metastasis beyond pelvis 2 cm or less in greatest dimension |
| T3c  | IIIC | Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension and/or regional lymph node metastasis |

#### Regional Lymph Nodes (N)

<table>
<thead>
<tr>
<th>N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX</td>
<td>Regional lymph nodes cannot be assessed</td>
</tr>
<tr>
<td>N0</td>
<td>No regional lymph node metastasis</td>
</tr>
<tr>
<td>N1</td>
<td>IIIC Regional lymph node metastasis</td>
</tr>
</tbody>
</table>

#### Distant Metastasis (M)

<table>
<thead>
<tr>
<th>M</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>M1</td>
<td>IV Distant metastasis (excludes peritoneal metastasis)</td>
</tr>
</tbody>
</table>

Note: Liver capsule metastasis is T3/Stage III; liver parenchymal metastasis, M1/Stage IV. Pleural effusion must have positive cytology for M1/Stage IV.

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*Continued*
## Staging

**Table 1 (Continued)**  
American Joint Committee on Cancer (AJCC)  
TNM and FIGO Staging System for Ovarian and Primary Peritoneal Cancer (7th ed., 2010)

<table>
<thead>
<tr>
<th>Stage Grouping</th>
<th>T</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>T1</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IA</td>
<td>T1a</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IB</td>
<td>T1b</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IC</td>
<td>T1c</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage II</td>
<td>T2</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIA</td>
<td>T2a</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIB</td>
<td>T2b</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIC</td>
<td>T2c</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage III</td>
<td>T3</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIIA</td>
<td>T3a</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIIB</td>
<td>T3b</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IIIC</td>
<td>T3c</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td></td>
<td>Any</td>
<td>N1</td>
<td>M0</td>
</tr>
<tr>
<td>Stage IV</td>
<td>Any</td>
<td>Any</td>
<td>M1</td>
</tr>
</tbody>
</table>

The staging system for ovarian and primary peritoneal cancer is also used for malignant germ cell tumors, malignant sex cord-stromal tumors, and carcinosarcoma (malignant mixed müllerian tumors).

Note: For histologic grade and histopathologic type, see AJCC staging manual.
- **Cervix/Vulva/Vagina**
  - Based on Clinical Evaluation
  - **T**: Depth of Invasion (CS Ext)
  - **N** and **M**: Standard
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>TNM 7 Map</th>
<th>TNM 6 Map</th>
<th>SS77 Map</th>
<th>SS2000 Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>In situ, intraepithelial, noninvasive, preinvasive; Cancer in situ WITH endocervical gland involvement (See Note 3)</td>
<td>Tis</td>
<td>Tis</td>
<td>IS</td>
<td>IS</td>
</tr>
<tr>
<td>010</td>
<td>Cervical intraepithelial neoplasia (CIN) Grade III</td>
<td>Tis</td>
<td>Tis</td>
<td>IS</td>
<td>IS</td>
</tr>
<tr>
<td>110</td>
<td>Minimal microscopic stromal invasion less than or equal to 3 mm in depth (measured from the base of the epithelium) and less than or equal to 7 mm in horizontal spread FIGO Stage IA1</td>
<td>T1a1</td>
<td>T1a1</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>120</td>
<td>Microscopic stromal invasion greater than 3 mm and less than or equal to 5 mm in depth, (measured from the base of the epithelium) and less than or equal to 7 mm in horizontal spread FIGO Stage IA2</td>
<td>T1a2</td>
<td>T1a2</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>135</td>
<td>Invasive carcinoma confined to cervix, microscopic size of stromal invasion and horizontal spread not specified</td>
<td>T1aNOS</td>
<td>T1aNOS</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>140</td>
<td>FIGO Stage IA [NOS]</td>
<td>T1aNOS</td>
<td>T1aNOS</td>
<td>L</td>
<td>L</td>
</tr>
</tbody>
</table>
# Staging Cervical Cancer

<table>
<thead>
<tr>
<th>TNM Categories</th>
<th>FIGO Stages</th>
<th>Surgical-Pathologic Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td></td>
<td>Primary tumor cannot be assessed</td>
</tr>
<tr>
<td>T0</td>
<td></td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>Tis*</td>
<td>I</td>
<td>Carcinoma in situ (preinvasive carcinoma)</td>
</tr>
<tr>
<td>T1</td>
<td>I</td>
<td>Cervical carcinoma confined to cervix (extension to corpus should be disregarded)</td>
</tr>
<tr>
<td>T1a**</td>
<td>IA</td>
<td>Invasive carcinoma diagnosed only by microscopy. Stromal invasion with a maximum depth of 5.0 mm measured from the base of the epithelium and a horizontal spread of 7.0 mm or less. Vascular space involvement, venous or lymphatic, does not affect classification</td>
</tr>
<tr>
<td>T1aI</td>
<td>IA1</td>
<td>Measured stromal invasion 3.0 mm or less in depth and 7.0 mm or less in horizontal spread</td>
</tr>
<tr>
<td>T1a2</td>
<td>IA2</td>
<td>Measured stromal invasion more than 3.0mm and not more than 5.0 mm with a horizontal spread 7.0 mm or less</td>
</tr>
<tr>
<td>T1b</td>
<td>IB</td>
<td>Clinically visible lesion confined to the cervix or microscopic lesion greater than T1a/IA2#</td>
</tr>
<tr>
<td>T1b1</td>
<td>IB1</td>
<td>Clinically visible lesion 4.0 cm or less in greatest dimension</td>
</tr>
<tr>
<td>T1b2</td>
<td>IB2</td>
<td>Clinically visible lesion more than 4.0 cm in greatest dimension</td>
</tr>
<tr>
<td>T2</td>
<td>II</td>
<td>Cervical carcinoma invades beyond uterus but not to pelvic wall or to lower third of vagina</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TNM Categories</th>
<th>FIGO Stages</th>
<th>Surgical-Pathologic Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2a</td>
<td>IIA</td>
<td>Tumor without parametrial invasion</td>
</tr>
<tr>
<td>T2a1</td>
<td>IIA1</td>
<td>Clinically visible lesion 4.0 cm or less in greatest dimension</td>
</tr>
<tr>
<td>T2a2</td>
<td>IIA2</td>
<td>Clinically visible lesion more than 4.0 cm in greatest dimension</td>
</tr>
<tr>
<td>T2b</td>
<td>IIB</td>
<td>Tumor with parametrial invasion</td>
</tr>
<tr>
<td>T3</td>
<td>III</td>
<td>Tumor extends to pelvic wall and/or involves lower third of vagina and/or causes hydronephrosis or nonfunctioning kidney##</td>
</tr>
<tr>
<td>T3a</td>
<td>IIIA</td>
<td>Tumor involves lower third of vagina, no extension to pelvic wall</td>
</tr>
<tr>
<td>T3b</td>
<td>IIIB</td>
<td>Tumor extends to pelvic wall and/or causes hydronephrosis or nonfunctioning kidney</td>
</tr>
<tr>
<td>T4</td>
<td>IVA</td>
<td>Tumor invades mucosa of bladder or rectum, and/or extends beyond true pelvis (bullous edema is not sufficient to classify a tumor as T4)</td>
</tr>
</tbody>
</table>

*Note: FIGO no longer includes Stage 0 (Tis).** Note: All macroscopically visible lesions—even with superficial invasion—are allotted to stage IB carcinomas. Invasion is limited to a measured stromal invasion with a maximal depth of 5.00 mm and a horizontal extension of not >7.00 mm. Depth of invasion should not be >5.00mm taken from the base of the epithelium of the original tissue—superficial or glandular. The depth of invasion should always be reported in mm, even in those cases with “early (minimal) stromal invasion” (~1 mm). The involvement of vascular/lymphatic spaces should not change the stage allotment.

#All macroscopically visible lesions—even with superficial invasion—are allotted to stage IB carcinomas. Invasion is limited to a measured stromal invasion with a maximal depth of 5.00 mm and a horizontal extension of not >7.00 mm. Depth of invasion should not be >5.00mm taken from the base of the epithelium of the original tissue—superficial or glandular. The depth of invasion should always be reported in mm, even in those cases with “early (minimal) stromal invasion” (~1 mm). The involvement of vascular/lymphatic spaces should not change the stage allotment.

##On rectal examination, there is no cancer-free space between the tumor and the pelvic wall. All cases with hydronephrosis or non-functioning kidney are included, unless they are known to be due to another cause.

Continued...
Corpus Uteri
- Based on Surgical Evaluation
- TNM based on FIGO staging
  - T: Depth of Invasion
  - N and M: Standard
  - Leiomyosarcoma, endometrial stromal sarcoma
    - 8890-8898, 8930-8931
  - Carcinoma and Carcinosarcoma
    - 8000-8790, 8980-8981, 9700-9701
  - Adenosarcoma
    - 8933
# Staging Uterine Carcinoma

## Staging-Endometrial Carcinoma

<table>
<thead>
<tr>
<th>Primary Tumor (T)</th>
<th>FIGO* Surgical-Pathologic Findings</th>
<th>FIGO Categories</th>
<th>FIGO Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td>Primary tumor cannot be assessed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T0</td>
<td>No evidence of primary tumor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tis**</td>
<td>Carcina in situ (preinvasive carcinoma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>Tumor confined to the corpus uteri</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>T1a</td>
<td>Tumor limited to endometrium or invades less than one-half of the myometrium</td>
<td>IA</td>
<td></td>
</tr>
<tr>
<td>T1b</td>
<td>Tumor invades one-half or more of the myometrium</td>
<td>IB</td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>Tumor invades stromal connective tissue of the cervix but does not extend beyond uterus</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>T3a</td>
<td>Tumor involves serosa and/or adnexa (direct extension or metastasis)</td>
<td>IIIA</td>
<td></td>
</tr>
<tr>
<td>T3b</td>
<td>Vaginal involvement (direct extension or metastasis) or parametral involvement</td>
<td>IIIB</td>
<td></td>
</tr>
<tr>
<td>IIIC</td>
<td>Metastases to pelvic and/or para-aortic lymph nodes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Tumor invades bladder and/or bowel mucosa, and/or distant metastases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td>Tumor invades bladder mucosa and/or bowel (bullous edema is not sufficient to classify a tumor as T4)</td>
<td>IVA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TNM Categories</th>
<th>FIGO Categories</th>
<th>FIGO Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tis**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>T1a</td>
<td></td>
<td>IA</td>
</tr>
<tr>
<td>T1b</td>
<td></td>
<td>IB</td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>II</td>
</tr>
<tr>
<td>T3a</td>
<td></td>
<td>IIIA</td>
</tr>
<tr>
<td>T3b</td>
<td></td>
<td>IIIB</td>
</tr>
<tr>
<td>IIIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td>IVA</td>
</tr>
</tbody>
</table>

### Regional Lymph Nodes (N)
- N0
- N1: IIC1
- N2: IIC2

### Surgical-Pathologic Findings
- Regional lymph nodes cannot be assessed
- No regional lymph node metastasis
- Regional lymph node metastasis to pelvic nodes (positive pelvic nodes)
- Regional lymph node metastasis to para-aortic lymph nodes, with or without positive pelvic lymph nodes

### Distant Metastasis (M)
- M0
- M1: IVB

### Surgical-Pathologic Findings
- No distant metastasis
- Distant metastasis (includes metastasis to inguinal lymph nodes, intra-peritoneal disease, or lung, liver, or bone. It excludes metastasis to para-aortic lymph nodes, vagina, pelvic serosa, or adnexa)

---

*Either G1, G2, or G3
*Note: FIGO no longer includes Stage 0 (Tis).
#Endocervical glandular involvement only should be considered as Stage I and no longer as Stage II.
**Positive cytology has to be reported separately without changing the stage.

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*Continued*
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>TNM 7 Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>In situ, intraepithelial, noninvasive, preinvasive</td>
<td>Tis</td>
</tr>
<tr>
<td>100</td>
<td>Invasive cancer confined to corpus uteri</td>
<td>T1NOS</td>
</tr>
<tr>
<td>110</td>
<td>Confined to endometrium (stroma)</td>
<td>T1a</td>
</tr>
<tr>
<td>120</td>
<td>Tumor invades less than one-half of myometrium</td>
<td>T1a</td>
</tr>
<tr>
<td></td>
<td>Invasion of inner half of myometrium</td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Endocervical glandular involvement WITH tumor limited to endometrium or invading less than one-half of myometrium (See Note 3)</td>
<td>T1a</td>
</tr>
<tr>
<td>125</td>
<td>FIGO Stage IA</td>
<td>T1a</td>
</tr>
<tr>
<td>130</td>
<td>Tumor invades one-half or more of myometrium (See Note 4)</td>
<td>T1b</td>
</tr>
<tr>
<td></td>
<td>Invasion of outer half of myometrium</td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>Endocervical glandular involvement WITH tumor invading one-half or more of myometrium (See Note 3)</td>
<td>T1b</td>
</tr>
</tbody>
</table>
# Staging Uterine Sarcoma

**Table 2**

<table>
<thead>
<tr>
<th>AJCC Tumor-Node-Metastases (TNM) and International Federation of Gynecology and Obstetrics (FIGO) Surgical Staging Systems for Uterine Sarcomas (includes Leiomyosarcoma and Endometrial Stromal Sarcoma)*</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Regional Lymph Nodes (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNM Categories</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>NX</td>
</tr>
<tr>
<td>N0</td>
</tr>
<tr>
<td>N1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leiomysarcoma and Endometrial Stromal Sarcoma</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Primary Tumor (T)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TNM Categories</th>
<th>FIGO Stages</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td>Primary tumor cannot be assessed</td>
<td></td>
</tr>
<tr>
<td>T0</td>
<td>No evidence of primary tumor</td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>Tumor limited to the uterus</td>
<td></td>
</tr>
<tr>
<td>T1a</td>
<td>IA</td>
<td>Tumor 5 cm or less in greatest dimension</td>
</tr>
<tr>
<td>T1b</td>
<td>IB</td>
<td>Tumor more than 5 cm</td>
</tr>
<tr>
<td>T2</td>
<td>II</td>
<td>Tumor extends beyond the uterus, within the pelvis</td>
</tr>
<tr>
<td>T2a</td>
<td>IIA</td>
<td>Tumor involves adnexa</td>
</tr>
<tr>
<td>T2b</td>
<td>IIB</td>
<td>Tumor involves other pelvic issues</td>
</tr>
<tr>
<td>T3</td>
<td>III*</td>
<td>Tumor infiltrates abdominal tissues (not just protruding into the abdomen)</td>
</tr>
<tr>
<td>T3a</td>
<td>IIIA</td>
<td>One site</td>
</tr>
<tr>
<td>T3b</td>
<td>IIIB</td>
<td>More than one site</td>
</tr>
<tr>
<td>T4</td>
<td>IVA</td>
<td>Tumor invades bladder or rectum</td>
</tr>
</tbody>
</table>

*In this stage, lesions must infiltrate abdominal tissues and not just protrude into the abdominal cavity. |

**Note:** Simultaneous tumors of the uterine corpus and ovary/pelvis in association with ovarian/pelvic endometriosis should be classified as independent primary tumors.

*Carcinosarcomas should be staged as carcinomas of the endometrium (See ST-1).

---

Ovarian
Based on Combined Clinical/Surgical Evaluation
T: based on bilaterality, positive ascites, other sites
N and M: standard
1. Ascites Positive ascites changes stages I and II to IC and IIC.

2. Pelvic organs* coded to FIGO Stage II
   * Adnexa, bladder (including serosa), uterine ligaments, cul de sac, fallopian tubes, parametrium, pelvic peritoneum, pelvic wall, rectum, sigmoid colon, ureter, uterus, uterine serosa

3. Abdominal organs* coded to FIGO III
   * Abdominal mesentery, diaphragm, gallbladder, infracolic omentum, kidneys, large intestine except rectum and sigmoid, peritoneal surface of liver, omentum, pancreas, pericolic gutter, peritoneum, NOS, small intestine, spleen, stomach, ureters
   * Involvement may be direct or discontinuous Gynecologic Cancers
4. CS Mets at DX

- Liver parenchymal metastases area coded in M1
- Implants (discontinuous metastases) seeding, salting, studding, talcum powder appearance
- Determine whether implants are
  - T2 in the Pelvis
  - T3 outside the pelvis
  - M1
- Implants outside the pelvis must be microscopically confirmed and coded.

5. Post Cytoreduction (debulking) - Residual Tumor Status
Surgical Staging Should Include:
- Removal of para-aortic lymph nodes
- Removal pelvic lymph nodes
- Removal primary tumor
- Uterus
- Cervix
- Vagina
- Peritoneal washing
- Removal of omentum
- Liver examination with biopsy as indicated
- Scraping of under right diaphragm
# Staging Ovarian

## Staging

<table>
<thead>
<tr>
<th>TNM</th>
<th>FIGO</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX</td>
<td></td>
<td>Primary tumor cannot be assessed</td>
</tr>
<tr>
<td>T0</td>
<td>I</td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>T1</td>
<td>IA</td>
<td>Tumor limited to ovaries (one or both)</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>Tumor limited to both ovaries; capsule intact, no tumor on ovarian surface.</td>
</tr>
<tr>
<td></td>
<td>IC</td>
<td>Tumor limited to one or both ovaries with any of the following: capsule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ruptured, tumor on ovarian surface, malignant cells in ascites or peritoneal</td>
</tr>
<tr>
<td>T1a</td>
<td>IIA</td>
<td>Extension and/or implants on uterus and/or tube(s); no malignant cells in</td>
</tr>
<tr>
<td></td>
<td>IIB</td>
<td>Extension to and/or implants on other pelvic tissues; no malignant cells in</td>
</tr>
<tr>
<td>T2</td>
<td>IIC</td>
<td>Pelvic extension and/or implants (T2a or T2b) with malignant cells in ascites</td>
</tr>
<tr>
<td>T3</td>
<td>III</td>
<td>Tumor involves one or both ovaries with microscopically confirmed peritoneal</td>
</tr>
<tr>
<td>T3a</td>
<td>IIIA</td>
<td>Microscopic peritoneal metastasis beyond pelvis (no macroscopic tumor)</td>
</tr>
<tr>
<td>T3b</td>
<td>IIIB</td>
<td>Macroscopic peritoneal metastasis beyond pelvis 2 cm or less in greatest</td>
</tr>
<tr>
<td>T3c</td>
<td>IIIC</td>
<td>Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and/or regional lymph node metastasis</td>
</tr>
</tbody>
</table>

### Regional Lymph Nodes (N)

<table>
<thead>
<tr>
<th>N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX</td>
<td>Regional lymph nodes cannot be assessed</td>
</tr>
<tr>
<td>N0</td>
<td>No regional lymph node metastasis</td>
</tr>
<tr>
<td>N1</td>
<td>Regional lymph node metastasis</td>
</tr>
</tbody>
</table>

### Distant Metastasis (M)

<table>
<thead>
<tr>
<th>M</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>M1</td>
<td>Distinct metastasis (excludes peritoneal metastasis)</td>
</tr>
</tbody>
</table>

Note: Liver capsule metastasis is T3/Stage III; liver parenchymal metastasis, M1/Stage IV. Pleural effusion must have positive cytology for M1/Stage IV.
Primary Peritoneal
Based on Combined Clinical/Surgical Evaluation
T: based on positive ascites and other involvement
N and M: standard
1. Ascites Positive ascites changes stages I and II to IC and IIC.

2. Pelvic organs* coded to FIGO Stage II
   * Adnexa, bladder (including serosa), uterine ligaments, cul de sac, fallopian tubes, parametrium, pelvic peritoneum, pelvic wall, rectum, sigmoid colon, ureter, uterus, uterine serosa

3. Abdominal organs* coded to FIGO III
   * Abdominal mesentery, diaphragm, gallbladder, infracolic omentum, kidneys, large intestine except rectum and sigmoid, peritoneal surface of liver, omentum, pancreas, pericolic gutter, peritoneum, NOS, small intestine, spleen, stomach, ureters
   * Involvement may be direct or discontinuous Gynecologic Cancers
4. CS Mets at DX

- Liver parenchymal metastases are coded in M1
- Implants (discontinuous metastases) seeding, salting, studding, talcum powder appearance
- Determine whether implants are
  - T2 in the Pelvis
  - T3 outside the pelvis
  - M1
- Implants outside the pelvis must be microscopically confirmed and coded.

5. Post Cytoreduction (debulking) - Residual Tumor Status
## FCDS Required GYN Site Specific Factors

<table>
<thead>
<tr>
<th>Schema Name</th>
<th>2012 FCDS Required</th>
<th>Additional CoC Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdnexaUterineOther</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Cervix</td>
<td>None</td>
<td>1</td>
</tr>
<tr>
<td>CorpusAdenosarcoma</td>
<td>2</td>
<td>1,3,4,5,6</td>
</tr>
<tr>
<td>CorpusCarcinoma</td>
<td>2</td>
<td>1,3,4,5,6</td>
</tr>
<tr>
<td>CorpusSarcoma</td>
<td>2</td>
<td>1,3,4,5,6</td>
</tr>
<tr>
<td>FallopianTube</td>
<td>None</td>
<td>1,4,5,6,7</td>
</tr>
<tr>
<td>GenitalFemaleOther</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>MerkelCellVulva</td>
<td>3,11</td>
<td>1,16,17,18,22</td>
</tr>
<tr>
<td>Ovary</td>
<td>None</td>
<td>1,2,3</td>
</tr>
<tr>
<td>PeritoneumFemaleGen</td>
<td>25</td>
<td>1,2,3</td>
</tr>
<tr>
<td>Placenta</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Vagina</td>
<td>None</td>
<td>1,2,3,4,5,6,7</td>
</tr>
<tr>
<td>Vulva</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>
CS Coding Issues

CS TUMOR SIZE: Instructions for Coding

- **Use of code 990.** Code 990, Microscopic focus or foci only and no size is given, should be used when no gross tumor is seen and tumor is only identified microscopically.

- **Note:** The terms microscopic focus, microfocus, and microinvasion are NOT the same as [macroscopic] focal or focus. A macroscopic focus or foci indicates a very small or isolated area, pinpoint, or spot of tumor that may be visible grossly. Only tumor identified microscopically should be coded to 990. If the tumor is described as both a microscopic focus and a specific size, code the specific size.

- **Example:** Ovary specimen: extensive cystic disease with focal areas of tumor seeding.

- **Disregard “focal” and code tumor size to 999 unknown.**

Collaborative Stage Data Collection System User Documentation and Coding Instructions: Part I Section 1. Effective January 1, 2012 pg. 30, Version 02.04
CS Coding Issues

- CS Extension
- For certain sites such as ovary, discontinuous metastasis is coded in the CS Extension field area.

- Contiguous (direct) extension only. With the exception of mucinous carcinoma of the corpus uteri, ovary, fallopian tube and female peritoneum, all codes represent contiguous (direct) extension of tumor from the site of origin to the organ/structure/tissue represented in the code.
CS Coding Issues

CODING “NONE” VS. “UNKNOWN” IN THE COLLABORATIVE STAGE DATA COLLECTION SYSTEM, TNM AND SUMMARY STAGE

- INACCESSIBLE LYMPH NODES RULE

- Regional lymph nodes are not palpable for inaccessible lymph nodes sites such as corpus uteri and ovary

- The best description concerning regional lymph nodes will be on imaging studies or in the surgeon’s evaluation at the time of exploratory surgery or definitive surgery

- If regional lymph nodes for these sites are not mentioned on imaging or exploratory surgery, they are presumed to be clinically negative (code 000) based on the inaccessible lymph nodes rule
Primary Treatment
NCCN Treatment Guidelines Cervix, Vulva, Vagina
Surgery
Radiation Therapy

- External radiation therapy uses high-energy X-rays
- Internal radiation, or brachytherapy
### Chemotherapy Regimens for Recurrent or Metastatic Cervical Cancer†

(Strongly consider clinical trial)

<table>
<thead>
<tr>
<th>First-line combination therapy</th>
<th>Possible first-line single agent therapy</th>
<th>Second-line therapy ††</th>
</tr>
</thead>
</table>
| - Cisplatin/paclitaxel<sup>1,2</sup>  
- Carboplatin/paclitaxel<sup>3</sup>  
- Cisplatin/topotecan<sup>4</sup>  
- Cisplatin/gemcitabine (category 2B)<sup>5</sup> | - Cisplatin (preferred as a single agent)<sup>2</sup>  
- Carboplatin<sup>6</sup>  
- Paclitaxel<sup>7</sup> | - Bevacizumab  
- Docetaxel  
- 5-FU (5-fluorouracil)  
- Gemcitabine  
- Ifosfamide  
- Irinotecan  
- Mitomycin  
- Topotecan  
- Pemetrexed (category 3)  
- Vinorelbine (category 3) |
## Chemotherapy

<table>
<thead>
<tr>
<th>Drugs Approved for Prevention/Treatment of HPV Infection or Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervix (Recombinant HPV Bivalent Vaccine)</td>
</tr>
<tr>
<td>Recombinant Human Papillomavirus (HPV) Bivalent Vaccine</td>
</tr>
<tr>
<td>Gardasil (Recombinant HPV Quadrivalent Vaccine)</td>
</tr>
<tr>
<td>Recombinant Human Papillomavirus (HPV) Quadrivalent Vaccine</td>
</tr>
<tr>
<td>Blenoxane (Bleomycin)</td>
</tr>
<tr>
<td>Bleomycin</td>
</tr>
<tr>
<td>Cisplatin</td>
</tr>
<tr>
<td>Hycamtin (Topotecan Hydrochloride)</td>
</tr>
<tr>
<td>Platinol (Cisplatin)</td>
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<tr>
<td>Platinol-AQ (Cisplatin)</td>
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<tr>
<td>Topotecan Hydrochloride</td>
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</tbody>
</table>
NCCN Treatment Guidelines
Corpus Uteri – Endometrium
Uterus
Endometrial Carcinoma – Primary Surgery

Endometrial Carcinoma

HYSTERECTOMY

TH/BSO: Total hysterectomy + bilateral salpingo-oophorectomy
RH: Radical hysterectomy

Pathologic assessment to include:
- Nodes
  - Level of nodal involvement (pelvic, common iliac, para-aortic)
- Peritoneal cytology
- Uterus
  - Ratio of depth of myometrial/stromal invasion to myometrial thickness
  - Cervical stromal or glandular involvement
  - Tumor size
  - Tumor location (fundus vs lower uterine segment/cervix)
  - Histologic subtype with grade
  - Lymphovascular space invasion
  - Consider screening for inherited mismatch repair disease to identify familial cancer syndromes, such as Lynch syndrome/HNPCC in young patients (< 55 y) with a significant family history and/or selected pathologic risk features (See NCCN Colorectal Cancer Screening Guidelines)
- Fallopian tubes/ovaries
Endometrial Carcinoma – Primary Surgery

Endometrial Carcinoma

All staging in guideline is based on updated 2010 FIGO staging. (See ST-1)

CLINICAL FINDINGS

ADJUVANT TREATMENT\textsuperscript{b, n, p}

- Stage IIIB
  - Pelvic node positive
  - Para-aortic node positive ± pelvic node positive

- Stage IIIC1
  - Pelvic node positive

- Stage IIIC2
  - Para-aortic node positive ± pelvic node positive

- Stage IVA, IVB
  - Debulked\textsuperscript{1} and with no gross residual disease or microscopic abdominal disease
  - Chemotherapy ± RT

\textsuperscript{b}See Principles of Radiation Therapy (UN-A).
\textsuperscript{1}The surgical goal is to have no measurable residual disease.
\textsuperscript{n}Adjuvant therapy determinations are made on the basis of pathologic findings.
\textsuperscript{p}See Systemic Therapy for Recurrent, Metastatic, or High-Risk Disease (ENDO-B).
Endometrial Carcinoma – Post-Surgical Evaluation
PRINCIPLES OF RADIATION THERAPY

- Tumor-directed RT refers to RT directed at sites of known or suspected tumor involvement, and may include external beam and/or brachytherapy. In general, tumor-directed external-beam RT (EBRT) is directed to the pelvis with or without the para-aortic region. Brachytherapy can be delivered: 1) to an intact uterus, either preoperatively or definitively; or 2) more commonly, to the vagina after hysterectomy. For the purposes of these guidelines, whole abdominal radiotherapy is not considered to be tumor-directed RT.

- Pelvic radiotherapy should target the gross disease (if present), the lower common iliacs, external iliacs, internal iliacs, parametria, upper vagina/para-vaginal tissue, and presacral lymph nodes (in patients with cervical involvement). Extended-field radiotherapy should include the pelvic volume and also target the entire common iliac chain and para-aortic lymph node region. The upper border of the extended field depends on the clinical situation but should at least be to the level of the renal vessels. External-beam doses for microscopic disease should be 45-50 Gy. Multiple conformal fields based on CT-treatment planning should be utilized.

- Brachytherapy doses for definitive therapy are individualized based on the clinical situation. For preoperative therapy in patients with gross stage IIIB disease, in general, a total dose of 75-80 Gy low-dose rate equivalent to the tumor volume is recommended. For vaginal brachytherapy, the dose should be prescribed to the vaginal surface or at a depth of 0.5 cm from the vaginal surface; the dose depends on the use of EBRT.
  - The target for vaginal brachytherapy after hysterectomy should be limited to the upper vagina.
  - For high-dose rate brachytherapy, when used as a boost to EBRT, doses of 4-6 Gy X 2-3 fractions prescribed to the vaginal mucosa are commonly used.
  - For high-dose rate vaginal brachytherapy alone, commonly used regimens include 7 Gy X 3 prescribed at a depth of 0.5 cm from the vaginal surface or 6 Gy X 5 fractions prescribed to the vaginal surface.
Endometrial Carcinoma – Chemo

Endometrial Carcinoma

SYSTEMIC THERAPY FOR RECURRENT, METASTATIC OR HIGH-RISK DISEASE
(STRONGLY ENCOURAGE PARTICIPATION IN CLINICAL TRIALS)

HORMONE THERAPY
- Progestational agents
- Tamoxifen
- Aromatase inhibitors

CHEMOTHERAPY REGIMENS
(Multi-agent chemotherapy regimens preferred, if tolerated)
- Cisplatin/doxorubicin (category 1)
- Cisplatin/doxorubicin/paclitaxel (category 1)
- Ifosfamide plus paclitaxel (category 1 for carcinosarcoma)
- Carboplatin/paclitaxel
- Carboplatin/docetaxel
- Cisplatin
- Carboplatin
- Doxorubicin
- Liposomal doxorubicin
- Paclitaxel
- Docetaxel (category 2B)
- Bevacizumab (category 2B)
- Cisplatin/ifosfamide (for carcinosarcoma)
- Ifosfamide (for carcinosarcoma)

1 Cisplatin, carboplatin, liposomal doxorubicin, paclitaxel, and docetaxel may cause drug reactions. (See NCCN Ovarian Cancer Guidelines – Management of Drug Reactions [OV-Ch])
2 Hormonal therapy is for endometrioid histologies only (i.e., not for papillary serous carcinoma, clear cell carcinoma, or carcinosarcoma).
3 Chemotherapy regimens are for endometrioid histologies, papillary serous carcinoma, or clear cell carcinoma. A few of the agents can also be used for carcinosarcoma, as indicated.
4 Docetaxel may be considered for patients in whom paclitaxel is contraindicated.
5 Bevacizumab may be considered for use in patients who have progressed on prior cytotoxic chemotherapy.
Uterine Sarcoma – Post Clinical/Surgical Evaluation

**NCCN Guidelines Version 3.2012**

**Uterine Sarcoma**

**INITIAL CLINICAL FINDINGS**

- Medically inoperable
- Disease limited to uterus
  - Operable
- Known or suspected extrauterine disease
  - MRI or CT based on symptoms or clinical suspicion of metastases

**PRIMARY TREATMENT**

- Pelvic RT\(^a\) ± brachytherapy\(^a\) and/or Chemotherapy\(^b\)
or Hormone therapy\(^b\)
- See Surveillance (UTSARC-4)
- TH/BSO\(^c,d\)
  - Additional surgical resection for extrauterine disease is individualized
  - Endometrial stromal sarcoma (ESS) (See UTSARC-2)
  - Undifferentiated sarcoma or Leiomyosarcoma (LMS) (See UTSARC-3)

**Consider surgical resection based on:**
- Symptoms
- Extent of disease
- Resectability

**Surgical resection**
- TH/BSO\(^c\) and/or Resection of metastatic focus
- No surgical resection

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\(^a\) See Principles of Radiation Therapy (UN-A).
\(^b\) See Systemic Therapy for Uterine Sarcoma (UTSARC-A).
\(^c\) Oophorectomy individualized for reproductive age patients.
\(^d\) For incidental finding of uterine sarcoma after TH/BSO: Recommend imaging and consider additional surgical resection on an individual basis.
**PRINCIPLES OF RADIATION THERAPY**

- Tumor-directed RT refers to RT directed at sites of known or suspected tumor involvement, and may include external beam and/or brachytherapy. In general, tumor-directed external-beam RT (EBRT) is directed to the pelvis with or without the para-aortic region. Brachytherapy can be delivered: 1) to an intact uterus, either preoperatively or definitively; or 2) more commonly, to the vagina after hysterectomy. For the purposes of these guidelines, whole abdominal radiotherapy is not considered to be tumor-directed RT.

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Uterine Sarcoma – Chemo

Uterine Sarcoma

SYSTEMIC THERAPY FOR UTERINE SARCOMA

CHEMOTHERAPY REGIMENS
(Clinical trials strongly recommended)

- Doxorubicin
- Gemcitabine/docetaxel
- Consider other single-agent options
  (all agents are category 2B):
  - Dacarbazine
  - Docetaxel
  - Epirubicin
  - Gemcitabine
  - Ifosfamide
  - Liposomal doxorubicin
  - Paclitaxel
  - Temozolomide

HORMONE THERAPY (ESS only)

- Medroxyprogesterone acetate
- Megestrol acetate
- Aromatase inhibitors (category 2B)
- GnRH analogs (category 2B)
- Tamoxifen (category 2B)
NCCN Treatment Guidelines Ovary / Primary Peritoneum
Ovary, Primary Peritoneum – Surgery

PRINCIPLES OF PRIMARY SURGERY (1 of 3)^1,2

• In general, a vertical midline abdominal incision should be used in patients with a suspected malignant ovarian neoplasm. Intraoperative pathologic evaluation with frozen sections may assist in management.
• Quantify the extent of initial and residual disease; document in operative notes.

Ovarian cancer apparently confined to an ovary or to the pelvis

• The following procedures should be considered part of the surgical management of patients with ovarian cancer apparently confined to an ovary or to the pelvis:
  ▶ On entering the abdomen, aspiration of ascites or peritoneal lavage should be performed for peritoneal cytologic examinations.
  ▶ All peritoneal surfaces should be visualized, and any peritoneal surface or adhesion suspicious for harboring metastasis should be selectively excised or biopsied. In the absence of any suspicious areas, random peritoneal biopsies should be taken from the pelvis, paracolic gutters, and undersurfaces of the diaphragm (diaphragm scraping for Papanicolaou stain is an acceptable alternative).
  ▶ Hysterectomy, bilateral salpingectomy, and bilateral oophorectomy should be performed with every effort made to keep an encapsulated mass intact during removal.
  ▶ Unilateral salpingo-oophorectomy (USO) for patients desiring to preserve fertility may be considered in select patients. (See OV-A 2 of 3)
  ▶ Omentectomy should be performed.
  ▶ Aortic lymph node dissection should be performed by stripping the nodal tissue from the vena cava and the aorta bilaterally to at least the level of the inferior mesenteric artery and preferably to the level of the renal vessels.
  ▶ Pelvic lymph nodes should be dissected. Removal of lymph nodes overlying and medial to the external iliac and hypogastric vessels, from the obturator fossa anterior to the obturator nerve, and overlying and anterolateral to the common iliac vessel is preferred.
  ▶ In low malignant potential, although data show upstaging with lymphadenectomy and omentectomy, other data show this surgery does not affect overall survival.
Ovary, Primary Peritoneum – Surgery

Ovarian cancer involving the upper abdomen

- In general, the following procedures should be part of the surgical management of patients with ovarian cancer involving the upper abdomen in an effort to achieve maximal cytoreduction. Residual disease < 1 cm defines optimal cytoreduction; however, maximal effort should be made to remove all gross disease.
- Aspiration of ascites or peritoneal lavage should be performed for peritoneal cytologic examinations. For obvious disease beyond ovaries, cytologic assessment of ascites and/or lavage specimens would not alter stage or management.
- Hysterectomy, bilateral salpingectomy, and bilateral oophorectomy should be performed.
- All involved omentum should be removed.
- Suspicious and/or enlarged nodes should be resected, if possible.
- Those patients with tumor nodules outside the pelvis ≤ 2 cm (presumed stage IIIB) should have bilateral pelvic and para-aortic lymph node dissection as previously described.

2 It is recommended that a gynecologic oncologist should perform primary surgery (category 1).  

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

Continued on OV-A 2 of 3
Ovary, Primary Peritoneum – Surgery

- Primary Surgery
  - Radical pelvic dissection
  - Bowel resection
  - Diaphragm or other peritoneal surface stripping
  - Splenectomy
  - Partial hepatectomy
  - Cholecystectomy
  - Partial cystectomy
  - Ureteroenocystomy
  - Distal pancreatectomy

- Ancillary Palliative Surg
  - Paraentesis
  - Thoracentesis/pleurodesis
  - Ureteral stents/nephrostomy
  - Surgical relief or intestinal obstruction
  - Gastrostomy tube
  - Vascular access device
  - Indwelling peritoneal or pleural catheter
  - Intestinal stents
  - Video-assisted thoracoscopy
Ovary, Primary Peritoneal Post Surgical Evaluation

**Diagnosis by Previous Surgery**

- **Adequate previous surgery and staging**
  - Suspected stage IA or IB, Grade 1
    - Surgical staging procedure
  - Incomplete previous surgery and/or staging:
    1. Uterus intact
    2. Adnexa intact
    3. Omentum not removed
    4. Documentation of staging incomplete
    5. Residual disease, potentially resectable

- **Suspected stage IA or IB, Grade 2**
  - If observation considered:
    - Surgical staging procedure
  - Suspect residual disease:
    - Completion surgical staging procedure
  - Suspect no residual disease:
    - Completion surgical staging surgery

- **Suspected stage IA or IB, Grade 3 Stage IC**
  - Suspect potentially resectable residual disease:
    - Tumor reductive surgery
  - Suspect unresectable residual disease:
    - Chemotherapy for a total of 6-8 cycles
      - Consider completion surgery after 3-6 cycles followed by postoperative chemotherapy

---

**Primary Treatment**

- **Stage II, III, IV**
  - Surgical staging procedure
  - Suspect residual disease:
    - Chemotherapy for 6 cycles or completion staging surgery
  - Suspect no residual disease:
    - Completion surgical staging surgery
    - Chemotherapy for 6 cycles or completion staging surgery

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**Notes:**

- Standard recommendation includes a patient evaluation by a gynecologic oncologist prior to initiating chemotherapy. Published data demonstrate that primary assessment and debulking by a gynecologic oncologist result in a survival advantage. Patients being evaluated for neoadjuvant chemotherapy should be seen by a fellowship-trained gynecologic oncologist prior to being considered a nonsurgical candidate.

- See Principles of Primary Surgery (OV-A).

- See Principles of Chemotherapy (OV-B) and Management of Drug Reactions (OV-C).

- Clear-cell pathology is grade 3.

- Based on clinical judgement of gynecologic oncologist, surgery may be performed after 6 cycles.
# Ovary, Primary Peritoneal Adjuvant Chemotherapy

## Pathologic Staging

<table>
<thead>
<tr>
<th>Stage IA or IB</th>
<th>Grade 1(^h)</th>
<th>Observe</th>
<th>See Monitoring/Follow-Up (OV-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 2(^h)</td>
<td>Observe or Intravenous (IV) taxane/carboplatin(^g) for 3-6 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade 3</td>
<td>IV taxane/carboplatin(^g) for 3-6 cycles</td>
<td></td>
</tr>
</tbody>
</table>

| Stage IC       | Grade 1, 2, or 3 | IV taxane/carboplatin\(^g\) for 3-6 cycles | See Secondary Adjuvant (OV-4) |

| Stage II       | Chemotherapy\(^j\) |
|                | Intraperitoneal (IP) chemotherapy\(^g\,\(^h\) in < 1 cm optimally debulked Stage II patients and Stage III patients (category 1 for Stage III) or Intravenous taxane/carboplatin\(^g\) for a total of 6-8 cycles (category 1) |
|                | Completion surgery as indicated by tumor response and potential resectability in selected patients\(^f\) |

| Stage III | Stage IV |

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\(^f\) Clear-cell pathology is Grade 3.

\(^g\) All women undergoing surgery for ovarian cancer should be counseled about the clinical benefit associated with combined IV and IP chemotherapy administration prior to surgery. NCI Clinical Announcement.

\(^h\) See Principles of Primary Surgery (OV-A).

\(^j\) See Principles of Chemotherapy (OV-B) and Management of Drug Reactions (OV-C).

\(^k\) The NCCN Ovarian Cancer panel recognizes that data for first-line and maintenance bevacizumab are becoming available and encourages participation in clinical trials.

\(^l\) See specific regimens on Primary Chemotherapy/Primary Adjuvant Therapy Regimens for Stage II-IV (OV-D).
## Drugs Approved for Ovarian Cancer Treatment

<table>
<thead>
<tr>
<th>Drug Name</th>
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<tbody>
<tr>
<td>Adriamycin PFS (Doxorubicin Hydrochloride)</td>
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<tr>
<td>Adriamycin RDF (Doxorubicin Hydrochloride)</td>
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<tr>
<td>Carboplatin</td>
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<tr>
<td>Clafen (Cyclophosphamide)</td>
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<tr>
<td>Cisplatin</td>
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<tr>
<td>Cyclophosphamide</td>
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<tr>
<td>Cytoxan (Cyclophosphamide)</td>
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<tr>
<td>Doxorubicin Hydrochloride</td>
</tr>
<tr>
<td>Dox-SL (Doxorubicin Hydrochloride Liposome)</td>
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<tr>
<td>DOXIL (Doxorubicin Hydrochloride Liposome)</td>
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<tr>
<td>Doxorubicin Hydrochloride Liposome</td>
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<tr>
<td>Evacet (Doxorubicin Hydrochloride Liposome)</td>
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<tr>
<td>Gemcitabine Hydrochloride</td>
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<td>Gemzar (Gemcitabine Hydrochloride)</td>
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<tr>
<td>Hycamtin (Topotecan Hydrochloride)</td>
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<tr>
<td>LipoDox (Doxorubicin Hydrochloride Liposome)</td>
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<tr>
<td>Neosar (Cyclophosphamide)</td>
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<tr>
<td>Paclitaxel</td>
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<td>Paraplat (Carboplatin)</td>
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<td>Paraplatin (Carboplatin)</td>
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<td>Platinol (Cisplatin)</td>
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<td>Platinol-AQ (Cisplatin)</td>
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<tr>
<td>Taxol (Paclitaxel)</td>
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<td>Topotecan Hydrochloride</td>
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</table>
Ovary/Primary Peritoneal Palliative Care

- Comfort care given to a patient who has a serious or life-threatening disease
- Addresses the emotional, physical, practical, and spiritual issues of cancer
- Provided by a specialist who works with a team of other healthcare professionals
- Palliative Care is different from hospice care – it can begin at time of diagnosis and last throughout the patient’s life
- Hospice Care is end of life care often accompanied by palliative care for pain control and symptom control.
Problem Areas for Registrars

- Where did neoplasm originate
  - Primary Site
  - Anatomic Proximity of sites
  - Biopsy of Involved Site or Primary Site
  - Similar histologic type(s)
  - Few natural barriers to slow spread
  - Ovary versus Peritoneum
  - Inaccessible Sites (corpus uteri, ovary)
**Question**
Primary Site--Ovary/Peritoneum: How should the Primary Site field be coded when no resection is done and it is uncertain whether the primary site is in the ovary or the peritoneum?

**Answer**
Use the best information available to identify the primary site. In this case, it is the physician's clinical assessment. Code the Primary Site to C56.9 [Ovary] for this example because the ovary is indicated to be the primary site according to the physicians involved.

When there is no surgical procedure involving the removal of the ovaries, code the Primary Site based on the clinical assessment of the disease location. If the disease is only noted to be in the peritoneum, code site to peritoneum, NOS. If the disease is seen clinically in both the ovary and the peritoneum, code site to ovary.
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the whole time™

Gilda’s RED DOOR RUN

Ovarian Cancer...
begin your journey
unto AWARENESS!
Additional Resources

- 2003 WHO Classification of Tumours of Female Genital Organs, World Health Organization, Lyon, France, 2003
- NCI Physician Data Query for Healthcare Professionals
- Multiple Primary and Histology Coding Rules, SEER 2007
- Collaborative Stage Data Collection System, AJCC, 2012
- FIGO Staging Classifications for GYN Cancers, FIGO, 2012
- NCCN Evidence Based Treatment Guidelines, NCCN, 2013
Questions