**Types of endometrial cancer**

Endometrial carcinoma starts in the cells of the inner lining of the uterus (the endometrium). This is the most common type of cancer in the uterus.

Endometrial carcinomas can be divided into different types based on how the cells look under the microscope. They include:

- **Adenocarcinoma** (most endometrial cancers are endometrioid cancer)
- **Carcinosarcoma**
- **Squamous cell carcinoma**
- **Small cell carcinoma**
- **Transitional carcinoma**
- **Serous carcinoma**

*Clear-cell carcinoma, mucinous adenocarcinoma, undifferentiated carcinoma, dedifferentiated carcinoma, and serous adenocarcinoma* are less common types of endometrial adenocarcinomas. They tend to grow and spread faster than most types of endometrial cancer. They often have spread outside the uterus by the time they're diagnosed.

**Endometrioid cancer**

Most endometrial cancers are adenocarcinoma, and endometrioid cancer is the most common type of adenocarcinoma, accounting for 75 to 80% of cases. Endometrioid cancers start in gland cells and look a lot like the normal uterine lining (endometrium). Some of these cancers have squamous cells (squamous cells are flat, thin cells), as well as glandular cells.

**Histology** - Endometrioid cancer is composed of tall columnar cells lining back-to-back glands without intervening stroma. The glands have a smooth, luminal contour. Cribriform (gland within a gland) patterns are also common. Occasionally, endometrioid carcinomas have a prominent papillary or villoglandular growth pattern.

**Serous endometrial carcinoma**

Serous endometrial carcinoma (SEC) is the second most common type of endometrioid carcinoma but only accounts for approximately 10% of cases.

Clinically occult extrauterine disease is often present at diagnosis. SEC often diffusely infiltrates the myometrium and may have extensive lymphovascular space invasion and peritoneal spread, similar to ovarian carcinoma. However, SEC confined to the endometrium (or a polyp) with minimal myometrial invasion and no distant disease after surgical staging has a good prognosis.

**Histology** - In serous endometrial carcinoma, the neoplastic cells form papillary structures and glands with serrated outlines. The cells have marked nuclear atypia with prominent nucleoli and numerous mitotic figures. Psammoma bodies may be present.
Corpus Uteri

**Mixed carcinoma**

Mixed carcinomas have at least two distinct histologic components, typically endometrioid and a high-grade non-endometrioid pattern (usually serous, sometimes clear cell).

**Undifferentiated/dedifferentiated carcinoma**

These neoplasms have no glandular or squamous differentiation. Most express epithelial antigens (eg, cytokeratin), but this is typically focal. Dedifferentiated carcinomas are composed of FIGO grade 1 or 2 endometrioid endometrial carcinoma adjacent to areas of undifferentiated carcinoma.

**Carcinosarcoma**

Carcinosarcoma (previously known as malignant mixed müllerian tumor) is an uncommon, aggressive, biphasic carcinoma (not sarcoma) that accounts for < 5% of endometrial carcinomas. They are considered a high-risk variant of endometrial adenocarcinoma because carcinosarcomas share similarities in epidemiology, risk factors, and clinical behavior more closely with endometrial carcinoma as opposed to uterine sarcomas.

**Histology** - Carcinosarcoma is a biphasic carcinoma composed of a high-grade sarcoma component juxtaposed with a high-grade carcinoma. The sarcomatous component is composed of cell types intrinsic to the uterus (homologous tumors), such as endometrial stromal sarcoma or leiomyosarcoma, or cell types extrinsic to the uterus (heterologous tumors), such as chondrosarcoma or rhabdomyosarcoma. The carcinomatous component is high grade, frequently difficult to assign to a specific histologic type, and can show features of high-grade endometrioid carcinoma, serous carcinoma, clear cell carcinoma, or undifferentiated carcinoma.

**Abstracting Tip:**

What is the correct histology code for MMMT/Carcinosarcoma?

Assign code 8980/3, since both terms are used. MMMT is a synonym of carcinosarcoma even though it has a separate ICD-O code. In carcinosarcomas, both components (epithelial and mesenchymal) are malignant. In an adenosarcoma, the epithelial component is benign while only the mesenchymal component is malignant. If the ONLY term used is MMMT, assign 8950/3.

**Adenosarcoma**

A variant of uterine sarcoma comprising non-neoplastic glandular epithelium associated with sarcoma is termed adenosarcoma.

**Histology** - Adenosarcoma of the uterus is a rare mixed neoplasm in which a benign/non-neoplastic epithelial component is mixed with a malignant stromal (ie, sarcomatous) element. These are typically considered low-grade neoplasms. These neoplasms present as solid, edematous polypoid masses and have low malignant potential and a good prognosis.

While adenosarcomas typically have a low malignant potential, a subgroup exhibits a sarcomatous component constituting more than 25% of the neoplasm. Any degree of stromal overgrowth or high-grade component may be associated with an increased risk of recurrence. Adenosarcomas with sarcomatous overgrowth are associated with higher rates of recurrence and significantly poorer prognosis.
Corpus Uteri

For Gyn malignancies use MP/H 2007 Other Sites for cases diagnosed 2007-2020

The table below is used to determine mixed and combination codes ONLY

Apply the Multiple Primary Rules FIRST. Combination codes are most often used when multiple histologies are present in a single tumor; they are rarely used for multiple tumors. Use a combination code for multiple tumors ONLY when the tumors meet the rules for a single primary.

Table 2: Mixed and Combination Codes table

<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 Endometrioid Mucinous Papillary Serous Squamous Transitional (Brenner)</td>
<td>Mixed cell adenocarcinoma</td>
<td>8323</td>
</tr>
</tbody>
</table>

Examples:
- Gyn malignancy with mucinous, serous and papillary adenocarcinoma. Code 8323 (mixed cell adenocarcinoma)
- GYN malignancy is papillary serous carcinoma - this is a single histology. Code 8460

Abstracting Tip:
For cases diagnosed 2007 or later: Endometrioid adenocarcinoma with squamous differentiation is coded to \(8570\) (Adenocarcinoma with squamous metaplasia)

If an endometrial biopsy shows endometrioid adenocarcinoma with squamous differentiation. The TAH/BSO finds endometrioid adenocarcinoma, endometrioid type. The histology will be 8380 based on the most representative specimen.

Endometrium and Myometrium

The **endometrium** is the inner epithelial layer, along with its mucous membrane, of the mammalian uterus. It has a basal layer and a functional layer; the functional layer thickens and then is shed during menstruation in humans and some other mammals. It functions to prevent adhesions between the opposed walls of the myometrium, thereby maintaining the patency of the uterine cavity.

- The **functional layer** is adjacent to the uterine cavity. This layer is built up after the end of menstruation during the first part of the previous menstrual cycle.
- The **basal layer**, adjacent to the myometrium and below the functional layer, is not shed at any time during the menstrual cycle. The functional layer develops on top of it.

https://en.wikipedia.org/wiki/Endometrium

This project was supported in part by a cooperative agreement between the Centers for Disease Control and Prevention (CDC) and the Missouri Department of Health and Senior Services (DHSS) (NU58DP006299-04) and a Surveillance Contract between DHSS and the University of Missouri.
The myometrium is the middle layer of the uterine wall, consisting mainly of uterine smooth muscle cells, but also of supporting stromal and vascular tissue. Its main function is to induce uterine contractions. The myometrium is located between the endometrium (the inner layer of the uterine wall) and the serosa or perimetrium (the outer uterine layer).

The inner one-third of the myometrium (sub-endometrial layer) appears to be derived from the Müllerian duct, while the outer, more predominant layer of the myometrium appears to originate from non-Müllerian tissue and is the major contractile tissue during parturition and abortion.

Abstracting Tips:
- If the diagnosis is endometrial adenocarcinoma, endometrioid type invading outer half of myometrium, the primary site is coded to the endometrium. (C54.1)
- The primary site of a uterine leiomyosarcoma is coded to the myometrium (C54.2) not uterus, NOS. (Leio = smooth; myo = muscle)
- If the diagnosis is carcinosarcoma, code the primary site according to the documentation in the medical record of where it started.
- Code the primary site for an endometrial adenocarcinoma, endometrioid type of the fundus to endometrium (C54.1). While coding to fundus (C54.3) would not be incorrect, it is more appropriate in a setting in which the region of the uterus is of importance, e.g. myosarcoma.

Corpus Carcinoma and Carcinosarcoma
Corpus Sarcoma (Leiomyosarcoma and Endometrial Stromal Sarcoma)

2018 Grade Table

<table>
<thead>
<tr>
<th>Code</th>
<th>Grade Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G1 FIGO Grade 1</td>
</tr>
<tr>
<td></td>
<td>G1: Well differentiated</td>
</tr>
<tr>
<td>2</td>
<td>G2 FIGO Grade 2</td>
</tr>
<tr>
<td></td>
<td>G2: Moderately differentiated</td>
</tr>
<tr>
<td>3</td>
<td>G3 FIGO Grade 2</td>
</tr>
<tr>
<td></td>
<td>G3: Poorly differentiated or undifferentiated</td>
</tr>
<tr>
<td>9</td>
<td>Grade cannot be assessed (GX); Unknown</td>
</tr>
</tbody>
</table>

- For a diagnosis of “high grade adenocarcinoma” you would assign a grade 9. "high grade" is not included in this table.
- "High grade" is included for Corpus Adenosarcomas (8933/3), not for the carcinomas and other sarcomas.
- Grade 3 includes anaplastic.
- Undifferentiated carcinoma (8020/3) is the same as dedifferentiated carcinoma.

• Confirmation received from CAP Cancer Committee that the following are ALWAYS Grade 3:
  - Serous, clear cell, undifferentiated/dedifferentiated carcinomas, carcinosarcomas, and mixed mesodermal tumors (Mullerian)/MMMT are high risk (high grade)
  - Added to the notes for the Corpus Carcinoma grade table

https://en.wikipedia.org/wiki/Myometrium
https://seer.cancer.gov/seerinquiry/20051024
https://seer.cancer.gov/seerinquiry/20170066
Grading endometrial cancer

The grade of an endometrial cancer is based on how much the cancer cells are organized into glands that look like the glands found in a normal, healthy endometrium.

In lower-grade cancers (grades 1 and 2), more of the cancer cells form glands. In higher-grade cancers (grade 3), more of the cancer cells are disorganized and do not form glands.

- **Grade 1** Tumors have 95% or more of the cancer tissue forming glands. Less than 5% solid growth patterns.
- **Grade 2** Tumors have between 50% and 94% of the cancer tissue forming glands. 6 to 50% solid growth patterns.
- **Grade 3** Tumors have less than half of the cancer tissue forming glands. Grade 3 cancers tend to be aggressive (they grow and spread fast) and have a worse outlook than lower-grade cancer. Greater than 50% solid growth.

Grades 1 and 2 endometrioid cancers are type 1 endometrial cancers. Type 1 cancers are usually not very aggressive and they don't spread to other tissues quickly. Type 1 endometrial cancers are thought to be caused by too much estrogen.

A small number of endometrial cancers are type 2 endometrial cancer. Type 2 cancers are more likely to grow and spread outside the uterus, they have a poorer outlook (than type 1 cancers). Doctors tend to treat these cancers more aggressively. They don’t seem to be caused by too much estrogen. Type 2 cancers include all endometrial carcinomas that aren’t type 1, such as papillary serous carcinoma, clear-cell carcinoma, undifferentiated carcinoma, and grade 3 endometrioid carcinoma. These cancers don’t look at all like normal endometrium and so are called poorly differentiated or high-grade.

Corpus Adenosarcoma

2018 Grade Table

<table>
<thead>
<tr>
<th>Code</th>
<th>Grade Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G1: Well differentiated</td>
</tr>
<tr>
<td>2</td>
<td>G2: Moderately differentiated</td>
</tr>
<tr>
<td>3</td>
<td>G3: Poorly differentiated or undifferentiated</td>
</tr>
<tr>
<td>L</td>
<td>Low grade</td>
</tr>
<tr>
<td>H</td>
<td>High grade</td>
</tr>
<tr>
<td>S</td>
<td>Sarcomatous overgrowth</td>
</tr>
<tr>
<td>9</td>
<td>Grade cannot be assessed (GX); Unknown</td>
</tr>
</tbody>
</table>

- "High grade" is included for Corpus Adenosarcomas (8933/3), but not for the carcinomas and other sarcomas.
- Grade 3 includes anaplastic.

FIGO SSDI

- FIGO Grade is not the same as FIGO Stage.
  - Code FIGO Stage in SSDI for Corpus Uteri - Carcinoma and Carcinosarcoma.
  - Also for Corpus Uteri - Sarcoma and Adenosarcoma
  - Do not code FIGO Grade in SSDI

This project was supported in part by a cooperative agreement between the Centers for Disease Control and Prevention (CDC) and the Missouri Department of Health and Senior Services (DHSS) (NU58DP006299-04) and a Surveillance Contract between DHSS and the University of Missouri.
Dilation and Curettage

Dilation and curettage (D&C) is a procedure in which material from the inside of the uterus is removed. The "dilation" refers to dilation (opening) of the cervix. “Curettage” refers to the scraping or removal of tissue lining the uterine cavity (endometrium) with a surgical instrument called a curette.

The primary reason for a diagnostic D&C is to obtain and examine samples of the endometrium. This may be done because of abnormal uterine bleeding, abnormal results from previous endometrial biopsy or abnormal imaging study. Diagnostic D&C is sometimes done in combination with a hysteroscopy; this involves dilating the cervix and inserting a narrow camera to examine and photograph the inside of the uterus. The images are displayed on a monitor, allowing the physician to directly see the endometrium.

Abstracting Tips:

- If a patient has a D&C that is positive for an invasive cancer but is not a surgical candidate, dilation and curettage is coded as an incisional biopsy (02) under data item Surgical Diagnostic and Staging Procedure.
  
  Per the STORE Manual Appendix B: For invasive cancers, dilation and curettage is coded as an incisional biopsy. SEER Appendix C: SEER Note: Do not code dilation and curettage (D&C) as Surgery of Primary Site for invasive cancers.
  
  NAACCR webinar: Corpus Uteri Q/A Aug 2020

- Assign surgery code 20 - Local Tumor Excision, NOS for dilation and curettage of the endometrium for in situ cancers.

- When a patient has a total or partial omentectomy performed with a hysterectomy for an endometrial primary, and there is no tumor involvement of the omentum, the omentectomy is not recorded as a separate procedure under Surgery Other Regional/Distant Sites.

- If omentectomy is performed because of tumor involvement, code to Surgery Other Regional/Distant Sites.

Abstracting Tip:

When the physician documents that the hormone treatment is given specifically due to the uterine cancer, it should be coded along with the text supporting it. SEERRx is an ever-changing document as new data is found. NCCN guidelines recommend letrozole in certain groups of patients with endometrial cancer.

Code it in the “other treatment” field since it has not been FDA approved for the treatment of uterine cancer.

https://commons.wikimedia.org/wiki/File:Dilation_and_curettage.svg

https://www.uptodate.com/contents/dilation-and-curettage

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