This is part 2 of a 2-part presentation. Use the navigation buttons below this panel to advance the slides.

Be sure that you have printed out the Part I exercises worksheet provided in the course. You will need this as you go through the presentation.
In this part of the presentation we will discuss the rules in the ICD-O-3 manual for assigning topography and morphology – starting with topography.

Take out your ICD-O-3 and have it ready. You should follow along and take the time to look things up when indicated. Also, you may want to have your FORDS within reach. There are a few areas that will include information from the FORDS.
First, there are three special rules for coding topography. All of these are described on page 23 of your manual.
**Adjectival Forms**

- Topographic site may be described by using a noun or related adjective
- Most noun forms are listed
- Only a few common adjectives are listed
- If in doubt, consult a medical dictionary

**Diagnosis:** Glioma, malignant neoplasm of pontine

 Pontine = Pons = C71.7

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Adjectival forms is a fancy way of saying sometimes the doctor will phrase the primary site in the form of an adjective. An adjective describes the noun.

For example: "Glioma of pons" refers to the noun "pons". However, “Pontine glioma” refers to the adjective “pontine”.

In general, most noun forms appear in both the numerical and alphabetic list. In addition, a few commonly used adjectives such as, uterine or gastric are listed. But, not all adjectival forms may be listed.

In our glioma example, “Pons” is listed in the ICD-O-3; however, “pontine” is not listed. If the version of the term used in the medical record is not listed specifically in the ICD-O-3:

- Consult a medical dictionary to see if you can determine the noun form.
- If not, then see if you can determine the area of the body that the term used is referring to.
- If still not successful, you may have to use an ill-defined site code or a less specific code for that area of the body. There is an example of this later in the presentation.

Example: Dx: glioma, malignant neoplasm of pontine.
What is the histology? Glioma.
What is the primary site? Pontine.

In the alphabetic index on pg 191, pontine is not listed, but pons is. According to Dorland’s Medical Dictionary, the definition of pontine means pertaining to the pons. Since pons is the noun form of pontine, we know that pons and pontine are referring to the same area of the body and we should code this to C71.7.

And remember, our general rule. If we look something up in the alphabetic index, always go back and look in the numerical list to make sure that there is not anything more descriptive. C71 in the topography numerical list can be found on page 62. Under C71.7, we see that pons is listed under brain stem. We have confirmed that there is not anything more specific.
The second special rule is related to the divisions of the esophagus. The divisions can be described as cervical, thoracic and abdominal. Or, the divisions of the esophagus may be described as upper, middle and lower third.

Cervical, thoracic, and abdominal descriptions are usually found in radiographic and intra-operative procedures. Upper, middle and lower are used to describe the location of the tumor using endoscopic or clinical exams.

If the patient has both surgery and endoscopy and the medical record describes the location as cervical in the surgical reports and upper in the endoscopy reports, assign the endoscopic description.

Endoscopic findings take precedence over the other terms (cervical, thoracic, and abdominal). Why? Surgeons and radiologists relate the esophageal tumors to the patient’s surrounding anatomy while the endoscopic exam is an exact measure from the incisors.

You may want to make a note of this in your manual on pages 23, 48, and 138.
A congenital anomaly is an abnormality or defect that is present at birth.

Branchial cleft and Meckel diverticulum are two examples of congenital abnormalities. These anomalies can create tissues in which neoplasms can arise. In the ICD-O-3, these two areas were given their own site code.

The Branchial cleft occurs in the area of the neck and has a code of C10.4 Branchial Cleft (C10 = oropharynx). In the 4 week embryo there are ridges and arches that form the various structures in the head and neck. By 7 weeks, these are all covered over and buried and eventually disappear. If any of these are not entrapped and don’t disappear, the remnants can form a cyst or even be the site of a neoplasm.

A Meckel diverticulum, C17.3, is a small pouch (about the size of your thumb) on the wall of the lower part of the small intestine. It is left over from the fetus’s umbilical cord and intestines. It is rather common and occurs in 1 in 50 people. It is possible for a malignancy to arise in this tissue.

Each of these codes have the words “site of neoplasm” appearing after the code. These codes are used to indicate that a neoplasm originated in the tissues of these congenital anomalies. A patient can have this congenital anomaly and not have cancer arising in those tissues, so don’t code the anomaly itself. For the most part, these sites are rather rare.
The ICD-O-3 provides 5 rules for coding topography. These begin on page 24.
Rule A refers to how to assign the primary site when the site is ill-defined. Ill-defined means the area was described very generally and the exact tissue involved cannot be determined. Most ill-defined sites have a site code of C76.

“If the diagnosis does not specify the tissue of origin, code the appropriate tissues suggested in the alphabetic index for each ill-defined site in preference to the “NOS” category.”
If the site is a general location:

Use the histology as a clue

To state this rule more simply, use the histology as a clue if the exact site is not specified. Some ill-defined sites have several components and the histology may lend a clue as to which of those tissues the tumor originated.

Find “arm” in the alphabetic index.

There are different tissues that make up the arm – such as bone, muscle, soft tissue, and skin. If the diagnosis refers just to the arm, and does not indicate the tissue involved (skin of the arm, soft tissues, etc.), assigning the site code can be difficult.

(You should have found arm on page 113.)
Rule A allows us to apply the principle that certain types of cancer usually arise in certain types of tissues. For example, carcinomas usually arise in the skin, whereas sarcomas usually arise in the soft tissue. We can use the histology as a clue to assign the topography code when the tissue of origin is not specifically stated.

In areas where using the histology as clue can be applied, the common histologies that usually occur in those tissues have been added in parentheses beside the NOS terms for that site code. If you have a histologic type of cancer that can be placed into one of the histology categories listed in parenthesis, then use the topography code for that category.

For example, a sarcoma of the arm should be coded to C49.1, not C76.4. Because, more than likely, the sarcoma originated in the soft tissue.

Another example not listed in the box is osteosarcoma. Osteo means bone. Osteosarcoma of the arm should be coded to C40 (bone). The histology of sarcoma or osteosarcoma is a clue of the tissue in which the tumor most likely arose. Of course, if a different site is stated to be the primary site, then you should assign the stated site.

If the histology diagnosis does not indicate anything more specific about the site code, then the C76 ill-defined site code should be used.
Ill-defined Sites – Additional Resources

- FORDS, page 9
  - Section titled: Specific Tissues with Ill-Defined Sites

- EDITS Documentation
  - Handout titled: Using the EDITS documentation as a resource for assigning topography

There are several resources available for helping to assign the most specific and appropriate topography code. The two that will be mentioned in this course are the FORDS and the EDITS documentation.

The FORDS and the EDITS documentation have also provided instructions on using the histology as a clue to assign a more specific topography code. Take a moment now to read through the information from these two resources. The handout can be downloaded from Lesson 5, Page 2 in the course.

In your ICD-O-3, you may want to make a note beside Rule A to also see these resources. Adding notes such as these to your manuals will help remind you of other resources of information that are available to you.
Rule B

“If a topographic site is modified by a prefix such as peri-, para-, or the like, which is not specifically listed in ICD-O, code to the appropriate ill-defined subcategory C76 (ill-defined site), unless the type of tumor indicates origin from a particular tissue.”

Rule B tells us how to code the use of prefixes such as peri and para.
Prefixes are often used in describing various organs of the body. Examples include: peri, para, pre, supra and so on.

Some prefixes, describing the site involved, were given a specific code in the ICD-O-3. Examples include: C48 Retrocecal tissue and C77.2 para-aortic lymph node. Usually those with a specific code are those that are commonly referred to in the medical record.

However, it is not possible to list all sites that might have a prefix. If the term is not listed, and the histology does not support a specific tissue type, then we are going to have to use the ill-defined site code of C76._.

Turn to the P’s, pg 188 and 189 and look at the terms perirenal and pericolic.

Perirenal (p. 189) is listed and has a specific site code of C48.0. Pericolic (p. 188) is not listed. Not every possible prefix will be listed. Even though it is not listed, we should assign the ill-defined site code of C76.3. Use of the term “peri” colic is also suggesting that the colon was not involved. Therefore, the code for colon (C18.9) would not be appropriate. We know it was in the area of the colon area but the exact tissue is not known.

Also use C76._ for imprecise terms, such as, “in the area of” or “in the region of” if, once again, the histology does not support a more specific code.
When to use C76._ and C80.9

- **Use C76._ when:**
  - The chart refers to a general area of involvement
  - For example: Cancer of the abdomen
  - No histologic clue as to the exact tissue involved
  - Assign the topography to C76.2 and the histology to 8000/3

- **Use C80.9 when:**
  - The primary site cannot be identified
  - For example: Lung carcinoma c/w metastatic carcinoma.
    Primary sites suggest breast, colon, and prostate.
  - Assign the topography to C80.9 and the histology to 8010/3

Rule A and B gave us guidelines on how to use clues to assign a more specific code than an ill-defined site code of C76._. This brings up another topic that is not specifically described in the rules. And, that is when to use the unknown site code of C80.9.

If you will remember from an earlier slide, ill-defined means the area was described very generally and the exact tissue involved cannot be determined. Most ill-defined sites have a site code of C76._. For example: If all that was known was that the patient had “cancer” of the abdomen, the exact tissue of involvement in the abdomen is not specified. “Cancer” does not indicate which tissues were involved. We just know it originated in the abdomen and was not metastatic from another site. In this situation, we have no choice but to assign the ill-defined site code for the Abdomen, NOS (C76.2) and the histology for Cancer, NOS (8000/3).

An unknown primary site means that all of the work-up or all of the information that can be gathered was not able to reveal where the tumor originally started growing. This usually occurs in cases where there is metastatic disease. Remember that a tumor takes its characteristics with it when it metastasizes. Often, the clinicians are able to determine that a tumor is metastatic from another location but cannot determine where it came from exactly. Because we are to code the area where the tumor originated, we must code the primary site to unknown if that cannot be determined. The code that is used for all unknown primary sites is C80.9. Find C80.9 in the topography numerical
list. As you can see, there is only one code for an unknown primary site. There are no subsite code choices.

For example, the diagnosis is: Lung carcinoma consistent with a metastatic carcinoma. Primary sites suggest breast, colon, and prostate. We know it did not start in the lung. The histology was able to suggest other possible sites, but an exact location was not able to be determined. Usually other work-up will be done to try to determine the site of origin. In some cases, the patient may be too sick to have further work-up. If other work-up is able to reveal the primary site, then that site should be assigned as the topography code. However, if a primary site is not able to be determined, then assign the code of C80.9.

Assign C76._ and C80.9 with caution. Make every attempt to identify the primary site. It may be stated in the discharge summary or in a later admission.

This is one area of abstracting where it is acceptable to update the code at a later time if later information reveals an exact primary site. If a more specific site is determined later, then you should update the abstract with the more specific site code. Caution: Not all data items can be updated – such as staging. Be sure to read the rules for each data item before changing the abstract.
Rule C

"Use subcategory " .8" when a single tumor overlaps the boundaries of two or more categories or subcategories and its point of origin cannot be determined".

Rule C tells us how to code when a single lesion involves more than one subsite of an organ. This is also referred to as an overlapping lesion.
Overlapping lesions C __ __ . 8

- Use C_ __ .8 if:
  - Single tumor
  - Overlaps 2 or more contiguous sites
  - Within 3 character category (C50)
  - Combination is not indexed elsewhere
    - Esophagus and Stomach = C16.0
    - Point of origin cannot be determined
    - Tip of tongue extending to the ventral surface = C02.1

- Overlapping sites within a body system
  - Table 17, page 25
  - Stomach and small intestine = C26.8

First of all, the subsite code of .8 only applies to a single tumor only.

Second, the subsites involved have to be contiguous or physically located next to each other.

Third, the subsites involved have to have the same site code. Therefore, it has to overlap 2 or more subsites of one particular site. If it extends to another site, then we have to apply different rules.

And lastly, .8 only applies if you cannot determine in which subsite the tumor started.

For example, the 3 character category for breast (C50) has several subcategories (or subsites) – UOQ, LIQ, UIQ, and LOQ. Let’s say we have a diagnosis of a left breast mass at the 9 o’clock position. Since this mass overlaps the upper and lower inner quadrants – we would assign the C50.8 code because it is not possible to determine if the tumor started in upper quadrant and grew to the lower quadrant, or vise versa.

IF THE COMBINATION IS SPECIFICALLY INDEXED ELSEWHERE – do not use the .8. Use the code listed in the index for that combination. For example, esophagus and stomach is specifically index with a code of C16.0, cardia.
If the point of origin can be determined, code to the point of origin. For example, a carcinoma of the tip of the tongue extending to the ventral surface should be coded to the tip of tongue (C02.1) since it is known that the tumor originated on the tip of the tongue.

Also, special subcategories have been developed for neoplasms involving two or more sites represented by two or more 3 character categories and where the point of origin cannot be determined. Look at Table 17 on page 25.

For example, carcinoma of the stomach (C16) and small intestine (C17) are both in the digestive system but have a different site code. This table tells us this should be coded to C26.8 "Overlapping lesion of the digestive system". You may have to consult an anatomy text to see if a lesion involves contiguous sites or systems.
The subsite code of .9 is used when the exact subsite is not known. Also, the subsite code of .9 should be assigned when there are multiple tumors that originate in one organ and the rules say that it is the same primary.
Rule D addresses assigning the site code for lymphomas. This will be discussed in more detail in the lymphoma lesson.

“If the site of origin of the lymphoma is in the lymph nodes, code to C77._. If a lymphoma involves multiple lymph node regions, code to C77.8 (lymph nodes of multiple regions). Code extranodal lymphomas to the site of origin, which may not be the site of the biopsy. If no site is indicated for a lymphoma and it is suspected to be extranodal, code to C80.9 (unknown primary site).”
<table>
<thead>
<tr>
<th>Site</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single LN Chain</td>
<td>C77.__</td>
</tr>
<tr>
<td>Multiple LN Chains</td>
<td>C77.8</td>
</tr>
<tr>
<td>Extranodal site</td>
<td>C __ __ . __</td>
</tr>
<tr>
<td>Site unknown</td>
<td>C77.9</td>
</tr>
</tbody>
</table>

There are specific rules for assigning the site code for lymphomas. The site code depends on the number of chains and/or sites involved. This will also be discussed in the lymphoma lesson.
Rule E addresses the site code for leukemia. This same rule applies to all hematopoietic diseases, not just leukemia. Leukemia along with the other types of disorders and syndromes in the 9800-9989 range are a malignant disease of the bone marrow and therefore always coded to C42.1. This will be discussed in more detail in hematopoietic lesson.

- Complete Exercise 6 that was provided in the instructor’s notes
- When finished, check your answers
Let's talk about the rules for morphology.
The ICD-O-3 provides 5 rules for coding the morphology.
There are 3 general topics for coding morphology as well that we will discuss first. These can be found on pages 27-28 of the ICD-O-3. The information related to Behavior will be combined with the discussion on Rule F.
The terms cancer and carcinoma are often incorrectly used interchangeably.

For example, let’s look up squamous cell. Pg 203, 1st column. If the term in the final diagnosis is squamous cell “cancer”, this can be coded to Squamous cell carcinoma (8070/3) because squamous cell cancer is most likely a carcinoma.

Look at spindle cell on the previous page, pg 202, 2nd column. A spindle cell “cancer” could be a carcinoma, melanoma, or sarcoma.

The term carcinoma has a specific purpose and that is to tell us that this tumor is a cancer that arises from epithelial cells. By definition it is malignant.

Cancer is a general term that includes the more than 100 diseases characterized by excessive, uncontrolled growth of abnormal cells, which invade and destroy other tissues. Cancer develops in almost any organ or tissue of the body.

These two terms are not interchangeable and do not mean the same thing.

“CANCER” only appears once in ICD-O 3 and is a synonym for the non-specific term “Malignancy” (M-8000/3). The above example of spindle cell cancer would have to be coded to cancer M-8000/3 (not spindle cell carcinoma) because we don’t know exactly what type of cells were involved.
The term “cervical intraepithelial neoplasm, grade 3 (CIN III)” is often applied to the cervix. The description of CIN III includes both carcinoma in situ and severe dysplasia and can cause confusion as to whether CIN III’s are reportable or not.

CIN III is to be considered the same as “carcinoma in situ”. It does not matter if severe dysplasia is mentioned or not. Similar terms in the vagina (VAIN III), vulva (VIN III), and anus (AIN III) should also be treated as in situ carcinoma. These have a specific code, 8077/2, on pg 71.

Caution – If you have a diagnosis of severe dysplasia of the cervix **without mention of CIN III**, this is not considered the same as carcinoma in situ. This does not have a morphology code and is not reportable.

Grades for intraepithelial neoplasia should not be used to code the morphology 6th digit. This is a type or category and is not describing a differentiation of the cells. Therefore, the grade is always a 9.

Note: CIN III’s are not required to by reported by the COC or central registries. However, some central cancer registries may require VIN, VAIN, or AIN.

### Carcinoma in situ and CIN III

- **Carcinoma in situ (CIS) = CIN III**
  - With or without mention of “severe dysplasia”
  - Applies to VAIN III, VIN III, and AIN III
  - Severe dysplasia without mention of CIN III is not the same as CIS. There is no ICD-O code and is not reportable.

- CIN III, VAIN III, VIN III, and AIN III have a specific code
  - 8077/29 Squamous intraepithelial neoplasia, grade III

- Grade for intraepithelial neoplasia is always 9
  - Type or category
  - ICD-O-3 errata, 5-22-01, p.7, #4
Rule F

“Use the appropriate 5th digit behavior code even if the exact term is not listed in ICD-O”.

Rule F provides guidelines for assigning the behavior code.
The 5th digit of the morphology code is used to record the behavior of the tumor. This tells us whether a tumor is malignant, benign, in situ, or uncertain whether malignant or benign.

The codes are listed on Page 66 in the ICDO-3. And actually, you will find more specific coding instructions in the FORDS.
Behavior Code

- Code 0 and 1: Benign/Borderline
  - Brain/CNS tumors required by the ACoS COC and all central cancer registries beginning with 1/1/2004 diagnoses
  - Brain/CNS required to be reported in some states prior to 2004. Check with your central registry for reporting requirements.

- Code 2: In Situ, Non-invasive
  - Synonymous terms

- Code 6 and 9:
  - DO NOT USE!
  - Code to the primary site and use /3

Tumors that have a behavior code of 0 or 1 are REQUIRED to be reported for brain, meninges and CNS tumors only. This was required by the COC beginning with tumors diagnosed on or after 1/1/2004. Check with your central cancer registry, they may have required it long before then. The specifics regarding reportability were discussed in the Cancer Registry Operations course.

A behavior code of 2 indicates that the tumor is in situ – the tumor has not invaded beyond the basement membrane of the cell wall. There is a list of terms that are synonymous with in situ on page 110 of the FORDS.

You should NEVER use the behavior code of 6 and 9. These are for pathology coders ONLY. It is not even a choice in the FORDS and therefore is not a valid code. If the specimen is from a metastatic site, determine the primary site, and code to the primary site with a behavior code of 3.
Behavior Code

- Code 3: Malignant, Invasive
  - Includes foci of invasion and microinvasion
  - Juvenile astrocytoma (9421) is a behavior code of 3, not 1

- Biopsy is consistent with in situ, but physician says patient has either lymph node or further distant mets
  - Use behavior code of 3
  - Stage is not in situ (CS Manual)

 Lt Lung Bx: Dysplastic squamous cells consistent with in-situ squamous cell carcinoma.
 CT Chest: Lt hilar mass extending to the Lt lateral pleura with lymphadenopathy that should be considered malignant.
 Physician Staging: T2 N2 M0

Use code 3 if any invasion is present, no matter how limited.

Caution: Look for terms such as foci of invasion or microinvasion. For example, path report states breast consistent with in situ carcinoma with one foci of invasion. Even if it is just one foci, it is an invasive breast cancer!

Juvenile astrocytoma should be abstracted using a code 3 instead of 1. This is one of the corrections that was included in the list of errata that needs to be made to your manuals.

You will learn more about how the disease spreads when we talk about staging. But, if the tumor has spread beyond the primary site of origin, it is impossible for it to be benign or in situ. By definition of disease spread, this has to be an invasive cancer and therefore should be coded with a behavior code of 3. This is also supported through the general rules in the CS Manual so the staging and the behavior code will agree.

For example: The pathology report states Lung, Lt Lingula, FNA: dysplastic squamous cells consistent with in-situ squamous cell carcinoma. The CT states Lt hilar mass extending to the Lt lateral pleura with lymphadenopathy and should be considered malignant. The radiation oncologist and medical oncologist have the patient staged as T2 N2 M0.

How would you assign the behavior code since the path report says in-situ but the radiology report shows lymph node involvement?
Assign the behavior code of 3. This tumor has invaded beyond the basement membrane. And, not only that, but traveled through the lymphatics to involve the regional nodes.

Why did the biopsy only show in-situ? This is just a biopsy, the entire tumor has not been removed…yet. It may be that the one little piece that was examined only contained an in-situ component. It is possible for a tumor to have mixed components of in-situ and invasive.
Rule F - Matrix Rule

- Matrix (Table 20) on page 30
- ICD-O lists the *usual* behavior code
  - If the behavior is unclear or not stated, code the behavior as assigned in ICD-O

- Matrix was designed to give the pathologist the final say on whether a tumor is considered to be benign, malignant, in situ, etc.
  - Example: Paget disease of the nipple (breast)

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Turn to page 30. Table 20 gives you examples of how one cell type with the same four-digit morphology code (8140 Adenocarcinoma) can differ depending on the behavior of the tumor.

The ICD-O-3 lists the usual behavior code for a morphology. It intentionally does not list all combinations. But, just because it is not listed, does not mean that a cell type cannot act in other ways.

Rule F tells you to use the “appropriate” 5th digit behavior code even if the exact term is not listed in the ICD-O-3. The key word in this rule is “appropriate” and the appropriate code is decided by the pathologist, not the book. I would highlight this on page 29, next to last paragraph, of your book.

When you look up a morphology code and the behavior given is a /3, it means that is the usual behavior code. Your pathologist may decide that the tumor is actually in situ and has no invasive component.

For example, look up Paget disease that has occurred in the nipple of the breast. Under P, Page 184. The behavior code given for Paget disease is the behavior code for malignant disease (3).

Some pathologists feel that in the absence of a demonstrable tumor, paget disease should be considered “in situ” and will call it so on the path report. IF the path report says that it is in situ, then you should assign the behavior code of 2. This applies to all other morphologies as well.

The edits were built based on the codes listed in the ICD-O-3. Changing the behavior code to a code not listed in the ICD-O-3 may generate an edit.

Don’t forget to document these types of changes in your text to justify any edits and overrides.
Rule G talks about assigning the grade. The rule for grade is discussed on page 30 in the ICD-O-3.
The grade describes how much or how little a tumor resembles the normal tissue from which it arose. Well differentiated is most like normal tissue and undifferentiated is the least like normal tissue.

Grading the cancer helps to predict how fast the cancer is likely to grow and spread. Those that look very different from normal cells are likely to mean a cancer that grows faster.

As you can see in this picture, the more undifferentiated it becomes, the more unorganized and messy it starts to look and the less like normal cells it becomes.

This is an H & E stain showing prostate cancer. On the right is a somewhat normal Gleason Value of 3 (out of 5) with moderately differentiated cancer. On the left is less normal tissue with a Gleason Value of 4 (out of 5) that is highly undifferentiated.

AV Number: AV-9612-4380
Date Created: December 1996
Date Entered: 1/1/2001
Access: Public
Why is it important to assign a grade to a tumor?

Cancers with highly abnormal cell appearance and large numbers of dividing cells tend to grow more quickly, spread to other organs more frequently, and be less responsive to therapy than cancers whose cells have a more normal appearance.

The higher the grade, the less cells look like normal cells – which is also indicative of a poorer prognosis.

Grading and differentiation is frequently a prognostic and/or treatment indicator for certain sites, such as brain tumors or sarcomas - so it is very important.
The grade is recorded in the 6th digit of the morphology code and completes the morphology code. There are variations in the terminology used to describe the grade. For example, moderately and intermediate differentiation both describe a grade 2. The FORDS provides a list of these common variations.
Grade/Differentiation - FORDS

- Priority order

- If no pathology or cytology
  - Code from MRI or PET scans (if stated)

- CNS Tumors:
  - Do not record the WHO grade (Table 27, pg. 39) in this data item
  - If histologic grade is not stated, code 9

- Tumor Grades stated in the AJCC Manual
  - Do not record the grade for specific histologies as stated in the AJCC Manual
  - Follow the rules in the ICD-O-3 and the FORDS

However, there are more specific instructions in the FORDS. You should use both resources for coding this data item.

Take a moment now to read the information in the FORDS on page 11, the section titled, “Morphology: Grade/Differentiation”.

The FORDS provides conversion tables for the breast, kidney and prostate sites. For all other sites, you should apply the priority order listed here on page 11.

You can use information from a MRI or PET scan only when there is no tissue diagnosis.

For CNS tumors, do not record the WHO grade, even it is the only grade stated. For example, an anaplastic astrocytoma, WHO grade 3 should be recorded as a grade 4 (anaplastic). A WHO grade 4 astrocytoma should be recorded as a grade of 9. The Collaborative Stage data items provide a place to record the WHO grade.

Also, read the section titled, “Tumor Grade and AJCC Staging” in the FORDS on page 13. Do not automatically assign this data item to the grade stated for a specific histology in the AJCC Staging Manual. Code the grade from the medical record following the rules in the ICD-O-3 and the FORDS. If the grade is not stated, code this data item to a code 9.
Grade/Differentiation - FORDS

- Code the grade stated in the final pathologic diagnosis
  - If not stated, then look at microscopic, addendum, or comment sections

- If more than one grade is reported, code the highest grade from any pathology report, even if it is a focus (Rule G)

Read the information provided for the Grade/Differentiation data item provided in the FORDS, pages 112 – 113.

For grade, use the grade stated in the final pathologic diagnosis. If the final diagnosis does not state the grade, then look for information regarding grade from any other section of the pathology report. With the requirement that the CAP protocols be used, the grade should be recorded if it can be determined or is applicable.

If more than one grade is recorded for a single tumor, code the highest grade for the primary site from any pathology report - even if it is a focus. This is what is stated in Rule G.
Let’s look at an example of Rule G. Since the grade expresses the aggressiveness of a tumor, if a diagnosis gives two different grades, code to the highest grade.

Example: The grade was reported as moderately well differentiated. Moderately differentiated is a code 2. Well differentiated is a code 1. 2 is the highest code, so the grade should be assigned a code 2.

Another example is moderately differentiated squamous cell carcinoma with poorly differentiated areas. Assign the highest grade (poorly differentiated) or a code 3.
Grade/Differentiation - FORDS

- Do not use grade reported for regional or distant sites or nodes
  - Code the grade from the primary site only
  - Unknown primary site (C80.9) is always code 9

- If no grade is stated, code 9

- Code the grade of the invasive component when the tumor has both in situ and invasive portions
  - If the grade for the invasive component is unknown, code 9
  - If the tumor is in-situ only (no invasive component), you can code the grade if reported for the in situ only tumor

Only assign the grade reported for the primary tumor. This is a common error so you may want to highlight that in your FORDS. If the only grade given is from examination of positive lymph nodes or distant or regional sites, then the grade should be assigned a 9. Only the grade reported from examination of the tissue from the primary site should be recorded.

Because we are coding the grade from the primary site only, if we have an unknown primary site, the grade has to be 9.

Not all tumors are assigned a grade. If the grade is not stated, then you should assign them a grade of 9.

If the tumor is all in situ, there is no evidence of invasion, and a grade is reported for that in situ only tumor, then you can record the grade for that primary in situ tumor. However, if the tumor has invasive and in situ components, you should assign the grade from the invasive component. If the grade for the invasive component is not stated, then you should assign a code of 9.
Liver biopsy c/w metastatic poorly differentiated adenocarcinoma. Most likely a lung primary.

- What is the primary site? Lung
- What is the grade? 9

Let's look at an example.

Liver biopsy was consistent with poorly differentiated adenocarcinoma of the lung. No biopsy of the primary site (lung) was done.

Primary site: Lung - “most likely” is ambiguous term that constitutes a diagnosis. Grade: 9, not 3. The statement regarding grade was based on metastatic tissue in the liver, not from the primary site in the lung.
Conversion Tables

- FORDS page 11-12
- Each system has their own priority order
- Systems:
  - 2-grade systems
  - 3-grade systems
  - Site Specific: Breast, prostate, and kidney

Prostate: MD adenocarcinoma, Gleason score 7 = Grade 3
Breast: MD high grade infiltrating ductal carcinoma = Grade 3

Breast, prostate, and kidney have more than one grading systems specific to that site. In the path report, you may see terms from more than one system used to describe the grade. For these sites, there is a conversion table in the FORDS on pg 11-12. Listed with the table is the priority order in which the terms should be used to assign the grade.

Prostate Example: Moderately differentiated adenocarcinoma, Gleason Score 7. The conversion table lists the priority order of:
- Gleason Score, (2) Terminology, (3) Histologic Grade, and (4) Nuclear Grade. For this example, the grade should be coded to code 3, not 2, because the Gleason Score has the priority.

Breast Example: Moderately differentiated high grade infiltrating ductal carcinoma. The conversion table lists the priority order of:
- Bloom-Richardson (Nottingham) Scores, (2) Bloom-Richardson Grade, (3) Nuclear Grade (4) Terminology, and (5) Histologic Grade.
In this example, we are provided the grade terminology (moderately differentiated) and the Bloom-Richardson Grade (high grade). For this example, the grade should be coded to code 3, not 2 because the Bloom-Richardson Grade has the priority.
This slide provides an snapshot of the conversion tables from the FORDS.

### Conversion Tables

<table>
<thead>
<tr>
<th>Code</th>
<th>Terminology</th>
<th>Histologic Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low grade, well-differentiated</td>
<td>III or IV</td>
</tr>
<tr>
<td>2</td>
<td>High grade, moderately differentiated</td>
<td>III or IV</td>
</tr>
<tr>
<td>3</td>
<td>High grade, poorly differentiated</td>
<td>II or III</td>
</tr>
</tbody>
</table>

Brewst (C16:4G8)'s

For INR tumor grade, code the tumor grade using the following priority order: (1) Molecular [Richards (Mortgage) - Score], (2) Molecular [Richards Grade], (3) Molecular [Cancer], (4) Terminology, and (5) Histologic Grade as shown in the table below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Molecular [Richards (Mortgage) - Score]</th>
<th>Molecular [Richards Grade]</th>
<th>Terminology</th>
<th>Histologic Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low grade</td>
<td>1A.10</td>
<td>Well</td>
<td>II or III</td>
</tr>
<tr>
<td>2</td>
<td>Intermediate grade</td>
<td>50</td>
<td>Moderately</td>
<td>III or IV</td>
</tr>
<tr>
<td>3</td>
<td>High grade</td>
<td>5A.39</td>
<td>Poorly</td>
<td>II or III</td>
</tr>
</tbody>
</table>
There are about 15 histologic terms in the ICD-O-3 that include words that indicate the grade. These terms include words such as anaplastic, well differentiated and undifferentiated. There are several examples listed in the box on the slide.

If the morphology term includes the grade or differentiation, code both the specific histology that includes that term AND repeat as the sixth digit.

This process is sometimes referred to as double coding or a check digit - meaning that you are coding one term in two different data items.

Let’s take undifferentiated carcinoma for example.
- You could code Carcinoma, NOS (8010/34) and assign the undifferentiated grade of 4. But, that would be wrong and you will get an edit.
- If you look up undifferentiated carcinoma, there is a specific code for that. So, you could code that for the morphology (8020/39) and assign an unknown grade. But, again that would also be wrong and you will still get an edit.
- Because there is a specific morphology code for undifferentiated carcinoma and it also contains a word that describes grade, you should code “undifferentiated” in both data items (histology and grade). The correct morphology code for this term is 8020/34.

All of the terms in this box work the same way.
Immunophenotype (6th digit) for Lymphomas and Leukemias

- Grade 5  T – Cell
- Grade 6  B – Cell
- Grade 7  Null Cell (non T / non B)
- Grade 8  NK (natural killer)
- Grade 9  Cell type not determined
            Not stated, Not applicable

Codes 5-8 are to be used for lymphomas and leukemias only. We will talk about this in more detail in a later lesson.
Don’t forget about these few special circumstances for coding grade.

For CNS tumors, do not record the WHO grade, even if it is the only grade stated. For example, an anaplastic astrocytoma, WHO grade 3 should be recorded as a grade 4 (anaplastic). A WHO grade 4 astrocytoma should be recorded as a grade of 9 (grade not stated).

Again, codes 5-8 are to be used for lymphomas and leukemias only.

There are certain circumstances in which the grade should ALWAYS be assigned a code of 9. These include unknown primaries (C80.9) and non-malignant CNS tumors (behavior code /0 or /1).

In some instances, the term “grade” does not imply differentiation and should not be used to code the 6th digit of the morphology code. For example, in describing some diseases, pathologists use the term “grade” as a synonym for “type” or “category.” Registrars, on the other hand, recognize the term “grade” as an indicator of cell differentiation that is coded in the 6th digit of the ICD-O morphology code. It is important to recognize when the term “grade” refers to category and when it refers to biologic activity. For example, vaginal intraepithelial neoplasia, grade III (VAIN III) is actually the highest category of dysplasia (according to the Bethesda system) for a non-invasive lesion. Grades associated with intraepithelial neoplasias should NOT be used to code the morphology 6th digit.

However, other terms described as high grade or low grade as part of the diagnostic term, such as low grade endometrial stromal sarcoma and high grade surface osteosarcoma, may be used to code the 6th digit of the morphology code. This is specified in the errata and illustrates the importance of making the corrections to your manuals.
Rule H

“Use the topography code provided when a topographic site is not stated in the diagnosis. This topography code should be disregarded if the tumor is known to arise at another site”.

Rule H talks about using the code provided in ( )’s if the site is not stated.
Some morphologies imply that the origin of the neoplasm arose in a certain site. For example, “nephroblastoma” (8960/3) almost always arises in the kidney. When you look up nephroblastoma in the alphabetic index to see what the code is – page 180 - you will see that term is followed by C64.9 in ( ). Whereas, adenocarcinoma, NOS would not have a suggested code listed after it because there are many areas in which it can arise.

Rule H states that, if a term, like nephroblastoma, is given with no other clarification as to the primary site, the suggested topography code listed in ( ) with the morphology code should be used.

Rule H further states that, when the diagnosis lists a site of origin other than that which is referenced in the index – you should ignore the suggested code in ( ) and code to the site stated in the diagnosis.

For example, pg 122 left bottom, infiltrating duct carcinoma includes a suggested topography code of C50 because most infiltrating duct carcinomas arise in the breast. It is possible for infiltrating duct carcinomas to arise in others sites, such as the pancreas. You should IGNORE the topography code listed in ( ) and assign the site stated in the medical record - in this case, the pancreas.

Because this may generate an unusual site/histology combination edit, make sure you justify your codes in the text.

You may want to make a note in your book: Malignant melanoma with an unknown primary site is coded to C44.9 not C80.9. C44 will be in ( ) beside melanoma. The rationale for this was discussed in an earlier slide.
Certain neoplasms have terms that appear to be site-specific, such as “Bile duct carcinoma” (8160/3). This should not be automatically coded to the bile duct site code of C24.0. This actually is more frequently found in the intrahepatic bile ducts of the liver. If that is the case, the correct site code would be C22.1.

Another example would be intestinal cancer (8144). Cancer of the intestines is not automatically the morphology - intestinal cancer 8144. It could be many other cell types such as adenocarcinoma, NOS (8140).

This is a very easy mistake to make if you're relying on your computer autocodes.

Review the anatomical location of the neoplasm, as this particular morphologic example easily could be coded incorrectly. IF YOU DO NOT HAVE CLARIFICATION OF THE LOCATION OF THE PRIMARY, then you should use the suggested code listed with the morphology code.
You will notice the rules skip from H to J. Rule I was left out on purpose. The ICD-O-2 listed the rules using Roman numerals and since the letter I looks like the Roman numeral 1, it was decided to leave it out. They didn't want to confuse people who have been using the various editions of ICD-O when referring to the rules.
Rule J

“Change the order of the word roots in a compound term if the term is not listed in ICD-O-3.”

Rule J tells us to look things up a lot of different ways if we can’t find the term exactly as stated in the diagnosis.
If you can’t find a term, look it up a different way. Try a different portion of the term.

Some tumors have more than one histologic pattern. Only the most common have been listed, for example, mixed Adenocarcinoma and squamous cell carcinoma (8560/3).

However, not all combinations are listed. Fibromyxosarcoma is listed (8811/3). However, Myxofibrosarcoma is not. This is the same term, just the root words are in a different order.

Always check various orders of the prefixes and terms if the one in your diagnosis is not listed in the index.
Rule K was the old rule that was used for determining the histology code if there was more than term mentioned and no one code addressed all of the terms mentioned. With the new Multiple Primary and Histology Coding Rules, you only use this rule for tumors diagnosed BEFORE 1/1/2007. There is a specified priority that you should use when assigning codes that contain more than one term.

You may want to write these in your ICD-O on pages 21 & 34 so that you will have it to refer to for older cases. Be sure to mark that it is to be used only for cases diagnosed before 2007. Because we need to concentrate on the current rules in this program, Rule K will not be discussed in detail. You will learn these concepts with the new rules. However, the priority is site specific and may not be in the same order as listed here.
Your turn…

Exercise 7: Practice Applying the Morphology Rules in the ICD-O-3.

- Complete Exercise 7 that was provided in the instructor’s notes
- When finished, check your answers
There are a few resources related to the ICD-O-3 on the SEER website. A few of the most pertinent ones are listed here. You should have already downloaded the errata and made the corrections to your manuals. If not, you are strongly encouraged to do so now.

The Site/Histology Validation List is quite large. Downloading the file to your computer or bookmarking the website page should be sufficient for everyday abstracting needs. Examples of conflicts between the site and histology were discussed briefly with Rule A in this presentation. The Site/Histology Validation List lists all of the valid site and histology code combinations. Other, rarer, combinations may also be valid and may not be included in this list. This document is an extra resource that may be helpful in resolving site and histology combination dilemmas.

The MP/H Rules will be discussed later in this course.
Additional coding instructions

- FORDS, Section One
  - Guidelines for particular sites and/or histologies
  - Conversion tables for Grade
  - Revising the original diagnosis

- FORDS, Section Two
  - Instructions in the specific data items for Site, Histology, Behavior and Grade

- EDITS Logic Reports

And, do not forget about the other resources that were discussed in the presentation. Abstracting requires the compilation of many resources.

By using your manuals, and not depending on the drop down lists in the cancer registry software, you will become more familiar with what information is available to you. You may not remember the exact instruction, but at least you know where to go look for that information.
Exercise 8: Use the ICD-O-3 to assign the topography and morphology codes for each diagnostic statement.

- Complete Exercise 8 that was provided in the instructor's notes
- When finished, check your answers
You have reached the end of part 2 of the ICD-O-3 Coding slide presentation. Close this window to return to your course, or use the navigation buttons below to view the presentation again.