

Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Introduction

Note 1: 2007 MPH Rules and 2018 Solid Tumor Rules are used based on **date of diagnosis**.

- Tumors diagnosed 01/01/2007 through 12/31/2017: Use 2007 MPH Rules
- Tumors diagnosed 01/01/2018 and later: Use 2018 Solid Tumor Rules
- The original tumor diagnosed before 1/1/2018 and a subsequent tumor diagnosed 1/1/2018 or later **in the same primary site**: Use the 2018 Solid Tumor Rules.

Note 2: Cancers **from many primary sites metastasize** to the **lung**. It is important to **rule out metastases** from another organ/site before abstracting a lung primary.

Note 3: Tables and rules refer to **ICD-O rather than ICD-O-3**. The version is **not specified** to allow for **updates**. Use the currently approved version of ICD-O.

Note 4: Multifocal/multiple discrete foci tumors are often present in lepidic adenocarcinoma, minimally invasive adenocarcinoma, and adenocarcinoma in situ; these multiple foci may be referred to as ground-glass/lepidic.

Note 5: For those sites/histologies which have recognized **biomarkers**, the biomarkers are most frequently used to target treatment. Currently, there are clinical trials being conducted to determine whether these biomarkers can be used to identify multiple primaries and/or histologic type. Follow the Multiple Primary Rules; do not code multiple primaries based on biomarkers.

Changes from 2007 MPH Rules

These changes are effective with cases diagnosed 1/1/2018 and later.

Note 1: Changes are **implemented slowly** over time, so it is not unusual for a pathology report to use an obsolete term. **Obsolete** terms and codes **can be used** when they are the **only information** available.

Note 2: WHO 4th Ed Tumors of Lung 2015 has a new classification of adenocarcinoma which is a significant change from the 2004 WHO classification. One of the major changes is discontinuing usage of the term **bronchioloalveolar carcinoma (BAC)** beginning with cases diagnosed 1/1/2018 and forward. The preferred term for BAC is now mucinous adenocarcinoma **8253**.

1. 2007 Rules instruct “Code the histology from the most representative specimen.” For all sites except breast and CNS, 2018 Rules instruct “Code the most specific histology from biopsy or resection. When there is a discrepancy between the biopsy and resection

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(two distinctly different histologies/different rows), code the histology from the most representative specimen (the greater amount of tumor).”

2. **New and changed** ICD-O histology codes have been added to [Table 3](#) and are identified by an asterisk. Some of those changes include:
 - A. **In situ** and **minimally invasive terms** and codes
 - B. **Terms** assigned a **new histology** code
 - C. **Histology codes** assigned a **different preferred term** (18 codes with new preferred terms)
3. The following new adenocarcinoma terms and codes have been added. The new terms and codes are **for lung only**. See [notes](#) in Table 3.
 - A. Mucinous carcinoma/adenocarcinoma
 - **8253/3** when
 - Behavior unknown/not documented (use staging form to determine behavior when available)
 - Invasive
 - **8257/3** when
 - Microinvasive
 - Minimally invasive
 - **8253/2** when
 - Preinvasive
 - In situ

Note: Previously, only **invasive /3** codes were available for mucinous adenocarcinoma of the lung. It has been recognized that not all lung cancers are invasive /3 so new codes were implemented.

- B. Non-mucinous carcinoma/adenocarcinoma
 - **8256/3** when
 - Microinvasive
 - Minimally invasive
 - **8250/2** when
 - Preinvasive
 - In situ

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- C. Adenocarcinomas (CAP Terminology) Adenocarcinoma, acinar predominant 8551
- Adenocarcinoma, lepidic predominant 8250
 - Adenocarcinoma, micropapillary predominant 8265
 - Adenocarcinoma, papillary predominant 8260
 - Adenocarcinoma, solid predominant 8230

Equivalent or Equal Terms

These terms can be used interchangeably:

- Adenocarcinoma; carcinoma
 - A histology type must be stated for these terms to be equal
 - Example: Acinar carcinoma and acinar adenocarcinoma are both coded 8551
- And; with
Note: “And” and “with” are used as synonyms when **describing multiple histologies** within a **single tumor**.
- Non-small cell carcinoma **8046**; a broad category which includes all histologies in Table 3 **except** for
 - Small cell carcinoma/neuroendocrine tumors (NET Tumors) **8041** and all subtypes AND
 - Sarcoma NOS **8800** (not a carcinoma) and all subtypes
- Simultaneous; existing at the same time; concurrent; prior to first course treatment
- Site; topography
- Squamous cell carcinoma; SCC; epidermoid carcinoma
- Tumor; mass; tumor mass; lesion; neoplasm; nodule
 - The terms tumor, mass, tumor mass, lesion, neoplasm and nodule are **not** used in a **standard manner** in clinical diagnoses, scans, or consults. **Disregard** the terms **unless** there is a **physician’s statement** that the term is **malignant/cancer**
 - These terms are used **ONLY** to **determine** multiple **primaries**
 - **Do not** use these terms for **casefinding** or **determining reportability**
- Type; subtype; variant

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Terms that are NOT Equivalent or Equal

This is a list of terms that are **not equivalent**. There are no casefinding implications.

- **Bilateral** is not equivalent to either **single primary** or **multiple primaries**. See Multiple Primary rules for instructions.
- **Bronchus** is not always equivalent to **mainstem bronchus**. The mainstem bronchus only extends a few centimeters into the lung.
 - Code to mainstem bronchus C340 when it is specifically stated in the operative report and/or documented by a physician
 - When only called bronchus, code to the lobe in which the bronchial tumor is located
- Carcinoma, NOS 8010 is not equivalent to adenocarcinoma, NOS 8140
- **Component** is not equivalent to **type/subtype/variant**
Note: Component is **only** coded when the pathologist specifies the component as a second **carcinoma**.
- **Lung only: Mucinous** is not equivalent to **colloid**
Note: The new codes for mucinous adenocarcinoma were implemented so mucinous carcinoma and colloid carcinoma could be analyzed separately.
- **Mucin-producing/mucin-secreting carcinoma 8481** is not equivalent to **mucinous carcinoma 8253** (new code for lung primaries only)
 - Mucin-producing/secreting tumors produce mucin, but not enough to be classified as mucinous carcinoma
 - The terms mucin-producing and mucin-secreting are still reportable. This bullet simply states they are not equivalent to mucinous carcinoma
- **Multilocular** is not equivalent to **multinodular** (see glossary for further information. The electronic glossary will be available in 2019)
- **Phenotype** is not equivalent to **subtype/type/variant**

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Table 1: Coding Primary Site

1. The mainstem bronchus **starts** at the **trachea** and extends only a few centimeters into the lung where it connects with the secondary bronchus and divides into **secondary bronchi**.
 - A. Each lobe of the lung has **secondary bronchi**
 - i. The **right** lung has **3 secondary bronchi**, one in each of the three lobes: upper; middle, and lower
 - ii. The **left** lung has **2 secondary bronchi**, one in each of the two lobes: upper and lower
 - B. Code to **mainstem bronchus** C340 when it is **specifically stated** in the operative report and/or documented by a physician.
 - C. When **only called bronchus**, code to the lobe in which the bronchial tumor is **located**
2. See the graphic in this document with the endnote “End of Mainstem Bronchus; Start of Terminal/Secondary Bronchus”.

Table 1 contains terms used in **physicians’ documentation** and on **scans** to describe the location of a tumor.

This table has terms and anatomical descriptions which are not in the ICD-O.

Use this table to determine the **correct site** code. **Do not** use for other fields such as laterality.

Column 1 contains the **terminology used** by **physicians** or on **scans** to **describe lung “masses”** (not lymph nodes).

Column 2 indicates whether the **term is used only** for the **right** lung, or only for the **left** lung, or if it is used for **both** the right or left lung.

Column 3 contains the **ICD-O term** and **site code**.

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Terminology	Laterality	Site Term and Code
Bronchus intermedius Carina Hilus of lung Perihilar	Bilateral	Mainstem bronchus C340 <i>Note: Bronchus intermedius is the portion of the right mainstem bronchus between the upper lobar bronchus and the origin of the middle and lower lobar bronchi</i>
Lingula of lung	Left	Upper lobe C341
Apex Apex of lung Lung apex Pancoast tumor Superior lobar bronchus Upper lobe bronchi	Bilateral	Upper lobe C341
Middle lobe Middle lobe bronchi	Right	Middle lobe C342
Base of lung Lower lobar bronchus Lower lobe Lower lobe bronchi Lower lobe segmental bronchi	Bilateral	Lower lobe C343
Overlapping lesion of lung	Bilateral	Overlapping lesion of lung C348 <i>Note: One lesion/tumor which overlaps two or more lobes</i>

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Terminology	Laterality	Site Term and Code
Bronchus NOS Bronchogenic Extending up to the hilum Extending down to the hilar region Infrahilar NOS Lung NOS Pulmonary NOS Suprahilar NOS	Bilateral	Lung NOS C349 <i>Note:</i> Includes <ul style="list-style-type: none"> • Multiple tumors in different lobes of ipsilateral lung OR • Multiple tumors in ipsilateral lung; unknown if same lobe or different lobe OR • Tumor in bronchus, unknown if mainstem or lobar bronchus OR • Tumor present, unknown which lobe
Lobar bronchi NOS Lobar bronchus NOS	Bilateral	Code the lobe in which the lobar bronchus tumor is present C34__ <i>Note:</i> When lobe of origin is not documented/unknown , code to lung NOS C349

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Table 2: Combination/Mixed Histology Codes

Instructions:

1. Compare the **terms** in the **diagnosis** (pathology, cytology, radiographic, clinical) to the terms in **Column 1**.
2. When the terms **match**, use the **combination code** listed in **Column 2**.
3. The **last row** in the table is a “**last resort**” code: adenocarcinoma mixed subtypes 8255.

Note 1: **Do not** use Table 2 in the following situations:

- For tumors with both **invasive** and **in situ** behavior. The [Histology Rules](#) instruct to code the invasive histology.
- When one of the histologies is described as **differentiation or features**. A histology with differentiation or features is a single histology.
- When the terms are a **NOS** and a **subtype/variant** of that NOS. See the [Histology Rules](#) for instructions on coding a NOS and a subtype/variant in a single tumor or multiple tumors abstracted as a single primary.

Note 2: Some combinations can be either in situ or invasive; others are limited to a /2 or /3 behavior code.

- When a code is **limited to in situ**, /2 will be **added** to the code (both components are in situ)
- When a code is **limited to invasive**, /3 will be **added** to the code (both components are invasive)

Note 3: This table is not a complete listing of histology combinations.

Column 1 lists the **required terms** for the **combination code**.

Column 2 lists the **combination term** and **code** for histologies in **Column 1**.

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Required Terms	Combination Histologies and Code
<p>Adenocarcinoma NOS</p> <p style="text-align: center;">AND</p> <p>Squamous cell carcinoma NOS</p> <p><i>Note:</i> Cases diagnosed prior to 1/1/2023: Diagnosis must be adenocarcinoma NOS and squamous cell carcinoma NOS, NOT any of the subtypes/variants of adenocarcinoma or squamous cell carcinoma</p> <p>Cases diagnosed 1/1/2023 forward: Subtypes/variants of adenocarcinoma, NOS and keratinizing and/or non-keratinizing variants of squamous cell carcinoma, NOS can be coded adenosquamous carcinoma</p>	<p>Adenosquamous carcinoma 8560</p>
<p>Giant cell carcinoma</p> <p style="text-align: center;">AND</p> <p>Spindle cell carcinoma</p> <p><i>Note:</i> Sarcomatoid carcinoma is not in the histology table because sarcomatoid tumors primarily originate in the mediastinum. The combination code is added for the rare occasion when a tumor occurs within the lung.</p>	<p>Sarcomatoid carcinoma 8033</p> <p><i>Note:</i> Both giant cell carcinoma and spindle cell carcinoma are components of sarcomatoid carcinoma. The most accurate code for a combination of giant cell and spindle cell carcinoma is sarcomatoid carcinoma</p>
<p>Epithelial carcinoma</p> <p style="text-align: center;">AND</p> <p>Myoepithelial carcinoma</p>	<p>Epithelial-myoepithelial carcinoma 8562</p>

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Required Terms	Combination Histologies and Code
<p>Large cell neuroendocrine carcinoma AND Adenocarcinoma NOS OR Squamous cell carcinoma NOS OR Spindle cell carcinoma OR Giant cell carcinoma</p>	<p>Combined large cell neuroendocrine carcinoma 8013</p>
<p>Mucinous carcinoma, invasive AND Non-mucinous carcinoma, invasive</p>	<p>Mixed invasive mucinous and non-mucinous carcinoma 8254/3*</p>
<p>Small cell carcinoma/neuroendocrine tumor (NET) <i>Note: Includes subtypes/variants of small cell/neuroendocrine tumor. See Table 3 for subtypes/variants.</i> AND At least one of the following:</p> <ul style="list-style-type: none"> • Adenocarcinoma and any subtype/variant of adenocarcinoma • Adenosquamous carcinoma • Large cell carcinoma and any subtype/variant of large cell carcinoma (includes large cell neuroendocrine carcinoma) • Squamous cell carcinoma and any subtype/variant of squamous cell carcinoma • Non-small cell carcinoma 	<p>Combined small cell carcinoma 8045</p>

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Required Terms	Combination Histologies and Code
Squamous cell carcinoma (epidermoid carcinoma) <p style="text-align: center;">AND</p> Large cell non-keratinizing squamous cell carcinoma <i>Note:</i> Squamous cell carcinoma and epidermoid carcinoma are synonyms	Squamous cell carcinoma, large cell, nonkeratinizing 8072
Squamous cell carcinoma (epidermoid carcinoma) <p style="text-align: center;">AND</p> Small cell nonkeratinizing squamous cell carcinoma <i>Note:</i> Squamous cell carcinoma and epidermoid carcinoma are synonyms	Squamous cell carcinoma, small cell, nonkeratinizing 8073
Squamous cell carcinoma, keratinizing <p style="text-align: center;">AND</p> Squamous cell carcinoma, non-keratinizing	Squamous cell carcinoma, NOS 8070
Squamous cell (epidermoid) carcinoma <p style="text-align: center;">AND</p> One or both of the following: <ul style="list-style-type: none"> • Sarcomatoid carcinoma • Spindle cell carcinoma <i>Note 1:</i> Does not include subtypes/variants of squamous cell. See Table 3 for subtypes/variants. <i>Note 2:</i> Squamous cell carcinoma and epidermoid carcinoma are synonyms.	Squamous cell carcinoma, sarcomatoid 8074 Squamous cell carcinoma, spindle cell 8074

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Required Terms	Combination Histologies and Code
<p>Diagnosis must be a single tumor which meets one of the following two criteria:</p> <p>1. <u>At least two</u> of the subtypes/variants of adenocarcinoma AND <u>percentages of each type are unknown/not stated</u> OR <u>they are equal percentages</u></p> <ul style="list-style-type: none"> • Acinar adenocarcinoma • Clear cell adenocarcinoma • Lepidic adenocarcinoma <i>Note:</i> Lepidic adenocarcinoma may or may not have mucinous components. • Micropapillary adenocarcinoma • Papillary adenocarcinoma • Solid adenocarcinoma • Well-differentiated fetal adenocarcinoma <p><i>Note:</i> This includes a diagnosis of adenocarcinoma AND at least two subtypes/variants of adenocarcinoma.</p> <p>2. A combination of histologies <u>not listed on previous rows</u> of this table.</p>	<p>Adenocarcinoma with mixed subtypes 8255/3</p> <p><i>Note 1:</i> 8255 is a “last resort” code.</p> <p><i>Note 2:</i> See the Histology Rules to determine when it is appropriate to use this code for combination histologies other than adenocarcinoma subtypes/variants.</p> <p><i>Note 3:</i> 8255 does not apply to squamous cell carcinoma NOS and/or subtype/variants of SCC.</p>

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Table 3: Specific Histologies, NOS, and Subtype/Variants

Use Table 3 as directed by the [Histology Rules](#) to assign the more common histology codes for lung tumors.

Note 1: Rare histologies may not be listed in the table. When a histology term is not found, reference ICD-O and all updates.

Note 2: Submit a question to [Ask a SEER Registrar](#) when the histology code is not found in Table 3, ICD-O or ICD-O updates.

Note 3: Behavior codes are listed when the term has only one possible behavior (either a /2 or /3). For histologies which may be either /2 or /3, a behavior code is not listed. Code behavior as documented in the pathology report.

Note 4: Only use the histology code from the table when the diagnosis is **EXACTLY** the term listed.

Note 5: Sarcomatoid carcinoma is most frequently a tumor of the mediastinum, so it is not listed in this table.

IMPORTANT NOTE 1: Non-small cell lung carcinoma (NSCLC) is a broad group of cancers which includes all **carcinoma types** in Table 3 with the **exception** of:

- Neuroendocrine carcinoma (NEC), neuroendocrine tumors (NET) AND
 - Small cell carcinoma/neuroendocrine tumors/all subtypes of small cell carcinoma AND
 - Large cell neuroendocrine carcinoma/combined large cell neuroendocrine carcinoma AND
- Sarcoma NOS 8800 (not a carcinoma) AND
 - All subtypes of sarcoma NOS

NSCLC is usually adenocarcinoma, squamous cell carcinoma, or large-cell carcinoma. See the instructions for coding histology when NSCLC is the diagnosis.

IMPORTANT NOTE 2: The small cell neuroendocrine carcinoma row has been deleted in the 2024 update and replaced with new rows for neuroendocrine carcinoma (NEC) and neuroendocrine tumor (NET). This change is based on the 5th Ed WHO Classification of Lung tumors book and current concepts.

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Column 1 contains specific and NOS histology terms.

- **Specific** histology terms **do not** have **subtypes/variants**
- **NOS** histology terms **do** have **subtypes/variants**

Column 2 contains **synonyms** for the specific or NOS term. Synonyms have the **same** histology **code** as the specific or NOS term.

Column 3 contains **subtypes/variants** of the **NOS** histology. Subtypes/variants **do not** have the **same** histology code as the NOS term.

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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
<p>Adenocarcinoma 8140</p> <p>Note 1: Mucinous adenocarcinoma for lung only is coded as follows:</p> <ul style="list-style-type: none"> • 8253/3* when <ul style="list-style-type: none"> ○ Behavior unknown/not documented (use staging form to determine behavior when available) ○ Invasive • 8257/3* when <ul style="list-style-type: none"> ○ Microinvasive ○ Minimally invasive • 8253/2* when <ul style="list-style-type: none"> ○ Preinvasive ○ In situ <p>Note 2: Non-mucinous adenocarcinoma for lung only is coded as follows:</p> <ul style="list-style-type: none"> • 8256/3* when <ul style="list-style-type: none"> ○ Microinvasive ○ Minimally invasive • 8250/2* when <ul style="list-style-type: none"> ○ Preinvasive ○ In situ <p>Note 3: The term “mucinous carcinoma/adenocarcinoma NOS” is not recommended for lung; specific mucinous terms should be used. If a diagnosis states mucinous carcinoma/adenocarcinoma, NOS and a subtype/variant, code the subtype/variant.</p>	<p>Adenocarcinoma NOS</p> <p>Adenocarcinoma in situ 8140/2</p> <p>Adenocarcinoma invasive 8140/3</p> <p>Adenocarcinoma, non-mucinous NOS</p> <p>Invasive non-mucinous adenocarcinoma 8140/3</p> <p>Minimally invasive adenocarcinoma NOS 8140/3</p>	<p>Acinar adenocarcinoma/adenocarcinoma, acinar predominant (for lung only) 8551*</p> <p>Adenoid cystic/adenocystic carcinoma 8200</p> <p>Colloid adenocarcinoma 8480</p> <p>Enteric adenocarcinoma/pulmonary intestinal-type adenocarcinoma 8144</p> <p>Fetal adenocarcinoma 8333</p> <p>Lepidic adenocarcinoma/adenocarcinoma, lepidic predominant 8250/3*</p> <p>Mucinous carcinoma/adenocarcinoma (for lung only; See Note 3) in situ 8253/2*; invasive 8253/3* minimally invasive 8257/3* microinvasive 8257/3* preinvasive 8253/2*</p> <p>Micropapillary adenocarcinoma/adenocarcinoma, micropapillary predominant 8265</p> <p>Mixed invasive mucinous and non-mucinous adenocarcinoma 8254*</p> <p>Non-mucinous adenocarcinoma (for lung only) in situ 8250/2* microinvasive 8256/3* minimally invasive 8256/3* preinvasive 8250/2*</p> <p>Papillary adenocarcinoma/adenocarcinoma, papillary predominant 8260</p> <p>Solid adenocarcinoma/adenocarcinoma, solid predominant 8230</p>

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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
Adenosquamous carcinoma 8560		
Carcinosarcoma 8980/3		
Diffuse pulmonary lymphangiomatosis 9170/3 <i>Note:</i> Diffuse pulmonary lymphangiomatosis is a diffuse proliferation of lymphatic channels and smooth muscle along otherwise normal lymphatic vessels of lungs, pleura, and mediastinum. Primarily occurs in infants and children.		
Epithelial-myoepithelial carcinoma 8562 <i>Note:</i> Adenomyoepithelioma, epithelial/myoepithelial tumor of unproven malignant potential were thought to be adenomas (not reportable) prior to 2018. These histologies are now designated as low-grade carcinomas based on lymph node metastasis, local invasion, and aggressiveness	Adenomyoepithelioma* Epimyoeplithelial carcinoma Epithelial-myoepithelial tumor of unproven malignant potential* Malignant mixed tumor comprising epithelial and myoepithelial cells Pneumocytic adenomyoepithelioma*	
Epithelioid hemangioepithelioma 9133		
Giant cell carcinoma 8031		
Hyalinizing clear cell carcinoma 8310		

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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
<p>Intrapulmonary thymoma (arising within lung) 8580/3</p> <p><i>Note:</i> Intrapulmonary thymoma is always malignant /3.</p>		
<p>Large cell carcinoma 8012</p> <p><i>Note 1:</i> A diagnosis of large cell carcinoma is usually followed by further diagnostic testing to identify the subtype/variant.</p> <p><i>Note 2:</i> The diagnosis of large cell carcinoma usually happens when there is a small amount of tissue (FNA), cytology, or when the tumor is highly differentiated. Large cell carcinoma lacks the features of small cell carcinoma, adenocarcinoma, or squamous carcinoma.</p> <p><i>Note 3:</i> Large cell carcinoma with neuroendocrine (NE) differentiation lacks NE morphology and is coded as large cell carcinoma, not large cell neuroendocrine carcinoma.</p>	<p>Large cell anaplastic carcinoma</p> <p>Large cell carcinoma NOS</p> <p>Large cell carcinoma with no additional stains (subtype/variant – no ICD-O code)</p> <p>Large cell carcinoma with null immunohistochemical features (subtype/variant – no ICD-O code)</p> <p>Large cell carcinoma with unclear immunohistochemical features (subtype/variant – no ICD-O code)</p> <p>Large cell undifferentiated carcinoma</p>	

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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
Lymphoangiomyomatosis 9174/3 Note: Locally destructive mesenchymal neoplasm.		
Large cell neuroendocrine carcinoma 8013 Note: Per WHO, both large cell neuroendocrine carcinoma, NOS and combined large cell neuroendocrine carcinoma are coded 8013. See Table 2 for histologies included in combined large cell neuroendocrine carcinoma	Combined large cell neuroendocrine carcinoma	
Lymphoepithelioma-like carcinoma 8082		
Melanoma 8720		
Mucoepidermoid carcinoma 8430 Note: As of 1/1/2023, mucoepidermoid tumor is no longer a synonym of mucoepidermoid carcinoma in WHO		
Myoepithelial carcinoma 8982		
Neuroendocrine carcinoma (NEC) 8246		Combined small cell carcinoma 8045 Small cell carcinoma/small cell neuroendocrine carcinoma 8041

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Neuroendocrine tumor, NOS (NET) 8240	Bronchial adenoma, carcinoid Carcinoid, NOS Carcinoid tumor, NOS Neuroendocrine tumor, grade 1 Neuroendocrine tumor, low grade Neuroendocrine carcinoma, well differentiated Typical carcinoma	Atypical carcinoid/Neuroendocrine tumor, grade 2 Neuroendocrine tumor, grade 3/Neuroendocrine carcinoma, moderately differentiated 8249
NUT carcinoma 8023/3* NUT: nuclear protein in tests NUT/M1 gene rearrangement	Aggressive t(15:19) positive carcinoma BET-rearranged carcinoma Carcinoma with t(15:19) translocation Midline carcinoma of children and young adults with NUT rearrangement Midline lethal carcinoma NUT midline carcinoma	
PEComa malignant 8714/3 <i>Note:</i> Tumor displays perivascular epithelioid (PEC) differentiation	PEComa of the lung PEComa, malignant	

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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
<p>Pleomorphic carcinoma 8022</p> <p><i>Note 1:</i> The definition of pleomorphic carcinoma is that it is a subtype of sarcomatoid carcinoma. It has at least 10% spindle or giant cells.</p> <p><i>Note 2:</i> Pleomorphic carcinoma has components of adenocarcinoma and/or large cell carcinoma, also squamous carcinoma.</p>		
<p>Pleuropulmonary blastoma 8973/3</p> <p><i>Note:</i> Pleuropulmonary blastoma is an embryonal tumor and differs from pulmonary blastoma</p>		
<p>Pulmonary blastoma 8972/3</p> <p><i>Note:</i> Pulmonary blastoma is a biphasic tumor that consists of low-grade/WD fetal adenocarcinoma and primitive mesenchymal differentiation (osteosarcoma, chondrosarcoma, or rhabdomyosarcoma).</p>		
<p>Sarcoma NOS 8800/3</p>		<p>Biphasic synovial sarcoma 9043/3 Epithelioid cell synovial sarcoma 9042/3 Pulmonary artery intimal sarcoma/low-grade malignant myxoid endobronchial tumor 9137/3 Pulmonary myxoid sarcoma with EWSR1 -CREB1 translocation 8842/3 Spindle cell synovial sarcoma 9041/3 Synovial sarcoma 9040/3</p>
<p>Spindle cell carcinoma 8032</p>		

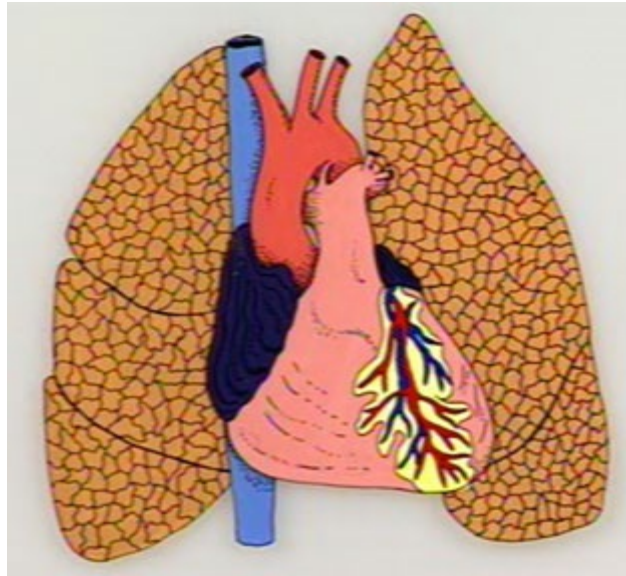
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Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
Squamous cell carcinoma 8070	Epidermoid carcinoma Epidermoid carcinoma NOS Squamous carcinoma Squamous cell carcinoma NOS Squamous cell epithelioma Squamous cell carcinoma in situ 8070/2	Basaloid carcinoma/basaloid squamous cell carcinoma 8083 Keratinizing squamous cell carcinoma 8071 Non-keratinizing carcinoma 8072
Thoracic SMARCA4-deficient undifferentiated tumor 8044/3		

*New codes/terms approved by IARC/WHO Committee for ICD-O.

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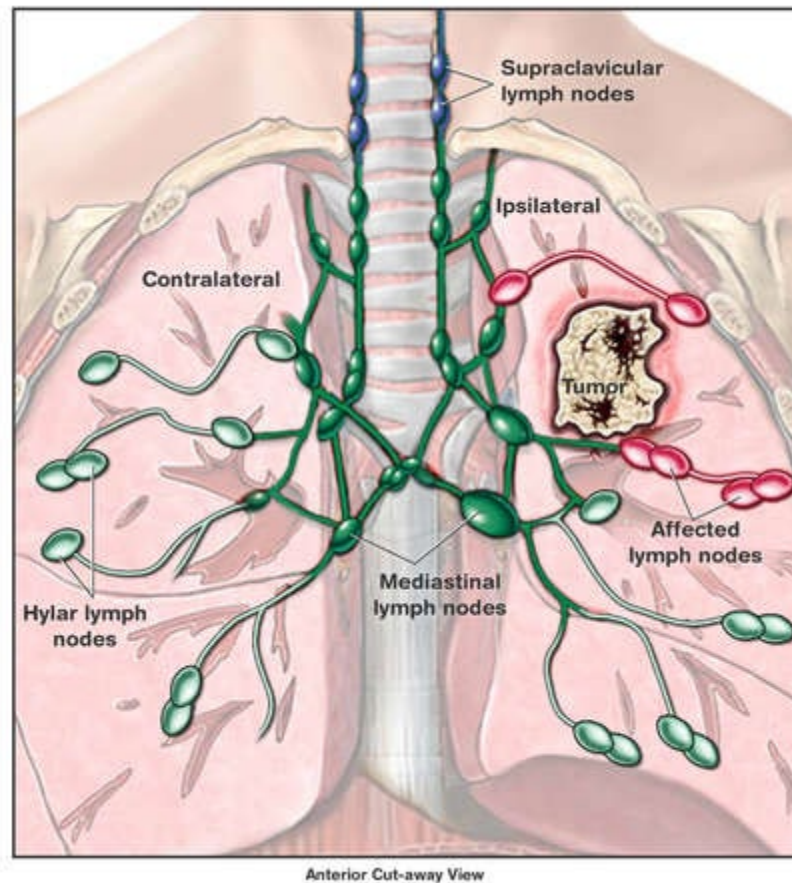
Illustrations



Used with permission

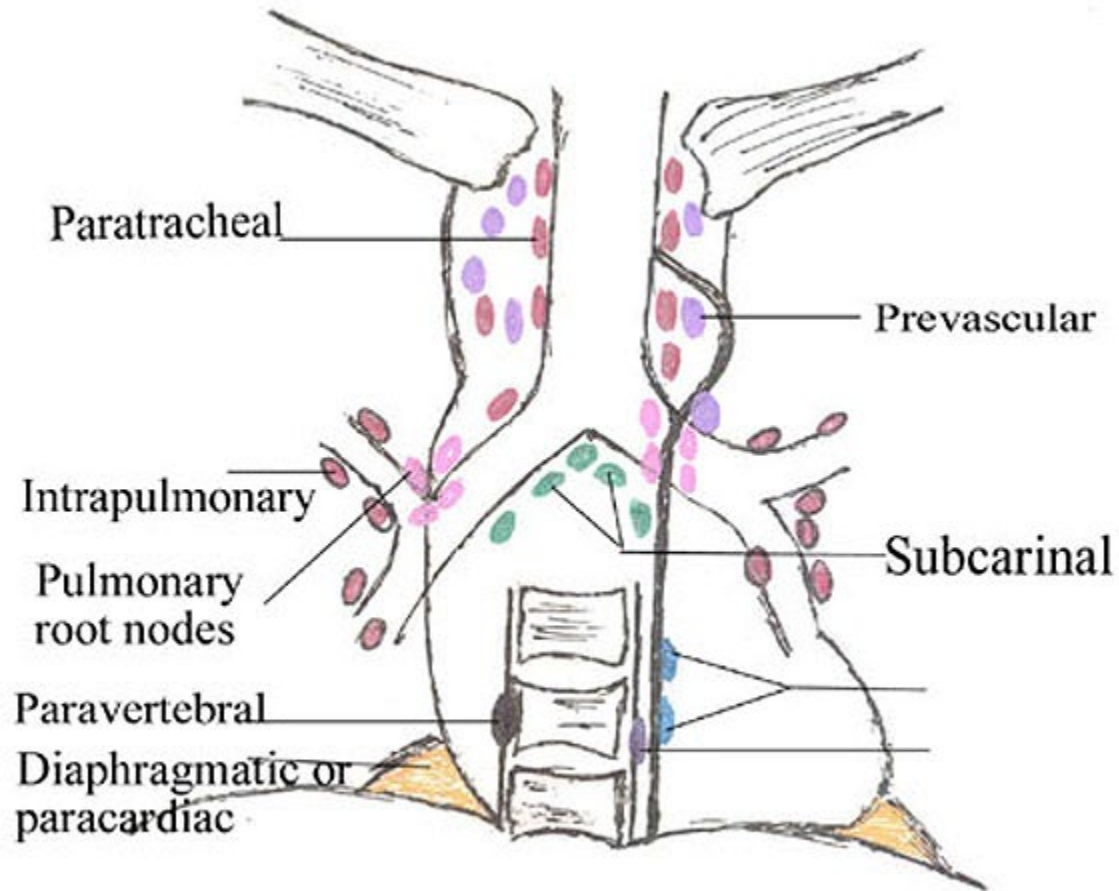
Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Mediastinum
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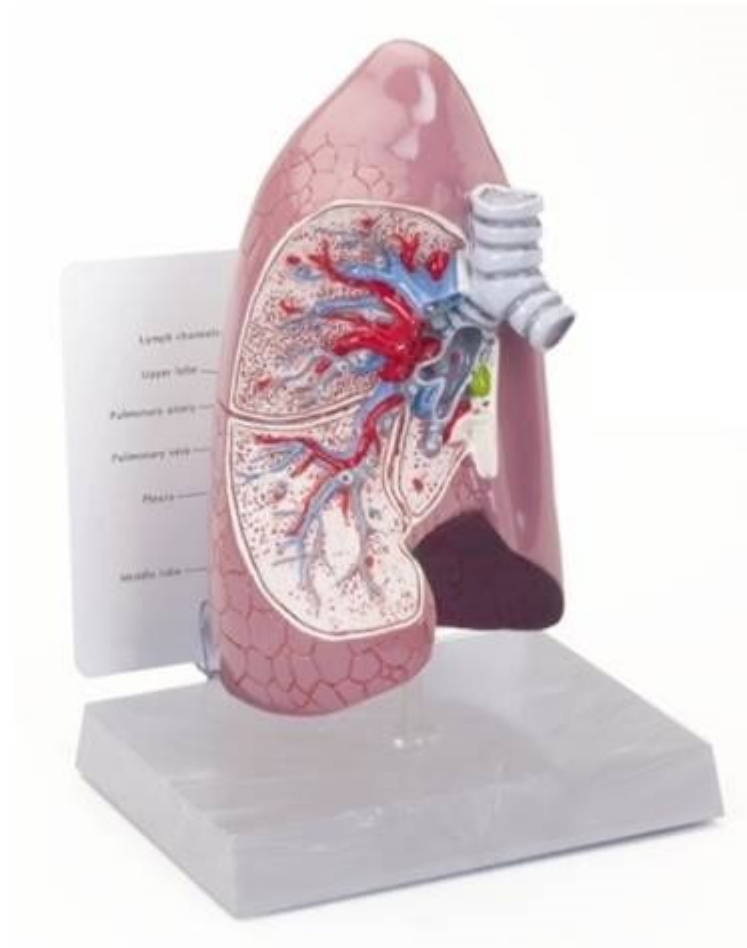
Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Lymph Nodes Lung
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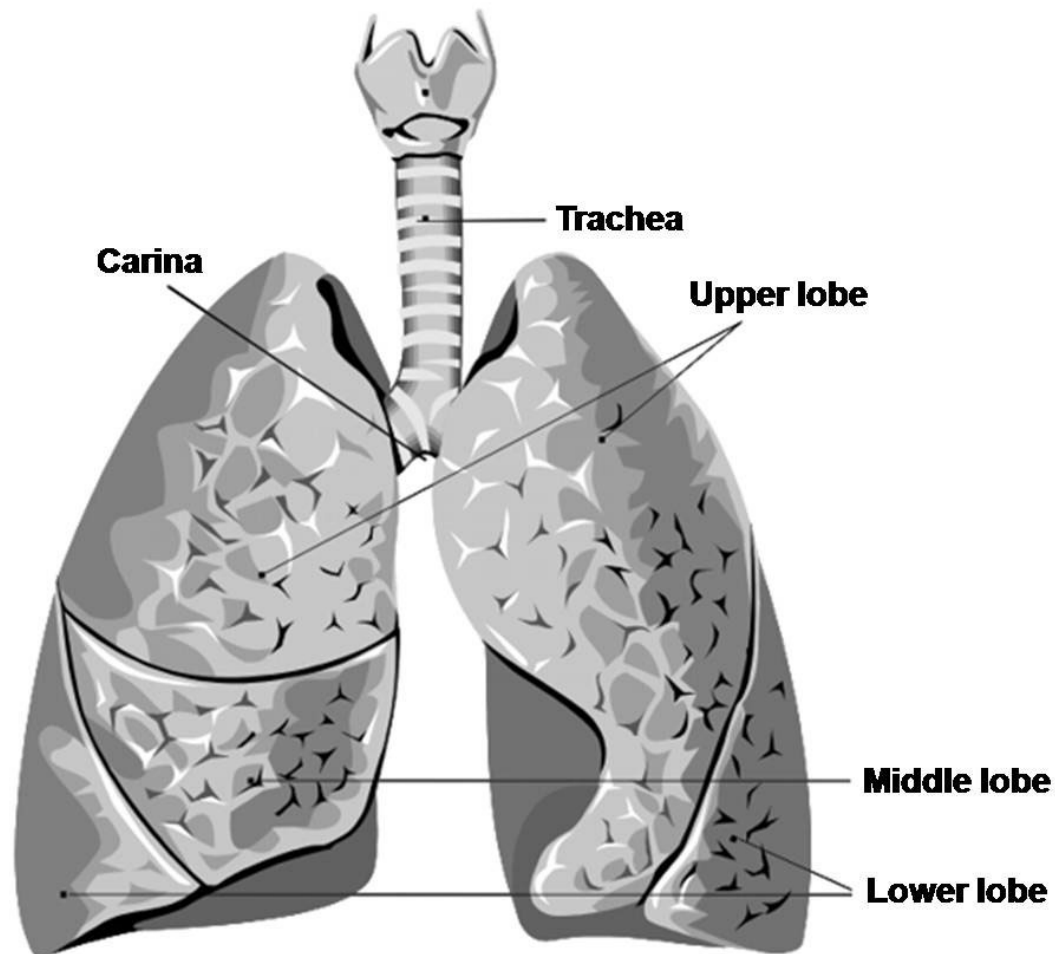
Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Inside the Lung
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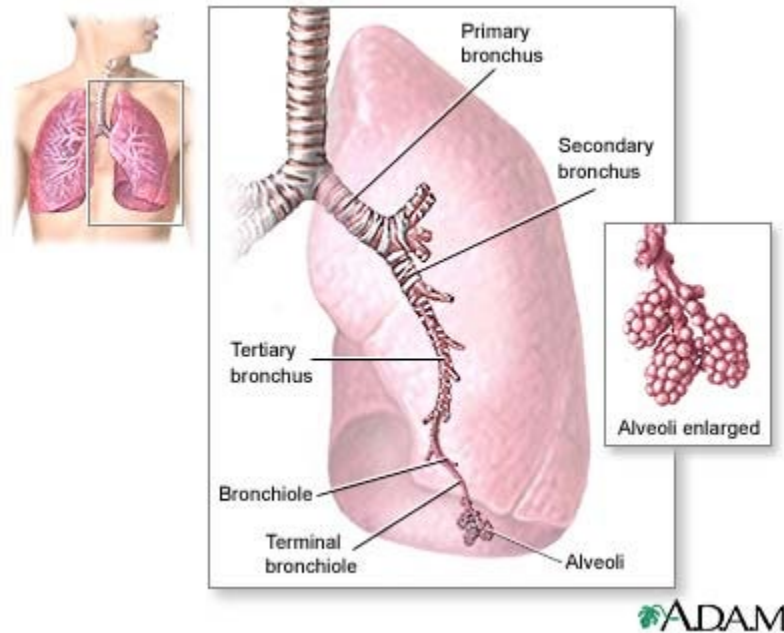
Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Gross Anatomy of Lung
Used with permission



Lung Equivalent Terms and Definitions
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

End of Mainstem Bronchus; Start of Terminal/Secondary Bronchus
Used with permission



Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Note 1: These rules are **NOT** used for tumor(s) described as metastases. Metastatic tumors include but are not limited to:

- Adrenal glands
- Bone
- Brain
- Discontinuous lesions in adjacent/contiguous organs
- Discontinuous lesions in chest wall
- Discontinuous lesions/nodules in soft tissue adjacent to primary site
- Regional or distant lymph nodes as identified in Summary Staging Manual
- Esophagus
- Heart
- Liver
- Trachea

Note 2: 2007 MPH Rules and 2018 Solid Tumor Rules are used based on **date of diagnosis**.

- Tumors diagnosed 01/01/2007 through 12/31/2017: Use 2007 MPH Rules
- Tumors diagnosed 01/01/2018 and later: Use 2018 Solid Tumor Rules
- The original tumor diagnosed before 1/1/2018 and a subsequent tumor diagnosed 1/1/2018 or later **in the same primary site**: Use the 2018 Solid Tumor Rules.

Unknown if Single or Multiple Tumors

Rule M1 Abstract a **single primary**ⁱ when it is not possible to determine if there is a **single** tumor or **multiple** tumors.

Note 1: Use this rule only after all information sources have been exhausted.

Note 2: Examples of cases with minimal information include

- Death certificate only (DCO)
- Cases for which information is limited to pathology report only
 - o Outpatient biopsy with no follow-up information available
 - o Multiple pathology reports which do not specify whether a single tumor or multiple tumors have been biopsied and/or resected

This is the end of instructions for Unknown if Single or Multiple Tumors

ⁱ Prepare one abstract. Use the histology coding rules to assign the appropriate histology code.

Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Single Tumor

Rule M2 Abstract a **single primary**ⁱ when there is a **single tumor**.

Note 1: A single tumor is always a single primary.

Note 2: The tumor may overlap onto or extend into adjacent/contiguous site or subsites.

Note 3: The tumor may have in situ and invasive components.

Note 4: The tumor may have two or more histologic components.

This is the end of instructions for Single Tumor

ⁱ Prepare one abstract. Use the histology coding rules to assign the appropriate histology code.

Multiple Tumors

Note: Multiple tumors may be a single primary or multiple primaries.

Rule M3 Abstract **multiple primaries**ⁱⁱ when there are **separate, non-contiguous** tumors in sites with ICD-O **site** codes that differ at the second **CXxx** and/or third character **CxXx**.

Note: When **codes differ** at the second or third characters, the tumors are in **different primary sites**.

Rule M4 Abstract **multiple primaries**ⁱⁱ when the patient has a subsequent tumor after being **clinically disease-free** for greater than **three years** after the original diagnosis or last recurrence.

Note 1: **Clinically** disease-free means that there was **no evidence** of recurrence in the same lung on follow-up.

- Scans are NED

Note 2: When there is a recurrence less than or equal to three years of diagnosis, the “**clock**” starts over. The time interval is calculated from the **date of last recurrence**. In other words, the patient must have been disease-free for greater than three years from the date of the last recurrence.

Note 3: When it is **unknown/not documented** whether the patient had a recurrence, use **date of diagnosis** to compute the time interval.

Note 4: The physician may state this is a **recurrence**, meaning the patient had a previous lung tumor and now has another lung site tumor. **Follow the rules**; do not attempt to interpret the physician’s statement.

Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule M5 Abstract **multiple primaries**ⁱⁱ when there is **at least one** tumor that is **small cell carcinoma 8041** or any small cell subtypes/variants and another tumor that is **non-small cell carcinoma 8046** or any non-small cell carcinoma subtypes/variants.

Note 1: Small cell carcinoma and non-small cell carcinoma are the two major classifications/divisions for lung cancer.

- See [Table 3](#) in Equivalent Terms and Definitions for terms and codes for small cell carcinoma and all of the subtypes/variants
- With the exception of small cell/neuroendocrine carcinoma and sarcomas, **all other histologies** listed in [Table 3](#) in Equivalent Terms and Definitions are **non-small cell carcinoma**

Note 2: It is **irrelevant** whether the tumors are in the **ipsilateral** (same) lung or are **bilateral** (both lungs).

Rule M6 Abstract **multiple primaries**ⁱⁱ when separate/non-contiguous tumors are two or more **different subtypes/variants** in Column 3, [Table 3](#) in the Equivalent Terms and Definitions. Timing is irrelevant.

Note 1: The tumors may be subtypes/variants of the **same** or **different** NOS histologies.

- **Same NOS:** Colloid adenocarcinoma 8480/3 and lepidic adenocarcinoma 8250/3 are both subtypes of adenocarcinoma NOS 8140/3 but are distinctly different histologies. Abstract multiple primaries.
- **Different NOS:** Keratinizing squamous cell carcinoma 8071/3 is a subtype of squamous cell carcinoma NOS 8070; Lepidic adenocarcinoma 8250/3 is a subtype of adenocarcinoma 8140/3. They are distinctly different histologies. Abstract multiple primaries.

Note 2: The tumors may be different **behaviors:** Acinar adenocarcinoma 8551/3 and mucinous carcinoma, in situ 8253/2 are both subtypes of adenocarcinoma NOS 8140/3 but are distinctly different histologies. Abstract multiple primaries.

Rule M7 Abstract a **single primary**ⁱ when synchronous, separate/non-contiguous tumors **in the same lung** are on **the same row** in [Table 3](#) in the Equivalent Terms and Definitions.

Note 1: Tumors must be **in the same lung**.

Note 2: The same row means the tumors are:

- The same histology (same four-digit ICD-O code) **OR**
- One is the preferred term (column 1) and the other is a synonym for the preferred term (column 2) **OR**
- A NOS (column 1/column 2) and the other is a subtype/variant of that NOS (column 3)

Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule M8 Abstract **multiple primaries**ⁱⁱ when separate/non-contiguous tumors are:

- On different rows in [Table 3](#) in the Equivalent Terms and Definitions
- A combination code in [Table 2](#) and a code from [Table 3](#)

Note 1: Timing is irrelevant. Tumors may be synchronous or non-synchronous.

Note 2: Each row in the table is a distinctly different histology.

Example 1: In 2018, the patient has non-mucinous adenocarcinoma **8140/3**. Patient returns in 2019 with large cell carcinoma **8012/3**. These histologies are on different rows in Table 3. Abstract two primaries.

Example 2: In 2017, patient had epithelial-myoeplithelial carcinoma **8562** (combination code from Table 2). In 2020, the patient returned with a myoeplithelial carcinoma **8982** in the same lung (histology from Table 3). Abstract two primaries.

Rule M9 Abstract a **single primary**ⁱ when there are **simultaneous multiple** tumors:

- In **both** lungs (multiple in right and multiple in left) **OR**
- In the **same** lung **OR**
- **Single** tumor in one lung; **multiple** tumors in **contralateral** lung

Note 1: Tumors may be combinations of:

- In situ and invasive **OR**
- NOS and subtype/variant (See [Table 3](#) in the Equivalent Terms and Definitions)
- Cancer NOS **8000** or carcinoma NOS **8010** and any other histology

Note 2: Examples of NOS and subtypes/variants include:

- Adenocarcinoma **8140** and a subtype/variant of adenocarcinoma
- Squamous cell carcinoma **8070** and a subtype/variant of squamous cell carcinoma
- NSCLC **8046** and a subtype/variant of NSCLC
- Carcinoma NOS **8010** and adenocarcinoma

Note 3: Code multiple primaries only when there is **proof** that one of the tumors is a different histology. Proof is any one of the following:

- Pathology from a biopsy or resection proves tumors are different histologies
- Attending, oncologist, or pulmonologist state unequivocally that the tumors are different primaries
 - o **Unequivocal** means that **no words** such as “**probable**” are used in the statement. Terms which are on the “ambiguous terms” list such as “probable” cannot be used to prove different primaries.

Note 4: When there are multiple tumors in one or both lungs, the physician usually biopsies only one mass/tumor. They treat the patient based on that single biopsy, assuming all of the masses/tumors are the same histology.

Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Note 5: Multiple tumors in the same lung, or both lungs, or single tumor in one lung and multiple tumors in the contralateral lung must be diagnosed **simultaneously (same time) to apply this rule. Refer to the rules when multiple tumors are not diagnosed simultaneously.**

Rule M10 Abstract a **single primary**ⁱ when an **in situ** tumor is diagnosed **after** an **invasive** tumor **AND** tumors occur in the same lung.

Note 1: The rules are **hierarchical**. Only use this rule when none of the previous rules apply.

Note 2: The tumors may be a **NOS** and a **subtype/variant** of that NOS. See [Table 3](#) in the Equivalent Terms and Definitions for listings of NOS and subtype/variants.

Note 3: The **in situ** is recorded as a **recurrence** for those registrars who collect recurrence data.

Rule M11 Abstract **multiple primaries**ⁱⁱ when there is a **single** tumor in **each lung** (one tumor in the right lung and one tumor in the left lung).

Note 1: The only **exception** is when there is **proof** that one tumor is **metastatic**. Proof is any one of the following:

- Tissue from both tumors is compared and the pathologic diagnoses definitively says one tumor is metastatic
- Attending physician, oncologist, or pulmonologist state unequivocally that the tumor in the contralateral lung is metastatic
 - o Unequivocal means that no words such as “probably possibly, most likely, etc.” are used in the statement. Terms which are on the “ambiguous terms” list make the statement equivocal (cannot be used to prove metastases)

Note 2: Lung **metastases usually** present as multiple tumors/masses. A single tumor in each lung is unlikely to be a single primary (e.g. metastatic to the contralateral lung).

Note 3: The term “**bilateral**” is **not** a synonym for a **single primary**. It is simply a statement that there are tumors in both lungs.

Note 4: This rule is based on **long-term epidemiologic studies** of multiple primaries. The specialty medical experts (SME) and the CoC site physician teams reviewed and approved these rules. Many of the CoC site team physicians were also authors, co-authors, or editors of the AJCC Staging Manual.

Note 5: Lymph node involvement is recorded in staging criteria.

Note 6: Tumors do **not** need to be diagnosed at the same time (do not need to be simultaneous or synchronous).

Lung Multiple Primary Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule M12 Abstract a **single primary**ⁱ (the invasive) when an **invasive** tumor is diagnosed **less than or equal to 60 days after an in situ** tumor in the same lung.

Note 1: The rules are **hierarchical**. Only use this rule when none of the previous rules apply.

Note 2: The tumors may be a **NOS** and a **subtype/variant** of that NOS.

Note 3: When the case has been abstracted, **change behavior** code on original abstract from /2 to /3.

Note 4: Do **not** change **date of diagnosis**.

Note 5: If the case has already been submitted to the central registry, **report** all changes.

Note 6: The physician may **stage both** tumors because staging and determining multiple primaries are done for different reasons. Staging determines which treatment would be most effective. Determining multiple primaries is done to stabilize the data for the study of epidemiology (long-term studies done on incidence, mortality, and causation of a disease with the goal of reducing or eliminating that disease).

Note 7: See the **CoC** and **SEER** manuals for **instructions** on coding **other data items** such as Date of Diagnosis, Accession Year and Sequence Number.

Rule M13 Abstract **multiple primaries**ⁱⁱ when an **invasive** tumor occurs **more than 60 days** after an **in situ** tumor in the same lung.

Note 1: The rules are **hierarchical**. Only use this rule when none of the previous rules apply.

Note 2: Abstract **both** the invasive and in situ tumors.

Note 3: Abstract as multiple primaries even if **physician states** the invasive tumor is disease **recurrence** or **progression**.

Note 4: This rule is based on long-term epidemiologic studies of recurrence intervals. The specialty medical experts (SMEs) reviewed and approved these rules. Many of the SMEs were also authors, co-authors, or editors of the AJCC Staging Manual.

Rule M14 Abstract a **single primary**ⁱ when none of the previous rules apply.

Note: Use this rule as a last resort. Please confirm that you have not overlooked an applicable rule.

This is the end of instructions for Multiple Tumors

ⁱPrepare one abstract. Use the histology coding rules to assign the appropriate histology code. For registries collecting recurrence data: When a subsequent tumor is “single primary,” record that subsequent tumor as a recurrence.

ⁱⁱPrepare two or more abstracts. Use the histology coding rules to assign the appropriate histology code to each case abstracted.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Note: WHO 4th Ed Tumors of Lung: in 2011 has a new classification of adenocarcinoma which is a significant changes from the 2004 WHO classification. One of the major changes is discontinuing usage of the term bronchioloalveolar carcinoma (BAC) beginning with cases diagnosed 1/1/2018 and forward. The preferred term for BAC is now mucinous adenocarcinoma **8253**.

Priority Order for Using Documents to Identify Histology

IMPORTANT NOTES

1. Code the histology diagnosed *prior* to **neoadjuvant treatment**.

Note 1: Histology changes may occur following immunotherapy, chemotherapy, targeted therapy, and radiation therapy.

Note 2: Neoadjuvant treatment is any tumor-related treatment given prior to surgical removal of the malignancy.

Exception: If the initial diagnosis is based on histology from **FNA, smears, cytology**, or from a regional or metastatic site, and neoadjuvant treatment is given and followed by resection of primary site which identifies a different or specific histology, code the histology from the primary site.

2. Code the histology using the following priority list and the Histology Rules. Do not change histology in order to make the case applicable to staging.

The priority list is used for **single primaries (including multiple tumors abstracted as a single primary)**

Code the **most specific** histology from either **resection** or **biopsy**.

Note 1: The term “most specific” usually refers to a subtype/variant.

Note 2: The histology rules instruct to code the invasive histology when there are in situ and invasive components in a single tumor.

Note 3: When there is a discrepancy between the biopsy and resection (two distinctly different histologies/different rows), code the histology from the most representative specimen (the greater amount of tumor).

This is a hierarchical list of source documentation.

1. **Tissue or pathology** report from primary site (in priority order)
 - A. Addendum(s) and/or comment(s)
 - B. Final diagnosis / synoptic report as required by CAP

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

C. CAP protocol

Note 1: Addendums and comments on the pathology report are given a high priority because they often contain information about molecular testing, genetic testing, and/or special stains which give a more specific diagnosis.

Note 2: The pathologist's diagnosis from the pathology report is always reliable, so the final diagnosis is the second priority.

Note 3: The CAP protocol is a checklist which:

- Provides guidelines for collecting the essential data elements for complete reporting of malignant tumors and optimal patient care.
- Allows physicians to check multiple histologies

2. **Cytology** (Fine needle biopsy from primary site, pleural fluid or pericardial fluid)

Example: Fine needle aspiration shows squamous cell carcinoma and the resection pathology shows invasive adenocarcinoma. Code adenocarcinoma 8140/3.

3. Tissue/pathology from a **metastatic** site

Note 1: Code the behavior /3.

Note 2: The **tissue** from a **metastatic** site often shows **variations** from the primary tumor. When it is the only tissue available, it is **more accurate** than a **scan**.

4. **Scan:** The following list is **in priority** order.

- A. CT
- B. PET
- C. MRI
- D. Chest X-ray

5. Code the histology **documented** by the physician when none of the above are available. Use the **documentation** in the following **priority order:**

- A. Treatment Plan
- B. Documentation from Tumor Board
- C. Documentation in the medical record that **refers to original pathology, cytology, or scan(s)**
- D. Physician's **reference to** type of cancer (**histology**) in the medical record

Note 1: Code the specific histology when documented.

Note 2: Code the histology to 8000 (cancer/malignant neoplasm, NOS) or as stated by the physician when nothing more specific is documented.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Coding Histology

Note 1: The priority is to code the most specific histology. **DO NOT USE BREAST HISTOLOGY CODING RULES FOR THIS SITE.**

Note 2: Only use this section for one or more histologies within a single tumor.

Note 3: Do not use this section in place of the Histology Rules.

1. **Code the most specific histology or subtype/variant, regardless of whether it is described as:**

- A. The majority or predominant part of tumor
- B. The minority of tumor
- C. A component

Example 1: Diagnosis for a single tumor is adenocarcinoma 8140 with the majority or predominant part of tumor being acinar adenocarcinoma 8551. Code the subtype/variant: acinar adenocarcinoma 8551.

Example 2: Diagnosis for a single tumor is squamous cell carcinoma 8070 with minority of tumor being keratinizing squamous cell carcinoma 8071. Code the subtype/variant: keratinizing squamous cell carcinoma 8071.

Example 3: Diagnosis for a single tumor is sarcoma NOS 8800/3 with a component of leiomyosarcoma 8890/3. Code the subtype/variant: leiomyosarcoma 8890/3.

Note 1: The terms above (A, B, C) must describe a **carcinoma** or **sarcoma** in order to code a histology described by those terms.

Example: When the diagnosis is adenocarcinoma with a component of medullary **carcinoma**, code medullary carcinoma 8510.

Negative Example: When the diagnosis is simply adenocarcinoma with a medullary component, code adenocarcinoma NOS 8140. Do not assume this is a medullary carcinoma. This could be medullary differentiation or features.

Note 2: When the most specific histology is described as differentiation or features, see #2.

2. **Code the histology described as differentiation or features/features of ONLY** when there is a specific ICD-O code for the “NOS with ___ features” or “NOS with ___ differentiation”.

Note: Do not code differentiation or features when there is no specific ICD-O code.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

3. Code the specific histology described by **ambiguous terminology** (list follows) **ONLY** when A or B is true:

A. The only diagnosis available is **one histology** term described by ambiguous terminology

- CoC and SEER require reporting of cases diagnosed only by ambiguous terminology
- Case is accessioned (added to your database) based on ambiguous terminology and no other histology information is available/documented

Example: Outpatient biopsy says probably squamous cell carcinoma. The case is accessioned (entered into the database) as required by both SEER and COC. No further information is available. Code the histology squamous cell carcinoma. The case meets the criteria in **#3A**.

B. There is a **NOS histology and a more specific** (subtype/variant) described by ambiguous terminology

- Specific histology is clinically confirmed by a physician (attending, pathologist, oncologist, etc.) **OR**
- Patient is receiving treatment based on the specific histology described by ambiguous term

Example: The pathology diagnosis is NSCLC consistent with adenocarcinoma. The oncology consult says the patient has adenocarcinoma of the right lung. This is clinical confirmation of the diagnosis, code adenocarcinoma. The case meets the criteria in **bullet 1**.

Example: The pathology diagnosis is NSCLC consistent with squamous cell carcinoma. The treatment plan says the patient will receive treatment for squamous cell carcinoma. Treatment plan confirms squamous cell carcinoma; code squamous cell carcinoma. The case meets the criteria in **bullet 2**.

If the specific histology does not meet the criteria in #3B, then code the NOS histology.

List of Ambiguous Terminology

Apparently	Most likely
Appears	Presumed
Comparable with	Probable
Compatible with	Suspect(ed)
Consistent with	Suspicious (for)
Favor(s)	Typical (of)
Malignant appearing	

Lung Histology Rules
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(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

4. **DO NOT CODE** histology described as:

- Architecture
- Foci; focus; focal
- Pattern (**Exception:** See Rule H7)

Single Tumor

Rule H1 Code **mucinous** adenocarcinoma as follows (for lung only):

- **8253/3** when
 - Behavior unknown/not documented (use staging form to determine behavior when available)
 - Invasive
- **8257/3** when
 - Microinvasive
 - Minimally invasive
- **8253/2** when
 - Preinvasive
 - In situ

Note 1: When mucinous carcinoma is mixed with another histology, such as adenocarcinoma and mucinous carcinoma, code mucinous **ONLY** when mucinous is **documented** to be **greater than 50%** of the tumor.

Note 2: These **new codes and terms** will allow mucinous adenocarcinoma to be analyzed separately from colloid carcinoma.

Note 3: Changes take place over time. **Pathologists may not use** terms “minimally invasive” and “pre-invasive” **immediately**. Code the pathology diagnosis.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule H2 Code **non-mucinous** adenocarcinoma as follows:

- **8256/3** when
 - Microinvasive
 - Minimally invasive
- **8250/2** when
 - Preinvasive
 - In situ

Note 1: These are new codes and terms.

Note 2: Pathologists may not use the terms “minimally invasive” and “pre-invasive” immediately. Code the pathology diagnosis.

Rule H3 Code the specific histology when the diagnosis is **non-small cell lung carcinoma (NSCLC) consistent with** (or any other ambiguous term) **a specific carcinoma** (such as adenocarcinoma, squamous cell carcinoma, etc.) when:

- The histology is clinically confirmed by a physician (attending, pathologist, oncologist, pulmonologist, etc.)
- The patient is treated for the histology described by an ambiguous term

Note 1: If the case does not meet the criteria in the first two bullets, code non-small cell lung cancer (NSCLC) 8046.

Note 2: If the case is accessioned (added to your database) based on a **single histology** described by ambiguous terminology and no other histology information is available/documented, then code that histology.

Example 1: The pathology diagnosis is NSCLC consistent with adenocarcinoma. The oncology consult says the patient has adenocarcinoma of the right lung. This is clinical confirmation of the diagnosis, code adenocarcinoma. The case meets the criteria in **bullet 1**.

Example 2: The pathology diagnosis is NSCLC consistent with squamous cell carcinoma. The treatment plan says the patient will receive the following treatment for squamous cell carcinoma. Treatment plan confirms squamous cell carcinoma; code squamous cell carcinoma. The case meets the criteria in **bullet 2**.

Example 3: Outpatient biopsy says probably squamous cell carcinoma. The case is accessioned (entered into the database) as required by both SEER and COC. No further information is available. Code the histology squamous cell carcinoma. The case meets the criteria in **Note 2**.

Lung Histology Rules
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(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule H4 Code the histology when only **one histology** is present.

Note 1: Use [Table 3](#) to code histology. New codes, terms, and synonyms are included in **Table 3** and coding errors may occur if the table is not used.

Note 2: When the histology is **not listed** in **Table 3**, use the **ICD-O** and all **updates**.

Note 3: Submit a question to [Ask a SEER Registrar](#) when the histology code is not found in Table 3, ICD-O or all updates.

Note 4: This includes coding non-small cell carcinoma when it is the only diagnosis available.

Rule H5 Code the **invasive** histology **when in situ** and **invasive** histologies are present.

Note 1: Histologies may be **NOS** and a **subtype/variant**.

Note 2: When the NOS is invasive and the subtype/variant is situ, code the NOS (invasive).

Example: The histologies are mucinous adenocarcinoma in situ **8253/2** and invasive adenocarcinoma NOS **8140/3**. Code the invasive histology: adenocarcinoma **8140/3**.

Rule H6 Code the **subtype/variant** when there is a **NOS** and a **single subtype/variant** of that NOS, such as the following:

- Adenocarcinoma **8140** and a subtype/variant of adenocarcinoma
- Mucinous adenocarcinoma and a subtype/variant of mucinous adenocarcinoma
- Non-small cell carcinoma **8046** and a subtype/variant of non-small cell carcinoma
- Sarcoma **8800** and a subtype/variant of sarcoma
- Neuroendocrine carcinoma (NEC) **8246** and a subtype/variant of NEC
- Neuroendocrine tumor (NET) **8240** and a subtype/variant of NET
- Squamous cell carcinoma **8070** and a subtype/variant of squamous cell carcinoma

Note: See [Table 3](#) in the Equivalent Terms and Definitions to find NOS and subtypes/variants.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Rule H7 Code the histology that comprises the **greatest percentage** of tumor when two or more of the following histologies are present:

- Acinar adenocarcinoma / Adenocarcinoma, acinar predominant **8551**
- Lepidic adenocarcinoma / Adenocarcinoma, lepidic predominant **8250**
- Micropapillary adenocarcinoma / Adenocarcinoma, micropapillary predominant **8265**
- Papillary adenocarcinoma / Adenocarcinoma, papillary predominant **8260**
- Solid adenocarcinoma / Adenocarcinoma, solid predominant **8230**

Note 1: The rules are hierarchical, so the tumors are **NOT** a NOS and subtype/variant.

Note 2: If the percentages are unknown/not documented, or are equal percentages, continue through the rules.

Note 3: CAP Lung Protocol now allows pathologists to identify the bulleted histologies as **pattern** along with percentages. The histology pattern with the greatest percentage can be coded. This is an **exception** to the histology coding instruction to not code pattern.

Example 1: Pathology reads the tumor is adenocarcinoma, acinar predominant (acinar 60%, solid predominant 20%, lepidic predominant 20%). Code the histology with the highest percentage: acinar adenocarcinoma 8551/3.

Example 2: Pathology reads the tumor is adenocarcinoma, solid predominant (with acinar, lepidic, and papillary subtypes). Code the predominant histology: solid adenocarcinoma 8230/3.

Example 3: Pathology reads the tumor is adenocarcinoma, lepidic prominent 80%, solid predominant 20% and the synoptic report states lepidic pattern 80%, solid pattern 20%. Code the histology with the higher pattern percentage: lepidic adenocarcinoma 8250/3.

Rule H8 Code a **combination** code when there are multiple histologies **AND**

- The combination is listed in [Table 2](#) in Equivalent Terms and Definitions, the ICD-O and all updates, **OR**
- You received a combination code from [Ask a SEER Registrar](#).

Note: The rules are **hierarchical**. Use this rule only when previous rules do not **apply**.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

- Rule H9** Code adenocarcinoma with mixed subtypes **8255** for
- Multiple adenocarcinoma subtypes **OR**
 - Any combination of histologies which are not listed in Table 2 in the Equivalent Terms and Definitions.
- Note 1:* Any combination of histologies listed in H7 with equal percentages is coded 8255.
Note 2: Adenocarcinoma with mixed subtypes 8255 does not apply to squamous cell carcinoma.

This is the end of instructions for Single Tumor

Code the histology using the rule that fits the case.

Lung Histology Rules
C340-C343, C348, C349
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Multiple Tumors Abstracted as a Single Primary

Note: Before coding histology, use the **Multiple Primary Rules** to determine that multiple tumors are a single primary.

Rule H10 Code **mucinous** adenocarcinoma (for lung only) when all tumors consist of:

- **8253/3** when
 - Behavior unknown/not documented (use staging form to determine behavior when available)
 - Invasive
- **8257/3** when
 - Microinvasive
 - Minimally invasive
- **8253/2** when
 - Preinvasive
 - In situ

Note 1: These are **new codes and terms** which will allow mucinous adenocarcinoma/carcinoma to be analyzed separately from colloid carcinoma.

Note 2: Changes take place over time. **Pathologists may not use** terms “minimally invasive” and “pre-invasive” **immediately**. Code the **pathology diagnosis**.

Rule H11 Code **non-mucinous** adenocarcinoma (for lung only) when all tumors consist of:

- **8256/3** when
 - Microinvasive
 - Minimally invasive
- **8250/2** when
 - Preinvasive
 - In situ

Note: These are new codes and terms.

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Rule H12 Code the specific histology when the diagnosis for the tumor is **non-small cell lung carcinoma (NSCLC) consistent with** (or any other ambiguous term) **a specific carcinoma** (such as adenocarcinoma, squamous cell carcinoma, etc.) when:

- The histology is clinically confirmed by a physician (attending, pathologist, oncologist, pulmonologist, etc.)
- The patient is treated for the histology described by an ambiguous term
- The case is accessioned (added to your database) based on a single histology described by ambiguous terminology and no other histology information is available/documented

Note: If the case does not meet the criteria in the first two bullets, code non-small cell lung cancer (NSCLC) **8046**.

Example 1: Only one tumor is biopsied. The pathology diagnosis is NSCLC consistent with adenocarcinoma. The oncology consult says the patient has adenocarcinoma of the right lung. This is clinical confirmation of the diagnosis, code adenocarcinoma. The case meets the criteria in bullet 1.

Example 2: Only one tumor is biopsied. The pathology diagnosis is NSCLC consistent with squamous cell carcinoma. The treatment plan says the patient will receive the following treatment for squamous cell carcinoma. Treatment plan confirms squamous cell carcinoma; code squamous cell carcinoma. The case meets the criteria in bullet 2.

Example 3: Only one tumor is biopsied. Outpatient biopsy says probably squamous cell carcinoma. The case is accessioned (entered into the database) as required by both SEER and COC. No further information is available. Code the histology squamous cell carcinoma. The case meets the criteria in bullet 3.

Rule H13 Code the histology when only **one** histology is present in **all** tumors.

Note 1: Use [Table 3](#) to code histology. New codes, terms, and synonyms are included in **Table 3** and coding errors may occur if the table is not used.

Note 2: When the histology is **not listed** in **Table 3**, use the **ICD-O** and all **updates**.

Note 3: Submit a question to [Ask a SEER Registrar](#) when the histology code is not found in Table 3, ICD-O or all updates.

Rule H14 Code the **invasive** histology when all tumors have both invasive and in situ elements.

Note 1: All tumors may be **mixed** in situ and invasive **OR** one tumor may be in situ and the other invasive.

Note 2: Tumors may be **NOS** and a **subtype/variant**.

Note 3: When the NOS is invasive and the subtype/variant is situ, code the NOS (invasive).

Note 4: Multiple Primary Rules must be applied to be certain all tumors are a single primary.

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Rule H15 Code the **subtype/variant** when there is a **NOS** and a **single subtype/variant** of that NOS such as the following:

- Adenocarcinoma **8140** and a subtype/variant of adenocarcinoma
- Mucinous adenocarcinoma and a subtype/variant of mucinous adenocarcinoma
- Non-small cell carcinoma **8046** and a subtype/variant of non-small cell carcinoma
- Sarcoma **8800** and a subtype/variant of sarcoma
- Neuroendocrine carcinoma (NEC) **8246** and a subtype/variant of NEC
- Neuroendocrine tumor (NET) **8240** and a subtype/variant of NET
- Squamous cell carcinoma **8070** and a subtype/variant of squamous cell carcinoma

Note 1: All tumors may be **mixed** histologies (NOS and a subtype/variant of that NOS) **OR** one tumor may be a **NOS** histology and the other tumor a **subtype/variant** of that NOS.

Note 2: See [Table 3](#) in the Equivalent Terms and Definitions to find NOS and subtypes/variants.

Rule H16 Code the appropriate **combination code** when all tumors have multiple histologies **AND**

- The combination is listed in [Table 2](#) in Equivalent Terms and Definitions, the ICD-O and all updates, **OR**
- You received a combination code from [Ask a SEER Registrar](#).

Note: The rules are hierarchical. Use this rule **only** when previous rules do not apply.

This is the end of instructions for Multiple Tumors Abstracted as a Single Primary.

Code the histology using the rule that fits the case.
