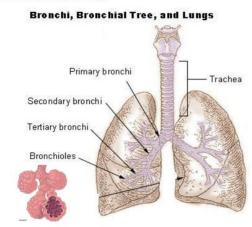


Definition: Bronchi and Bronchioles

THINK OF IT LIKE A TREE...

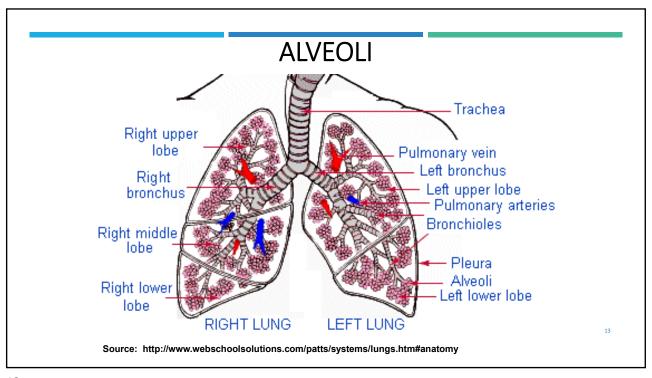
- Trachea- the passage for air to the lungs (the trunk)
- Bronchus- Branches off the trachea (also called primary bronchi)
- Bronchi- the two smaller subdivisions of the bronchus (smaller branches)
- Bronchioles-the even smaller subdivisions of the bronchi (even smaller branches)
- Aveoli-gas exchange units (leaves)



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Respiratory tract Trachea Right main stem bronchus Lobar bronchus Segmental bronchus Bronchiole Terminal bronchiole Respiratory bronchiole Alveolar duct Alveolar duct Alveolar Sacs Adapted from R S Snell: Clinical Anatomy for Medical Students, 5th ed. 1995.



- Bronchogenic: An anatomic designation (not a specific histology) for a lung cancer arising in a bronchus. C349
- Contiguous tumor: A single tumor that involves, invades, or bridges adjacent or connecting sites or subsites. C348

Central tumor

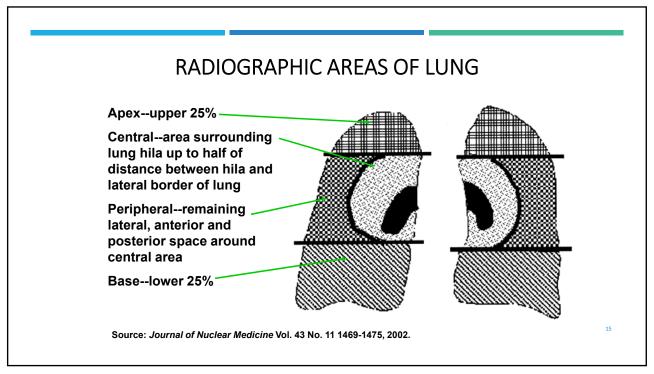
ANATOMY DEFINITIONS

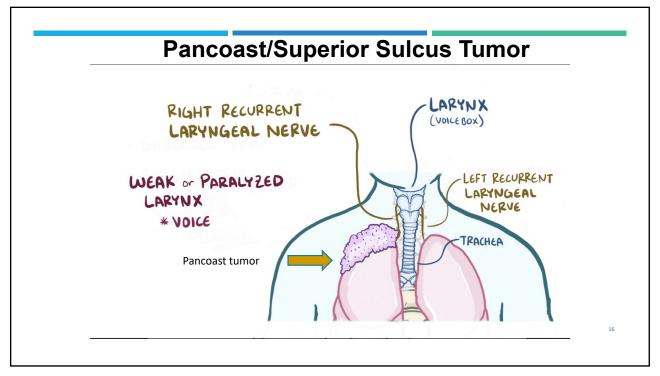
- Squamous cell carcinoma
- · Arises in hilum, bronchus

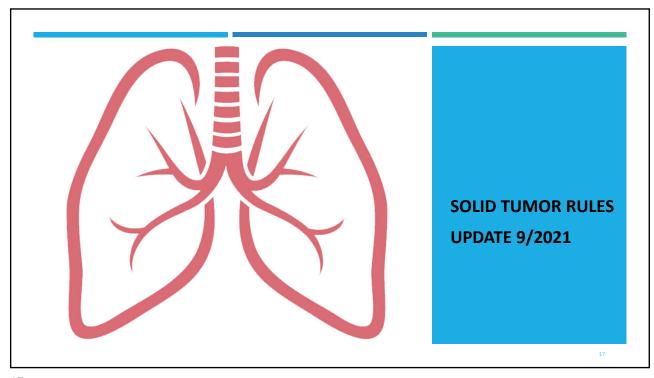
Peripheral tumor

- Often adenocarcinoma or large cell tumors
- Alveoli
- Lung tissue

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GENERAL INSTRUCTIONS

- General Terms & Ambiguous Terms
- How to Navigate STR
- Multiple Primary Rules do NOT apply to mets
- Timing Rules
- Priority order for using documents for histology
- Definitions

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LUNG: INTRODUCTION

- Rule out mets before abstracting a lung primary
- Multifocal/multiple discrete foci tumors often present in lepidic adenoca. Aka ground glass features.
- Do not code multiple primaries based on biomarkers. Biomarkers are most frequently used to target treatment.

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CHANGES FROM 2007 MPH RULES

- Path reports may use obsolete terms. Can be used if all you have.
- WHO 4th Ed discontinued use of term bronchioloalveolar carcinoma (BAC)
- Preferred term for BAC is now mucinous adenocarcinoma 8253.
- 2018 Lung Rules instruct:
 - Code the most specific histology from biopsy or resection. (all sites except breast and CNS)
 - Discrepancy from biopsy or resection: code from most representative specimen (greatest amt of tumor)
 - New and changed ICD-O histology codes added to Table 3.

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LUNG ONLY

- A. Mucinous carcinoma/adenocarcinoma
 - 8253/3 when
 - o Behavior unknown/not documented (use staging form to determine behavior when available)
 - o Invasive
 - 8257/3 when
 - o Microinvasive
 - o Minimally invasive
 - 8253/2 when
 - o Preinvasive
 - o 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
 - o Microinvasive
 - o Minimally invasive
 - 8250/2 when
 - o Preinvasive
 - o In situ
- C. Adenocarcinomas (CAP Terminology)

Adenocarcinoma, acinar predominant 8551

- Adenocarcinoma, lepidic predominant 8250
- Adenocarcinoma, micropapillary predominant 8265
- Adenocarcinoma, papillary predominant 8260
- · Adenocarcinoma, solid predominant 8230

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TERMINOLOGY PG 168

Equivalent terms can be used interchangeably:

- Adenocarcinoma, carcinoma
- And; with
 - Note: "And" and "with" are used as synonyms when describing multiple histologies within a single tumor.
- NSCLC 8046; broad category includes all but small-cell carcinoma (8041)
- Simultaneous; existing at same time; concurrent; prior to first course Rx
- Site; topography
- Squamous cell ca; SCC; epidermoid carcinoma
- Tumor, mass, tumor mass, lesion, neoplasm, nodule:
 - NOT used in standard manner in clinical dx. Disregard terms unless doctor states they are malignant/cancer. Do not use terms for casefinding or reportability.
- Type; subtype; variant

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TERMINOLOGY

Terms **NOT equivalent** (pg 171)

- Bilateral not same as single/multiple pri
- Bronchus not always = MSB
- Component not = type/subtype/variant
- LUNG ONLY: Mucinous not equiv to colloid
- Mucin-producing/mucin secreting carcinoma 8481 is not equivalent to mucinous carcinoma 8253 (new code for lung primaries only)
- Multilocular not = multinodular
- Phenotype not = subtype/type/variant

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Rules will send you here. Do not start in this table.

- Compare terms in path report to terms in Column 1.
- When terms match, use combination code in Column 2.
- Last row is last resort code, 8255.

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TABLE 2: COMBINATION/MIXED HISTO CODES

Do not use Table 2:

- Tumors with both invasive and insitu behavior (rules code invasive)
- When one histology is described as differentiation or features.
- Histology terms are NOS and a subtype/variant of that NOS.

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COMBINATION/MIXED HISTO CODES

TABLE 2:

Required Terms **Combination Histologies and Code** Adenocarcinoma NOS Adenosquamous carcinoma 8560 AND Squamous cell carcinoma NOS Note: Diagnosis <u>must be</u> adenocarcinoma NOS and squamous cell carcinoma NOS, <u>NOT</u> any of the **subtypes/variants** of adenocarcinoma or squamous cell carcinoma Sarcomatoid carcinoma 8033 Giant cell carcinoma Spindle cell carcinoma Note: 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 Note: Sarcomatoid carcinoma is not in the histology table because cell carcinoma is sarcomatoid carcinoma sarcomatoid tumors primarily originate in the mediastinum. The combination code is added for the rare occasion when a tumor occurs within the lung. Epithelial-myoepithelial carcinoma 8562 Epithelial carcinoma Myoepithelial carcinoma Combined large cell neuroendocrine carcinoma 8013 Large cell neuroendocrine carcinoma Adenocarcinoma NOS OR Squamous cell carcinoma NOS OR Spindle cell carcinoma OR Giant cell carcinoma Mucinous carcinoma, invasive Mixed invasive mucinous and non-mucinous Non-mucinous carcinoma, invasive Jump to Multiple Primary Rules
Jump to Histology Coding Rules 176 Solid Tumor Rules September 2021 Update

Use Table 3 as directed by histology rules

- Rare histologies may not be on table. Reference ICD-O and all updates
- Submit question to AASR when histology not found
- Behavior codes listed when term has only one possible behavior (either /2 or /3)
- Only use histology code from table when dx is EXACTLY the term listed
- Sarcomatoid carcinoma most frequently tumor of mediastinum, so not listed in this table for lung primary site.

TABLE 3: SPECIFIC HISTOLOGIES, NOS AND SUBTYPE/VARIANTS

NSCLC broad group of cancers

- Includes all carcinoma types in Table 3 (usually adenoca, squamous cell ca, large-cell carcinoma) with exception of:
- Small cell carcinoma/NET 8041 AND
 - All subtypes of small cell carcinoma AND
- Sarcoma NOS 8800 (not a carcinoma) AND
 - All subtypes of sarcoma NOS

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Adenocarcinoma 8140 Note 1: Mucinous adenocarcinoma for lung only is coded as follows: • 8253/3* when • Behavior unknown/not documented (use staging form to determine behavior when available) • Note 2: Non-mucinous adenocarcinoma for lung only is coded as follows: • 8257/3* when • Miscroinvasive • Miscroinvasive • Note 2: Non-mucinous adenocarcinoma for lung only is coded as follows: • 8256/3* when • Preinvasive • Minimally invasive • Morionivasive • Morionivasive • Note 2: Non-mucinous adenocarcinoma for lung only is coded as follows: • 8256/3* when • Minimally invasive • Minimally invasive • Minimally invasive • Minimally invasive • Note 2: Non-mucinous adenocarcinoma for lung only is coded as follows: • 8256/3* when • Preinvasive • Minimally invasive • Minimally invasive • Non-mucinous adenocarcinoma Adenocarcinoma (for lung only) in situ 8250/2* when • Preinvasive • Non-mucinous adenocarcinoma for lung only) in situ 8250/2* minimally invasive 8256/3* minimally invasive 8256/3*
1
Adenosquamous carcinoma 8560

MULTIPLE PRIMARY (M) RULES

Note 1: Not for tumors described as mets

Note 2: Manuals based on date of dx. Orig tumor before 2018, subsequent tumor dx 2018 or later in same primary site, use 2018 STR.

Unknown if Single or Multiple Tumors

M1: Single primary when not possible to determine if single or multiple

Single Tumor

 M2: Abstract single primary when there is a single tumor. [Single tumor is always a single primary]

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Multiple Tumors

- M3 Abstract Mult primaries when there are separate, non-continuous tumors with ICD-O sites that differ at 2nd or 3rd char. Example:C349 compared to C189
- M4 Abstract Mult primaries when patient had subsequent tumor after being clinically disease-free for >3 years after original dx or last recurrence [timing rule]. See notes.
- M5 Abstract Mult primaries when there is at least one tumor that is small cell carcinoma 8041 or any small cell subtype/variant and another tumor that is non-small cell carcinoma 8046 or any non-small cell carcinoma s/v.
 - Small cell carcinoma and non-small cell carcinoma are the two major classifications/divisions for lung cancer
 - Irrelevant whether tumors are in ipsilateral or bilateral.

MULTIPLE PRIMARY RULES

Multiple Tumors

- M6 Abstract multiple pri when sep/non-contig tumors are two or more different subtype/variants in Column 3, Table 3. {telling you to go to table 3}. Timing irrelevant.
 - Note: Tumors may be s/v of **same** or **different** NOS histo
 - 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 8520/3 is a subtype of adenocarcinoma 8140/3. They are distinctly different histologies.
 Abstract multiple primaries.

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Lung Equivalent Terms and Definitions C340-C343, C348, C349 (Excludes lymphoma and leukemia M9590 – M9992 and Kaposi sarcoma M9140)

Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
Adenocarcinoma 8140 Note 1: Mucinous adenocarcinoma for lung only is coded as follows: • 8253/3* when • Behavior unknown/not documented (use staging form to determine behavior when available) • Invasive • 8257/3* when • Microinvasive • Minimally invasive	Adenocarcinoma NOS Adenocarcinoma in situ 8140/2 Adenocarcinoma invasive 8140/3	Acinar adenocarcinoma/adenocarcinoma, acinar predominant (for lung only) 8551* Adenoid cystic/adenocystic carcinoma 8200 Colloid adenocarcinoma 8480 Fetal adenocarcinoma 8333 Lepidic adenocarcinoma/adenocarcinoma, lepidic predominant 8250/3* Mucinous carcinoma/adenocarcinoma (for lung only) in situ 8253/2* invasive 8253/3* minimally invasive 8257/3*

Lung Equivalent Terms and Definitions		
C340-C343, C348, C349		
(Excludes lymphoma and leukemia M9590 – M9992 and Kaposi sarcoma M9140)		

Specific or NOS Histology Term and Code	Synonym of Specific or NOS	Subtype/variant of NOS and Code
Adenocarcinoma 8140	Adenocarcinoma NOS Adenocarcinoma in situ	Acinar adenocarcinoma/adenocarcinoma, acinar predominant (for lung only) 8551*
Note 1: Mucinous adenocarcinoma for lung only is coded as follows: • 8253/3* when	8140/2 Adenocarcinoma invasive 8140/3	Adenoid cystic/adenocystic carcinoma 8200 Colloid adenocarcinoma 8480 Fetal adenocarcinoma 8333
o Behavior unknown/not documented (use staging form to determine behavior when available)		Lepidic adenocarcinoma/adenocarcinoma, lepidic predominant 8250/3* Mucinous carcinoma/adenocarcinoma

Squamous cell carcinoma 8070	Squamous carcinoma Squamous cell carcinoma	Basaloid carcinoma/basaloid squamous cell carcinoma 8083 Keratinizing squamous cell carcinoma 8071 Non-keratinizing carcinoma 8072
	NOS Squamous cell epithelioma Squamous cell carcinoma in situ 8070/2	

MULTIPLE PRIMARY RULES

Multiple Tumors

- M7 Abstract single pri when synchronous, sep/non-contig tumors are in same lung are on the same row in Table 3.
 - 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) \boldsymbol{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)

MULTIPLE PRIMARY RULES

Multiple Tumors

- M8 Abstract mult pri when sep/non-contiguous tumors are:
 - On different rows in Table 3
 - A combination code in Table 2 and a code from Table 3
 - Timing irrelevant
 - Each row distinctly different histology

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Abstract a single primary when there are simultaneous <u>multiple</u> tumors: Rule M9

- . 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 <u>Table 3</u> 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
 - · 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.
- 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.

MULTIPLE PRIMARY RULES

Multiple Tumors

- M10 Single: Same lung, insitu after an invasive same lung
- M11 Multiple: Single tumor in each lung
 - *exception proof of mets
- M12 Single: Invasive dx less than or = to 60 days after in situ
- M13 Multiple: Invasive occurs more than 60 days after in situ same lung
- M14 Single: When no other rules apply

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PRIORITY ORDER FOR HISTOLOGY

- Which document to use when there is conflicting information between the final diagnosis, synoptic report, or CAP protocol:
- When there are discrepancies between the final diagnosis and synoptic report, use the document that provides the more specific histology. This will likely be found in the synoptic report. The CAP Protocol should be used only when a final diagnosis or synoptic report are not available. Definitions for CAP Protocol, final diagnosis, and synoptic report can be found in the Definitions section.

PRIORITY ORDER FOR USING DOCUMENTS TO IDENTIFY HISTOLOGY

1. Code histology *prior* to neoadjuvant treatment.

Note 1: Histology changes may occur following treatment.

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

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PRIORITY ORDER FOR DOCUMENTS

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

The priority list for single primaries (includes multiple primaries abstracted as a single primary)

Code most specific histology from either biopsy or resection.

Note 1: Most specific usually refers to a subtype/variant

Note 2: Histology rules instruct to code invasive when in situ and invasive components in a single tumor.

Note 3: Discrepancy between biopsy and resection (two distinctly different histologies/different rows), code histology from most representative specimen (greater amount of tumor.)

PRIORITY ORDER FOR DOCUMENTS

Hierarchical list of source documentation

- 1. Pathology or tissue from primary site
 - A. Addendum and/or comment
 - B. Final dx/synoptic as required by CAP
 - C. CAP protocol (checklist) [see notes]
- 2. Cytology (FNA from primary site, pleural fluid or pericardial fluid)
- 3. Tissue/path from metastatic site (more accurate than a scan)
- 4. Scan (CT, PET, MRI, CXR in order)
- 5. Histology documented by physician when above not available. (Treatment plan, Tumor Board, medical record, Physician's reference to type of cancer in order)

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HISTOLOGY RULES

Single Tumor

Rule H1 Mucinous adenoca [see additional codes and notes]

Rule H2 Non-Mucinous adenoca [see codes]

Rule *H3 Code specific when dx is NSCLC consistent with more specific. [see notes and examples]

Rule H4 Code histology when only one histology present

Rule H5 Code invasive when in situ and invasive present

Rule H6 Code subtype/variant when NOS & single subtype

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.

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HISTOLOGY RULES

Single Tumor

Rule H7 Code histology comprises **greatest** % when two or more histologies present. See list, notes, examples

Rule H8 Code combination code if multiple histologies AND combo listed in Table 2. Only go to table 2 when other rules do not apply.

Rule H9 Last Resort: Code 8255 for mixed subtypes.

Note: 8255 does not apply to squamous cell carcinoma.

POP QUIZ

- Path report: One tumor with Adenocarcinoma acinar predominant 60%, adenocarcinoma papillary predominant 20%, and adenocarcinoma lepidic predominant 20%.
- Code histology: 8551/3

Rule H7: Code histology that comprises greatest % of tumor when 2 or more following histologies are present: (see list)

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.

Currently the instructions are to code to the acinar adenocarcinoma 8551. This was changed November 2019.

The old STR instructed you to code this to 8255

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HISTOLOGY RULES

Multiple tumors abstracted as a single primary

Note: Before coding histology, use M rules to determine that multiple tumors are a single primary.

Rule H10 Code Mucinous

Rule H11 Code Non-Mucinous

Rule H12 Code the specific histology NSCLC c/w specific carcinoma...when.... [see bullets and examples]

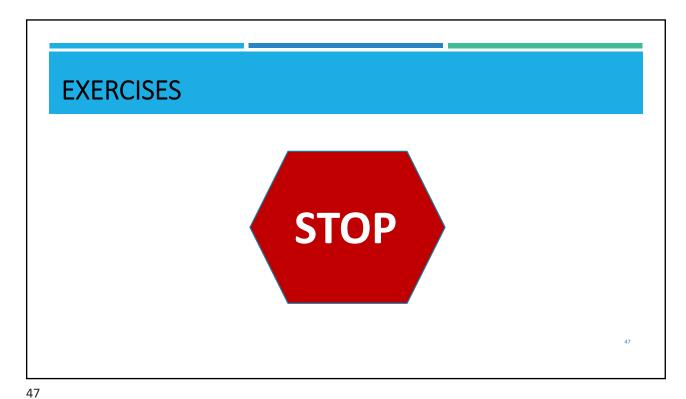
Rule H13 Code histology when only ONE histology is present in all tumors.

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

Rule H15 Code s/v when there is NOS and a single s/v [see list]

Rule H16 Code combo code when all tumors have multiple histologies AND combo code listed in Table 2. Use this rule only when previous rules do not apply.

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- -

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CASE #1

Pt diagnosed with squamous cell carcinoma in 2014 S/P RUL {C341} lobectomy. In 2022 new R lung {C349} mass with BX showing recurrent squamous cell carcinoma. CT does not show any other masses.

New primary?
Primary Site
Histology

Case #2

Pt had CT 3/12/2022 showing large 5 cm mass in RUL with 2 more masses in RLL along with 4 metastatic lesions in LUL. Physician stated findings c/w bronchogenic carcinoma. No path report available.



How many primaries?

Primary Site

Histology

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CASE #3

3/17/2022 LLL lung biopsy of a single mass: Squamous cell CA (8070) with spindle cell carcinoma (8032) in the LLL.

Primary Site	
Histology	

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Case #4

6/25/2022 LUL lobectomy: Single tumor 3 cm in size, invasive adenocarcinoma, NOS, mucinous subtype in the lung.

Primary Site	
Histology	

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Case #5

2/14/2022 Pt has two R lung tumors: first tumor in RUL shows invasive papillary adenoca {8260/3}. Second tumor mass in RLL shows invasive mucinous CA. {8253/3} How many primaries?

	Tumor 01	Tumor 02
How many primaries?		
Primary Site		
Histology		

SEER*EDUCATE

Training | Coding Ces
-Dx 2018-2022 Solid Tumor Rules
Lung 2018-2022 Cases 01-05



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(AASR) ASK A SEER REGISTRAR

- 20200057 Question: Histology--Lung: Is there a better code for SMARCA4-deficient malignant neoplasms than 8000/3 that could be used especially given its aggressive nature? This term is not included in the Lung Solid Tumor Rules or ICD-O-3.1 and 3.2.
 - Answer: Assign code 8020/3. SMARCA4-deficient malignant neoplasms are newly identified. WHO has not proposed an ICD-O code as of yet. Our pathology experts suggest coding to undifferentiated carcinoma until they are better classified.

