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Cytology Reportability Demystified

Before cytology reportability rules can be applied, one first must clearly understand exactly what "cytology" is and the specimens it includes.

Cytology Defined

Cytology is a branch of pathology that diagnoses diseases based on the analysis of single cells or clusters of cells (the building components of tissue). The disadvantage is that a definitive diagnosis may or may not be able to be rendered simply based on individual cells. As similar cells come together to create tissue, the biopsy of a larger piece of tissue often yields a more accurate diagnosis.

Types of Cytology Testing Used to Diagnosis Cancer

Fine Needle Aspiration (FNA) uses a very thin, hollow needle attached to a syringe to take out a small amount of fluid and very small pieces of tissue (cells) from the tumor. The disadvantage is that sometimes this needle can't remove enough tissue for a definite diagnosis. Although a FNA is a type of biopsy, it's classified as a *cytology test*.

Cytologic Exam of Body Fluids includes fluids taken from cavities in the body which are tested for the presence of cancer cells. Some of the body cavity fluids tested in this way include:

- **Urine**
- **Sputum (phlegm)**
- **Spinal fluid, cerebrospinal fluid or CSF** taken from the space surrounding the brain and spinal cord
- **Pleural fluid** taken from the space around the lungs
- **Pericardial fluid** taken from the sac surrounding the heart
- **Ascitic fluid, ascites or peritoneal fluid** taken from the peritoneal space in the abdomen

Scrape, Brush or Wash Cytology gently removes cells from an organ or tissue specimen by scraping, brushing or washing (irrigating with a sterile solution). The best-known cytology test sampling cells this way is the Pap (smear), test which removes cells from the cervix. Other body areas that can be scraped, brushed or washed include the esophagus, stomach, bronchi and mouth.

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Reporting Criteria

Any cytology which indicates a **definitive diagnosis of cancer** IS REPORTABLE. *Only cytologies that include **"ambiguous terminology"** (see the list below) in the final diagnosis are NOT TO BE ACCESSIONED* **UNLESS the following occur:**

- **There is a positive cytology (without ambiguous terminology) OR definitive tissue biopsy performed**
- **MD is clinically calling the condition cancer AND/OR**
- **The patient is being treated for cancer**

Cytologies using "ambiguous terminology" **need to be investigated** (*for supporting documentation such as, physician's clinical diagnosis of cancer, a scan or procedure identifying cancer, positive biopsy or positive cytology not using ambiguous terms*) before making them non-reportable to ensure that the case is not missed by your registry.

Ambiguous terms used to indicate reportability include:

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

According to the SEER Program Coding and Staging Manual, **urine cytologies** *positive for malignancy*, such as "positive malignant cells" or "(malignant) cells interpreted as carcinoma" **are reportable for 2013 diagnoses forward:**

- Code the primary site to C689 in the absence of any other information on site of origin
- **Exception:** 1. When a subsequent biopsy of a urinary site is negative, do not report.

  In this situation, the pathology proved the cytology to be incorrect. The pathologic diagnosis is the "gold standard." When cytology and pathology disagree, use the pathology. (SEER SINQ 20100106 & 20120079)

  2. Do not report cytology cases with ambiguous terminology **UNLESS a definitive tissue biopsy is performed OR the MD is calling it cancer AND/OR the patient is being treated for cancer.**

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Confirmed Ambiguous Cytology: Selection of Correct Date of Diagnosis

When an "ambiguous" cytology is **confirmed as malignant by a physician** based on either a clinical diagnosis, scan OR a definitive (positive) tissue biopsy/cytology, the *date of diagnosis is either the date of the clinical dx, scan date OR the definitive tissue biopsy/cytology date---whichever is earlier*. This date may or may not be the same date the "ambiguous" cytology was performed.

Never code the diagnosis date based on the date of the "ambiguous" cytology even though the malignancy was later confirmed. The reason for this is that the initial **"ambiguous" cytology** is **NOT** diagnostic of cancer. (SEER SINQ 20010044 & 2015 SPCSM pg. 66 #6)

Example 1: 01/12/15 RLL lung brushing: suspicious for malignancy. 02/06/15 RLL lung needle biopsy: PD Adenocarcinoma. Record 02/06/2015 as the diagnosis date.

Example 2: 02/03/15 FNA RT thyroid nodule: suspicious for papillary carcinoma. 02/16/15 FNA RT thyroid nodule: papillary carcinoma. 03/05/15 RT Thyroid Lobectomy: multifocal 4mm & 2mm papillary carcinoma. Record 02/16/2015 as the diagnosis date.

Example 3: 01/6/15 FNA RT Cervical LN: suspicious for squamous cell carcinoma. 01/12/15 CT Scan: 3cm parotid gland mass with extensive cervical lymphadenopathy. Impression: parotid malignancy with lymph node metastasis. No further biopsies performed. Patient started concurrent chemo and radiation. Record 01/12/15 as the diagnosis date.

Tissue Biopsies

Please note that **ALL tissue biopsies** that indicate cancer--whether via definitive diagnosis or a diagnosis using "ambiguous terminology"--ARE ALWAYS REPORTABLE.

References: American Cancer Society Testing Biopsy and Cytology Specimens for Cancer
2015 SEER Program Coding and Staging Manual