March 2025

Missouri Cancer Registry and Research Center
Show-Me-Tips

Coding...Abstracting...Education…

Ed 25:01
Hematopoietic

Hematopoietic Neoplasm

Coding Diagnostic Confirmation for Hematopoietic and Lymphoid Neoplasm

Overview

Diagnostic Confirmation (NAACCR data item #490)

- Is required by NPCR, CoC, SEER, and CCCR.
- Captures the best method of diagnostic confirmation at any time in the patient's history.
- Is useful to calculate rates based on microscopically confirmed cancers. Complete incidence calculations also include cases that are only confirmed clinically. The percentage of cases that are "clinically diagnosed only" is an indication of whether case finding includes sources outside of pathology reports.
- Assigns the microscopically confirmed method the highest priority for diagnostic confirmation. The remaining values were assigned when the presence of cancer was confirmed with multiple diagnostic methods.
- Has different rules for coding between solid tumors and hematopoietic and lymphoid neoplasms. Code 3 (positive histology **PLUS** immunophenotyping **AND/OR** positive genetic studies) only applies to hematopoietic and lymphoid neoplasms
- M-9590/3–9993/3; and it is effective for cases diagnosed in 2010 and forward.

Valid codes

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Microscopically Confirmed

Code	Label	Definition
1	Positive histology • Includes: peripheral blood smear only	Histologic confirmation (tissue microscopically examined)
2	Positive cytology	Cytologic confirmation (no tissue microscopically examined; fluid cells microscopically examined)
3	Positive histology **PLUS** • Positive immunophenotypeing **AND/OR** • Positive genetic studies • Includes: peripheral blood smear followed by flow cytometry **(Effective for cases diagnosed 1/1/2010 and later)**	Histology is positive for cancer, and there are also positive immunophenotyping and/or genetic test results. For example, bone marrow examination is positive for acute myeloid leukemia. (9861/3) Genetic testing shows AML with inv(16)(p13.1q22) (9871/3). (Used only for hematopoietic and lymphoid neoplasms M-9590/3-9993/3)
4	Positive microscopic confirmation, method not specified	Microscopic confirmation is all that is known. It is unknown if the cells were from histology or cytology.

Not Microscopically Confirmed

Code	Label	Definition
5	Positive laboratory test/marker study ***Note 1:*** Includes cases with positive immunophenotyping or genetic studies and ***no*** histological confirmation ***Note 2:*** This does **not** include cases where a peripheral blood smear is done (code 1) and peripheral blood smear followed by flow cytometry (code 3)	A clinical diagnosis of cancer is based on laboratory tests/ marker studies which are clinically diagnostic for cancer

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Valid codes

Not Microscopically Confirmed (cont.)

Code	Label	Definition
6	Direct visualization without microscopic confirmation	The tumor was visualized during a surgical or endoscopic procedure only with no tissue resected for microscopic examination.
7	Radiography and other imaging techniques without microscopic confirmation	The malignancy was reported by the physician from an imaging technique report only.
8	Clinical diagnosis only, other than 5, 6 or 7	The malignancy was reported by the physician in the medical record.

Microscopic Confirmation Unknown

Code	Label	Definition
9	Unknown whether or not microscopically confirmed; death certificate	A statement of malignancy was reported in the medical record, but there is no statement of how the cancer was diagnosed (usually nonanalytic).

Problem

- Diagnostic confirmation had the lowest accuracy among all the data items validated for diagnosis year 2020 as part of the NPCR Data Quality Evaluation for leukemia, lymphoma, and multiple myeloma.
- The overall accuracy of diagnostic confirmation was 87% for leukemia, 90% for lymphoma, and 87% for multiple myeloma.
- Cases were **miscoded as 1, 2, 4, or 7** when the specific histology was determined by biopsy followed by Immune-histochemistry or genetic testing; the correct code is **3**.

Example:

Patient presents for peripheral blood smear. Physician states the patient results are consistent with *acute myelogenous leukemia.*

At this point Diagnostic Confirmation is **Code 1: Positive Histology**

The sample is sent for flow cytometry and based on those results the patient has *acute myeloid leukemia with inv(16)(p13.1q22) or t(16;16) (p13.1;q22), CBFB/MYH11*

The flow cytometry confirms the diagnosis, or identifies a more specific diagnosis.

Diagnostic confirmation is now **Code 3: Positive Histology PLUS Positive Flow Cytometry**

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Question:

If patient had genetic testing performed, but it is negative, do you still use code 3 for diagnostic confirmation?
No, because the genetic testing is not confirming a diagnosis or identifying a more specific diagnosis.
To use code 3, you must have positive genetic testing.
Use Code 1: Positive histology or other diagnostic confirmation code.

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Abstracting Tip:

Document the genetic and immunophenotyping results in your text rather than just “immunophenotyping positive”.

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Assigning Primary Site

Hematopoietic and Lymphoid Neoplasm Coding Manual Published November 2024 - Instruction #4, Note 1 and Note 3 (pg. 35)

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- When assigning primary sites:
  - Use the Primary Site coding Instructions, the PH Rules, and the Heme Database to code primary site
    - Note: This doesn't mean you can't have an uncommon primary site
  - Do not simply code the site of a lymph node biopsy, use the information available from scans to determine the correct primary site
  - Many times with lymphomas, they will biopsy the most convenient location to get a diagnosis
  - This does not mean this is the primary site
  - For hematopoietic neoplasms, the pathology report is not the default for determining the primary site, especially for lymphoma. The standard for determining primary site differs depending upon the specific histology

DID THEY...

Draw blood with a small needle stick in the arm?

Code to C42.1

Suck out bone marrow with a giant needle stick in the hip?

Code to C42.1

Cut out or biopsy a hard, palpable, or shotty lymph node?

Code to C77.0 - C77.9

"Consistent With" and Heme Neoplasms

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- "Consistent with" is historically and currently considered ambiguous terminology
- Becoming the standard of reporting Heme diagnoses
- For **HEME NEOPLASMS ONLY**:
  - "Consistent with" is a definitive diagnosis
  - So, for coding Heme neoplasms, "consistent with" is not ambiguous terminology

Resources

NPCR Coding Diagnostic for Hematopoietic and Lymphoid Neoplasm Data Quality Corner Oct. 2024

- Per STORE Manual 2018 (page 143):
  - Assign code 3 when there is a histology positive for cancer **AND** positive immunophenotyping **and/or** positive genetic testing results.
- Per Hematopoietic and Lymphoid Neoplasm Coding Manual (page 17-21):
  - Review the rules for coding histology when ambiguous terms are present prior to assigning the diagnostic confirmation code.
  - Code 1 includes peripheral blood and bone marrow aspiration or biopsy.
  - Code 3 includes positive histology **PLUS** positive immunophenotyping or genetic testing.
  - Code 5 when the diagnosis of cancer is based on laboratory tests, tumor marker studies, genetics, or immune-phenotyping that are diagnostic for that specific cancer. Laboratory tests are listed under Definitive Diagnostic Methods in the Hematopoietic Database. Do not assign code 5 when there is histologic confirmation.
  - Code 8 when the diagnosis is determined based on the physician's clinical expertise, combined with the information from the biopsy, equivocal or negative tests, and the clinical symptoms. This is called a "diagnosis of exclusion" because the physician's judgment and the work-up literally exclude all other possible diagnoses, leaving one diagnosis. Ambiguous terminology may precede the diagnosis.

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Immunophenotyping or Genetics Information

- Your histology code is based SOLELY on the pathologist's diagnosis
- Do not go through the pathology report looking at genetics or immunophenotyping to determine the histology
- The main purpose of the immunophenotyping or genetics information in the Heme DB is to help with determining diagnostic confirmation
  - Do not use it to determine your histology code
  - Remember, the pathologist or the managing physician must make the diagnosis

Immunophenotyping or Genetic tests listed may not include all tests. Check the Hematopoietic & Lymphoid Neoplasm Database by histology code for detailed information

Definitive Diagnostic Methods

FISH
Genetic Testing
Histologic Confirmation
Immunophenotyping

Definitive Diagnostic Methods:

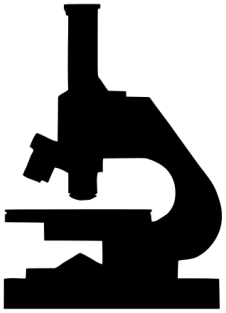
Helps with coding NAACCR data item #490. For example, if genetics/immunophenotyping is not listed, this field should not be coded 3 for that histology.

Genetics Data

BCL2 mutation
BCL6 mutation
CREBBP mutation
EP300 deletion, mutation
EPHA7 mutation
EZH2 mutation
FAS mutation
KMT2D (MLL2) mutation
MEF2B mutation
MYC gain
TNFAIP3 (also called A20) deletion, mutation
TNFRSF14 deletion, mutation
TP53 deletion, mutation

Genetics Data:

Lists genetic tests used by providers to assign the specific histology. Helps registrars know what to look for in the pathology report.



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

Immunophenotyping

BCL2 expression and positive
BCL6 positive
CD5 negative
CD10 expression and positive
CD19 expression
CD20 positive
CD22 expression
CD23 expression

Immunophenotyping:

Lists immunophenotyping used by providers to assign the specific histology. Helps registrars know what to look for in the pathology report.

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