SEER Inquiry System - Report

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Question 20210049

References:

Heme & Lymph Manual & DB. September 2020; Effective with Cases Diagnosed 1/1/2010 and Forward

Question:

Histology/Heme & Lymphoid Neoplasms--Leukemia: Is this the correct histology for a case of acute myeloid leukemia (AML) with recurrent genetic abnormalities? If the only information was AML with recurrent genetic abnormalities,"what code would you use: AML, NOS (9861/3) or AML with recurrent genetic abnormalities (9896/3)? See Discussion.

Discussion:

12/3/2020 Pathology: AML: Blasts 40% of nucleated cells. CD45 positive, CD34 negative, CD 117+,

CD13 positive, CD33 positive in 59.6% and HLA-DR was dim and myeloperoxidase was dim.

Cytogenetics normal karyotype. The next generation sequencing detected IDH 2p.(R172K)c515>A.

Because this was AML NOS, we consulted with the physician. The physician stated the patient had AML with recurrent genetic abnormalities"and the basis for the diagnosis was the IDH-2 mutation identified on Next Generation Sequencing. We assigned 9896/3, based on the physician's interpretation of the pathology. This histology is being questioned.

Answer:

We found that the term AML with recurrent genetic abnormalities, NOS"was incorrectly included as an alternate name with code 9896/3. We followed back with our expert hematopathologist and he stated that this should have been coded to 9861/3 (AML, NOS), for AML with recurrent genetic abnormalities, NOS. This alternate name has been added to 9861/3. (Note: The same alternate name has been removed from 9896/3).

IDH-2 is not listed as a genetic abnormality for any of the histologies listed in the database. It could be that this is a new genetic marker for one of the AML with recurrent genetic abnormalities that we are not aware of. Without further clarification on which histology the IDH-2 would indicate, you would have to default to 9861/3.

There are several histologies that are grouped as AML with recurrent genetic abnormalities."All of these have specific genetics listed as part of the ICD-O-3 histology name.

9865: Acute myeloid leukemia with t(6;9)(p23;q34.1) DEK-NUP214

9866: Acute promyelocytic leukemia with PML-RARA

9869: Acute myeloid leukemia with inv(3)(q21.3q26.2) or t(3;3)(q21.3;q26.2); GATA2, MECOM

9871: Acute myeloid leukemia with inv(16)(p13.1q22) or t(16;16)(p13.1;q22); CBFB-MYH11

9877: Acute myeloid leukemia with mutated NPM1 (2021+)

9878: Acute myeloid leukemia with biallelic mutation of CEBPA (2021+)

9879: Acute myeloid leukemia with mutated RUNX1 (2021+)

9896: Acute myeloid leukemia with t(8;21)(q22;q22.1); RUNX1-RUNX1T1

9897: Acute myeloid leukemia with t(9;11)(p21.3;q23.3); KMT2A-MLLT3

9911: Acute myeloid leukemia (megakaryoblastic) with t(1;22)(p13.3;q13.1); RBM15-MKL1

9912: Acute myeloid leukemia with BCR-ABL1 (2021)+

Of note, for the above histologies, since these are diagnosed solely based on genetics, diagnostic confirmation will always be 3. This instruction will be added to the Hematopoietic database for the 2022 update.

Cancer Site Category:

Heme & Lymphoid Neoplasms

Data Item Category:

Histology

Other Category:

N/A

Year:

2021