

# User's Guide for NCI's Online Hematopoietic and Lymphoid Database

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# What's New in the Hematopoietic and Lymphoid Neoplasm Database

The **Hematopoietic and Lymphoid Neoplasm Database** has been updated with the following changes:

- In this **Users Guide** the numbers on the images refer to the numbered lists that describe those features on the screen.
- The **Home** screen is now one panel with two columns displaying neoplasm names and ICD-O-3 morphology codes for of all the neoplasms in the database.
- Each neoplasm is now displayed in its own tab. This allows the user to bookmark, send, and store links to specific neoplasms.
- The **Search** function now searches all fields.
- A **Relevance** column has been added to the search results screen when a search term is used, showing the relevance of each specific entry based on that term.
- The search results are now displayed in a sortable table and the table can be sorted by the **Relevance, ICD-O-3 Morphology, or Name** columns.
- The information presented for each neoplasm has been modified. New fields for the ICD-O-1 and ICD-O-2 code have been added and some of these data have been back-filled. This is to show the user how/if the ICD code has changed over the years. The effective date range for each ICD code is now also displayed.
- Users select a diagnosis year to be shown the correct information for that year. This information may change depending upon the neoplasm and diagnosis year selected.
- From the **Information** screens for specific neoplasms, terms in blue are linked to pop-up glossary definitions. The full **Glossary for Registrars** can be found online at <https://seer.cancer.gov/seertools/glossary/>.

# Home Screen

The screenshot shows the home screen of the Hematopoietic and Lymphoid Neoplasm Database. At the top, there are breadcrumbs: Home > Registrars > Reporting Guidelines > Hematopoietic Project (1). Below this is the title 'Hematopoietic and Lymphoid Neoplasm Database'. A navigation bar contains 'Search Database' (2) and 'ICD-O-3 Code Lists'. To the right, there are links for 'Hematopoietic Coding Manual (PDF)' and 'User Guide (PDF)', with a 'Downloads' menu (3) next to them. Below the navigation bar is a 'Show Multiple Primaries Calculator' (4) and a plus sign. A search bar (5) with a 'Search' button is present. Below the search bar, it indicates '196 neoplasms' (6) and a 'Show 25 Entries.' (7) dropdown. The main content is a table with columns 'ICD-O-3 Morphology' and 'Name' (8). The table lists various neoplasms, including 'ALK-positive large B-cell lymphoma', 'Acute basophilic leukemia', 'Acute biphenotypic leukemia' (9) (marked as obsolete), 'Acute leukemia of ambiguous lineage, not otherwise specified', 'Acute megakaryoblastic leukemia', 'Acute monoblastic and monocytic leukemia', 'Acute myeloid leukemia (megakaryoblastic) with t(1;22)(p13.3;q13.1); RBM15-MKL1', 'Acute myeloid leukemia with inv(16)(p13.1q22) or t(16;16)(p13.1;q22); CBF-MYH11', 'Aggressive NK-cell leukemia', 'Anaplastic large cell lymphoma, ALK-positive', and 'Anemia'. A pagination bar (12) at the bottom shows page 1 of 8.

ICD-O-3 Morphology	Name
9737/3	ALK-positive large B-cell lymphoma
9870/3	Acute basophilic leukemia
9805/3	Acute biphenotypic leukemia <small>obsolete</small>
None	Acute leukemia of ambiguous lineage, not otherwise specified
9910/3	Acute megakaryoblastic leukemia
9891/3	Acute monoblastic and monocytic leukemia
9911/3	Acute myeloid leukemia (megakaryoblastic) with t(1;22)(p13.3;q13.1); RBM15-MKL1
9871/3	Acute myeloid leukemia with inv(16)(p13.1q22) or t(16;16)(p13.1;q22); CBF-MYH11
9948/3	Aggressive NK-cell leukemia
9714/3	Anaplastic large cell lymphoma, ALK-positive
None	Anemia

Figure 1 – Hematopoietic and Lymphoid Neoplasm Database Home Screen

When the **Hematopoietic and Lymphoid Neoplasm Database** opens the search field is blank. All entries in the database are shown with **ICD-O-3 and Morphology** and **Name** columns. Clicking on a neoplasm name opens the **Information** screen for that neoplasm.

1. The breadcrumbs that appear at the top of each screen of the **Hematopoietic and Lymphoid Neoplasm Database**, indicate your location on the web site.
2. The **Search Database** links to the database of neoplasms and **ICD-O-3 Code Lists** links to the code list with the names of associated neoplasms. The blue line underneath the links indicates which screen is currently selected. Clicking on a neoplasm name on either the **Search Database** or **ICD-O-3 Code Lists** screen opens the **Information** screen for that neoplasm. (See the section **Using the ICD Code Lists** for more information.)

3. The **Downloads** arrow opens a dropdown menu for the **Hematopoietic Coding Manual** and **User Guide**, both of which open in new tabs. Click on **Hematopoietic and Lymphoid Neoplasm Coding Manual** to open the most recent pdf on coding hematopoietic and lymphoid neoplasms, or on **User Guide** to open the most recent pdf of this guide.
4. To open the **Multiple Primaries Calculator**, click anywhere on the **Show Multiple Primaries Calculator** bar. The calculator compares ICD codes, as long as the earliest diagnosis year of one of the codes is 2010 or later, to determine whether they represent the same primary or a new primary. The plus sign at the end of the bar turns to a minus sign when the calculator is open. When the calculator is open, click anywhere on the bar to close it.
5. The database search field and **Search** button are below the **Show Multiple Primaries Calculator** bar. Click on the text field to enter search terms. Click on the **Search** button to run the search. (See the section **Searching the Database** for more information.)
6. When no filter is used, the number of the neoplasms in the database appears above the title bar for the **ICD-O-3 Morphology and Name (#8)**. When a filter is used, this number indicates the number of results for that search.
7. The **Show X Entries** dropdown list, above the title bar for the **ICD-O-3 Morphology and Name (#8)** allows you to select the number of entries (10, 25, 50, or 100) you want per screen.
8. The title bar for the **ICD-O-3 and Morphology and Name**. The neoplasms can be sorted by ICD-O-3 code or name by clicking on that header. An arrow (see the red circle) appears next to the column name being sorted. An up arrow indicates ascending order and a down arrow indicates descending order. The arrow toggles between up and down when you click on it.
9. The **ICD-O-3 and Morphology** column holds the ICD-O-3 and morphology codes for each neoplasm on the list.
10. The neoplasm names appear in the **Name** column. Clicking on a name opens the Information screen for that neoplasm.
11. The **obsolete** label indicates that a neoplasm has been declared obsolete. (See *Viewing the Information for an Obsolete Neoplasm*.)
12. The numbers at the bottom of the screen indicate that there are multiple screens of data. Use them to navigate by clicking on a screen number.

# Searching the Database

The **Hematopoietic and Lymphoid Neoplasm Database** search function follows these rules:

- The Search function uses an “and/or” search, which finds all terms in the search field whether they appear with other search terms or singly.
- Search terms are **not** case-sensitive so you can enter them in any case.
- To search for exact terms in a precise order, use quotation marks (e.g., “term1 term2”).
- All search terms are highlighted in the **Results** column and the **Neoplasm Information** column.
- The search results are weighted and the default is to sort them based on **Relevance** by weight. When searching with multiple terms, the results are prioritized by the number of terms that are in the neoplasm entry, those with the most match terms weighted more heavily than those with fewer matching terms.
- Column headers allow the user to sort the results by relevance, name, or ICD-O-3 code, either ascending or descending, simply by clicking on the column header.

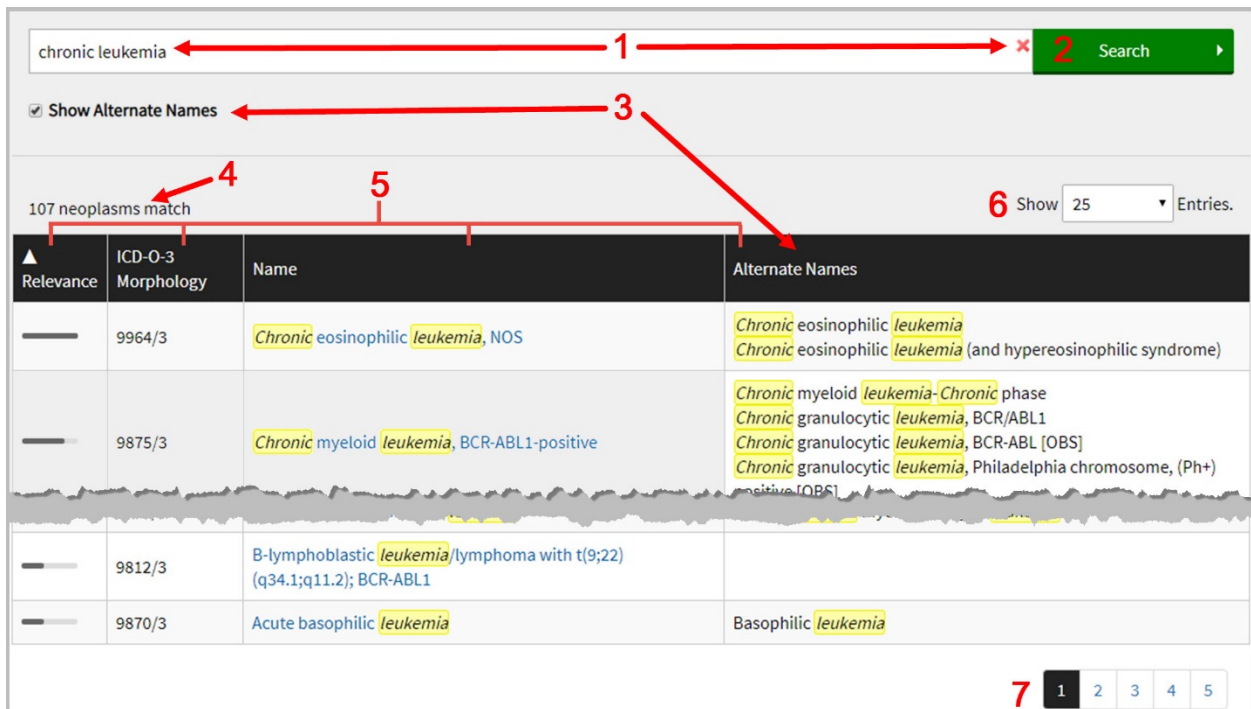


Figure 2 – Search Screen

1. Enter terms for the search in the **Search** field. The **X** on the right side of the field resets the search and returns you to the unfiltered neoplasm list.
2. Click the **Search** button to see the results, which are weighted by the number of matching terms.

3. When the **Show Alternate Names** checkbox is checked the **Alternate Names** column opens. This function is only available after you have run the search.
4. The number of results appears at the top left of the results table.
5. All column headers with the exception of **Alternate Names** can be used to sort the results. Double click on a column header to select it. An up arrow appears next to the name for sorting in ascending order. Clicking on it again makes the down arrow appear and changes the sort to descending order.
6. The **Show X Entries** dropdown list allows you to select the number of entries per screen (10, 25, 50, or 100).
7. The numbers at the bottom right side of the screen indicate that there are multiple screens of data. Use them to navigate by clicking on a screen number.

# Multiple Primaries Calculator

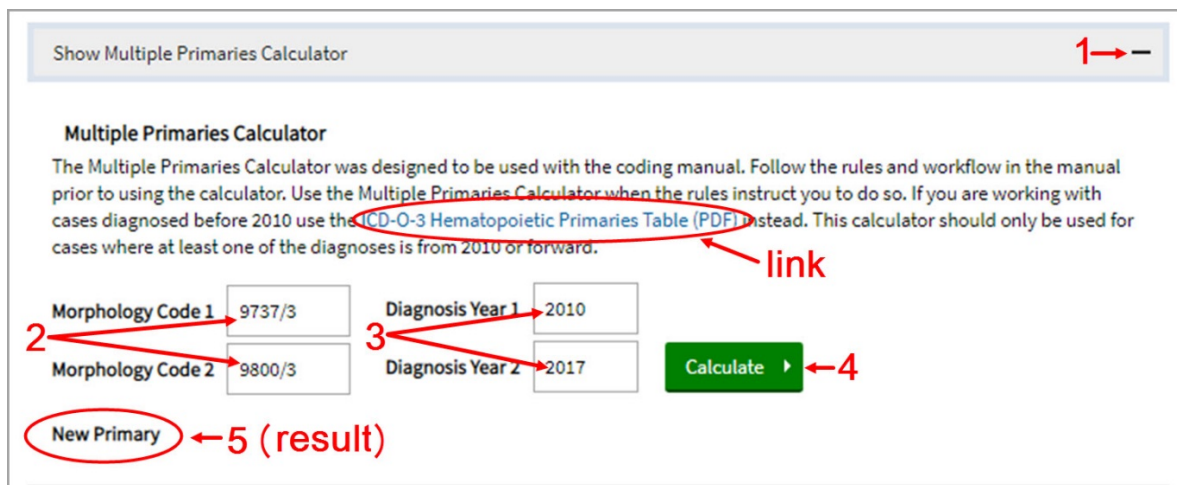


Figure 3 – Multiple Primaries Calculator

The **Multiple Primaries Calculator** shows whether two morphology codes are for the same primary or if one of them is a new primary.

**Note 1:** The **Multiple Primaries Calculator** should only be used when at least one of the diagnosis years for the two codes is 2010 or later. If both diagnosis years are prior to 2010, use the link for the ICD-O-3 Hematopoietic Primaries Table (see the link circled in the note for the calculator).

**Note 2:** Only use the **Multiple Primaries Calculator** when the rules instruct you to do so (See M Rules in the Hematopoietic Manual). Incorrect use of the **Multiple Primaries Calculator** can result in the wrong number of primaries.

To compare two codes:

1. Select the plus sign (+) on the **Show Multiple Primaries Calculator** line (#4 in Figure 1). The calculator (see Figure 3) will open and the plus sign will be replaced by a minus sign (-).
2. Enter **Morphology Code 1** and **Morphology Code 2** for the two cases. The morphology codes use a format with four numbers followed by a forward slash and a fifth number (e.g., XXXX/X).
3. Enter the **Diagnosis Year 1** for the first morphology code and **Diagnosis Year 2** for the second morphology code.
4. Click the **Calculate** button.
5. The result will be shown either as **New Primary** or **Same Primary**.



# Using the ICD Code Lists

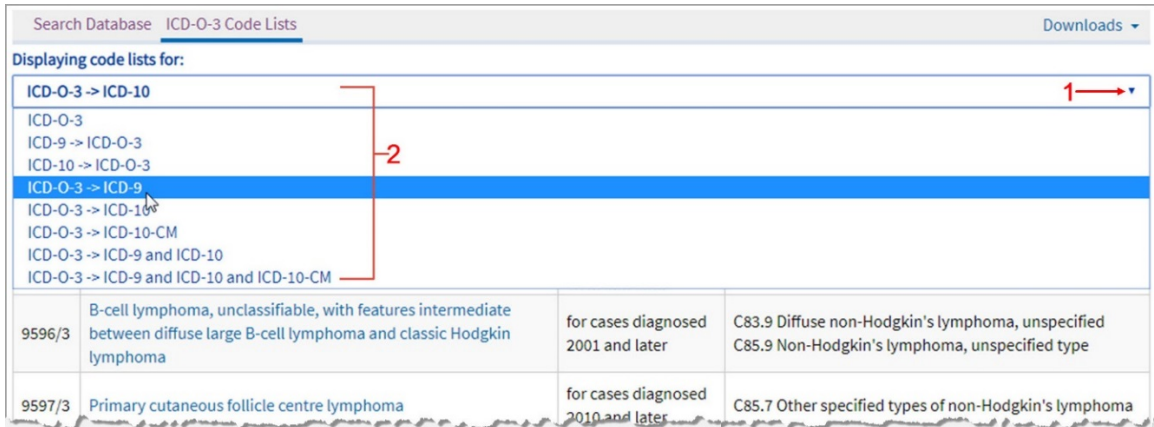


Figure 4 – ICD Code List Dropdown

1. Click the down arrow on the line displaying the code list on the right side of the screen to open the menu.
2. The dropdown menu opens, allowing you to select different configurations that include ICD-9 and ICD-10 code lists. Click on the code list you want. The line for the selected code list turns blue and the new code list is generated.
3. From the **ICD Code List** screen, the **Downloads** dropdown menu lets you export the list in a .csv file or print it. The file can be saved or opened in Microsoft Excel and other applications where .csv files can be viewed.
4. In all ICD code list configurations, the **Name** links to the information about the neoplasm in the **Hematopoietic and Lymphoid Database**.
5. The ICD code list screens show columns for each code selected, the neoplasm name, and reportability information. The **ICD Code List** can be sorted by any column by clicking on the header. An arrow (see the red circle) appears next to the column name being sorted. An up arrow indicates ascending order and a down arrow indicates descending order. The arrow toggles between up and down when you click on it.

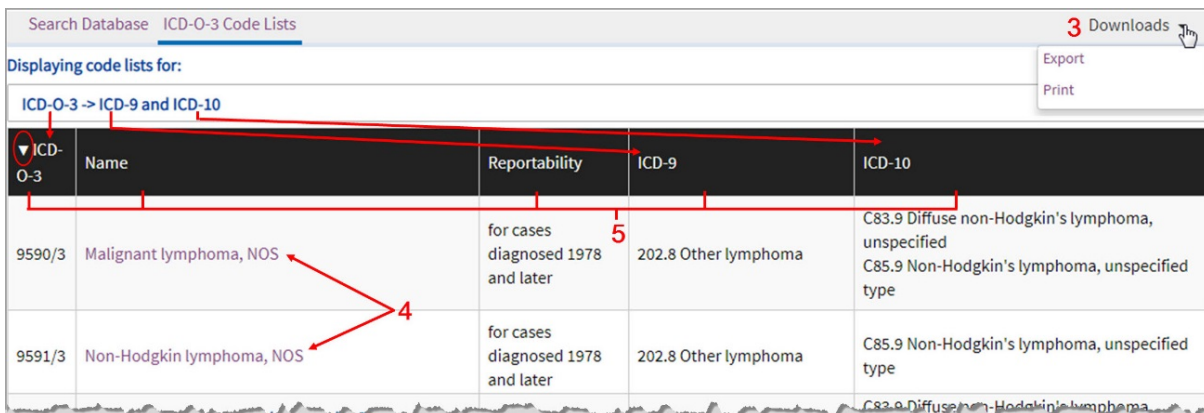


Figure 5 – Multiple ICD-O Code Lists

# Viewing the Information for a Specific Neoplasm

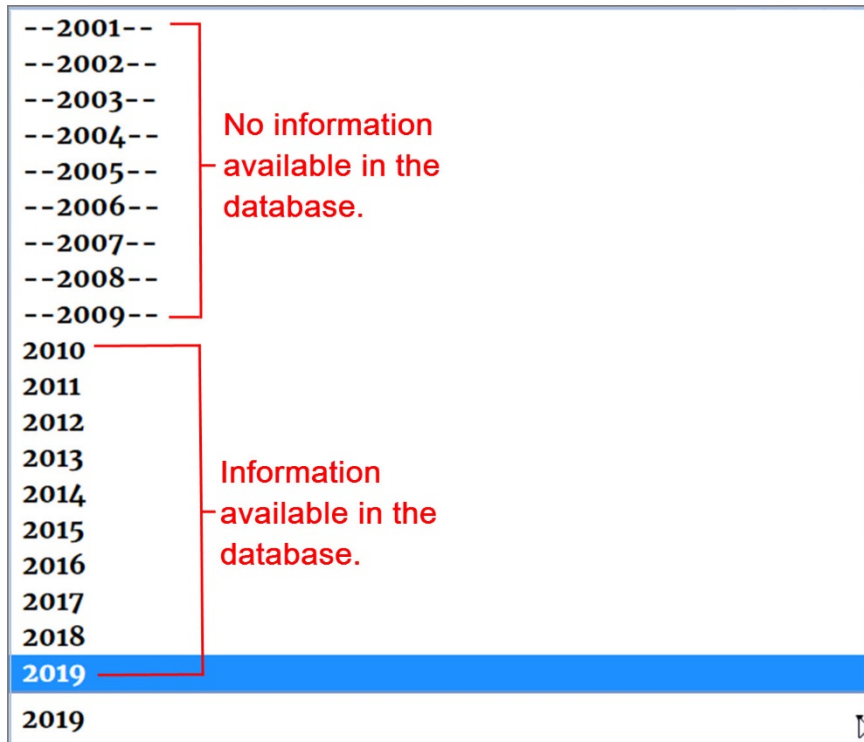
Each neoplasm now has its own screen and URL, which makes it possible to bookmark any neoplasm information screens that you use regularly.

The screenshot shows the 'Acute basophilic leukemia' information screen. At the top, a breadcrumb trail includes 'Home', 'Registrars', 'Reporting Guidelines', 'Hematopoietic Project', and 'Neoplasm Information' (1). The main title 'Acute basophilic leukemia' (2) is prominently displayed. Below it, a search bar and 'ICD-O-3 Code Lists' are visible. The 'Name' section lists 'Acute basophilic leukemia'. The 'ICD-O-1 Morphology' (Effective 1978-1991), 'ICD-O-2 Morphology' (Effective 1992-2000), and 'ICD-O-3 Morphology' (Effective 2001 and later) sections all list '9870/3: Acute basophilic leukemia' (3). The 'Reportable' section states 'for cases diagnosed 1978 and later' (4). The 'Primary Site(s)' section lists 'C421' and 'Primary site must be bone marrow (C421)' (5). A 'Help me code for diagnosis year' dropdown menu is set to '2019' (6). A 'Coding Manual: Hematopoietic Coding Manual (PDF)' link is present (7). The 'Grade' section is 'Not Applicable', and the 'Module Rule' is 'None' (8). The 'Alternate Names' section includes 'Basophilic leukemia' (9). A 'Glossary' pop-up window is open, showing 'Leukemia' with a definition: 'Cancer that starts in blood-forming tissue, such as the bone marrow, and causes large numbers of abnormal blood cells to be produced and enter the bloodstream.'

Figure 6 – Neoplasm Information Screen

1. Breadcrumbs at the top of the screen can be used to navigate.
2. **Name** of the neoplasm on this Neoplasm Information Screen.
3. **ICD-O** codes and their effective date ranges appear under the neoplasm name for all of the available ICD-O morphologies.
4. Under **Reportable** appears the range of years that the neoplasm was reportable.
5. **Primary Site(s)** list the site code(s).

6. Open the dropdown menu on the left to select the diagnosis year for coding the neoplasm. This image shows 2019 as the selected year. (The dropdown menu for diagnosis year is shown in Figure 7.)
7. There is a link to the **Coding Manual** for the year of the diagnosis.
8. The information fields provide details on the neoplasms including Grade; Module Rule; Alternate Names; Definition; Abstractor Notes; Definitive Diagnostic Methods, Genetics Data; Immunophenotyping; Treatments; Transformations to; Transformations from; Same Primaries; Corresponding ICD-9 Codes; Corresponding ICD-10 Codes; Corresponding ICD-10-CM Codes; \*Signs and Symptoms; \*Diagnostic Exams; \*Progression and Transformation; \*Epidemiology and Mortality; and \*Sources. (The fields with asterisks in this list are new to this version of the database.)
9. Terms that appear in blue are linked to glossary entry pop-ups. To see the full glossary go to <https://seer.cancer.gov/seertools/glossary/>.



**Figure 7 – Year of Diagnosis Dropdown Menu**

The dropdown menu for selecting the year for diagnosis may include years where there is no information available in the database. A double hyphen appearing before and after the diagnosis year (e.g. --2001--) indicates that information such as a description and abstractor notes for that year of diagnosis for that neoplasm is not available in the database.

## ALK-positive large B-cell lymphoma

Search Database ICD-O-3 Code Lists

**Name**  
ALK-positive large B-cell lymphoma

**ICD-O-3 Morphology** Effective 2010 and later  
9737/3: ALK-positive large B-cell lymphoma

**Reportable**  
for cases diagnosed 2010 and later

**Primary Site(s)**  
See Module 7  
Most common sites of involvement: lymph nodes, mediastinal mass, nasopharynx, tongue, stomach, bone and soft tissues.

**Help me code for diagnosis year :**

--2007--

This ICD-O code is not applicable for the selected year

**Figure 8 – Example Year of Diagnosis not in Database**

Some of the years of diagnosis that are not currently included in the database have a link to a coding manual that you can use to code the neoplasm. Currently full neoplasm information is available from 2010 and later.

# Viewing the Information for an Obsolete Neoplasm

**Acute biphenotypic leukemia**

Search Database ICD-O-3 Code Lists

This ICD-O code is obsolete.  
For current cases please see codes  
9806/3 Mixed-phenotype acute leukemia with t(9;22)(q34.1;q11.2); BCR-ABL1  
9807/3 Mixed-phenotype acute leukemia with t(v;11q23.3); KMT2A-rearranged  
9808/3 Mixed-phenotype acute leukemia, B/myeloid, not otherwise specified  
9809/3 Mixed-phenotype acute leukemia, T/myeloid, not otherwise specified

Links to Current Cases

**Name**  
Acute biphenotypic leukemia

**ICD-O-3 Morphology** Effective 2001 - 2009 ← Effective Date Range  
9805/3; Acute biphenotypic leukemia

**Reportable**  
for cases diagnosed 2001 - 2009

**Primary Site(s)**  
C421

**Help me code for diagnosis year :**  
--2014--

This ICD-O code is not applicable for the selected year  
See links above for current codes

Figure 9 – Example of Obsolete Neoplasm Information Screen

Sometimes a neoplasm will be declared obsolete because it has been determined to be multiple neoplasms, or what was previously considered as multiple neoplasms has been determined to be one neoplasm. When this happens, neoplasms that may have been diagnosed according to the previous neoplasm rules must be coded according to the current rules for that year. When dealing with an obsolete neoplasm, go to the links for current cases to determine how to code the neoplasm for diagnosis years after the effective years for this neoplasm. When your year of diagnosis for an obsolete neoplasm is within the effective year range for this neoplasm, choose the diagnosis year from the drop down box and information for coding the neoplasm for that diagnosis year will appear.