North American Association of Central Registries, Inc

**GUIDELINES FOR**

**2023 ICD-O-3.2 HISTOLOGY CODE AND BEHAVIOR UPDATE**

**Effective January 1, 2023**

Prepared by:

NAACCR ICD-O-3 Update

Implementation Work Group

2023 ICD-O-3 Update to be used jointly with ICD-O-3.2, Solid Tumor Rules, and Hematopoietic and Lymphoid Neoplasm Database

December 1, 2022

**Summary of changes covered in the 2023 ICD-O-3 Update:**

The 2023 ICD-O-3.2 Update Guidelines includes comprehensive tables listing changes to ICD-O-3.2 including new ICD-O codes, terminology and reportability changes effective for cases diagnosed 1/1/2023 forward. The 2023 update represents changes identified in recently published 5th Ed WHO Classification of Tumors books. Included in these guidelines are instructions for using the tables together with ICD-O-3.2. ***This update includes important behavior information on pilocytic astrocytoma in Central Nervous System (CNS) sites. Please see section 2.5 for information.***

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**INTRODUCTION**

These implementation guidelines, developed by the North American Association of Central Cancer Registries, Inc (NAACCR) ICD-O-3 Implementation Work Group and approved by the High-Level Strategic Group (HLSG), address implementation of updated histology terms and new codes for cases diagnosed on or after January 1, 2023. Members of the work group represent standard setting organizations, central registries, hospital registries, and cancer registry software vendors.

The 2023 ICD-O-3.2 update includes changes identified during review of recently published World Health Organization’s *International Histological Classification of Tumors* 5th Edition books (WHO “Blue Books”). This series covers all principal sites of cancer and includes ICD-O morphology codes for each neoplasm. Each new edition underwent thorough review to identify new histologies and ICD-O codes, behavior changes to existing ICD-O codes, and new terminology. The ICD-O-3 Implementation Work Group recommended adopting the changes for 2023 and implementation of the changes were approved by the standard setting agencies.

The 2023 ICD-O-3.2 histology code and behavior update includes comprehensive tables listing all changes made after the 2022 update and is effective for cases diagnosed 1/1/2023 forward. The 2023 update tables include columns for each standard setter which indicates if each code and/or term is required for data collection and submission.

The ICD-O-3 Implementation Work Group created this guide for users which provides important information on the background and issues for this update along with how to use the tables*.* The 2023 guidelines are modified to include only two tables, numeric and alpha, listing new ICD-O codes, terminology, behavior changes, and required status. The Work Group strongly recommends users read the guidelines to efficiently use ICD-O-3.2 and the 2023 Update tables.

**Note:** Use of these guidelines is required for determining reportability and accurate coding*.*

Following the release of the 2022 Guidelines for ICD-O-3.2 Histology Code and Behavior Update, the ICD-O-3 Implementation Work Group reviewed the recent 5th Ed WHO Blue Books published after the creation of ICD-O-3.2. The Work Group submitted their implementation recommendations to the NAACCR Mid-level Technical Group (MLTG) and High-level Strategic Group (HLSG) in March 2022. The MLTG and HLSG reviewed and accepted the recommendations for implementation in 2023.

The ICD-O-3 Implementation Work Group was charged with developing the implementation documents and to also act as the clearinghouse for the review and resolution of new histology code implementation questions. If there are any questions, they are to be submitted through Ask A SEER Registrar at the following link: <https://seer.cancer.gov/registrars/contact.html>. Implementation guidelines and updates are posted on NAACCR’s web site (www.naaccr.org). The Work Group also be communicates updates via email using the NAACCR listserv and mailing lists of all organizations.

**2 BACKGROUND AND IMPLEMENTATION ISSUES**

Implementation of new standards is never 100 percent issue or error-free. In anticipation of questions that may arise in this update, the Work Group has developed the following explanations.

**2.1 Why is there an update to ICD-O-3.2 at this time?**

In developing the previous editions and the present edition of ICD-O, a particular effort was made to use the nomenclature appearing in the World Health Organization’s *International Histological Classification of Tumors* series (WHO “Blue Books”). This series covers all the principal sites of cancer and includes morphology codes of ICD-O for each neoplasm.

Since the International Agency for Research on Cancer (IARC) and WHO released ICD-O-3.2 in April 2019, they continued publishing new editions of the WHO Classification of Tumors (Blue Book) series. As part of each new edition, subject matter experts review current literature pertaining to the organ or body system covered in the WHO Classification and make recommendations regarding revised histologic terminology. These revisions are reviewed pre-publication by the WHO/IARC Committee on ICD-O-3 to ensure recommended code changes and additions are appropriate. When each new Blue Book edition is published, the terminology and codes are introduced into contemporary pathology terminology to be used in pathology reports. ICD-O-3.2 remains the standard reference for reportable conditions, yet malignant diagnoses from the Blue Books are being used by pathologists and specialists and may not be listed in the current ICD-O-3 edition. This is because not all the WHO Blue Book updates have been adopted by the standard setters in the U.S. and Canada. This becomes an issue if there is no histology code available to properly register a case.

The following fifth editions were released after the 2022 ICD-O-3.2 update:

*WHO Classification of Thoracic Tumors (2020))*

*WHO Classification of Central Nervous System Tumors (2021)*

**2.2 Is the 2023 ICD-O-3.2 update to be used beginning January 1, 2023?**

Yes. Effective for cases diagnosed January 1, 2023, forward, the 2023 Update should be used jointly with ICD-O-3.2, Hematopoietic and Lymphoid Neoplasm Database, and Solid Tumor rules.

**2.3 Is ICD-O-3.2 now available in print or downloadable .pdf format?**

The .pdf version of ICD-O-3.2 continues to be delayed and the IARC/WHO ICD-O Committee do not have an estimated release date at this time. Continue using the ICD-O-3.2 excel document until such time the .pdf version is released.

**2.4 How extensive are the changes for 2023?**

For 2023, the major changes apply to behavior code changes to a CNS neoplasm and reportable terminology. The 2023 update includes: 5 new ICD-O codes/terms, one histology changed behavior and is reportable, and 41 new preferred or related terms.

While all standard setters approved implementation of these changes, the work group recommends you refer to the appropriate program manual for further guidance on reportable neoplasms. It is important to understand that cancer registry reportability rules based on behavior code still apply. With the exception of primary intracranial and central nervous system benign and borderline tumors, the addition of a /0 or /1 coded term to ICD-O-3 does not imply that it is now reportable. Some /2 behaviors may not be reportable or are reportable for a select site or sites. Again, please refer to your standard setter reporting requirements if you have questions.

**2.5 Information concerning this update**

**IMPORTANT: Changes to Pilocytic Astrocytoma behavior**

**Background:**

From 1976 to 2000, WHO assigned code 9421/3 to pilocytic astrocytoma of the brain. Beginning with the release of ICD-O-3 in 2001, WHO changed the behavior for this neoplasm from /3 to /1 making it non-reportable. 9421/3 was removed from ICD-O-3, however, the standard setting organizations in North America opted to continue collecting these tumors as 9421/3 in CNS sites. The practice did not change once benign/borderline CNS tumors became reportable in 2004. The exception being pilocytic astrocytoma/optic glioma of the optic nerve which are coded 9421/1 effective 2018 and forward.

The 5th Ed Central Nervous System Tumors reinstated code 9421/3 for a newly identified neoplasm: High-grade astrocytoma with piloid features (HGAP).

**IMPORTANT FOR CASES Diagnosed 2023 FORWARD: Beginning 1/1/2023, all cases diagnosed with pilocytic astrocytoma/juvenile pilocytic astrocytoma and related terminology are to be reported with behavior /1. They will no longer be collected with malignant behavior (/3). ICD-O code 9421/3 will be valid for the diagnosis of high-grade astrocytoma with piloid features or HGAP *only.* Coding instructions are included in the remarks section for 9421/1 and 9421/3 in the 2023 ICD-O Update Tables 1 and 2.**

The 2023 Solid Tumor Rules Update for Malignant CNS and Non-malignant CNS provides coding instructions based on diagnosis date for pilocytic astrocytoma occurring in the CNS.

***\*IMPORTANT REMINDERS:***

***Please check the 2023 ICD-O-3 Update Table 1 or 2 to determine if the histology is listed. If the histology is not included in the update, then review ICD-O-3.2 and/or Hematopoietic and Lymphoid Database and/or Solid Tumor Rules (MP/H).***

***ICD-O-3.2 included changes from all 4th Ed WHO Classification of Tumors books. New editions released following the publication of 4th editions are not included in 3.2. A new ICD-O version will be released once all 5th Ed Blue Books are published.***

Currently in ICD-O-3, a topography (C code) listed in parentheses next to the morphology term indicates the morphology is most common to that site. The morphology may occur in other sites as well. Many of the new codes, terms, and behaviors listed in this update are site-specific and may not apply to all sites. Applicable C codes are noted next to the term in **bold** font. These site- and histology-specific combinations are not added to the “Impossible combination” edit (Primary Site, Morphology-Type, Beh ICDO3 (SEER IF25)). However, if a site other than the one listed with the morphology code is assigned, the case does not pass the edit, must be reviewed, and the Over-ride-Site/Type flag set if appropriate.

**2.6 What about training for data collectors?**

Educational materials/presentations are planned at both the national and state level. Additional education will be available through CTR education sites.

**2.7 Are there any conversions with this update?**

There are no data conversions with this update.

**2.8 Will documents be available to registry software vendors?**

The new histology codes/terms, new behavior codes/terms, new associated terms, and coding instructions if applicable, are combined into a single excel spreadsheet file for use in abstracting software. Vendors should use the 2023 Annotated Histology List.

**2.9 Where can the 2023 ICD-O-3 update tables be found?**

These documents will be posted to the NAACCR web site. Blast emails from the standard setting organizations will also include the link to the updated tables. The documents can then be saved to your desktop or printed. A link to the tables will also be posted on SEER.cancer.gov (<https://seer.cancer.gov/registrars/index.html>)

**3 2023 ICD-O-3.2 UPDATE TABLES**

Each table in section 3 provides the list of new ICD-O codes and associated terms, codes which have changed behavior, and new preferred or related terminology. The guidelines include two tables, one in alphabetic order and one in numerical order.

**3.1 TABLE 1: 2023 ICD-O-3.2 UPDATE (NUMERICAL ORDER)**

Table 1 lists all changes for 2023 including five new ICD-O codes and terms, one code with changes to behavior, and 41 new preferred or related terms, in numerical order by ICD-O number.

**3.2 TABLE 2: 2023 ICD-O-3.2 UPDATE (ALPHABETIC ORDER)**

Table 2 lists all changes for 2023 including five new ICD-O codes and terms, one code with changes to behavior, and 41 new preferred or related terms, in alpha order by histology term.

**3.3 HOW TO USE TABLES 1 AND 2**

Table 1 and 2 each have seven columns:

* **ICD-O-3 Morphology Code:** lists code number and behavior
* **Term:** Histology name per WHO. Preferred terms are indicated in **BOLD** font
* **Required SEER (Y/N)**: indicates if the histology is reportable or non-reportable to SEER
* **Required NPCR (Y/N)**: indicates if the histology is reportable or non-reportable to NPCR
* **Required CoC (Y/N)**: indicates if the histology is reportable or non-reportable to CoC
* **Required CCCR (Y/N)**: indicates if the histology is reportable or non-reportable to CCCR
* **Remarks:**  This column provides information related to the ICD-O code and identifies it as a new ICD-O code, new term, or change to behavior. Coding instructions, if applicable, are also noted in this column.

**4 CONTINUING ISSUES:**

While the WHO “Blue Books” reflect current thinking and current terminology among the international community of pathologists and specialists, population-based cancer registries may not share the same principles in terms of reportability rules. Previously, questionable terminology related to gastrointestinal neoplasms were under review prior to implementation. The recent 5th Ed Thoracic Blue Book includes moderate/severe dysplasia of the lung and assigns the terms to ICD-O code 8077/2. WHO indicates these neoplasms are precursors to squamous cell in situ, are incidental findings on bronchoscopy, and unstageable. NAACCR will continue to review problematic lung terminology and coding changes to identify the potential challenges in implementing them as reportable neoplasms in the United States. The implications of accepting new terms as reportable will be carefully studied as they may impact not only reporting legislation, but also workload in case ascertainment (casefinding), abstracting, follow-up (as applicable) and incidence reporting. The ICD-O-3 Work Group will continue working with NAACCR work groups, committees, and the College of American Pathologists (CAP) (among others) to make recommendations on the adoption of proposed changes by WHO and IARC as indicated in new Blue Book editions.

The North American standard setting organizations provide guidance on how to handle new codes, obsolete codes, other changes, and timing of implementation. In conjunction with the assessments of the impact of additions and changes on incidence, there should be assessments of the impact on the Solid Tumor Rules and Hematopoietic & Lymphoid Neoplasms Database.

**5 ADDENDUM TO 2022 ICD-O-3.2 UPDATE**

The addendum lists eight (8) histologies which were approved by the Mid-Level Tactical Group for use with primaries of the cervix (C53.\_) for diagnosis year 2021. Previously, registrars had been instructed to use these histologies for cervical primaries for cases diagnosed January 1, 2022, and forward. For additional information for data collection of these neoplasms, please see the NAACCR 2023 Implementation Guidelines, ***13.4*** ***AJCC Version 9 Cervix Uteri Adenocarcinoma***.

***Note:*** Manual review of cases currently in registry databases and recoding of cases is not required by the standard setters. Registries may elect to review and recode cases.