

North American Association of Central Registries, Inc

**GUIDELINES FOR  
ICD-O-3 HISTOLOGY CODE AND BEHAVIOR UPDATE  
IMPLEMENTATION  
Effective January 1, 2018**

Prepared by:

NAACCR ICD-O-3 Update  
Implementation Work Group

2018 ICD-O-3 Update to be used jointly with ICD-O-3, Hematopoietic and  
Lymphoid Neoplasm Database, and Solid Tumor Rules (MP/H)

December 1, 2017

**Summary of changes covered in the 2018 ICD-O-3 Update:**

The 2018 ICD-O-3 Update Guidelines includes comprehensive tables listing all changes to ICD-O-3 effective for cases diagnosed 1/1/2018 forward. The guidelines also provide background on the project and issues encountered during review of the WHO Classifications of Tumors. Issues not covered in the 2018 update include reportability of GIST and histology codes with terms that include the words “high grade neoplasia” or “high grade dysplasia” or “severe dysplasia” in digestive system sites.

**TABLE OF CONTENTS**

1 INTRODUCTION.....5

2 BACKGROUND AND IMPLEMENTATION ISSUES.....6

2.1 Why is there an update to ICD-O-3 at this time?.....6

2.2 How sweeping are the changes?.....6

2.3 Important information concerning this update.....7

2.4 What about training for data collection?.....7

2.5 Are there any conversions with this update?.....7

2.6 Will documents be available to registry software vendors?.....7

2.7 Will a new version of ICD-O-3 manual be available?.....7

2.8 Where can the 2018 ICD-O-3 update tables be found?.....8

3 TABLE 1. ICD-O-3 CHANGES EFFECTIVE JANUARY 1, 2018 (Word document) .....9

3.1 How to use Table 1.....9

4 TABLE 2. ICD-O-3 CHANGES EFFECTIVE JANUARY 1, 2018 (Excel spreadsheet) ...10

4.1 How to use Table 2.....10

5 Remaining issues.....11

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## 1 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 Change Management Board (CMB), address implementation of updated histology terms and codes for cases diagnosed on or after January 1, 2018. Members of the work group represent standard setting organizations, central registries, hospital registries, and cancer registry software vendors.

On an international level, the need was recognized in 2010 for updating the morphology section to accurately code contemporary diagnoses described in the terms of the fourth editions of the World Health Organization's Classifications of Hematopoietic and Lymphoid Neoplasms, Tumors of the Central Nervous System, and Tumors of the Digestive System. In September 2011, the International Agency for Research on Cancer (IARC) and the World Health Organization (WHO) released the document *Updates to the International Classification of Diseases for Oncology, third edition (ICDO-3)*.

At that time, the Cancer Registration Steering Committee (CRSC) in North America recommended that NAACCR member registries not incorporate the updates until the impact of these changes could be evaluated. CRSC requested NAACCR create a work group to determine how and when NAACCR member registries should implement the histology code changes. The ICD-O-3 Implementation Work Group, with April Fritz as chair, began meeting in July 2012. The Work Group forwarded their implementation recommendations to the CMB in June 2013. The CMB reviewed the recommendations and accepted them for implementation. The CMB instructed the ICD-O-3 Update Implementation Work Group to prepare a communication plan to disseminate the information to NAACCR members. Guidelines for ICD-O-3 Update Implementation were posted by NAACCR in December 2013, effective for January 1, 2014. The guidelines included a list of new preferred terms for 2014; a cross-walk code/term list effective for January 1, 2015; and Reportability and Recode Changes effective in 2015. Some of the ICD-O-3.1 updates (new terms only, not new codes) were implemented in 2014.

The ICD-O-3 Implementation Work Group reconvened in July 2016, with Lois Dickie as chair, to review and provide recommendations to implement new terms and codes proposed by WHO in six new 4<sup>th</sup> Ed Blue Books published between 2012 and 2017. The Work Group forwarded their implementation recommendations to the CMB in June 2017. The CMB reviewed the recommendations and accepted them for implementation in 2018. The new codes and terms previously approved in 2013, but never implemented (cross-walk code/term list effective January 1, 2015), will now be implemented in 2018. The CMB instructed the ICD-O-3 Implementation Work Group to prepare a communication plan to disseminate the information to NAACCR members.

The ICD-O-3 Implementation Work Group was charged with developing the implementation document 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 will be posted on NAACCR's web site ([www.naacr.org](http://www.naacr.org)). The Work Group will also be communicating 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 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 IARC and WHO released the updates to ICD-O-3 in September 2011, they continued publishing updates to 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 make sure that 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 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 ICD-O-3. 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 fourth editions have been released after the 2011 ICD-O-3 update:

*WHO Classification of Tumors of the Breast (2012)*

*WHO Classification of Tumors of the Female Reproductive Organs (2013)*

*WHO Classification of Tumors of Soft Tissue and Bone (2013)*

*WHO Classification of Tumors of the Lung, Pleura, Thymus, and Heart (2015)*

*WHO Classification of Tumors of the Urinary System and Male Genital Organs (2016)*

*WHO Classifications of Tumors of the Central Nervous System, Revised 4<sup>th</sup> Ed (2016)*

*WHO Classifications of Tumors of the Head and Neck, Revised 4<sup>th</sup> Edition (2017)*

*WHO Classifications of Tumors of Endocrine Organs, Revised 4<sup>th</sup> Edition (2017)*

### 2.2 How sweeping are the changes?

For 2018, the CMB approved 114 new terms be added to existing codes in ICD-O-3 for use in the United States and Canada beginning with cases diagnosed on or after January 1, 2018. Of these terms, 85 are malignant (/3) terms, 12 are in situ (/2), and three are benign or borderline (/0 and /1) tumors of the central nervous system. All are reportable.

For 2018, 37 new codes and terms were proposed for addition to ICD-O-3. Twenty-three are reportable malignant (/3) tumors, two are reportable in situ (/2) tumors, three are reportable borderline (/1) tumors of primary intracranial and central nervous system tumors, and four are non-reportable tumors. Nine of the 32 new codes were listed in the prior cross-walk effective for January 1, 2015.

For 2018, 19 new behavior codes and terms have been added to codes currently in ICD-O-3. Of the 15 codes, reportability is determined by each standard setter for four codes and one code is non-reportable. *Check the appropriate program manual to determine if the new codes are reportable.* 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.

**Important information for lung cases:** Per WHO 4<sup>th</sup> Ed Tumors of Lung: In 2011, a new IASLC/ATS/ERS classification of lung adenocarcinoma proposed significant changes to the 2004 WHO classification for resected tumors, including discontinuing the terms bronchioloalveolar carcinoma (BAC).

Beginning with cases diagnosed 1/1/2018 forward, bronchioloalveolar carcinoma (BAC) is no longer the preferred term.

## 2.3 INFORMATION CONCERNING THIS UPDATE

### **\*IMPORTANT REMINDER:**

***Please check the 2018 ICD-O-3 Update Table first to determine if the histology is listed. If the histology is not included in the update, then review ICD-O-3 and/or Hematopoietic and Lymphoid Database and/or Solid Tumor Rules (MP/H)***

Currently in ICD-O-3, when a topography (C code) is listed in parentheses next to the morphology term, it indicates morphology is most common to that site. It may occur in other sites as well. Many of the new codes, terms, and behaviors listed in this update are site-specific and do not apply to all sites. Applicable C codes will be noted next to the term in **bold** font. These site- and histology-specific combinations will not be added to the “Impossible combination” edit. However, if a site other than the one listed with the morphology code is assigned, the result will be an edit requiring review. This is Interfield Edit 25.

Information from the NAACCR document, “What You Need to Know for 2017” Appendix A: Continued Use of ICD-O-3 Histology Code Crosswalk has been incorporated into the updated ICD-O-3 New Histology and Behavior Code Implementation Guidelines for cases diagnosed on or after 1/1/2018.

## 2.4 What about training for data collectors?

Short articles/announcements have been issued in blast emails from standard setting organizations and in the *Journal of Registry Management* to highlight some of the changes. Educational materials/presentations are also planned.

## 2.5 Are there any conversions with this update?

There are no data conversions with this update.

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

The new histology codes-terms, new behavior codes-terms, new associated terms, and 2014 histology crosswalk information have been combined into a single excel spreadsheet file for use in abstracting software. Vendors should continue using ICD-O-3 along with 2018 ICD-O-3 Update and Hematopoietic and Lymphoid Neoplasms Data Base. [Place link here](#)

**2.7 Will a new version of the ICD-O-3 manual be available?**

At this time, WHO has no plans to release either an updated ICD-O-3 or ICD-O-4. The Work Group recommends using the 2018 ICD-O-3 Histology and Behavior Code Update tables jointly with ICD-O-3 and Hematopoietic and Lymphoid Neoplasm Database, and Solid Tumor (MP/H) rules. *While we are aware of the release of ICD-O-3.1, this document has not been approved by the standard setting agencies for use in North America.*

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

These documents will be posted to the NAACCR web site, on the 2018 Data Changes <https://www.naacr.org/2018-implementation/#Histology> page. 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 TABLE 1: NUMERICAL HISTOLOGY CHANGES EFFECTIVE 1/1/2018  
COMBINED NEW HISTOLOGY CODES, BEHAVIOR CHANGES, AND NEW TERMINOLOGY**

[Insert link to word document](#)

**3.1 HOW TO USE TABLE 1****\*IMPORTANT REMINDER:**

***Please check the 2018 ICD-O-3 Update Table first to determine if the histology is listed. If the histology is not included in the update, then review ICD-O-3 and/or Hematopoietic and Lymphoid Database and/or Solid Tumor (MP/H) rules***

The new histology codes-terms, new behavior codes-terms, new associated terms, and 2014 ICD-O-3 crosswalk information have been combined into single reference table. Table 1 is a word document listed numerically by histology code.

Table 1 has five columns:

- **Status:** New term & code, new behavior code/term, and new term
- **ICD-O-3 Morphology Code:** lists code number and behavior
- **Term:** Histology name per WHO. Preferred terms are indicated in **BOLD** font
- **Reportability (Reportable Y/N):** notes if the histology is reportable or non-reportable
- **Comments:** Coding instructions, if applicable, are noted in this column. Instructions include coding pre-2018 cases per 2014 histology crosswalk and most importantly, ***specific coding instructions for selected histologies and codes with major changes***. For example, the ICD-O-3 Matrix rule does not apply to pleomorphic lobular carcinoma in situ which has a new code (8519/2). Invasive pleomorphic lobular carcinoma is coded 8520/3. Assigning malignant (/3) behavior to 8519 is incorrect and will result in an edit.

**4 TABLE 2: EXCEL SPREADSHEET FORMAT: NUMERICAL HISTOLOGY CHANGES EFFECTIVE 1/1/2018  
COMBINED NEW HISTOLOGY CODES, BEHAVIOR CHANGES, AND NEW TERMINOLOGY**

[Insert link to Excel file](#)

**4.1 HOW TO USE THE Excel Spreadsheet**

*\*IMPORTANT REMINDER:*

*Please check the 2018 ICD-O-3 Update Table first to determine if the histology is listed. If the histology is not included in the update, then review ICD-O-3 and/or Hematopoietic and Lymphoid Database*

The new histology codes-terms, new behavior codes-terms, new associated terms, and 2014 ICD-O-3 crosswalk information have been combined into single Excel spreadsheet. Table 2 is in numerical order but can be sorted as needed.

Table 2 has six columns:

- **Histology value:** ICD-O code
- **Behavior:** behavior code
- **Preferred Term:** TRUE = preferred term. FALSE = alternate name
- **Label:** histologic term
- **Status:** new term & code, new behavior code/term, and new term
- **Comments:** Coding instructions, if applicable, are noted in this column. Instructions include coding pre-2018 cases per 2014 histology crosswalk and most importantly, ***specific coding instructions for selected histologies and codes with major changes***. For example, the ICD-O-3 Matrix rule does not apply to pleomorphic lobular carcinoma in situ which has a new code (8519/2). Invasive pleomorphic lobular carcinoma is coded 8520/3. Assigning malignant (/3) behavior to 8519 is incorrect and will result in an edit.

## 5 REMAINING ISSUES

The publication of this implementation guideline document contains a list of approved new terms, codes, and behaviors. Its dissemination through the United States and Canada standards setters does not mean that the job of the ICD-O-3 Implementation Work Group is complete. A number of issues remain.

The review of some terms from the World Health Organization (WHO) Updates List have yet to be examined by the ICD-O-3 Implementation Work Group. While the WHO “Blue Books” reflect current thinking and current terminology among pathologists and specialists, population-based cancer registries may not share the same principles in terms of reportability rules. NAACCR is taking a close look at these ambiguous terms and the potential challenges in implementing them as reportable neoplasms in the United States. Most of the problematic terms include the words “high grade neoplasia” or “high grade dysplasia” or “severe dysplasia” in digestive system sites. These dysplasia terms are not included in most states’ reporting legislation. The implications of accepting these terms as reportable are being carefully studied as they may affect 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 has been working with the Change Management Board and the College of American Pathologists (CAP) (among others) to make recommendations on the adoption of various dysplasia terminologies for future inclusion in cancer registries. (Note: Canada has recommended the adoption and collection of all reportable high-grade dysplasia tumors in the digestive system beginning with cases diagnosed on or after January 1, 2012).

In addition, issues with the morphology coding have been identified.

Additional updated WHO Blue Books have been and will continue to be released Fall 2017 through 2018. This includes *WHO Classification Tumors of Endocrine Organs*, *WHO Classification Skin Tumors*, and *WHO Classification of Hematopoietic and Lymphoid Neoplasms*. These pathology references include more new terms and codes, but they have not been organized into updated lists for future adoption.

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 (previously referred to as Multiple Primary and Histology coding rules).

Reportability guidelines for GIST tumors have been partially addressed in a sentence added to *FORDS 2016* and the *SEER 2016 Coding Manual*, which indicate GIST tumors and thymomas are reportable when there is evidence of multiple foci, lymph node involvement, or metastasis.

*Suggested Next steps:* The North American standard setters provide additional guidance for GIST tumors, such as formal interpretation of the “risk assessment” categories as benign, borderline, or malignant.