

North American Association of Central Registries, Inc

# **GUIDELINES FOR ICD-O-3.2 HISTOLOGY CODE AND BEHAVIOR UPDATE IMPLEMENTATION**

**Effective January 1, 2021**

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NAACCR ICD-O-3 Update  
Implementation Work Group

2021 ICD-O-3 Update to be used jointly with ICD-O-3.2, Solid Tumor Rules, and Hematopoietic and Lymphoid Neoplasm Database

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## **Summary of changes covered in the 2021 ICD-O-3 Update:**

The 2021 ICD-O-3 Update Guidelines includes comprehensive tables listing all changes to ICD-O-3 including new terminology and reportability changes effective for cases diagnosed 1/1/2021 forward. Included in these guidelines are instructions for using the tables together with ICD-O-3.2. The guidelines also provide background on the project and issues encountered during review of the WHO 4<sup>th</sup> Edition Classifications of Tumors book series. Issues not covered in the 2021 update include reportability of 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 IS ICD-O-3.2 to be used beginning January 1, 2021?.....	7
	2.3 Is ICD-O-3.2 available in print or .pdf format?.....	7
	2.4 How sweeping are the changes?.....	7
	2.5 Information concerning this update.....	8
	2.6 What about training for data collectors?.....	8
	2.7 Are there any conversions with this update?.....	8
	2.8 Will documents be available to registry software vendors?.....	8
	2.9 Where can the 2021 ICD-O-3 update tables be found?.....	8
3	Specific tables.....	9
	3.1 TABLE 1: BEAVIOR CODE CHANGES- NON REPORTABLE TO REPORTABLE.....	9
	3.2 TABLE 2: BEHAVIOR CODE CHANGES- REPORTABLE TO NON REPORTALE	9
	3.3 TABLE 3: DELETED CODES-HISTOLOGY TERMS MOVED TO OTHER ICD-O CODE.....	9
	3.4 TABLE 4: CHANGE IN REPORTABLE TERMINOLOGY.....	9
	3.5 TABLE 5: NEW ICD-O CODES AND TERMINOLOGY.....	9
	3.6 TABLE 6: COMBINED 2021 ICD-O-3.2 UPDATE TABLES(NUMERICAL).....	9
	3.7 TABLE 7: COMBINED 2021 ICD-O-3.2 UPDATE TABLES (ALPHA) .....	9
	3.8 HOW TO USE TABLES 6 AND 7.....	9
	3.9 STATUS ABBREVIATIONS USED IN TABLES 6 AND 7.....	10
4	WHO/IARC ICD-O THIRD EDITION, SECOND VERSION DOCUMENT.....	10
	4.1 Using the WHO/IARC Excel document.....	10
	4.2 Limitations using ICD-O-3.2 Excel document.....	10
5	Remaining issues.....	10

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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 High-Level Strategic Group (HLSG), address implementation of updated histology terms and codes for cases diagnosed on or after January 1, 2021. Members of the work group represent standard setting organizations, central registries, hospital registries, and cancer registry software vendors.

In developing the 2021 ICD-O update, 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 principal sites of cancer and includes ICD-O morphology codes for each neoplasm. Since the release of the 2018 NAACCR ICD-O update, WHO published the remaining 4<sup>th</sup> Edition WHO Classification of Tumors books. 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 2021 and implementation of the changes were approved by the standard setting agencies.

As of April 2019, the International Agency for Research on Cancer (IARC) and the WHO ICD-O committee, finalized ICD-O-3.2. ICD-O-3.2 includes changes from all twelve 4<sup>th</sup> Edition Classification of Tumor books. The Work Group recommended ICD-O-3.2 be implemented 1/1/2021 to which the standard setting agencies agreed. Beginning with cases diagnosed 1/1/2021, ICD-O-3.2 is the preferred morphology coding reference manual. The Work Group strongly recommends using ICD-O-3.2 jointly with the 2021 ICD-O Histology and Behavior Code Update tables, Solid Tumor rules, and Hematopoietic and Lymphoid Neoplasm Database.

The 2021 ICD-O-3 histology code and behavior update includes comprehensive tables listing all changes made after the 2018 update and is effective for cases diagnosed 1/1/2021 forward. The 2021 tables include coding instructions for cases diagnosed prior to 1/1/2021. Edits will enforce the new codes/behaviors allowed only for cases diagnosed 1/1/2021 forward. Date driven edits will also be implemented for those histology codes no longer valid.

The ICD-O-3 Implementation Work Group created a guide for users which provides important information on the background and issues for this update along with how to use the tables. The 2021 guidelines include specific tables listing histologies which have changed behavior codes. These new behavior codes resulted in a change to reportability. Along with changes to behavior codes, several histology terms that were previously non-reportable are now reportable. A table listing these terms is also included in the guidelines. The Work Group strongly recommends users read the guidelines in order to efficiently use ICD-O-3.2 and the 2021 Update tables.

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

On an international level, The IARC/WHO ICD-O Committee has updated the draft ICD-O-3.1 classification, with new morphology codes and terms from the 4<sup>th</sup> series of WHO Classification of Tumours (Blue Books). The IARC Working Group on ICD-O Updates has compiled a listing of additions, changes and revisions between ICD-O-3.1 and ICD-O-3.2 as a reference material for cancer registries. These documents have been revised according to the comments received during the consultation period. The chair of the NAACCR ICD-O Implementation Work Group was invited to review the draft ICD-

O-3.2 and provide comments. The work group chair provided recommendations and comments to the IARC working group.

Following the release of the 2018 Guidelines for ICD-O-3 Histology Code and Behavior Update, the ICD-O-3 Implementation Work Group continued reviewing the remaining four 4<sup>th</sup> Ed WHO Blue Books published between 2017 and 2018. The Work Group forwarded their implementation recommendations to the NAACCR Mid-level Technical Group (MLTG) and High-level Strategic Group (HLSG) in March 2020. The MLTG and HLSG reviewed the recommendations and accepted them for implementation in 2021.

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 will be posted on NAACCR's web site ([www.naacccr.org](http://www.naacccr.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 ICD-O-3.1 in September 2011, 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 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 fourth editions were released after the 2011 ICD-O-3.1 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)*

The following fourth editions were released after the 2018 ICD-O-3 update:

*WHO Classification of Tumors of Endocrine Organs (2017)*  
*WHO Classification of Tumors of Hematopoietic and Lymphoid Tissues (2017)*  
*WHO Classification of Tumors of the Eye (2018)*  
*WHO Classification of Tumors of Skin (2018)*

## **2.2 Is ICD-O-3.2 to be used beginning January 1, 2021?**

Yes. Effective for cases diagnosed January 1, 2021 forward, ICD-O-3.2 is the preferred reference for morphology codes. The Work Group recommends using the 2021 ICD-O-3 Histology and Behavior Code Update tables jointly with ICD-O-3.2, Hematopoietic and Lymphoid Neoplasm Database, and Solid Tumor rules.

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

At release time, ICD-O-3.2 is available in Excel format *only*. Due to Covid-19, the editors of the pdf version are currently tasked with other responsibilities. A .pdf version is still planned and will be released in the future. Print version of ICD-O-3.2 will not be available. Please see section 4 for the link to WHO/IARC ICD-O Third Edition, Second Revision Morphology Excel document.

## **2.4 How sweeping are the changes?**

For 2021, the HLSG approved new terms which have been added to ICD-O-3.2 for use in the United States and Canada beginning with cases diagnosed on or after January 1, 2021. These new terms include both reportable and non-reportable neoplasms.

For 2021, major changes apply to reportability. 16 previously non-reportable neoplasms become reportable. 9 reportable pre-2021 neoplasms become non-reportable. 10 histology terms have been moved to other ICD-O codes. 13 histologies have a change in reportable terminology. 12 new terms/ICD-O codes.

While all of the 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.

## 2.5 Information concerning this update

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

***Please check the 2021 ICD-O-3 Update Table 6 or 7 first 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).***

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 may 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.

## 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, have been combined into a single excel spreadsheet file for use in abstracting software. Vendors should use both the 2021 tables and WHO/IARC ICD-O-3.2 document.

## 2.9 Where can the 2021 ICD-O-3 update tables be found?

These documents will be posted to the NAACCR web site, on the 2021 Data Changes 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 SPECIFIC TABLES

Each table in section 3 provides the list of ICD-O-3 codes which have changed behavior, reportable terminology, moved to other ICD-O codes, and are new terms and codes. The guidelines include five specific tables. one combined table in alpha order, one combined table in numerical order, and one Excel document.

#### 3.1 TABLE 1: BEHAVIOR CODE CHANGES- NON-REPORTABLE TO REPORTABLE

Table 1 lists 16 terms and codes that have changed behavior from non-reportable to reportable beginning with cases diagnosed on or after January 1, 2021.

#### 3.2 TABLE 2: BEHAVIOR CODE CHANGES- REPORTABLE TO NON-REPORTABLE

Table 2 lists nine terms and codes that have changed behavior from reportable to non-reportable beginning with cases diagnosed on or after January 1, 2021.

#### 3.3 TABLE 3: DELETED CODES- HISTOLOGY TERMS MOVED TO OTHER ICD-O CODES

Table 3 lists ten terms and codes that have been deleted from one ICD-O code and moved to another code effective with cases diagnosed on or after January 1, 2021.

#### 3.4 TABLE 4: CHANGE IN REPORTABLE TERMINOLOGY

Table 4 lists revised preferred terminology for 13 neoplasms in ICD-O-3.2. These neoplasms no longer require “malignant” to be included in the diagnostic term in order to report the case as malignant (/3).

#### 3.5 TABLE 5: NEW ICD-O CODES AND TERMINOLOGY

Table 5 lists 12 new terms and ICD-O codes effective for cases diagnosed on or after January 1, 2021.

#### 3.6 TABLE 6: COMBINED 2021 ICD-O-3.2 UPDATE (NUMERICAL ORDER)

Table 6 combines Tables 1 through 5 into a single list in numerical order by ICD-O code.

#### 3.7 TABLE 7: COMBINED 2021 ICD-O-3.2 UPDATE (ALPHA ORDER)

Table 7 combines Tables 1 through 5 into a single list in alpha order by histology term.

#### 3.8 HOW TO USE TABLES 6 AND 7

Table 6 and 7 each have five columns:

- **Status:** New term & code, new behavior code/term, code change, terminology change, 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-2021 cases, site specific instruction is applicable, and other useful instructions.

**3.9 STATUS ABBREVIATIONS USED IN UPDATE TABLES 6 AND 7**

<b>Status</b>	<b>Definition</b>
<b>BC</b>	Behavior code change (change in reportability)
<b>CC</b>	Code change: Per ICD-O-3.2, several codes have been deleted and the histologies moved to other codes
<b>NC/T</b>	New ICD-O code and term
<b>PT</b>	Preferred term
<b>RT</b>	Related term
<b>Syn</b>	Synonym

**4 WHO/IARC ICD-O THIRD EDITION, SECOND REVISION MORPHOLOGY DOCUMENT****4.1 USING THE WHO/IARC EXCEL DOCUMENT**

The WHO/IARC document is in numerical order with nine columns.

Column 1 ICD-O-3.2: Lists ICD-O code and behavior

Column 2 Level: Identifies the term as preferred, related or synonym

Column 3 Term: Lists term as noted in the WHO Blue Books

Column 4 Code reference: Lists applicable C-code(s)

Column 5 Obsolete: Notes if code is obsolete per WHO

Column 6 See Also

Column 7 See Note

Column 8 Excludes: lists site or sites excluded from the ICD-O code

Column 9 Other Text

**4.2 LIMITATIONS USING ICD-O-3.2 EXCEL DOCUMENT**

The WHO/IARC ICD-O-3.2 excel file is a protected document and cannot be sorted or modified. You can search by histology term or ICD-O-3.2 code (including behavior).

**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 will continue working with NAACCR work groups, committees 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).

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).