



Centers for Disease Control and Prevention 

**Updating ICD-10-CM Injury Surveillance Case Definitions and Reporting Frameworks**

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American Public Health Association  
2019 Annual Conference  
Nov 5, 2019

**Presenter Disclosures**

**Holly Hedegaard, MD, MSPH**

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

**Background**

- Researchers often use administrative claims data for injury surveillance, epidemiology and research
- As of Oct 1, 2015, care providers must use *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM) to report medical care information
- In preparation for the transition to ICD-10-CM, the National Center for Health Statistics (NCHS) and National Center for Injury Prevention and Control (NCIPC) created proposed surveillance case definitions and reporting frameworks

**Early Reports**



**Background**

- At the time the proposed surveillance case definitions and reporting frameworks were created, ICD-10-CM coded data were not available for testing
- NCHS and NCIPC collaborated with the Council of State and Territorial Epidemiologists (CSTE), injury epidemiologists at state and local health departments, and the Agency for Healthcare Research and Quality (AHRQ) to test the definitions and tools
- Reports describing the final case definitions and reporting frameworks are being prepared

**Products**

- ICD-10-CM surveillance case definition for injury hospitalizations
- ICD-10-CM surveillance case definition for injury ED visits
- ICD-10-CM external cause matrix for reporting injuries by mechanism and intent of injury
- ICD-10-CM injury diagnosis matrix for reporting injuries by body region and nature of injury (i.e., ICD-10-CM version of “the Barell matrix”)

### ICD-10-CM Surveillance Case Definition for Injury Hospitalizations



- Report published in July 2019
- Available at : <https://www.cdc.gov/nchs/data/nhsr/nhsr125-508.pdf>

### ICD-10-CM Surveillance Case Definition for Injury Hospitalizations

ICD-10-CM nature-of-injury code <sup>1</sup>	Types of injuries
All S codes	Anatomic injuries
T07-T34	Foreign bodies, burns, corrosions, frostbite
T36-T50 with a 6th character of 1, 2, 3, or 4 (Exceptions: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9 which are included if the code has a 5th character of 1, 2, 3, or 4)	Drug poisoning (excludes adverse effects and underdosing)
T51-T65	Toxic effects of substances nonmedicinal as to source
T66-T76	Other and unspecified effects of external causes (radiation, heat, light, hypothermia, hyperthermia, asphyxiation, child/adult abuse, lightning, drowning, motion sickness, etc.)
T79	Certain early complications of trauma, not elsewhere classified
O9A.2-O9A.5	Injury, poisoning and certain other consequences of external causes, and physical, sexual and psychological abuse complicating pregnancy, childbirth and the puerperium
T84.04 <sup>2</sup>	Periprosthetic fracture around internal prosthetic joint
M97 <sup>2</sup>	Periprosthetic fracture around internal prosthetic joint

<sup>1</sup> Code must be listed as the principal diagnosis and must have a 7th character of A, B, C or missing (i.e., initial encounters or missing information on encounter type). T30-T32 do not have a 7th character.  
<sup>2</sup> T84.04 was retired and replaced by M97 in the FY2017 version of ICD-10-CM which went into effect on Oct 1, 2016.

### ICD-10-CM Surveillance Case Definition for Injury ED Visits

- Report in preparation
- Will be available in first quarter 2020

### ICD-10-CM Surveillance Case Definition for Injury ED Visits

A record with:  
any mention of one of the nature-of-injury codes  
 OR  
any mention of an external cause code:

- All V, W, X codes
- Y00-Y38
- T14.91
- T15-T19
- T36-T50 with a 6th character of 1, 2, 3, or 4 (except T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9, which are included if they have a 5th character of 1, 2, 3, or 4)
- T51-T65
- T71, T73, T74, T75.0, T75.1, T75.2, T75.3, T75.4, T76

### Basic Framework of an External Cause Matrix

Mechanism of Injury	Intent of Injury				
	Unintentional	Intentional Self-harm	Assault	Legal Intervention	War Operations
Cut/pierce					
Drowning/submersion					
Fall					
Fire/Flame					
Hot object/substance					
Firearm					
Machinery					
Transportation					
etc.					

ICD External Cause Codes

### ICD-10-CM external cause matrix

- Report in publication
- Will be available in December 2019
- Excel spreadsheets and SAS formats assigning all external cause codes to a mechanism/intent cell of the matrix will be available on the NCHS Injury Data and Resources, Tools and Frameworks webpage at [https://www.cdc.gov/nchs/injury/injury\\_tools.htm](https://www.cdc.gov/nchs/injury/injury_tools.htm)

### Basic Framework of an Injury Diagnosis Matrix

Body Region of Injury		Nature of Injury				
		Fracture	Dislocation	Internal organ	Open wound	etc.
Head/ Neck	TBI					
	Other head					
	Neck					
Spine/ Upper Back	Spinal cord					
	Vertebral column					
Torso	Thorax					
	Abdomen					
	Pelvis/lower back					
Extremity	Upper extremity					
	Lower extremity					
etc.						

ICD Diagnosis Codes

- ### ICD-10-CM Injury Diagnosis Matrix
- Report in preparation
  - Will be available in first quarter 2020
  - Excel spreadsheets and SAS formats assigning all injury diagnosis codes to a body region/nature of injury cell of the matrix will be available on the NCHS Injury Data and Resources, Tools and Frameworks webpage at [https://www.cdc.gov/nchs/injury/injury\\_tools.htm](https://www.cdc.gov/nchs/injury/injury_tools.htm)

- ### Ongoing Considerations
- New codes are added to the ICD-10-CM code set each year
    - Might result in future updates to the definitions and matrices
    - Updates will be posted to the NCHS Injury Data and Resources, Tools and Frameworks webpage
  - Need to monitor how well the surveillance case definitions and matrices work and adjust as needed

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### For More Information

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