Getting prepared for the transition from ICD-9-CM to ICD-10-CM

SAFE STATES

Is your state ready to use ICD-10-CM coded data?

Barbara Gabella, Michelle Wynn, Holly Hedegaard, and Renee Johnson

Safe States 2016 Annual Meeting
Albuquerque, NM
4/13/16
What you will learn

• Overview of ICD-10-CM
• Impact on injury data
• Injury Surveillance Workgroup (ISW) 9
  – Products
  – Opportunities to participate in testing!
In October 2015, ICD-10-CM replaced ICD-9-CM for coding medical encounters

- Hospital discharge
- Emergency department
- Outpatient

This change impacts state and national injury surveillance activities that use these datasets
Classification Rubrics and Analysis Frameworks

Text Based Information
- Medical records
- Ambulance Trip Reports
- Death Data

Classification Rubric

Coded Data

Analysis Framework (Matrices)

Categorized Analysis
- TBI
- Motor Vehicle
- Falls
- Drug Overdoses
Classification Rubrics and Analysis Frameworks

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ICD-10-CM

Classification Rubric

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Classification Rubric

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Analysis Framework (Matrices)

Categorized Analysis
- TBI
- Motor Vehicle
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### Basic Framework for Injury Diagnosis Matrices


<table>
<thead>
<tr>
<th>Body Region of Injury</th>
<th>Nature of Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fracture</td>
</tr>
<tr>
<td><strong>Head/Neck</strong></td>
<td></td>
</tr>
<tr>
<td>TBI</td>
<td></td>
</tr>
<tr>
<td>Other head</td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td></td>
</tr>
<tr>
<td><strong>Spine/Upper Back</strong></td>
<td></td>
</tr>
<tr>
<td>Spinal cord</td>
<td></td>
</tr>
<tr>
<td>Vertebral column</td>
<td></td>
</tr>
<tr>
<td><strong>Torso</strong></td>
<td></td>
</tr>
<tr>
<td>Thorax</td>
<td></td>
</tr>
<tr>
<td>Abdomen</td>
<td></td>
</tr>
<tr>
<td>Pelvis/lower back</td>
<td></td>
</tr>
<tr>
<td><strong>Extremity</strong></td>
<td></td>
</tr>
<tr>
<td>Upper extremity</td>
<td></td>
</tr>
<tr>
<td>Lower extremity</td>
<td></td>
</tr>
<tr>
<td><strong>etc.</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Basic Framework for External Cause Matrices


<table>
<thead>
<tr>
<th>Mechanism of Injury</th>
<th>Intent of Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unintentional</td>
</tr>
<tr>
<td></td>
<td>Intentional Self-harm</td>
</tr>
<tr>
<td></td>
<td>Assault</td>
</tr>
<tr>
<td></td>
<td>Legal Intervention</td>
</tr>
<tr>
<td></td>
<td>War Operations</td>
</tr>
<tr>
<td>Cut/pierce</td>
<td></td>
</tr>
<tr>
<td>Drowning/submersion</td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>Fire/Flame</td>
<td></td>
</tr>
<tr>
<td>Hot object/substance</td>
<td></td>
</tr>
<tr>
<td>Firearm</td>
<td></td>
</tr>
<tr>
<td>Machinery</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
</tbody>
</table>
ICD-10-CM OVERVIEW
ICD-10

International Classification of Diseases, 10th Revision

WHO
Worldwide
Death Data
Implemented in US in 1999

ICD-10-CM

International Classification of Diseases, 10th Revision, Clinical Modification

US Centers for Medicare & Medicaid Services (CMS)
Primarily in US
Medical Claims Data
Implemented in US in 2015
What’s new in ICD-10-CM?

• Relevant codes for ambulatory and managed care encounters

• Greater specificity in code assignment

• Addition of 6th and 7th characters to the code

• Expanded injury codes
  – Of the approximately 70,000 codes in ICD-10-CM, 43,000 are in the injury chapter!
<table>
<thead>
<tr>
<th></th>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1,300 codes</strong></td>
<td></td>
<td><strong>7,500 codes</strong></td>
</tr>
<tr>
<td>External cause codes begin with “E”</td>
<td></td>
<td>External cause codes begin with “V”, “W”, “X” or “Y”</td>
</tr>
<tr>
<td>E-codes and diagnosis codes for</td>
<td></td>
<td>Only diagnosis codes for Poisoning &amp; Toxic Effects (T36-T65, by intent)</td>
</tr>
<tr>
<td>Poisoning &amp; Toxic Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-codes for Suffocation</td>
<td></td>
<td>Diagnosis codes for Suffocation (T71, Asphyxiation, by intent)</td>
</tr>
<tr>
<td>E-codes and diagnosis codes for</td>
<td></td>
<td>Only diagnosis codes for Foreign Body (T15-T19)</td>
</tr>
<tr>
<td>Foreign Body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-codes for deprivation &amp; other</td>
<td></td>
<td>Diagnosis codes (T codes)</td>
</tr>
<tr>
<td>natural/environmental factors (e.g.,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lightning, vibration)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Differences between ICD-9-CM and ICD-10-CM for external cause

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide/self-inflicted</td>
<td>Intentional self-harm</td>
</tr>
<tr>
<td>Homicide and injury purposely inflicted by other persons</td>
<td>Assault</td>
</tr>
<tr>
<td>E-codes for child &amp; adult abuse, neglect &amp; other maltreatment</td>
<td>Expanded external cause codes for assault, neglect &amp; other maltreatment</td>
</tr>
<tr>
<td>No designation of initial vs. subsequent encounter</td>
<td>7&lt;sup&gt;th&lt;/sup&gt; character indicates initial vs. subsequent encounter</td>
</tr>
<tr>
<td>Limited number of late effect external cause codes</td>
<td>7&lt;sup&gt;th&lt;/sup&gt; character indicates sequelae (late effects)</td>
</tr>
</tbody>
</table>
## Differences between ICD-9-CM and ICD-10-CM for injury diagnoses

<table>
<thead>
<tr>
<th></th>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codes</td>
<td>2,600 codes</td>
<td>43,000 codes</td>
</tr>
<tr>
<td>Code range</td>
<td>800-959</td>
<td>“S” and “T” codes</td>
</tr>
<tr>
<td>Number of characters</td>
<td>3-5 characters</td>
<td>3-7 characters; “X” placeholder</td>
</tr>
<tr>
<td>Primary axis</td>
<td>nature of injury</td>
<td>body region</td>
</tr>
<tr>
<td>Laterality</td>
<td>no character to indicate</td>
<td>characters in the code indicate</td>
</tr>
<tr>
<td>fracture type</td>
<td>limited detail on type of</td>
<td>left, right, bilateral, unspecified</td>
</tr>
<tr>
<td>superficial info</td>
<td>only</td>
<td>detailed info on type of fracture</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>limited info on superficial</td>
<td>codes for poisoning, adverse</td>
</tr>
<tr>
<td></td>
<td>injuries</td>
<td>effects and underdosing of drugs.</td>
</tr>
</tbody>
</table>
## Differences between ICD-9-CM and ICD-10-CM for injury diagnoses

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poisoning: Both diagnosis codes and external cause codes</td>
<td>Poisoning: diagnosis code only (T code) with character to specify intent</td>
</tr>
<tr>
<td>One diagnosis code for asphyxiation (994.7)</td>
<td>40 diagnosis codes for asphyxiation/strangulation by different mechanisms &amp; intent</td>
</tr>
<tr>
<td>Child/adult abuse</td>
<td>New codes to distinguish between suspected vs. confirmed abuse</td>
</tr>
<tr>
<td>No designation of initial vs. subsequent encounter</td>
<td>Most codes have 7(^{th}) character indicating initial vs. subsequent encounter</td>
</tr>
<tr>
<td>Limited number of late effect codes</td>
<td>Most codes have 7(^{th}) character indicating sequelae (late effects)</td>
</tr>
</tbody>
</table>
Example of the detail provided in an ICD-10-CM code

**ICD-9-CM:** 813.22
Fracture of shaft of ulna, closed

**ICD-10-CM:** S52.244A
Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for closed fracture
7th Character: Type of Encounter

New concept in 10-CM

- Initial encounter
- Subsequent encounter
- Sequelae of injury
IMPACT ON INJURY DATA
Potential impact on counts of external causes of injury

- Enhanced detail could affect counts
  - Ability to limit cases to initial encounters only

- Some external causes are found in diagnosis codes

- Magnitude of the impact???
Potential impact on counts of external causes of injury

• Increase in the number of injury codes in the ICD-10-CM resulted in changes to the external cause matrix
  – Additional subcategories
  – New categories
  – Switched categories

• Magnitude of the impact???
Safe States Injury Surveillance Workgroup
ISW
ISW

- Safe States Alliance initiative
- Purpose: to improve injury surveillance
- Expert panel makes consensus recommendations
  - Council of State and Territorial Epidemiologists
  - Society for the Advancement of Violence and Injury Research
  - APHA ICEHS
  - CDC (NCHS and NCIPC)
  - Practicing injury epidemiologists
Safe States Injury Surveillance Workgroup

**ISW9:** CONSENSUS METHODS FOR INITIAL TESTING AND VALIDATION OF THE ICD-10-CM INJURY DIAGNOSIS AND EXTERNAL CAUSE MATRICES
ISW9 Products

• Common starting point for the transition to ICD-10-CM
• Quickly present evaluation results using standard methods and tables
• Compare results with other states
• Identify reasons for observed increases or decreases
• Identify any needed revisions to the injury diagnosis and external cause matrices
Product 1: Are You Ready for ICD-10-CM Injury Data?

The Injury Surveillance Workgroup 9 (ISW9) Needs Your Help!

The ISW9 is preparing a guidance document on methods to analyze and report injury diagnoses and external causes coded in ICD-10-CM.

- Volunteer to give feedback on the draft methods from March to May 2016.
- Look for the full ISW9 report with final methods in October 2016!

1. Identify the information that you need.
   - What is the basic structure of an ICD-10-CM code? What major changes occurred with ICD-10-CM codes for injury?
   - Are there any ICD-10-CM implementation issues specific to injury coding?
   - How will the claims database structure and variable format change? Will the availability of the claims databases be delayed?
   - Is there anything unique about the databases for 2015, when claims were coded in ICD-9-CM for January through September and ICD-10-CM in October through December?
   - When did the state workers compensation program implement ICD-10-CM?

2. Ask relevant organizations in your state for the information.
   - State trauma registry or cancer registry program
   - State hospital association
   - State chapter of the professional coder organization
   - State Medicaid
   - State Workers Compensation

Posted February 1, 2016 at:
Product 1: Are You Ready for ICD-10-CM Injury Data?

Helpful resources for transitioning to ICD-10-CM

ICD-10-CM Transition Materials
- Resources: www.cdc.gov/nchs/icd/icd10cm_pcs_resources.htm
- Training webinars: www.cdc.gov/nchs/icd/icd10cm_pcs_trainings.htm
- Talk: www.hcup-us.ahrq.gov/datainnovations/icd10_transitioning_pres.jsp

ICD-10-CM Coding Manual & General Equivalence Mappings
- From NCHS: www.cdc.gov/nchs/icd/icd10cm.htm

Injury Matrices
- Proposed ICD-10-CM external cause matrix:
- Proposed ICD-10-CM injury diagnosis matrix:

Coding Education & Documentation
- AHIMA Clinical documentation tips for ICD-10-CM, including injuries and external causes and other resources: www.ahima.org/topics/icd10
- AHA Central Office FREE webinars: www.ahacentraloffice.org
- Coding Clinic can be purchased from the American Hospital Association: http://www.ahacentraloffice.org/codes/products.shtml
- Free “Code This” monthly case studies:
  www.optumcoding.com/CodeThis/?archive=2013
- Video by CMS, AHA, and AHIMA that reviews coding basics - valid versus invalid codes, coding examples and resources, how to submit coding questions:
  www.youtube.com/watch?v=Mv2BiBccEcU&feature=related
- “Road to 10: The Small Physician Practice’s Route to ICD-10” FREE webcasts by physician/coder teams on specialty areas (obstetrics, orthopedics, internal medicine, pediatrics, etc.): http://www.roadto10.org/

Posted February 1, 2016 at:
Product 2: ISW9 Report

Available in October 2016

• Suite of tools
• Instructions on how to apply the matrices
  – External cause
  – Injury diagnosis
• Suggestions for exploring ICD-10-CM data
• How to summarize and display trend data coded in ICD-9-CM and ICD-10-CM
• Feasibility of reviewing medical records
  – Coding error? Need for revision of the matrix?
Want a preview? **Volunteer to test a tool!**

• First tool ready for testing is ... ta da ... the external cause matrix

• 2 ways to test:
  – Without data - Read the instructions and provide feedback
  – With ICD-10-CM coded data – Participate in 2 calls, follow instructions, adapt draft SAS code, run against real data
IN SUMMARY
Summary

• ICD-10-CM is expansive
  – 43,000 injury codes

• ICD-10-CM is complex with new concepts
  – Initial encounters
  – Effects of underdosing

• ISW9 is here to help

• Epidemiologists can assist ISW9 & future ISWs
  – By applying tools to ICD-10-CM coded data
Q&A

• Who is on the committee?

Barbara Gabella, MSPH (Chair)
Mick Ballesteros, PhD MS
Elizabeth Brutsch, MPH
Holly Hedegaard, MD, MSPH
Tom Largo, MPH
Ashley Newmyer, MPH, CPH
Amy Patel, MPH
Michael Singleton, PhD, MS
Rebecca Spicer PhD, MPH
Michelle Wynn, MPH

Not Pictured: Holly Hackman, MD, MPH, Renee Johnson, RPT, MSPH, Suzanne Marsh

• Who to contact for more info?

Barbara.gabella@state.co.us  Michelle.wynn@safestates.org