

The International Statistical Classification of  
Diseases and Related Health Problems, Tenth  
Revision, Clinical Modification

**Donna Pickett, MPH, RHIA**

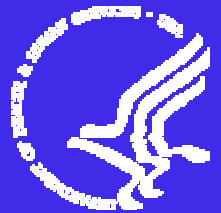
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**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**Centers for Disease Control and Prevention**  
**National Center for Health Statistics**

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# The International Classification of Diseases

- ICD is the standard used throughout the world for:
  - Classifying causes of mortality (death registration)
  - Morbidity statistics
    - Records and surveys
    - Health care claims
    - Basis for prospective payment

# World Health Organization

- As of October 2002, W.H.O. had authorized the publication of ICD-10 versions in 37 languages:
  - 138 countries have implemented for mortality
  - 99 countries have implemented for morbidity
- ICD-10 was implemented for mortality reporting in the United States 1/1/99.

# International Statistical Classification of Diseases and Health Related Problems, Tenth Revision (ICD-10)

- Several countries use ICD-10 or a clinical modification in casemix and reimbursement systems
  - United Kingdom [1995]
  - Brazil [1996]
  - Nordic countries (Denmark, Finland, Iceland, Norway, Sweden) [1994-1997]
  - France [1997]
  - Australia [1998]
  - Belgium [1999]
  - Germany [2000]
  - Canada [2001]

# ICD-10 Major Changes

- ICD-10 represents the broadest scope of any ICD revision to date. Changes include:
  - Alphanumeric codes (A00-Z99)
  - Restructuring certain chapters/ categories
  - Addition of new features
  - Expansion of detail (2,033 categories; 855 more than ICD-9)

# Injuries Restructured

## ICD-9

Fractures	800-829
Dislocations	830-839
Sprains/Strains	840-848

## ICD-10

Injuries to head	S00-S09
Injuries to neck	S10-S19
Injures to thorax	S20-S29

# Expanded Detail in ICD-10

## External Causes of Injuries

### ICD-9 (E800-E999)

Transport accidents	E800-E848
Intentional self-harm	E950-E959
Complic. med/surg care	E870-E876

### ICD-10 (V00-Y98)

Transport accidents	V01-V99
Intentional self-harm	X60-X84
Complic. med/surg care	Y40-Y84

# ICD-10 Evaluation Contract

- 1994 NCHS awarded a contract to evaluate the ICD-10
  - ICD-10 not significantly better than ICD-9-CM for morbidity applications to warrant implementation.
  - A clinical modification of the ICD-10 would be a significant improvement and worth implementing.

# Why a Clinical Modification of ICD-10 ?

- Need to:
  - Expand distinctions for ambulatory and managed care encounters
  - Expand to include new concepts
  - Expand to include emerging diseases and more recent medical knowledge
  - Incorporate changes made to ICD-9-CM since ICD-10 implementation

# ICD-10-CM Development

- Four phases of development
  - Phase 1 - Prototype developed under contract 20 TAP members
  - Phase 2 - Enhancements by NCHS, C&M minutes, providers & other users
  - Phase 3 - Further enhancements based on public comments 22 organizations/individuals
  - Phase 4 - Incorporation of pilot test comments

# ICD-10-CM Development

- Consultation with:
  - Physician groups
    - Dermatology, Neurology, Obstetrics & Gynecology, Orthopedics, Pediatrics, Psychiatry, Urology
    - Professional organizations
    - ADA, AHA, AHIMA, ANA, NACHRI
  - Other users of ICD-9-CM
    - federal agencies, Workers Comp, epidemiologists, researchers

# ICD-10-CM

## Major Modifications

- Addition of sixth character
- Added code extensions for obstetrics, injuries and external causes of injuries (7th character)
- Addition of laterality
- Created combination diagnosis / symptoms codes
- Full code titles

# ICD-10-CM

## Major Modifications

### [continued]

- Added trimesters to OB codes (fifth-digits from ICD-9-CM will not be used)
- Revised diabetes mellitus codes (5th digits from ICD-9-CM will not be used)
- Expanded codes (e.g., injury, diabetes, postoperative complications, alcohol/substance abuse)
- Added standard definitions for excludes notes

# Diabetes mellitus

## [continued]

ICD-9-CM	ICD-10	ICD-10-CM
<p><b>250.X</b></p> <p><b>4th digit identifies type of complication</b></p> <p><b>5th digit “1” identified juvenile-onset</b></p> <p><b>5th digit “0” identified adult-onset</b></p>	<p><b>E10 Insulin dependent</b></p> <p><b>E11 Non-insulin dependent</b></p> <p><b>E12 Malnutrition related</b></p> <p><b>E13 Other specified</b></p> <p><b>E14 Unspecified</b></p> <p><b>4th digit for type of complication</b></p>	<p><b>E08 Diabetes due to underlying condition</b></p> <p><b>E09 Drug or chemical induced diabetes</b></p> <p><b>E10 Type 1 diabetes</b></p> <p><b>E11 Type 2 diabetes</b></p> <p><b>E13 Other specified diabetes mellitus</b></p> <p><b>E14 Unspecified</b></p> <p><b>4th digit body system with complication</b></p> <p><b>5/6<sup>th</sup> digit specifics of complication</b></p>

# ICD-10-CM

## Diabetes mellitus

- **E10.6 Type 1 diabetes mellitus with other specified complications**
  - E10.61 Type 1 diabetes mellitus with diabetic arthropathy
    - E10.610 Type 1 diabetes mellitus with diabetic neuropathic arthropathy
    - E10.618 Type 1 diabetes mellitus with other diabetic arthropathy

# Injury codes in ICD-9-CM & ICD-10

## Open wounds

- laceration w/foreign body
- laceration w/o foreign body
- puncture wound w/foreign body
- puncture wound w/o foreign body
- animal bite

## Superficial wounds

- abrasion
- blister
- contusion
- external constriction
- superficial foreign body
- insect bite

# ICD-9-CM Injury Codes

880 Open wound of shoulder and upper arm

880.0 Without mention of complication

880.1 Complicated

880.2 With tendon involvement

5th digit for site (shoulder, axillary, upper arm)

# ICD-10-CM

## Expanded Injury Codes

Detail for open wounds added at 5th digit:

S41.01x Laceration without foreign  
body of shoulder

S41.02x Laceration with foreign body of  
shoulder

S41.03x Puncture wound without  
foreign body of shoulder

S41.04x Puncture wound with foreign  
body of shoulder

# ICD-9-CM

## Decubitus ulcer

707.0 Decubitus ulcer of back

Bed sore

Decubitus ulcer [any site]

Plaster ulcer

Pressure ulcer

# ICD-10-CM

## Decubitus ulcer expanded codes

L89.011 Decubitus ulcer of right upper back limited to breakdown of skin

L89.012 Decubitus ulcer of right upper back with fat layer exposed

L89.014 Decubitus ulcer of right upper back with necrosis of bone

# ICD-10-CM

## Postoperative Complications

- ICD-9-CM
  - 998.1 Hemorrhage or hematoma or seroma complicating a procedure
- G97.3 Hemorrhage or hematoma complicating a nervous system procedure
  - G97.35 Postprocedural hemorrhage of nervous system organ following nervous system procedure
  - G97.36 Postprocedural hemorrhage of other organ following nervous system procedure

# ICD-10-CM

## Postoperative Complications

- ICD-9-CM
  - 998.2 Accidental puncture or laceration during a procedure
- H95.3 Accidental puncture or laceration during an ear procedure
  - H95.31 Accidental puncture or laceration of the ear during an ear procedure
  - H95.32 Accidental puncture or laceration of other organ or structure during an ear procedure

# Poisoning/External Cause ICD-9-CM

- Accidental poisoning by thyroid hormones

962.7 (Poisoning) Thyroid and thyroid derivatives

and

E858.0 Accidental poisoning, Hormones and synthetic substitutes

# Poisoning/External Cause ICD-10-CM Combination Codes

- T38.1x1 Poisoning by thyroid hormones and substitutes, accidental (unintentional)
- T38.1x2 Poisoning by thyroid hormones and substitutes, intentional self-harm
- T38.1x3 Poisoning by thyroid hormones and substitutes, assault
- T38.1x4 Poisoning by thyroid hormones and substitutes, undetermined
- T38.1x5 Adverse effect of thyroid hormones and substitutes

# Injury & External Cause

## Chapter Extensions in ICD-10-CM

a Initial encounter

d Subsequent encounter

q Sequelae

# Fracture Extensions

## ICD-10-CM

- a Initial encounter for closed fracture
- b Initial encounter for open fracture
- d Subsequent encounter for fracture with routine healing
- g Subsequent encounter for fracture with delayed healing
- j Subsequent encounter for fracture with nonunion
- q Sequelae

# Full code titles

## **ICD-9-CM**

143 Malignant neoplasm of gum

143.0 Upper gum

143.1 Lower gum

## **ICD-10-CM**

C03 Malignant neoplasm of gum

C03.0 Malignant neoplasm of upper gum

C03.1 Malignant neoplasm of lower gum

# ICD-10-CM Field Testing

## AHA/AHIMA 9/23/03

- 6,177 records coded:
  - Short-term acute care inpatient (42.3%)
  - Short-term acute care outpatient (38.8%)
  - Post-acute settings (7.9%)
  - Physician practices (6%)
  - Clinics, community health centers, free-standing ambulatory surgery centers, and free-standing diagnostic facilities (2.9%)
  - Behavioral health facility (1.6%) and
  - Other (0.6%)

# ICD-10-CM Field Testing

## AHA/AHIMA 9/23/03

- Participant Feedback:
  - Clinical descriptions thought to be better than ICD-9-CM (71.7%)
  - Notes, instructions/guidelines thought to be clear and comprehensive (64.5%)
  - ICD-10-CM felt to be an improvement over ICD-9-CM (76.3%)
  - Migration to ICD-10-CM supported by respondents (83.6%)
  - Majority of respondents indicated that would need 16 hours or less of training
  - Training should be provided three months prior to ICD-10-CM implementation

# ICD-10-CM Status

- ✓ Incorporation of public comments
- ✓ Finalize Tabular List revisions
- ✓ Revise Index & Crosswalks
- ✓ Database (Alpha version)
- ✓ Revise guidelines
- ✓ Incorporation of comments from pilot test (in progress)
- Develop training materials

# Uses of ICD-9-CM

- Tracking national trends - NCHS surveys
- Tracking state trends - AHRQ HCUP
- Tracking Medicare trends - Medpar
- Quality Indicators JCAHO and HEDIS
- Reimbursement (DRGs, APCs)
- Bench marking
- Research
- Public health reporting
- Strategic planning

# Disadvantages of Remaining with ICD-9-CM

- Due to the classification's age (20+ years) and content it is no longer clinically accurate
- ICD-9-CM update process cannot keep pace with changes
- Inability to capture data relating to factors other than disease affecting health
- Non-comparability with State/National mortality data
- Non-comparability with international data

# ICD-10-CM Benefits

- Comprehensive scope of ICD-10-CM will contribute to:
  - More relevant data for epidemiological research and decision-support purposes
    - Patient safety (medical errors)
    - Ambulatory/managed care encounter
    - Surveillance & prevention activities
    - Outcomes research

# ICD-10-CM Benefits

- Comprehensive scope of ICD-10-CM will contribute to:
  - Increased sensitivity when making refinements in applications such as grouping and reimbursement methodologies
  - Reduction in additional information being forwarded to payers to adjudicate claims

# HIPAA & ICD-10-CM Implementation

- Implementation of ICD-10-CM tied to the standards adoption process specified in the Administrative Simplification provisions of HIPAA (1996)
  - Public hearings
  - Notice of Proposed Rulemaking (NPRM)
  - Public comment period
  - Final rule

# NCVHS Hearings on Replacements to ICD-9-CM

- Since 1997 - more than 8 days of public hearings on ICD-10-CM and ICD-10-PCS
  - 4/15-16, 1997
  - 4/9/02
  - 5/29/02
  - 8/29/02
  - 11/9/02
  - 9/23/03
  - 10/28-30, 2003

# Scope of Impact Analysis

- RAND commissioned by NCVHS to conduct impact analysis of moving to ICD-10-CM & ICD-10-PCS
  - Assess full range of implications on current users including costs and benefits (quantifiable and nonquantifiable)
  - Identify costs, including, opportunity costs associated with transition including information system changes, rate negotiation, reimbursement methodologies, training, forms changes
  - Timing of transition, including impact of timing options on costs & benefits, potential return on investment

# Scope of Impact Analysis (Cont'd)

- RAND commissioned by NCVHS to conduct impact analysis of moving to ICD-10-CM & ICD-10-PCS
  - Identify immediate and future costs and benefits of improved data (patient safety, outcomes analyses, disease management, reimbursement)
  - Affected entities to be contacted to provide input regarding their own assessments of costs/benefits
    - more than 85 people representing various stakeholders interviewed

## 9/23/03 NCVHS Meeting

- RAND delivered pre-final report on costs & benefits
- AMA presented report on cost of moving to ICD-10-PCS
- Blue Cross Blue Shield Assoc. presented preliminary findings of cost analysis
- AHA/AHIMA presented final report on pilot test of ICD-10-CM

# 10/28-30/03 Subcommittee Meeting

- Subcommittee heard additional testimony and reports:
  - CMS, NAHDO, BCBSA final report on costs of migrating to ICD-10-CM/ICD-10-PCS
- Subcommittee drafted letter for full committee consideration

# 10/28-30/03 Subcommittee Draft Letter

- Summary of draft letter
  - Recommends the initiation of the regulatory process for the concurrent adoption of ICD-10-CM & ICD-10-PCS as replacements for current uses of ICD-9-CM
  - NCVHS activities over last several years
  - Issues surrounding migration to replacements
    - Costs, benefits, implementation issues
  - Diversity of input & lack of industry-wide consensus

# 10/28-30/03 Subcommittee Draft Letter

- Summary of draft letter
  - Implementation period of at least two years following issuance of final rule
  - Recommends that NPRM invite comments on key issues
    - Minimize costs
    - Maximize benefits
    - Potential unintended costs & how to mitigate
    - Timeframes for implementation
- NCVHS approved letter to Secretary during the 11/4/03 meeting

# ICD-10-CM Pre-release Draft on NCHS web site

**Pre-release draft, June 2004,  
ICD-10-CM on NCHS web site  
at:**

**<http://cdc.gov/nchs/icd9.htm>**

**AHA/AHIMA Field Testing Project  
[http://library.ahima.org/xpedio/  
groups/public/documents/ahim  
a/pub\\_bok1\\_020969.html](http://library.ahima.org/xpedio/groups/public/documents/ahima/pub_bok1_020969.html)**

# Web Site

**NCHS Classification Home Page:**

**<http://www.cdc.gov/nchs/icd9.htm>**

**ICD-9-CM, ICD-10, ICD-10-CM**

**National Committee on Vital and Health Statistics:**

**<http://www.ncvhs.hhs.gov>**

**Centers for Medicare and Medicaid Services:**

**<http://cms.hhs.gov/paymentsystems/icd/icd10.asp>**