What is the purpose of ICD-9 and ICD-10 coding?

1. Meet billing requirements
2. Provide information on diagnoses and procedures
3. Provide data for required reporting
### How is coded information used?

1. To define volumes of patients
2. To adjudicate claims
3. To determine facility’s case mix index
4. To define observed: expected mortality score
5. To determine the presence of Patient Safety Indicators (PSI) and Hospital Acquired Conditions which are pertinent for:
   - A. CMS Hospital Compare
   - B. University Healthsystem Consortium
   - C. US News and World Report

### Categories of AHRQ QI Indicators

- **A. Patient Safety Indicators**
  - Reflect quality of care inside hospitals, focusing on potentially avoidable complications and related iatrogenic events.

- **B. Inpatient Quality Indicators**
  - Hospital indicators relating to utilization, mortality, and volume. Include in-hospital procedures for which outcomes can vary from hospital to hospital. Utilization of procedures for overuse, underuse, and misuse.

Categories of AHRQ QI Indicators

C. Pediatric Quality Indicators
   - Hospital indicators that focus on potentially preventable complications and errors in pediatric patients treated in hospitals.

D. Prevention Quality Indicators
   - Indicators representing hospital admission rates for common ambulatory care-sensitive conditions; hospitalization for these conditions can often be avoided with appropriate use of community-based primary care.

Source: http://qualityindicators.ahrq.gov/Default.aspx

General Uses of the AHRQ Quality Indicators

Hospital quality improvement efforts
Patient Safety Indicator: Pressure Ulcer (PU)
   - Determine root causes of a higher than benchmark rate, take corrective action:
     - Are patients screened on admission for PUs?
     - Are patients turned regularly to prevent PUs?
     - Are there equipment issues? Does the hospital have the appropriate beds, mattresses?
     - Documentation issues
       - Not clearly documenting date ulcer originated
       - Documentation of a pressure ulcer that is actually a dermatitis due to moisture, friction, etc.
How is Coding Accomplished?

• Information is collected in advance of a patient’s visit
  – Precertification
• During registration
  – Reason for visit
• As a part of the encounter
  – Problem list
  – History and physical
  – Progress notes
  – Procedure notes
• Concurrent review

Throughout, diagnostic and procedural information is translated into codes

ICD-9 coding process

1. Coders review documentation
2. Enter key words into encoder
3. Encoder used to select precise codes
4. Edits
   – Present on admission indicator
   – Sequencing
     • Principal diagnosis is the cause after study that necessitated the patient’s admission to the hospital
   – Official coding guidelines
   – Payor specific rules
Payment Issues

The medical record is the detail behind the patient’s bill

MS-DRG Assignment

Medicare Severity Diagnosis-Related Group
Federal Fiscal Year 2015: 753 MS-DRGs
Hospital payment methodology for Medicare inpatients
CC’s = Comorbidities and Complications
MCC’s = Major Comorbidities and Complications
MCC’s:
- Acute on chronic systolic and diastolic heart failure
- Acute respiratory failure
- Metabolic encephalopathy
CC’s:
- Morbid obesity (BMI ≥ 40)
- Acute kidney failure
MS-DRG and Role of Documentation
Example: Pneumonia

<table>
<thead>
<tr>
<th>Description</th>
<th>MS-DRG</th>
<th>Estimated payment @ $6,000 base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Pneumonia and Pleurisy w/o CC/MCC</td>
<td>MS-DRG 195</td>
<td>$4,198</td>
</tr>
<tr>
<td></td>
<td>RW 0.6997</td>
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<tr>
<td></td>
<td>GMLOS = 2.9</td>
<td></td>
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<tr>
<td>Respiratory Infections and Inflammations with MCC</td>
<td>MS-DRG 177</td>
<td>$11,960</td>
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<tr>
<td></td>
<td>RW 1.9934</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GMLOS = 6.4</td>
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</tbody>
</table>

Present on Admission (POA) Indicators

- Every diagnosis requires a POA indicator
- Record needs to tell us the patient’s condition at the time of admission
  - Chronic conditions
  - All diagnoses affecting care
- Used in mortality risk adjustment
- Some conditions will NOT be reimbursed unless they are documented as present on admission. These include:
  - Catheter associated UTIs
  - Stage III and IV Pressure ulcers
  - Infections associated with vascular catheters
  - Falls, fractures, dislocations, intracranial injury, crushing injury and burns
  - DVT following certain orthopedic procedure (e.g., TKR)
Documentation Tips for ICD-9

- Be specific.
- Be timely.
- Top 10 documentation queries:
  1. CHF specificity
  2. Sepsis
  3. Acute Kidney Injury
  4. BMI
  5. Acute Blood Loss Anemia
  6. Pressure Ulcers
  7. Hyponatremia
  8. CKD with stage
  9. Malnutrition
 10. Acute Respiratory Failure

What is ICD-10?

- Two parts
  - ICD-10-CM
    • The US clinical modification of the ICD-10 diagnosis code set
  - ICD-10-PCS
    • The US procedure classification system
    • Used in hospitals for inpatient procedures
    • Does not replace CPT-4
### ICD-9-CM vs ICD-10-CM: Diagnoses

<table>
<thead>
<tr>
<th>ICD-9</th>
<th>ICD-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 characters in length</td>
<td>3-7 characters in length</td>
</tr>
<tr>
<td>Approximately 13,000 codes</td>
<td>Approximately 68,000 codes</td>
</tr>
<tr>
<td>References back to common 4th and 5th digits</td>
<td>Includes full code titles for all codes</td>
</tr>
<tr>
<td>First digit may be alpha (E or V) or numeric; digits are 2-5 numeric</td>
<td>Digit 1 is alpha; digits 2 and 3 are numeric; digits 4-7 are alpha or numeric</td>
</tr>
<tr>
<td>No 6th or 7th characters</td>
<td>Addition of 6th character in some chapters and 7th character representing visit encounter or sequelae for injuries and external causes</td>
</tr>
<tr>
<td>Limited space for adding new codes</td>
<td>Flexible for adding new codes</td>
</tr>
<tr>
<td>Lacks laterality</td>
<td>Includes laterality (i.e., codes identify right vs. left)</td>
</tr>
</tbody>
</table>

Source: AHIMA’s ICD-10-CM Coder Training Manual

### ICD-9-CM vs ICD-10-PCS: Procedures

<table>
<thead>
<tr>
<th>ICD-9</th>
<th>ICD-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4 numbers in length</td>
<td>7 alpha numeric characters in length</td>
</tr>
<tr>
<td>Approximately 3,000 codes</td>
<td>Approximately 87,000 available codes</td>
</tr>
<tr>
<td>Based on outdated technology</td>
<td>Reflects current usage of medical terminology and devices</td>
</tr>
<tr>
<td>Limited space for adding new codes</td>
<td>Flexible for adding new codes</td>
</tr>
<tr>
<td>Lacks detail</td>
<td>Very specific</td>
</tr>
<tr>
<td>Lacks laterality</td>
<td>Has laterality</td>
</tr>
<tr>
<td>Generic terms for body parts</td>
<td>Detailed description of body parts</td>
</tr>
<tr>
<td>Lacks descriptions methodology and approach for procedures</td>
<td>Provides detailed description of methodology and approach for procedures</td>
</tr>
<tr>
<td>Lacks precision to adequately define procedures</td>
<td>Precisely defines procedures with detail regarding body part, approach, any device used, and qualifying information</td>
</tr>
</tbody>
</table>

Source: AHIMA’s ICD-10-PCS Coder Training Manual
Major Changes

- ICD-10 has more codes
- Most of the changes are related to the musculoskeletal system and fractures
  - 34,250 (50%) of all ICD-10-CM codes are related to the musculoskeletal system.
  - 17,045 (25%) of all ICD-10-CM codes are related to fractures.
    - 10,582 (62%) of fracture codes to distinguish ‘right’ from ‘left.’
    - ~25,000 (36%) of all ICD-10-CM codes distinguish right from left.

Benefits to Providers

1. Improved claims adjudication and fewer provider denials due to inadequate information
2. Higher quality data
3. Improved continuity of care information
4. Improved data specificity
5. Improved documentation and coding to enhance the assessment and monitoring of patient safety and quality indicators


### Documentation Tips for ICD-10

1. Stage of disease  
2. Etiology  
3. Underlying conditions  
4. Laterality  
5. Site  
6. Injuries: Fractures and Non-fractures  
   - A. Encounter: initial, subsequent, sequelae  
7. Fractures:  
   - A. Routine healing  
   - B. Delayed healing  
   - C. Non-union

### Practical Inpatient E&M Coding

Stephen Shaw, MD, FHM  
Assistant Professor  
Department of Hospital Medicine  
The Ohio State University Wexner Medical Center
Coding Confidence

- Am I documenting and coding in such a manner to accurately reflect the cognitive labor involved in my patient care?
- Am I documenting and coding in a manner that will trigger CMS/RAC penalty?

Contributors to poor confidence

- 1) Little to no education in postgraduate training
- 2) Education based on coders’ perspective, instead of physicians
- 3) E&M guidelines built for coders, not for physicians
- 4) Multiple reasons to document effectively often confused and overwhelming
- 5) Perception of secondary or tertiary importance
Reasons to Document Effectively

• 1) Communicate effectively with peers
• 2) Accurately reflect our cognitive labor to support our Level of Service (E&M Coding)
• 3) Accurately reflect patient’s illnesses to support hospital billing and Observed vs. Expected Mortality
• 4) Inpatient Status Support
• 4) Medical-legal support

Typical Coding Misjudgments

• Coding “from the hip,” as in the following:
  • 1) Anticipating a bell curve distribution for any given types of service
  • 2) Resetting your definition of complexity, based on your hospital-only practice
  • 3) Coding entirely based on gestalt “this one doesn’t sound that sick”
### How Do We Improve Performance?

- **1)** General Education, with intermittent reinforcement and examples
- **2)** Creation of reference material for real-time coding support
- **3)** Analysis of billing patterns for the group and each individual hospitalist, quarterly
- **4)** Individual feedback to group members exhibiting “outlier” patterns, with email reminders of coding criteria for the specific E&M services of concern

### RVU payment calculation

- Regional multiplier $\times$ wRVU
- Regional multiplier for practice expenses
- Regional multiplier for malpractice expenses

- In Ohio, $\text{wRVU} \times 0.998 + (1.11 \times 0.927) + (0.13 \times 1.24) = \text{final RVU}$
- CMS currently pays $35.8228$ per final RVU
Risk-Based Coding

- Typical coding education is perfect for auditors, and terrible for providers.
  - History (CC, HPI elements, PFSH, ROS) points
  - Exam (How many systems, how many bullet points)
  - MDM (3 charts, count the points)

 PROVIDERS SHOULD START WITH THE MDM to determine Level of Service, then perform and document the history and exam necessary and reasonable to complete the E&M code

MDM

- RISK
  - Illness of patient and intensity of care
- DATA
  - Amount of data reviewed/ordered/discussed
- DIAGNOSES
  - Number of diagnoses attended to, and their stability/response/cognitive load
RISK - HIGH

- Acute illness with threat to life or bodily function
- Severe exacerbation/progression of chronic illness, or side effect of treatment
- Abrupt change in neurologic status (TIA, seizure, delirium, weakness, sensory loss)
- DNR discussion
- Parenteral controlled substances
- Drug therapy with intensive monitoring
- Major surgery or procedures with risk factors

RISK - MODERATE

- Acute illness with systemic symptoms
- Chronic illness with mild exacerbation
- Undiagnosed condition with uncertain prognosis
- Acute complicated injury
- Two or more chronic stable conditions
- Prescription drug management
- IV fluids with additives
- Elective surgery or procedures with no risk factors
- Stress test
- Needle biopsy, fluid from body cavity
STOP

- It is the rare patient that does not meet at least moderate risk
- Low Risk: 2 self-limited or minor problems, one stable chronic illness, acute uncomplicated illness (allergic rhinitis), OTC drug management

DATA

- Labs ordered and/or reviewed 1
- Radiologic study 1
- Medical study (echo, PFT) 1
- Personal review of any study 2
- Discussion w performing 2
- Decision to obtain records 1
- Review of records 2
**DIAGNOSES**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New, work-up planned</td>
<td>• 4</td>
</tr>
<tr>
<td>• New, no work-up planned</td>
<td>• 3</td>
</tr>
<tr>
<td>• Old, uncontrolled or unimproved</td>
<td>• 2</td>
</tr>
<tr>
<td>• Old, Controlled or improving</td>
<td>• 1</td>
</tr>
<tr>
<td>• Minor or self-limited</td>
<td>• 1 (Max of 2)</td>
</tr>
</tbody>
</table>

**MDM Calculation**

<table>
<thead>
<tr>
<th>RISK</th>
<th>DATA</th>
<th>DIAGNOSES</th>
<th>MDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF</td>
<td>1</td>
<td>1</td>
<td>Minimal</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>2</td>
<td>Low</td>
</tr>
<tr>
<td>Mod</td>
<td>3</td>
<td>3</td>
<td>Mod</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
<td>4</td>
<td>High</td>
</tr>
</tbody>
</table>
### Case No. 1

54yM with HTN, DMII, morbid obesity, presents with LLE edema and pain, DVT confirmed by ultrasound.

Risk – high: need for drug treatment with intensive monitoring  
Data – low: CBC (1 point), ultrasound (1 point). Total = 2 points  
Diagnoses – high: 1 new problem with no additional w/u planned (3 points), 3 chronic stable diagnoses (3 points). Total = 5 points

MDM = HIGH

### Case No. 2

24y male with h/o asthma, tobacco abuse presents to ER in moderate exacerbation in need of hospitalization. No impending respiratory failure, need for ICU monitoring, non-invasive PPV, or intubation

Risk – Moderate: Mild-moderate exacerbation of chronic illness  
Data – High: ABG/CBC (1 point), CXR (1 point), decision to obtain old records (1 point), review of old records (2 points). Total = 5 points  
Diagnoses – Moderate: Chronic problem, OOC (2 points), Chronic problem (1 point)

MDM = MODERATE
### MDM Pearls

- Document chronic medical conditions and their status (no diagnosis is too small, ie gout, OA, anemia)
- Document review of EKG, CXR, tele, PFTs, old medical records and what you found
- Document conversation with performing physicians and other providers

### MDM Pearls, pt 2

- DATA is EASY on day 1. It’s more difficult on subsequent visits, so document your EKG, tele, XR reviews
- DIAGNOSES is the IM doctor’s best friend. With most of our patients, we’re at level 4 all the time, as long as we have a reasonable problem list
- Do NOT underestimate a patient’s severity because you’re a hospitalist. In my opinion, MILD COPD exacerbations are cared for in the outpatient setting
Now what?

- With MDM concluded, perform and document the required levels of History and Exam to meet the Level of Service the MDM suggested.

<table>
<thead>
<tr>
<th>CMS Admission Code Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
</tr>
<tr>
<td>Exam</td>
</tr>
<tr>
<td>MDM</td>
</tr>
<tr>
<td>wRVU</td>
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CMS Subsequent Code Requirements

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<tbody>
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<td>History</td>
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<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Exam</td>
<td>PF</td>
<td>EPF</td>
<td>Detailed</td>
</tr>
<tr>
<td>MDM</td>
<td>Min or Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>wRVU</td>
<td>0.76</td>
<td>1.39</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Other Opportunities

- Critical Care (99291 RVU 4.5, $222.02)
- Prolonged Service (99356 RVU 1.71, $99.19)
- CPR, procedures/supervision
- Every time you see a patient, you should be submitting a code
- Smoking cessation (3-10 minutes RVU 0.24, $13.63, >10 minutes RVU 0.5 $27.05)
Example
CHEST PAIN

RISK - MODERATE

- Acute illness with systemic symptoms
- Chronic illness with mild exacerbation
- Undiagnosed condition with uncertain prognosis
- Acute complicated injury
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## DATA

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<td>Labs ordered and/or reviewed</td>
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<td>Obtaining history from other</td>
<td>1</td>
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**DIAGNOSES**

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