AMI and Coronary Artery Disease

The ICD-10 Success Series
Webconference
October 29, 2014
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Brief Overview: The ICD-10 Success Series Webconferences

Across the coming months, the Advisory Board’s Clinical Advisor Team will be hosting numerous Webconferences on a variety of documentation topics critical to a seamless and successful transition to ICD-10. As providers, please take a look at the list of upcoming sessions and save time to attend those most pertinent to your practice. We have created them to be succinct and to the point, and will be presenting lessons you can begin to incorporate into your documentation immediately (in an ICD-9 world). Below is a list of all upcoming sessions:

1. September 24th – Sepsis/Septicemia
2. October 1st – UTI
3. October 8th – Pressure Ulcers
4. October 15th – Stroke
5. October 22nd – Encephalopathy
6. **October 29th – AMI & Coronary Artery Disease**
7. November 5th – Respiratory Failure, Pneumonia, COPD
8. November 12th – Orthopedic Surgery, Joints, Spine
9. November 19th – Diabetes
10. December 3rd – Anemia
11. December 10th – Cellulitis
12. December 17th – Ambulatory

**All sessions will be hosted from 12:00 – 1:00 pm EST. Recordings will be made available for follow up viewing on the intranet and physician websites.**
About Today’s Speaker

Emeric Palmer, MD, FACP, FHM

- Senior Medical Director at the Advisory Board Company
- Board certified physician in Internal Medicine and Wound Care and Hyperbaric Medicine.
- Experience in Primary Care and Hospital Medicine with large, nation-wide systems as well as private group practices.
- Served as an Assistant Professor of Medicine at the University of Illinois, Chicago with Advocate Christ Medical Center.
- Earned the Healthcare IT Leadership Certificate from the American College of Physician Executives
- Former chair of the Health Information Management and Physician EHR committees at Meritus Medical Center in Hagerstown, Maryland
- Worked as an Internal Medicine Hospitalist with Kaiser’s Mid Atlantic Permanente group.
- Special areas of interest include process improvement, quality and safety, high reliability, team dynamics, and communication.

For more information, contact:

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Senior Medical Director

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Brief Overview: Code Expansion in ICD-10 Requires Greater Documentation Specificity

Expanded Code Set in ICD-10: ~16K to ~150K

Why So Many New Codes?

The main difference between ICD-9 and ICD-10 codes, outside of structural changes, is the SPECIFICITY of the code.

ICD-10 codes specify several components not found in ICD-9, such as stage, laterality, severity, root cause operation, etc.

<table>
<thead>
<tr>
<th>Key ICD-10 Concepts Required in Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage or grade of disease</td>
</tr>
<tr>
<td>Specific anatomical location</td>
</tr>
<tr>
<td>Acute or chronic</td>
</tr>
</tbody>
</table>
AMI: Key Measure in Value Based Purchasing Data Collections

Acute myocardial infarction mortality is one measure within the FY 2015 value based purchasing outcomes domain. Below is an infographic outlining the key components of VBP across the next few years.

Financial Pressures for Hospitals
Percentage of Traditional Medicare Revenue tied to Quality measures

<table>
<thead>
<tr>
<th>Year</th>
<th>VBP Adjustments</th>
<th>HRRP Adjustments</th>
<th>Total</th>
<th>HAC Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFY 2013</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>FFY 2014</td>
<td>1.25%</td>
<td>2%</td>
<td>2.25%</td>
<td></td>
</tr>
<tr>
<td>FFY 2015</td>
<td>1.5%</td>
<td>3%</td>
<td>5.5%</td>
<td>1%</td>
</tr>
<tr>
<td>FFY 2016</td>
<td>1.75%</td>
<td>3%</td>
<td>5.75%</td>
<td></td>
</tr>
<tr>
<td>FFY 2017</td>
<td>2%</td>
<td>3%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Financial Pressures for Physicians
Payment Adjustments for Participation in Physician Quality Reporting System (PQRS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFY 2012</td>
<td>1%</td>
</tr>
<tr>
<td>FFY 2013</td>
<td>0.5%</td>
</tr>
<tr>
<td>FFY 2014</td>
<td>0.5%</td>
</tr>
<tr>
<td>FFY 2015</td>
<td>(1.5%)</td>
</tr>
<tr>
<td>FFY 2016</td>
<td>(2.0%)</td>
</tr>
</tbody>
</table>
Road Map for Discussion

1. AMI and Value Based Purchasing

2. Key Requirements for Documentation Related to AMI and Coronary Artery Disease

3. Clinical Scenarios Highlighting Best Practice Documentation
Understanding Implications for AMI Changes

Limited time frame for ‘acute’ designation will require increased specificity

“PMH: Patient suffered a STEMI involving the left circumflex coronary artery two weeks ago and was discharged home. Same patient is admitted today for a STEMI of the anterior wall.”

Patient enters ER, shortness of breath and continued pain

MD identifies AMI of anterior wall on EKG

Patient history STEMI two weeks ago

Specify in days for accurate code selection

> 28 Days?

“a month ago” = ≤ 28 Days

Understand implications for MI’s

Note:

- Acute MI – (within the last 4 weeks)
- Subsequent MI – (another MI within 4 weeks)
- New Acute MI – (another MI after 4 weeks)
- “Old” MI – (MI more than 4 weeks old)

*4 weeks = 28 days
Specify: STEMI or NSTEMI

Documentation Requirements:

• **Specific Wall** – Anterior, Inferior, Other

• **Specific Artery** – L main, L anterior descending, Right, L circumflex, Other

• Was tPA administered? At transferring facility or current facility?

• Was the patient discharged alive?

• Document any tobacco exposure

• Document any “Current Complication of STEMI”:
  • Hemopericardium will need further clarification if related to and a complication of the MI; or, unrelated to the MI and not a complication of the MI.

Documentation Teaching Point:

• AMI defaults to STEMI in ICD-10-CM, unless otherwise specified in your documentation
• Carry all clinically significant information from the cath report / echo or other testing results into the progress notes to ensure it will be captured in the coded record
Acute Myocardial Infarction

Initial ST elevation (STEMI) myocardial infarction of anterior wall involving left main coronary artery

Consistent across all AMIs

Order

Type and Site

Specific artery

Myocardial Infarction

Initial

Subsequent

STEMI Inferior Wall

STEMI Anterior Wall

STEMI Unspecified site

STEMI Other site

NSTEMI

Left main artery

Left anterior descending

Other coronary artery

Reminder:

- Elevated troponin ≠ AMI
- If it is a myocardial infarction then what type? When did it occur?
Remember: Signs, Symptoms & Test Results Must Be Linked to Related Diagnoses

While important pieces of the medical record, signs, symptoms and test results are not sufficient for coders to assign a diagnosis.

- Linking signs and symptoms to diagnoses may increase SOI and ROM in the inpatient setting. (The terms ‘probable’, ‘likely’, or ‘suspected’ are all acceptable on the **inpatient** record)

- In the ambulatory setting, documentation regarding patient condition should be to the highest level known, treated or evaluated

- Abnormal findings (laboratory, x-ray, pathological and other diagnostic test results) cannot be coded and reported unless the clinical significance is identified by the treating provider *ICD-10-CM Official Coding Guidelines III.B*

Reminder: The attending physician is responsible for:

- Documenting all conditions in the progress notes and discharge summary
- Resolving conflicts in the documentation
Linking Conditions Critical to Capturing Patient Severity

There is a significant increase in the number of “combination codes” available in the ICD-10-CM code set. These codes can help capture the highest level of complexity and acuity in publicly reported data.

Linking clinically relevant conditions, where appropriate, is the key takeaway physicians need to incorporate into their documentation today. Remember, coders cannot assume such clinical relationships.

Examples: Linking Diseases

• Chest pain due to GERD
• Atherosclerosis with Unstable Angina

Use terms like “due to” or “with”

Note: Lists, commas, and the word “and” do not link conditions
### Identify Underlying Etiology Of Chest Pain

After study, identify the diagnosis (known or suspected) that is the cause of the chest pain

<table>
<thead>
<tr>
<th>Condition</th>
<th>RW</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest Pain</td>
<td>0.59</td>
<td>1.8</td>
</tr>
<tr>
<td>Angina (stable/unstable)</td>
<td>0.56</td>
<td>1.8</td>
</tr>
<tr>
<td>CAD-related angina</td>
<td>0.58</td>
<td>1.9</td>
</tr>
<tr>
<td>Psychogenic angina</td>
<td>0.63</td>
<td>2.0</td>
</tr>
<tr>
<td>Anterior chest wall pain</td>
<td>0.68</td>
<td>2.1</td>
</tr>
<tr>
<td>GERD</td>
<td>0.74</td>
<td>2.9</td>
</tr>
<tr>
<td>Costochondritis</td>
<td>0.79</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Atherosclerosis, Angina, and Acute Coronary Syndrome (ACS)

Documentation Teaching Points:

• ICD-10-CM assumes Angina pectoris is due to atherosclerosis unless otherwise documented.

• Acute coronary syndrome (ACS) sequences to a nonspecific diagnosis of unspecified acute ischemic heart disease.

• Clarifying ACS and Angina can impact SOI/ROM and DRG assignment:
  - Angina and the TYPE (unstable, with spasm, other, and unspecified)
  - Atherosclerosis without angina
  - Atherosclerosis with angina with type (unstable, with spasm, other, and unspecified)
  - Acute ischemic heart disease (thrombosis without infarction, Dressler’s syndrome, or other)

  OR

  - STEMI or NSTEMI
Coronary Artery Disease with Angina

Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris

Chronic Ischemic Heart Disease

Vessel Type

- Native coronary artery
- Autologous vein graft
- Nonautologous biological graft
- Other Graft
- Unspecific graft

Type of Angina

- Unstable Angina pectoris
  - Angina pectoris with documented spasm
  - Other forms of angina pectoris
  - unspecific
Specificity Drives Severity: Vessel Type and Angina Type Matter

In some cases, presence of angina can serve as a severity driver.

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>Angina Type</th>
<th>Comorbid Condition (CC) Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecified Coronary Bypass Graft</td>
<td>Angina (Unspecified)</td>
<td>No comorbid condition (CC) present</td>
</tr>
<tr>
<td>Native Coronary Artery Of Transplanted Heart</td>
<td>Unstable Angina Pectoris</td>
<td>Comorbid condition (CC) present</td>
</tr>
<tr>
<td>Autologous Vein Coronary Artery Bypass Graft</td>
<td>Angina with Documented Spasm</td>
<td>Comorbid condition (CC) present</td>
</tr>
</tbody>
</table>

**Note:** A “CC” is a secondary condition that is classified as a complication or comorbid condition that impacts SOI/ROM and reimbursable in some cases.
Road Map for Discussion

1. AMI and Value Based Purchasing

2. Key Requirements for Documentation Related to AMI and Coronary Artery Disease

3. Clinical Scenarios Highlighting Best Practice Documentation
Acute Myocardial Infarction Clinical Example

**Chart Summary:**

73 year old presented to ED with midsternal chest pain. Past medical history significant for CAD, HTN, and Diabetes. EKG with ST elevation in anterior leads. Troponins elevated. Pt developed acute shortness of breath and CXR showed pulmonary vascular congestion. Pt was treated with IV Lasix. Discharge summary diagnoses included: Acute MI, Acute CHF, Hypertension and Diabetes. LOS is 6 days.

**Documentation Examples:**

- ED impression: Chest pain with troponin elevation.
- CXR: identified pulmonary vascular congestion. Impression: “consistent with acute CHF”.
- H&P Assessment: Acute MI, Flash pulmonary edema.
- ECHO completed with EF of 35%.
- Medication included IV Lasix BID x 3 days.
- Discharge medications included: Coreg, Metoprolol and Lasix.

**Action Needed:**

1. Clarify the wall and vessel of the AMI.
2. Clarify the etiology of the “flash pulmonary edema” as either cardiogenic or non-cardiogenic.
Acute Myocardial Infarction Clinical Example

**Recommendations:**

1. In ICD-10-CM an AMI will need to be clarified as to type (STEMI, NSTEMI), wall and vessel. In this case, documentation indicated a likely anterior wall MI of the LAD.
2. Flash pulmonary edema is a nonspecific diagnosis and requires further clarification. Could a condition of acute systolic heart failure be appropriate for this patient?

<table>
<thead>
<tr>
<th>Principal Dx</th>
<th>Observed</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute MI</td>
<td></td>
<td>Acute anterior wall MI of the LAD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary DX</th>
<th>Observed</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Flash Pulmonary Edema (No impact)</td>
<td>• Acute systolic congestive heart failure (MCC)</td>
<td></td>
</tr>
<tr>
<td>• Hypertension (No impact)</td>
<td>• Hypertension (No impact)</td>
<td></td>
</tr>
<tr>
<td>• Diabetes (No impact)</td>
<td>• Diabetes (specify type and any associated manifestations) (No impact)</td>
<td></td>
</tr>
<tr>
<td>• Coronary artery disease</td>
<td>• Coronary artery disease (No impact)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MS-DRG</th>
<th>Observed</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>282: Acute Myocardial Infarction, discharged alive without CC or MCC</td>
<td>280: Acute Myocardial Infarction, discharged alive, with MCC</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative Weight</th>
<th>Observed</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7751</td>
<td></td>
<td>1.7431</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GMLOS</th>
<th>Observed</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 days</td>
<td></td>
<td>4.7 days</td>
</tr>
</tbody>
</table>
# Impact on Severity when Linking Diseases

## Alternative Principal Diagnosis

<table>
<thead>
<tr>
<th>DRG</th>
<th>DRG Title</th>
<th>RW</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>313</td>
<td>Chest Pain</td>
<td>0.5992</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td><strong>Principal dx:</strong> Chest Pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Secondary dx:</strong> CKD stage V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>392</td>
<td>Esophagitis, gastroenteritis &amp; miscellaneous digestive disorders w/o MCC</td>
<td>0.7395</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td><strong>Principal dx:</strong> GERD (“chest pain secondary to GERD”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Secondary dx:</strong> CKD Stage V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>391</td>
<td>Esophagitis, gastroenteritis &amp; miscellaneous digestive disorders with MCC</td>
<td>1.1903</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td><strong>Principal dx:</strong> GERD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Secondary dx:</strong> ERSD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Capturing Specificity**

**Day 1:** Patient admitted with acute renal failure. Has history of CHF. Now with increased work of breathing and progressive dyspnea. CXR shows pulmonary congestion, Lasix started. Plan to transfer to ICU with BiPAP, for possible intubation.

**Day 2:** Patient c/o chest pain, now with positive cardiac enzymes and Troponin of 2.5. Stat echo ordered. EF 25%. Remains hypotensive despite IV fluids, will start pressors.

### Scenario 1 - Documentation
- Respiratory distress, hypoxia
- Severe hypotension
- Pulmonary congestion
- Chest pain

### Scenario 2 – Opportunity
- Acute respiratory distress / insufficiency
- Shock
- Systolic CHF
- ACS

### Scenario 3 – Best Practice Documentation
- Acute respiratory failure w/hypoxia
- Cardiogenic shock
- Acute exacerbation of systolic CHF
- AMI, anterolateral, initial episode

<table>
<thead>
<tr>
<th>Scenario</th>
<th>MS-DRG</th>
<th>Description</th>
<th>Weight</th>
<th>GMLOS</th>
<th>Exp. Mort. Rate</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>684</td>
<td>Renal Failure w/o CC/MCC</td>
<td>0.6213</td>
<td>2.5</td>
<td>1.3%</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>683</td>
<td>Renal Failure w/ CC</td>
<td>0.9655</td>
<td>3.7</td>
<td>1.9%</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>682</td>
<td>Renal Failure w/ MCC</td>
<td>1.5401</td>
<td>4.7</td>
<td>7.3%</td>
<td>High</td>
</tr>
</tbody>
</table>
Summary of Best Practice Documentation Teaching Points

Key Documentation Concepts

• When documenting a recent MI, define the estimated time since it occurred in days/weeks, not months
• AMI documentation must state both the wall and specific artery affected
• ICD-10-CM assumes Angina pectoris is due to atherosclerosis unless otherwise documented
• Coronary Artery Disease should be clarified as to the vessel type affected, type of angina and underlying etiology such as “due to lipid-rich plaque”
• Conflicting, incomplete, or ambiguous documentation will lead to a query
• Carry all documentation over from diagnostic test into the progress notes to ensure it will be captured in the coded record
• Tobacco exposure and use is important to document
• Avoid non-specific diagnoses, (low SOI): such as chest pain
• Always link conditions to complications and comorbidities
Upcoming Webconferences

Through the ICD-10 Success Series, The Valley Hospital will have access to multiple Webconferences that cover a range of ICD-10 Documentation Topics. Please make time to attend topics pertinent to your practice!

Upcoming Sessions:

- November 5th - Respiratory Failure, Pneumonia, COPD
- November 12th – Orthopedic Surgery, Joints, Spine
- November 19th – Diabetes
- December 3rd – Anemia
- And more…

*Please reach out to John McConnell, mccojo@valleyhealth.com if you need assistance registering..
*All sessions are from 12-1pm EST
https://www.surveymonkey.com/s/ICD10-AMICAD
Questions?

Please do not forget to fill out your CME Survey Link!