Pink Puffers and Blue Bloaters: Coding for the Respiratory System in ICD-10-CM/PCS

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About the presenter . . .

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Disclaimer

The views and opinions expressed and written are those of the presenter and in no way represent Presbyterian Healthcare Services or any of its employees.
"They said we could come back in when we have our ICD-10 plan in place."

“They said we could come back in when we have our ICD-10 plan in place.”
Objectives

• Review anatomy & physiology
• ICD-10-CM Guidelines
• Diagnoses
  – Pneumonia
  – Asthma
  – Chronic Bronchitis
  – Emphysema
  – COPD
  – Other
• Procedures
• Coding examples
Anatomy: Trachea and Major Bronchi

Trachea and major bronchi of the lungs

- thyroid cartilage
- cricoid cartilage
- anular (cartilagenous) ligaments
- mucosa of posterior tracheal wall
- right superior lobar bronchus
- left superior lobar bronchus
- middle lobar bronchus
- left inferior lobar bronchus
- right inferior lobar bronchus
- superior division bronchus
- lingular bronchus

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Courtesy: www.kidsbritannica.com
Bronchiole and Alveoli

Branch of pulmonary vein
Branch of pulmonary artery
Bronchiole

Terminal bronchiole
Respiratory bronchiole
Capillary beds
Alveoli

Courtesy: www.virtualmedicalcentre.com
Bronchial Tube and Alveoli
Ciliated Epithelium

Courtesy: www.tutorvista.com
Upper vs. Lower Respiratory Tract

• Upper
  – Nose
  – Sinuses
  – Pharynx
  – Larynx

• Lower
  – Trachea
  – Bronchi
  – Lungs
Let’s look at . . .

Diseases of the Respiratory System
Pneumonia

• An infection or inflammation of the lungs
• Alveoli fill with pus or other liquid resulting in improper oxygenation.
• Caused by bacteria, viruses, mycoplasmas
Pneumonia, unspecified organism

- J18.0 – Bronchopneumonia
- J18.1 – Lobar pneumonia
- J18.2 – Hypostatic pneumonia
- J18.9 – Atypical pneumonia
  - Pneumonia, unspecified
  - Community-acquired pneumonia
  - Organized pneumonia
  - Hospital-acquired
  - Healthcare-associated pneumonia
Pneumonia

• Lobar pneumonia
  – “Lobar pneumonia” is outdated (AHA Coding Clinic, Third Quarter 2009, pgs. 16-17)
  – Type of acute bacterial pneumonia
  – Usually limited to just one lobe of a lung
  – Previously believed to be caused by *Strep. pneumoniae* but there are many causes
  – ICD-10: causative source should be confirmed; if none, assign code J18.1
Illustration - Lobar Pneumonia

www.tabletsmanual.com
Pneumonia

• Bronchopneumonia (lobular pneumonia)
  – Inflammation of lungs which begins in terminal bronchioles. These become clogged with a mucopurulent exudate forming consolidated patches in adjacent lobules.
Bacterial and Viral Pneumonia

• Specific codes for causative organism (or virus), such as Pneumonia due to E. coli (J15.5)

• Tabular Instructional Notes
  – Code also any associated lung abscess (J85.1)
  – Code first associated influenza, if applicable (J09.01-, J09.11-, J10.0-, J11.0-)
Asthma
Asthma

• **Definition** – Bronchi and bronchioles have a muscular layer in walls. In an acute asthma attack, these walls contract, restricting air flow (bronchospasm).

• There may also be inflammation in the bronchi and bronchioles contributing to the process.

• Inflammation remaining between attacks makes bronchioles sensitive to triggers.
Illustration – Asthma

When You Have Asthma

- Bronchial tube
- Muscles: The bronchial tubes are wrapped with muscles
- Bronchiole: Smaller branches of the bronchial tubes
- Mucus lines the bronchial tubes
- Inflamed airway
- Alveoli with trapped air
- Extra mucus

Courtesy: www.med.mui.ac.ir
Asthma

• J45.- Category
• Includes:
  – Allergic (predominantly) asthma
  – Allergic bronchitis NOS
  – Allergic rhinitis with asthma
  – Atopic asthma
  – Extrinsic allergic asthma
  – Hay fever with asthma
  – Idiosyncratic asthma
  – Intrinsic non-allergic asthma
  – Nonallergic asthma
Asthma (J45.-) – Excludes 2 note

• Asthma with COPD (J44.9)
• Chronic asthmatic (obstructive) bronchitis (J44.9)
• Chronic obstructive asthma (J44.9)
Asthma Update - current clinical classification

• **Mild intermittent** – less than or equal to two occurrences per week

• **Persistent Asthma:** Three (3) levels of severity
  – **Mild** – more than two times per week
  – **Moderate** – daily and may restrict physical activity
  – **Severe** – throughout the day with frequent severe attacks limiting the ability to breathe
Asthma

- **Acute exacerbation** – (decompensation marked by increase of patient’s symptoms)
- **Status asthmaticus** – (exacerbation not relieved by typical medical treatment)

Note: If both documented, most severe disease (status asthmaticus) is reported.
Dx: Mild persistent asthma – 3 choices

- J45.30 – Mild persistent asthma, uncomplicated
- J45.31 – Mild persistent asthma with (acute) exacerbation
- J45.32 – Mild persistent asthma with status asthmaticus
Chronic Bronchitis

• **Definition:** Persisting infection of bronchi. Bronchial tube is inflamed causing excessive mucus secretion leading to narrowing of large and small airways.

• Characterized by chronic cough with mucus production lasting at least 3 months of the year for two years in a row.
Illustration: Chronic Bronchitis

With chronic bronchitis, the lining may stay inflamed and the cilia may not function.

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Courtesy: www.webmd.com
Chronic Bronchitis = Blue Bloaters

- Pulmonary capillary bed is undamaged
- Ventilation – measurement of air that reaches alveoli
- Reduced ventilation because of increased obstruction = low O₂ and high CO₂
- Cyanotic (blue)
- Increasing obstruction → residual lung volume increases ("bloating")
Chronic Bronchitis

• J41.- category
  – J41.0 – Simple chronic bronchitis
  – J41.1 – Mucopurulent chronic bronchitis
  – J41.8 – Mixed simple and mucopurulent chronic bronchitis

• J42 – Unspecified chronic bronchitis
  – Chronic tracheitis
  – Chronic tracheobronchitis
Instructional (Chapter) Note

• “When a respiratory condition is described as occurring in more than one site and is not specifically indexed, it should be classified to the lower anatomic site.”

• E.g., tracheobronchitis is classified to bronchitis, J40, not specified as acute or chronic (bronchi are physically lower than the trachea)
Emphysema

- **Definition** – Enlargement of the alveoli and bronchioles and destruction of the alveolar walls.
- This restricts airflow during exhalation resulting in loss of lung elasticity.
- The long term effect is narrowing of the bronchioles and poor oxygenation of the blood.
Illustration - Emphysema

NORMAL ALVEOLI

ALVEOLI WITH EMPHYSEMA

Emphysema

Courtesy: www.wikipedia.org
Emphysema = Pink Puffers

• Destruction of alveolar sacs leads to damaged pulmonary capillary bed
• Blood cannot be oxygenated
• Body compensates with breathlessness and hyperventilation
• Pursed lips
• Using neck muscles and chest muscles to bring air in leads to pink complexion
Emphysema

- J43.1 – Panlobular emphysema (bilateral lungs)
  - Panacinar emphysema
- J43.2 – Centrilobular emphysema – in central part of any lobe
## Emphysema

<table>
<thead>
<tr>
<th>ICD-10-CM</th>
<th>ICD-9-CM</th>
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<tbody>
<tr>
<td>Unilateral pulmonary emphysema [MacLeod’s syndrome] – J43.0</td>
<td>Emphysema – 492.8</td>
</tr>
<tr>
<td>Panlobular emphysema – J43.1</td>
<td></td>
</tr>
<tr>
<td>Centrilobular emphysema – J43.2</td>
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<tr>
<td>Other emphysema – J43.8</td>
<td></td>
</tr>
<tr>
<td>Emphysema, unspecified – J43.9</td>
<td>Emphysematous bleb – 492.0</td>
</tr>
</tbody>
</table>
COPD

• **Chronic Obstructive Pulmonary Disease**
• Obstruction of the movement of air
• Disease of two pathologies:
  – Chronic bronchitis
  – Emphysema
• Used as a nonspecific term to include a variety of chronic respiratory conditions
J44.- Other chronic obstructive pulmonary disease

Includes:

• Asthma with chronic obstructive pulmonary disease
• Chronic asthmatic (obstructive) bronchitis
• Chronic bronchitis with airways obstruction
• Chronic bronchitis with emphysema
• Chronic emphysematous bronchitis
• Chronic obstructive asthma
• Chronic obstructive bronchitis
• Chronic obstructive tracheobronchitis

Code also type of asthma, if applicable (J45.-):
COPD Codes

• J44.0 – COPD with acute lower respiratory infection
  – Use additional code to identify the infection
• J44.1 – COPD with (acute) exacerbation
  – Note: Decompensated = Exacerbation
  – Excludes 2: COPD with acute bronchitis (J44.0)
• J44.9 – COPD, unspecified
10. a. 1) Acute exacerbation of chronic obstructive bronchitis and asthma:

• The codes in categories J44 and J45 distinguish between uncomplicated cases and those in acute exacerbation.

• An acute exacerbation is a worsening or a decompensation of a chronic condition.

• An acute exacerbation is not equivalent to an infection superimposed on a chronic condition, though an exacerbation may be triggered by an infection.
Dx: Asthma with COPD

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<tr>
<td>J44.9 – COPD, unspecified</td>
<td>493.20 – Chronic obstructive asthma, unspecified</td>
</tr>
<tr>
<td>J45.909 – Unspecified asthma, uncomplicated</td>
<td></td>
</tr>
</tbody>
</table>
Code this:

- Exacerbation of COPD due to acute bronchitis
Code this:

- Exacerbation of COPD due to acute bronchitis
- J44.0 – COPD with acute lower respiratory infection
- J20.9 – Acute bronchitis, unspecified
- J44.1 - COPD with (acute) exacerbation
Dx: COPD with RSV pneumonia

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<tbody>
<tr>
<td>COPD with acute lower respiratory infection – J44.0</td>
<td>Viral pneumonia; pneumonia due to respiratory syncytial virus – 480.1</td>
</tr>
<tr>
<td>Respiratory syncytial virus pneumonia – J12.1</td>
<td>COPD, not elsewhere classified - 496</td>
</tr>
</tbody>
</table>
A word on tobacco use . . .

“If we quit smoking, our risk of heart attack will go down 30 percent. But if we quit 5 times, our risk will go down 150 percent!”

Courtesy: www.glasbergen.com
ICD-10 will ask for additional code for tobacco use

- Exposure to environmental tobacco smoke (Z77.22)
- History of tobacco use (Z87.891)
- Occupational exposure to environmental tobacco smoke (Z57.31)
- Exposure to tobacco in perinatal period (P96.81)
- Tobacco dependence (F17.-)
- Tobacco use (Z72.0)
Tobacco Forms

1. Cigarettes
   • F17.21-

2. Chewing tobacco
   • F17.22-

3. Other (pipes, etc.)
   • F17.29-
OTHER RESPIRATORY DIAGNOSES
Respiratory Failure

- **Hypercapnia** – increased amounts of carbon dioxide in the blood
- **Hypoxia** – deficiency of oxygen
- **Criteria (both):**
  - Breathing described as: tachypnea, dyspnea, hypoxemia, respiratory distress, use of accessory muscles, labored breathing, cyanosis, respiratory rate greater than 30
Respiratory Failure Codes

• J96.00 – Acute respiratory failure, unspecified whether with hypoxia or hypercapnia
• J96.01 – Acute respiratory failure, with hypoxia
• J96.02 – Acute respiratory failure, with hypercapnia
• J96.10 – Chronic respiratory failure, unspecified whether with hypoxia or hypercapnia
• J96.11 – Chronic respiratory failure, with hypoxia
• J96.12 – Chronic respiratory failure, with hypercapnia
Respiratory Failure Codes

• J96.20 – Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia
• J96.21 – Acute and chronic respiratory failure, with hypoxia
• J96.22 – Acute and chronic respiratory failure, with hypercapnia
Respiratory Failure Codes

• J96.90 – Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia
• J96.91 – Respiratory failure, unspecified, with hypoxia
• J96.92 – Respiratory failure, unspecified, with hypercapnia
10.b.1) Acute respiratory failure as principal diagnosis

- A code from subcategory J96.0, Acute respiratory failure, or subcategory J96.2, Acute and chronic respiratory failure, may be assigned as a principal diagnosis when it is the condition established after study to be chiefly responsible for occasioning the admission to the hospital, and the selection is supported.
10.b.1) Acute respiratory failure as principal diagnosis (cont.)

by the Alphabetic Index and Tabular List. However, chapter-specific coding guidelines (such as obstetrics, poisoning, HIV, newborn) that provide sequencing direction take precedence.

ICD-10-CM Official Guidelines
10.b.2) Acute respiratory failure as a secondary diagnosis

- Respiratory failure may be listed as a secondary diagnosis if it occurs after admission, or if it is present on admission, but does not meet the definition of principal diagnosis.
ICD-10-CM Official Guidelines

10.b.3) Sequencing of acute respiratory failure and another condition

• When a patient is admitted with respiratory failure and another acute condition, the principal diagnosis will not be the same in every situation. This applies whether the other acute condition is a respiratory condition or nonrespiratory condition. Selection of the principal diagnosis will be dependent on the circumstances of admission.
10.b.3) Sequencing of acute respiratory failure and another condition (cont.)

- If both the respiratory failure and the other acute condition are equally responsible for occasioning the admission to the hospital, and there are no chapter-specific sequencing rules, the guideline regarding two or more diagnoses that equally meet the definition for principal diagnosis (Section II, C.) may be applied.
10.b.3) Sequencing of acute respiratory failure and another condition (cont.)

• If the documentation is not clear as to whether acute respiratory failure and another condition are equally responsible for occasioning the admission, query the provider for clarification.
Influenza Categories

• J09 – Influenza due to **certain identified** influenza viruses
  – Novel influenza A
• J10 – Influenza due to **other identified** influenza virus
• J11 – Influenza due to **unidentified** influenza virus
ICD-10-CM Official Guidelines

10.c. Influenza due to certain identified influenza viruses

• Code only **confirmed** cases of influenza due to certain identified influenza viruses (category J09), and due to other identified influenza virus (category J10). This is an exception to the hospital inpatient guideline Section II, H. (Uncertain Diagnosis).
10.c. Influenza due to certain identified influenza viruses

• In this context, “confirmation” does not require documentation of positive laboratory testing specific for avian or other novel influenza A or other identified influenza virus. However, coding should be based on the provider’s diagnostic statement that the patient has avian influenza, or other novel influenza A, for category J09, or has another
10.c. Influenza due to certain identified influenza viruses

particular identified strain of influenza, such as H1N1 or H3N2, but not identified as novel or variant, for category J10.
10.c. Influenza due to certain identified influenza viruses

• If the provider records “suspected” or “possible” or “probable” avian influenza, or novel influenza, or other identified influenza, then the appropriate influenza code from category J11, Influenza due to unidentifed influenza virus, should be assigned.
Pop Quiz

Coders should never code “suspected” or “possible” cases of avian influenza to a code from category J09, Influenza due to certain identified influenza viruses.

A. True
B. False
Pop Quiz

Coders should never code “suspected” or “possible” cases of avian influenza to a code from category J09, Influenza due to certain identified influenza viruses.

A. True
B. False
10.d.1) Documentation of Ventilator-associated pneumonia (VAP)

- Provider must clearly document the relationship of the pneumonia and the mechanical ventilator use
- An additional code to identify the organism should also be assigned.
- If documentation is unclear, query.
10.d.2) Documentation of Ventilator-associated pneumonia (VAP)

- A patient may be admitted with one type of pneumonia and subsequently develop VAP.
- Both can be coded.
- Principal diagnosis would be the pneumonia diagnosed at the time of admission.
Other diagnoses commonly seen in respiratory diseases
Acute Pharyngitis

- **J02.0 – Streptococcal pharyngitis**
  - Septic pharyngitis
  - Streptococcal sore throat
- **J02.8 – Acute pharyngitis due to other specified organism**
  - Use additional code (B95-B97) to identify infectious agent
Acute Tonsillitis

- J03.00 – Acute streptococcal tonsillitis
- J03.01 – Acute recurrent streptococcal tonsillitis

- Do not use additional code to identify infectious agent
Acute Upper Respiratory Infections

• J01.01 – Acute **recurrent** maxillary sinusitis
• J01.11 – Acute **recurrent** frontal sinusitis
• J01.21 – Acute **recurrent** ethmoidal sinusitis
• J01.31 – Acute **recurrent** sphenoidal sinusitis
• J01.41 – Acute **recurrent** pansinusitis
• J01.81 – Other acute **recurrent** sinusitis
• J01.91 – Acute **recurrent** sinusitis, unspecified
Pulmonary Hypertension

- Primary pulmonary hypertension – I27.0
- Other secondary pulmonary hypertension – I27.2
  - Pulmonary hypertension NOS
  - Code also associated underlying condition
ICD-10-PCS PROCEDURES
Procedures – ICD-10-PCS

• Procedures coded based on:
  – Intent
  – Exact location
  – Types of device(s) left in place

• Intent of the procedure is called the Root Operation

• Physicians are not required to document the Root Operation name but Coder must be able to match the documentation to the definition
Example #1: Percutaneous chest tube placement for left pneumothorax

• Root Operation: Drainage – taking or letting out fluids and/or gases from a body part
  – Drainage of Left Pleural Cavity with Drainage Device, Percutaneous Approach – 0W9B30Z

• Note: This is not an insertion – Why?
Percutaneous chest tube placement for left pneumothorax

- 0 = Medical and Surgical
- W = Anatomical Regions, General
- 9 = Drainage
- B = Pleural Cavity, Left
- 3 = Percutaneous
- 0 = Drainage Device
- Z = No Qualifier
Example #2

• Procedure: Fiberoptic bronchoscopy with bronchial biopsies

• Indications: The patient is a 55-year-old woman with a long smoking history who presents with a right lower lobe mass. The procedure is being done to get diagnostic material.

• Description of procedure: Using Olympus fiberoptic bronchoscope, the entire endobronchial tree was inspected and found to be within normal limits with
Example #2 (cont.)

• the exception of the anterior segment of right lower lobe, which was completely occluded by friable polypoid mass.
• Bronchial biopsies x 6 were taken.
• Specimens:
  • Bronchial biopsy x 6, anterior segment, right lower lobe
Example #2 (cont.)

• Bronchial biopsy

• **Excision** – Cutting out or off, without replacement, a portion of a body part
  – Excision of Right Lower Lobe Bronchus, Via Natural or Artificial Opening Endoscopic, Diagnostic – 0BB68ZX
Bronchial biopsy – 0BB68ZX

• 0 = Medical and Surgical
• B = Respiratory System
• B = Excision
• 6 = Lower Lobe Bronchus, Right
• 8 = Via Natural or Artificial Opening, Endoscopic
• Z = No Device
• X = Diagnostic
Example #3

• Procedure: Bronchoscopy with transbronchial biopsies of the left lower lobe
• Indication: Interstitial lung disease
• Description of procedure: Patient brought to endoscopy room. Bronchoscope passed through the left nasal cavity into the trachea. Using fluoroscopy, multiple transbronchial biopsies were obtained in the left lower lobe.
Example #3 (cont.)

- Transbronchial biopsy
- **Excision** – Cutting out or off, without replacement, a portion of a body part
  - Excision of Left Lower Lung Lobe, Via Natural or Artificial Opening Endoscopic, Diagnostic – 0BBJ8ZX
Transbronchial Biopsy – 0BBJ8ZX

- 0 = Medical and Surgical
- B = Respiratory System
- B = Excision
- J = Lower Lung Lobe, Left
- 8 = Via Natural or Artificial Opening, Endoscopic
- Z = No Device
- X = Diagnostic
Transbronchial vs. Bronchial Biopsy

• Transbronchial biopsy
  – “Trans-” prefix means “across”
  – Transbronchial is across the bronchial wall
  – Transbronchial biopsy is of lung tissue taken through the bronchial wall.

• Bronchial biopsy
  – Biopsy of the bronchus
The moral of the story . . .

The more we plan and learn about ICD-10, the better prepared we will be and . . .

We will all be able to “breathe” a little easier!
Thank you for your time and attention.
Questions?
Resources/References


Resources/References (cont.)

- [http://www.cdc.gov/nchs/icd10cm.htm](http://www.cdc.gov/nchs/icd10cm.htm)
- ICD-10 Procedure Coding System (ICD-10-PCS)
- ICD-10-CM Coding System; ICD-10-CM
  Guidelines. CDC. 2013.