Respiratory System Outpatient Coding, Pt I (ICD-9-CM and CPT)

• Montana Hospital Association
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Objectives

• Review of ICD-9-CM OUTPATIENT coding for common Respiratory system diagnoses (2011 Guidelines) (Part I)

• Review of CPT OUTPATIENT coding for common Respiratory system procedures (Part II)

2011 Official Guidelines

• “In determining the first-listed diagnosis the coding conventions of ICD-9-CM, as well as the general and disease specific guidelines take precedence over the outpatient guidelines.”

2011 Official Guidelines

• Coding guidelines for outpatient & provider reporting of diagnoses will vary in a number of instances from those for inpatient diagnoses, recognizing that:
  – The UHDDS definition of Pr Dx applies only to inpatients in acute, short-term, long-term care and psychiatric hospitals
  – Coding guidelines for inconclusive diagnoses (probable, suspected, rule out, etc.) were developed for inpatient reporting and DO NOT apply to outpatients
Common Diseases

- Asthma
- Bronchitis
- COPD
- Emphysema
- Influenza
- Pleurisy
- Pneumonia
- Pneumonitis
- Pneumothorax
- Respiratory Failure
- TB

Asthma

- NOT COPD, but conditions overlap
- Acute exacerbation
- Requires careful review of
  - Documentation
  - Index, Tabular List
  - Instructional Notes
- Status Asthmaticus

Status Asthmaticus

- Failure to respond to therapy
- When documented, **takes precedence**
  - Sequenced first, supersedes any COPD dx
  - Before acute exacerbation/bronchitis
  - If 5th digit .1 used with asthma code, CAN’T also assign 5th digit .2 asthma code

Asthma Examples

- Chronic asthma with acute exacerbation of COPD 493.22
- Asthmatic bronchitis 493.90
Acute Bronchitis

- Due to infection
- 491.22 When documented WITH COPD
  - DO NOT code 466.0 as well
- 491.22
  - Acute exacerbation of COPD w/acute bronchitis
    - Acute bronchitis supersedes exacerbation
- 491.21
  - COPD with acute exacerbation, but NO acute bronchitis

Bronchitis Example

- Moderate persistent asthma with status asthmaticus
- COPD
- Acute bronchitis
- 493.91, 491.22

COPD (COLD)

- Obstructive chronic bronchitis (491.2x)
  - Acute exacerbation = worsening/decompensation of a chronic condition
  - NOT same as superimposed infection
- Emphysema (492)
- Many variations in documentation
- 496 – ONLY when COPD not specified

COPD Severity

- COPD usually gradually gets worse, can lead to death
  - Rate at which it worsens varies between individuals
- Factors predicting a poorer prognosis are
  - Severe airflow obstruction (low FEV1)
  - Poor exercise capacity
  - Shortness of breath
  - Significantly underweight or overweight
  - Complications - respiratory failure or cor pulmonale
- Continued smoking
- Frequent acute exacerbations
Documentation to Support COPD

- When reviewing record, ID documentation supporting COPD
  - Chest X-ray
  - ABGs, PFTs
  - Dyspnea, breathlessness, tachypnea
  - Diffuse wheezing, diminished breath sounds, prolonged expiration
- Chronic productive cough
- Bronchospasm
- Hypoxemia
- Upper respiratory infection, airway inflammation
- Tachycardia

Hypoxia and COPD

- Coding Clinic - hypoxia is NOT inherent in COPD, reported as add'l dx (799.02), when appropriate
- Coders should clarify IF hypoxia was transient or indicates presence of acute, chronic, or acute-on-chronic hypoxemic respiratory failure
- Hypoxia is integral to acute respiratory failure, so code 799.02 is NOT reported IF acute respiratory failure is documented

COPD Exacerbation

- 491.21
  - acute exacerbation of COPD
  - exacerbation of COPD
  - decompensated COPD
  - decompensated COPD with exacerbation
  - COPD in exacerbation
  - severe COPD in exacerbation
  - end-stage COPD in exacerbation

COPD

- COPD with acute bronchitis (491.22)
  - DO NOT code 466 as well
- 491.22
  - Acute exacerbation of COPD w/acute bronchitis
    - Acute bronchitis supersedes exacerbation
- 491.21
  - COPD with acute exacerbation, but NO acute bronchitis
COPD Example

- Chronic bronchitis in a resident with COPD
- 491.20

Emphysema

- One of COPD conditions
- 492
- Often occurs with asthma or bronchitis

Emphysema Example

- Established patient with emphysema presents complaining of SOB
- Physician
  - Provides inhalation treatment
  - Teaches patient on using nebulizer at home
  - Provides expanded problem-focused examination & medical decision-making of low complexity
- ICD-9-CM 492.8, 786.05
- CPT 94640, 99213-25

Influenza

- 487.x
  - Influenza
  - Suspected/possible/probable avian/swine flu
  - INPATIENT as well (Exception to inpt guidelines)
- 488.xx Identified viruses
  - Confirmed cases ONLY
  - Diagnostic statement of provider is sufficient
Influenza with pneumonia

- H1N1 influenza virus and pneumonia
  - Pts with H1N1 influenza can develop bacterial or viral pneumonia. If documentation doesn’t specify, assign 488.1, Influenza due to identified novel H1N1 influenza virus & 486, Pneumonia, organism unspecified
  - If specific organism/type of pneumonia is specified (e.g., Streptococcus pneumoniae), assign more specific code
- DO NOT use code 487.0, Influenza with pneumonia, for regular seasonal flu
- Sequencing of Pr Dx depends on admission circumstances

Influenza Example

- Mark, a 7-year-old boy, was taken to the ED by his mother, Mary, after she found him unresponsive in his bed. Mary stated that her son was sent home from school 3 days earlier after vomiting. He awoke the next morning with a fever of 102°F, body aches, a cough, a sore throat, and a runny nose. After 2 days of taking OTC children’s cold medicine, Mark still had a fever. Upon arriving at the ED, he was dehydrated, febrile, pale, and shaky. His skin was clammy and sweaty.

Influenza Example 1 Codes

- Influenza A
- Pneumonia, bacterial, R lung
- 487.0
- 482.9

- Examination revealed a temperature of 103.4°F and elevated heart rate and blood pressure. The ED physician also noted Mark had bilateral crackling in his lungs, was wheezing, & had slight difficulty breathing.
- A rapid antigen test was positive for influenza A, and a chest X-ray indicated pneumonia of the R lung, found to be bacterial. Mark was admitted to the hospital and given IV fluids along with naproxen sodium, respiratory therapy with albuterol, high-dose amoxicillin, and azithromycin. His health steadily improved and he was released from the hospital 2 days after being admitted.
- Influenza, influenzal 487.1
  - With
    - bronchopneumonia 487.0
    - respiratory 487.1
    - pneumonia 487.0
    - pneumonia (any form classifiable to 480-483, 485-486) 487.0
Influenza Example

• In January, a healthy male teenager had onset of fever, nasal congestion, cough, N&V, and leg pain. He took OTC meds containing pseudoephedrine and acetaminophen that evening and following morning. On that morning, he was found unresponsive and transported to an ED, where he could not be resuscitated. ED laboratory tests showed a markedly elevated white blood cell count (WBC) of 34,000 cells/mm³, (normal range: 4,000–10,500 cells/mm³) with a neutrophilic predominance,

Influenza Example, cont.

• a substantially elevated troponin of 98.5 ng/ml (normal range: 0–0.39 ng/ml), & a negative toxicology screen. Evaluation of autopsy specimens indicated interstitial pneumonia and focal myocyte necrosis w/o frank myocarditis. IHC of respiratory epithelial cells of bronchi from centrally located lung tissue was + for influenza A virus. Available records revealed no hx of influenza vaccination.

Influenza Example 2 Codes

• ICD-9-CM
  – 487.0 Influenza with pneumonia
  – 480.9 Viral pneumonia, unspecified
  – 079.89 Other specified viral infection

• ICD-10-CM
  – J10.1 Influenza due to other influenza virus with respiratory manifestations
  – J12.9 Viral pneumonia, unspecified
  – B97.89 Other viral agents as the cause of diseases classified elsewhere

Pleurisy

• Pleurisy (acute) (adhesive) (chronic) (costal) (diaphragmatic) (double) (dry) (fetid) (fibrinous) (fibrous) (interlobar) (latent) (lung) (old) (plastic) (primary) (residual) (sicca) (sterile) (subacute) (unresolved) (with adherent pleura) 511.0

• Pleuritis sicca - see Pleurisy
Pleurisy Example

- T.J. has pneumonia and pleurisy. He has taken expectorants and mucolytics, which had no productive effect on him, and he is experiencing pleural pain.
- His doctor has scheduled him for a pleurocentesis and a thoracentesis to aspirate fluid from this thoracic cavity.
- 486, 511.0

Pneumonia

- Upcoding continuing issue for govt payers
  - over utilization of dx codes for specified bacteria (OIG)
- ICD-9-CM
  - Many codes for many types of pneumonia
    - Bacterial
    - Viral
    - Aspiration
- Combination codes AND multiple coding

Pneumonia

- The physician must document a final dx of pneumonia. It is NOT appropriate to add specificity to unqualified dx of pneumonia based on sputum culture, blood culture, or lung bx unless documented by physician.
- Sputum cultures of limited value to ID specific “bug”
  - Since antibiotics often previously administered
  - Many sputum cultures are contaminated, can be misinterpreted
  - If documentation is unclear as to type of pneumonia, the physician should be queried

Pneumonia

  (migratory) (newborn) (organized) (overwhelming) (primary) (progressive) (pseudolobar) (purulent) (resolved) (secondary) (senile) (septic) (suppurative) (terminal) (true) (unresolved) (vesicular) 486
Pneumonia

- **lobar pneumonia**
  - 1. acute bacterial pneumonia with edema, usually in one lung; the most common type is pneumococcal pneumonia
  - 2. pneumococcal pneumonia

- **lobular pneumonia** bronchopneumonia

- Query Physician

Multilobar pneumonia

- Physician documented
- Coding Clinic instructs to query for specific type & to code based on causal organism
- Especially if nonspecific language like 'healthcare-associated' or 'nosocomial' pneumonia

- It also emphasizes that term "lobar pneumonia" is outdated,
  - codes only to 481, pneumococcal pneumonia, whereas other organisms may be involved

- 486 if NO other info

Pneumonia Example

- A 65-year-old man was admitted with bilateral lower-lobe pneumonia. He had felt exhausted for 6 months and had lost 42 lbs in weight. He did not smoke. He was clinically anaemic but had no finger clubbing, lymphadenopathy or splenomegaly. On investigation, he had a low haemoglobin (92g/l) and a raised ESR (84mm/h). White-cell count was very high (98 x 10^9/l) and 95% of these were lymphocytes. The platelet count was normal.

- Serum immunoglobulins were all low: IgG 3.2g/l (NR 7.2-18.0), IgA 0.6g/l (NR 0.8-5.0) and IgM 0.3g/l (NR 0.5-2.0); no paraprotein bands were seen.

- A provisional diagnosis of pneumonia complicating chronic lymphatic leukaemia was made, and confirmed by surface marker studies which showed that 98% of peripheral lymphocytes were monoclonal B cells.

- Sputum cultures grew Haemophilus influenzae.
• Treatment with amoxycillin resulted in rapid clearing of the pneumonia but, in view of his high lymphocyte count and mild anaemia, he was started on chlorambucil to control the lymphoproliferation. He lacked detectable serum antibodies and failed to make IgG antibodies to pneumococci on immunization; further more all three major classes of serum immunoglobulins were low. Prophylactic IgG replacement therapy was started at a dose of 0.4g/kg body weight/month

Pneumonia Ex. Codes

• Pneumonia, Haemophilus influenzae
  • 482.2
• Chronic lymphatic leukaemia
  • 204.10

Pneumonitis

• Pneumonitis (acute) (primary) (see also Pneumonia) 486
• 486 Excludes
  – Hypostatic or passive pneumonia (514)
  – Inhalation or aspiration pneumonia due to foreign materials (507.0-507.8)
  – Pneumonitis due to fumes and vapors (506.0)

507 Pneumonitis due to solids & liquids

• Excludes:
  – fetal aspiration pneumonia (770.18)
• 507.0 Due to inhalation of food or vomitus
  – Aspiration pneumonia (due to):
    • NOS
    • food (regurgitated)
    • gastric secretions
    • milk
    • saliva
    • vomitus
• 507.1 Due to inhalation of oils and essences
  – Lipoid pneumonia (exogenous)
  – Excludes:
    • endogenous lipid pneumonia (516.8)
• 507.8 Due to other solids and liquids
  – Detergent asthma
508 Respiratory conditions due to other & unspecified external agents

- Use add'l E code to ID cause
- 508.0 Acute pulmonary manifestations due to radiation
  - Radiation pneumonitis
- 508.1 Chronic and other pulmonary manifestations due to radiation
  - Fibrosis of lung following radiation
- 508.8 Respiratory conditions due to other specified external agents
- 508.9 Respiratory conditions due to unspecified external agent

Pneumonitis Example

- A 36-year-old farmer was admitted as an emergency w/ headache, fever, SOB, non-productive cough & myalgia - symptoms had come on suddenly. He had no features of URI, but had complained of similar symptoms 3 wks previously & had been treated with antibiotics.
- On exam, had a tachycardia of 120/min, temperature of 38°C & bilateral widespread crepitations. Chest X-ray showed faint mottling in middle & lower zones of both lung fields, but no evidence of hilar enlargement.

- High white-cell count (15 x 10⁹/l) & CRP of 13mg/l. Mantoux test was negative. Lung function studies showed decreased perfusion & decreased compliance of lungs.
- In view of his occupation, precipitations to fungal and actinomycetic antigens were ordered. Serum contained precipitating antibodies to Micropolyspora faeni and A. fumigatus. The probable diagnosis was farmers' lung, a variety of extrinsic allergic alveolitis (EAA) (hypersensitivity pneumonitis) caused by hypersensitivity to antigens found in mouldy hay. His earlier bronchial 'infection' was almost certainly a similar episode.

- His symptoms & X-ray changes gradually improved, although continued to have exertional dyspnoea for 3 wks. He depended on farming for his livelihood and reluctant to change his job. He was strongly advised to dry hay before storage & store it in a dry barn or let someone else handle the hay!
- 6 wks after D/C, he returned w/ acute symptoms after feeding hay to cattle. He had had no immediate SOB, but later again experienced acute fever, malaise, SOB, cough and myalgia. This episode convinced him of direct relationship between hay and his illness; his wife has fed the animals and handled the hay for the last 6 years and patient has remained well.
Pneumonitis Ex. Codes

- Farmer’s Lung - (Extrinsic Allergic Alveolitis - EAA) (hypersensitivity pneumonitis)
- 495.0

Pneumothorax

- Spontaneous pneumothorax is Pr. Dx with the underlying condition coded as secondary
- Pneumothorax due to medical intervention is coded to 997.3, Complications affecting body systems, NEC, respiratory complications.
- Traumatic pneumothorax requires two codes one to describe pneumothorax, and one to identify wound of specified body part
  - E code also

Separate codes

- Pneumothorax (860.0 and 860.1)
- Hemothorax (860.2 and 860.3)
- Pneumohemothorax (860.4 and 860.5)
- Be as specific as possible

512.8 Pneumothorax (acute) (chronic)

- congenital 770.2
- due to operative injury of chest wall or lung 512.1
- fetus or newborn 770.2
- iatrogenic 512.1
- postoperative 512.1
- spontaneous 512.8
  - fetus or newborn 770.2
  - tension 512.0
- sucking 512.8
  - iatrogenic 512.1
  - postoperative 512.1
  - tense valvular, infectional 512.0
  - tension 512.0
  - iatrogenic 512.1
  - postoperative 512.1
  - spontaneous 512.0
- traumatic 860.0
  - with hemothorax 860.4
  - with open wound into thorax 860.5
  - open wound into thorax 860.1
  - tuberculous (see also Tuberculosis) 011.7
Pneumothorax
• Iatrogenic pneumothorax qualifies as a flag in the AHRQ patient safety indicator methodology
• But, Commonly occurs after pulmonary & thoracic spinal surgery
• Coding Clinic, third quarter 2003, p. 19, states that code 512.1 should NOT be reported for a pneumothorax after spinal surgery based on X-ray findings w/o physician concurrence

Respiratory Failure
• Defined by
• Respiration >30 breaths/minute
• Central cyanosis (due to arterial unsaturation, aortic blood carrying reduced hemoglobin)
• Use of accessory muscles of respiration
  – $P_{O_2}$ <60 mm Hg
  – $P_{CO_2}$ >50 mm Hg
  – pH <7.35

Classification of Respiratory failure
• Respiratory failure may be classified as

  • Hypoxemic OR
  • Hypercapnic

  • Acute OR
  • Chronic

Hypoxemic respiratory failure (type I)
• Characterized by a $PaO_2$ of < 60 mm Hg with normal or low $PaCO_2$
• Most common form of respiratory failure
  – associated with virtually all acute diseases of the lung, which generally involve fluid filling or collapse of alveolar units
• Some examples of type I respiratory failure are
  – cardiogenic or noncardiogenic pulmonary edema, pneumonia, and pulmonary hemorrhage
Hypercapnic respiratory failure (type II)
- Characterized by a PaCO₂ of >50 mm Hg. Hypoxemia is common in patients with hypercapnic respiratory failure breathing room air.
- pH depends on level of bicarbonate, which is dependent on duration of hypercapnia.
- Common etiologies include:
  - drug overdose, neuromuscular disease, chest wall abnormalities, and severe airway disorders (eg, asthma, COPD).

Acute vs. Chronic Respiratory Failure
- Acute hypercapnic respiratory failure develops over minutes to hours; therefore, pH is less than 7.3.
- Chronic hypercapnic respiratory failure develops over several days or longer.
  - time for renal compensation & increase in bicarbonate concentration. So, pH usually is only slightly decreased.
- Acute vs. chronic hypoxemic respiratory failure can’t easily be made on basis of ABGs.
  - Clinical markers of chronic hypoxemia, such as polycythemia or cor pulmonale, suggest a long-standing disorder.

Acute Respiratory Failure
- In patient with COPD/other chronic lung disease, acute respiratory failure may be diagnosed by degree of change from patient’s baseline.
- Hypoxia is integral to acute respiratory failure, so code 799.02 is NOT reported if acute respiratory failure is documented.

Chronic Respiratory Failure
- 518.83 is life-threatening condition always due to an underlying condition.
- Usually final pathway of disease process, or a combination of different processes.
- Can arise from abnormality in any components of:
  - respiratory system, CNS, PNS, respiratory muscles and chest wall muscles.
Chronic Respiratory Failure

- Chronic respiratory failure due to COPD
  - sometimes called chronic hypercapnic respiratory failure (CHRF)
- Generally treated w/ long term home $O_2$
- Some patients may be respirator dependent

CRF Severity

- Spirometry can help determine severity of COPD
- The FEV1 (measured post-bronchodilator) is expressed as a percent of a predicted “normal” value based on pt's age, gender, height & weight
- Severity of COPD - FEV1 % predicted
  - Mild - $>80$
  - Moderate - 50-79
  - Severe - 30-49
  - Very severe - $<30$ or Chronic respiratory failure symptoms

Chronic Respiratory Failure

- Code chronic respiratory failure in patient with COPD whether in acute exacerbation or not
- Chronic respiratory failure is
  - predictor of survival in COPD
  - key indicator of severity of illness of COPD
- COPD advancing to COPD with chronic respiratory failure often described as “end stage” COPD
- Pts w/advanced (very severe) COPD sometimes develop respiratory failure, the leading cause of death from COPD

Chronic Respiratory Failure

- When a patient is on home $O_2$, a coder should query the Dr. for chronic respiratory failure. Often physician documents COPD ONLY because he/she thinks it is enough & redundant to write anything else
- Not all COPD pts require chronic $O_2$, so it is important to indicate COPD severity, by documenting associated co-morbid illnesses such as chronic respiratory failure
RF Documentation

- Explain to physician NO ICD-9-CM codes to report levels of FEV1 (forced expiratory volume in one second), volume exhaled during the 1st second of a forced expiratory maneuver, or stages of COPD.
- Payers/Healthcare outcomes profilers won't fully understand need for increased healthcare resources/poor outcomes of pts w/ severe COPD unless associated co-morbid illnesses are reported.

Respiratory Failure

- 518.5 - both ARDS and pulmonary insufficiency following shock, surgery or trauma
- 518.81 - acute respiratory failure or a respiratory failure NOS
- 518.83 - chronic respiratory failure
- 518.84 - acute AND chronic respiratory failure (acute ON chronic)

Respiratory Failure Example

- Pt presents to ED with an acute exacerbation of COPD. ABG test results are consistent w/ acute respiratory failure. The patient is admitted to ICU, treated with steroids and O2, but does not require intubation & mechanical ventilation.
- The hospitalist documents diagnoses as acute exacerbation of COPD with severe hypoxemia.
- Groups to **MS-DRG 192: COPD without Complication or Comorbidity**. $3,946, at a hospital-specific rate of $5,500. Geometric mean LOSD is 3.3 days.

Respiratory Failure Ex, Cont.

- IF circumstances and ABG measurements support it, however, hospitalist can document acute respiratory failure, which yields longer expected LOS and higher payment.
- Acute respiratory failure due to acute exacerbation of COPD
- Groups to **MS-DRG 189: Respiratory Failure**. $7,400, and the geometric mean length of stay is 4.7 days.
Respiratory Failure Example

• A patient with emphysema is admitted to the hospital for acute respiratory failure

• Pr. Dx is acute respiratory failure, 518.81 (See Coding Clinic, first quarter 2005, page 4.)

TB

• Tuberculosis, tubercular, tuberculous (calcification) (calcified) (caseous) (chromogenic acid-fast bacilli) (congenital) (degeneration) (disease) (fibrocaceous) (fistula) (gangrene) (interstitial) (isolated circumscribed lesions) (necrosis) (parenchymatous) (ulcerative) 011.9

TUBERCULOSIS(010-018)

• Includes: infection by Mycobacterium tuberculosis (human) (bovine)

• Excludes:
  – congenital tuberculosis (771.2)
  – late effects of tuberculosis (137.0-137.4)

5th-digits for 010-018

• 0 unspecified
• 1 bacteriological or histological exam not done
• 2 bacteriological or histological exam unknown (at present)
• 3 tubercle bacilli found (in sputum) by microscopy
• 4 tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
• 5 tubercle bacilli not found by bacteriological exam, but tuberculosis confirmed histologically
• 6 tubercle bacilli not found by bacteriological or histological exam, but tuberculosis confirmed by other methods [inoculation of animals]
TB Example

- A 23-y-o man presented w/ 4-week hx of coughing, breathlessness and malaise.
- He had lost 4kg in weight, but no hx of night sweats or haemoptysis. He had returned from holiday in Pakistan 2 months earlier.
- On exam, mildly pyrexial (37.8°C) but had no evidence of anaemia or clubbing. Crepitations were audible over the lung apices; there were no other physical signs.

- Haemoglobin & white cell count normal but CRP was 231 mg/l. Chest X-ray showed bilateral upper & middle-lobe shadowing but no hilar enlargement. Sputum contained acid-fast bacilli and Mycobacterium tuberculosis was subsequently cultured. A Mantoux test was strongly positive. Dx pulmonary tuberculosis.
- Patient was treated with isoniazid and rifampicin for 6 months, together with pyrazinamide for the first 2 months. He went home on chemotherapy when his sputum became negative on direct smear. The chest X-ray is now much improved.

TB Example Codes

- Pulmonary TB - Sputum was found to contain acid-fast bacilli and Mycobacterium tuberculosis was subsequently cultured
  - 011.94

Examples

- Aspiration pneumonia due to Dysphagia 507.0, 787.2
- Pseudomonas pneumonia 482.1
- Pneumonia unspecified 486
- LLL pneumonia 486
- Lobar pneumonia 481
Sequencing Diagnoses Ex.

- Pt sustains open fracture of tibia in MVA. He also has HTN, DM, & COPD. Fx reduced under general anesthesia.
  - Code open fx (823.90)
  - Also code DM (250.00) as this condition can affect wound healing & COPD (496) as it increases anesthetic risk.
- Do NOT code HTN, as it has little impact on fracture care.

Sequencing Dxs

- In scenario above, after surgery patient develops pneumonia and goes to ICU
- The Intensivist uses pneumonia (486) as 1st dx – justifies intensity of care and COPD (496) as important complicating factor in care of pneumonia. Code HTN (401.9) and DM (250.00) as these are also managed in ICU
- Not necessary to code the fx as Orthopedist will manage that condition

E codes for Pulmonology

- Codes for Exposure to chemicals that cause lung damage
- Cause of lung trauma

A&P Resources

A&P Resources

- Norman, W. Pleural cavity and lungs.
  - http://home.comcast.net/~wnor/thoraxlesson2.htm
- Physiology of the Nose. UC San Diego Health System.
- Respiratory Failure. Updated: 9/28/10

Coding Resources

- Coding Guidelines. Missouri QIO. (2006?) COPD, Resp. Failure, etc.
  - http://www.primaris.org/resource_catalog
- Coder’s Voice. Contexto/Media

- Coding Pneumonia Correctly Keeps OIG Relationship Healthy. HSS, Inc.
- CPT 86580 – PPD Test Provided in the Office, 3/10/11.
- CPT 99406 – Billing for Tobacco Cessation Counseling 6/11/10
  - http://medbillingncoding.com/cpt-99406-billing-for-tobacco-cessation-counseling
Coding Resources

• The General Surgery Coding Coach Archives.
  – https://www.karenzupko.com/resources/codingcoach/cc_gensurg.html
• Howard, A. Coding for Chronic Obstructive Pulmonary Disease. For The Record. May 11, 2009

General Resources

  – http://www.bartleby.com/107/
• Respiratory Glossary.
  – http://www.mrcus.com/mss/respgloss.html#accessory
• The Free Dictionary (includes audio pronunciation).
• A free online Talking Dictionary of English Pronunciation
  – http://www.howjsay.com/

ICD-9-CM Resources

• ICD-9-CM Addenda, Conversion Table, and Guidelines. CDC.
  – http://www.cdc.gov/nchs/icd/icd9cm_addenda_guidelines.htm#addenda
• ICD9data.com. The Web's Free Medical Coding Resource. (Converts to ICD-10)
  – http://www.icd9data.com/
ICD 10 CM

- 2011 release of ICD 10 CM
  - http://www.cdc.gov/nchs/icd/icd10cm.htm
  - Preface [PDF - 93 KB]
  - ICD-10-CM Guidelines [PDF - 494 KB]
  - ICD-10-CM PDF Format
  - ICD-10-CM XML Format
  - ICD-10-CM 2010 to 2011 Addenda
  - ICD-10-CM List of codes and Descriptions
  - General Equivalence Mapping Files

ICD-10-CM Resources (New)

- Moorhead. J. Underlying causes:
  - Chapter-specific guidelines for ICD-10-CM. 1/11
  - http://www.justcoding.com/260476/underlying-causes-conventions-for-icd10
  - General coding guidelines for ICD-10. 1/11

Break Time

Fluid Exchanges