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# Looking Forward to ICD 10 Implementation

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The Purpose Of This Handbook Is To Provide A Guide To Improve Documentation Of Hospital Diagnoses And Procedures At UNC Health Care.

The accurate reporting of ICD-9-CM data is derived from documentation provided by UNC Providers and ultimately becomes public knowledge and also impacts the following:

1. **Provider quality and efficiency profiles which get reported in local and national media:**
   - a. *U.S. News & World Report*
   - b. *Health Grades*: [www.healthgrades.com](http://www.healthgrades.com)
   - d. *Leap Frog Group*: [www.leapfroggroup.org](http://www.leapfroggroup.org)
   - e. *Thomson Reuters*: [www.100tophospitals.com](http://www.100tophospitals.com)

2. **Physician payments**
3. **Hospital reimbursement**
4. **Data for development of patient care pathways**

It is essential that we document completely and specifically to ensure accurate reporting of diagnoses and procedures. We will strive to improve communication between providers and the Medical Information Management Department, including the coding staff and clinical documentation specialists.

**Please note** that while this handbook provides suggestions to improve documentation, the ultimate decision regarding diagnosis and procedure specificity resides in the clinical judgment of the treating physician. In addition, the reporting of documented conditions must be in compliance with published coding rules and guidelines. If questions arise, we strongly encourage the treating physician to seek further assistance from the professionals in the UNC Medical Information Management Department at UNC Hospitals.
THE GAP BETWEEN MEDICAL TERMINOLOGY AND CODING LANGUAGE

Although Coding Language Is Based On Medical Terminology, They Are Not Equivalent

Certified Professional Coders (CPC) must follow strict rules and code EXACTLY what the physician says. They are not allowed to make assumptions. The table below shows examples of how physician documentation reflects the Severity of Illness/Risk of Mortality (SOI/ROM) in the coding world.

<table>
<thead>
<tr>
<th>Clinical Documentation</th>
<th>Code</th>
<th>Code Description</th>
<th>SOI/ROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>“acute renal insufficiency”</td>
<td>593.9</td>
<td>Disorder of kidney &amp; ureter</td>
<td>1/1</td>
</tr>
<tr>
<td>“acute renal failure”</td>
<td>584.9</td>
<td>Acute kidney failure, unsp</td>
<td>4/4</td>
</tr>
<tr>
<td>“acute kidney injury”</td>
<td>584.9</td>
<td>Acute kidney injury</td>
<td>4/4</td>
</tr>
<tr>
<td>“chronic renal insufficiency”</td>
<td>585.9</td>
<td>CKD unspecified</td>
<td>1/1</td>
</tr>
<tr>
<td>“CKD, Stage III”</td>
<td>585.3</td>
<td>CKD stage 3</td>
<td>2/2</td>
</tr>
<tr>
<td>“End stage renal disease”</td>
<td>585.6</td>
<td>ESRD</td>
<td>3/3</td>
</tr>
<tr>
<td>“malnutrition”</td>
<td>263.9</td>
<td>Malnutrition, unspecified</td>
<td>2/1</td>
</tr>
<tr>
<td>“severe malnutrition”</td>
<td>262</td>
<td>Severe Malnutrition</td>
<td>3/2</td>
</tr>
<tr>
<td>“AMS”</td>
<td>790.7</td>
<td>Altered Mental Status</td>
<td>1/1</td>
</tr>
<tr>
<td>“AMS due to encephalopathy”</td>
<td>348.30</td>
<td>Encephalopathy</td>
<td>2/2</td>
</tr>
<tr>
<td>“delirium”</td>
<td>780.79</td>
<td>Alteration of consciousness</td>
<td>1/1</td>
</tr>
<tr>
<td>“delirium caused by cerebral atherosclerosis”</td>
<td>290.41 437.0</td>
<td>Vascular dementia with delirium Cerebral atherosclerosis</td>
<td>2/2</td>
</tr>
</tbody>
</table>

“And Then The Documentation Is Gone, And All That’s Left Is A Set Of Numbers.”

Pamela P. Bensen MD, Physician Documentation Educator
IT APPEARS AS THOUGH COMPLICATIONS ARE OCCURRING IN HEALTHY PATIENTS...

When The Patient’s Severity of Illness/ Risk of Mortality (SOI/ROM) Is Not Accurately Reflected by Physician Documentation ... and a Poor Outcome Occurs

All ICD-9-CM codes have established Severity of Illness (SOI) and Risk of Mortality (ROM) scores based on four levels:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Major</td>
<td>4</td>
</tr>
</tbody>
</table>

CMS uses these scores to determine the average SOI and ROM for the patients of a hospital or physician. It determines the Mortality Index, based on risk adjustment, to determine the ratio of actual deaths to expected deaths.

**Occasionally, Terminology Used By Physicians Is Not Codeable.**

<table>
<thead>
<tr>
<th>Clinical Documentation</th>
<th>Code</th>
<th>Codes Description</th>
<th>SOI/ROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>“contrast nephropathy”</td>
<td>--</td>
<td>Not codable</td>
<td>-</td>
</tr>
<tr>
<td>“mass effect”</td>
<td>--</td>
<td>Not codable</td>
<td>-</td>
</tr>
<tr>
<td>“midline shift”</td>
<td>--</td>
<td>Not codable</td>
<td>-</td>
</tr>
<tr>
<td>“toxic nephropathy”</td>
<td>584.5</td>
<td>Acute kidney failure with lesion of tubular necrosis (ATN)</td>
<td>3/3</td>
</tr>
<tr>
<td>“brain compression”</td>
<td>348.4</td>
<td>Compression of brain</td>
<td>4/4</td>
</tr>
<tr>
<td>“cerebral edema”</td>
<td>348.5</td>
<td>Cerebral edema</td>
<td>4/4</td>
</tr>
<tr>
<td>“brain herniation”</td>
<td>348.4</td>
<td>Compression of brain</td>
<td>4/4</td>
</tr>
</tbody>
</table>

“Midline shift”, “mass effect” and “contrast-induced nephropathy” are often used to describe patho-physiology of the brain or kidney, but none of these terms can be translated into coding language. The patient may be receiving close monitoring in the ICU, but the documentation doesn’t reflect the SOI/ROM.
THE PHYSICIAN QUERY

A tool for CPC’s and Clinical Documentation Specialists to clarify any clinical documentation that is conflicting, nonspecific or missing.

The query helps to establish a diagnosis which more accurately reflects the patient’s severity of illness and risk of mortality. The more complete the documentation the better the medical record can reflect the patient’s true medical conditions.

GENERAL DOCUMENTATION GUIDELINES

HISTORY & PHYSICAL: Document in DIAGNOSIS FORM the REASON for Inpatient Admission

- The cause of presenting symptom(s)
- If cause not definitive, indicate “suspected”, “possible”, “likely”
- Clarify, after testing, any suspected diagnoses eliminated

DISCHARGE SUMMARY: Document All Diagnoses Even If Resolved At Time of Discharge

Principle Diagnosis – the condition established after study to be chiefly responsible for admission of patient to the hospital. Secondary Diagnosis – all conditions that coexist at time of admission, develop subsequently, or affect patient care for current hospital episode. Additional conditions affect patient care in terms of:
  - Clinical evaluation or
  - Therapeutic treatment or
  - Diagnostic procedures or
  - Extended length of hospital stay or
  - Increased nursing care and/or monitoring

PLEASE CONSIDER...

If you don’t know what is CAUSING THE PATIENT’S SYMPTOM OR CONDITION, that is also equally important to document:

- Not every patient presents with classic symptoms;
- It is important to document the CAUSE of the SUSPECTED condition;
- And document the PLAN to rule in or out the suspected condition.
CAPTURING A DIAGNOSIS FOR INPATIENT CODING PURPOSES DOES NOT REQUIRE THAT A DIAGNOSIS BE CONFIRMED

Several terms are acceptable for use when a diagnosis is unconfirmed. When these terms are used to qualify a diagnosis, the diagnosis can be coded as if it were established.

ACCEPTABLE TERMS TO QUALIFY A FINAL DIAGNOSIS AT THE TIME OF DISCHARGE ARE:

- “Possible”
- “Probable”
- “Likely”
- “Suspected”
- “Questionable”
- “Consistent with”
- “Suggestive of”
- “Compatible with”
- “Concern for” (and its variants such as “concerned about”, etc.) is NOT ACCEPTABLE. The definition according to Merriam-Webster is “to cause anxiety or uneasiness, a troubled or anxious state of mind”. It is fine to be “concerned” about your patient with a “possible” abscess but not to be concerned for an abscess.

CLARIFY ALL DIAGNOSES PRESENT ON ADMISSION (POA)

Document each diagnosis not listed on H&P as:

POA, Not POA, Unable To Determine If POA.

If a condition is POA and the physician does not document it as such, IT CAN APPEAR THAT THE PATIENT RECEIVED POOR QUALITY OF CARE FROM THE PHYSICIAN/HOSPITAL. For example, a pressure ulcer not documented as POA will result in the hospital being blamed for poor care.
HOSPITAL ACQUIRED CONDITIONS (HACs)

Examples:
- Catheter associated urinary tract infections
- Ulcers: Identify type (Pressure/Diabetic) and location and stage. You may request a wound care consult if uncomfortable with staging.
- DVTs if identified after study (i.e. 2nd day of stay)
- Sepsis if identified after study (i.e. 2nd day of stay)

Reporting of CMS' HACs are identified via ICD-9-CM codes and modifiers as those conditions which are reasonably preventable and able to be identified via coded information.

Based on provider’s documented clinical interpretation—cannot code from diagnostic results

“Y” yes POA
“N” not POA
“U” not determinable if POA
“W” clinically not possible to determine POA

CMS LIST OF HOSPITAL ACQUIRED CONDITIONS (HACs)

- Foreign Object Retained After Surgery
- Air Embolism
- Blood Incompatibility
- Pressure Ulcer Stages III & IV (unless present on admission)
- Falls & Trauma: Fracture, Dislocation, Intracranial Injury, Crushing Injury, Burn, Other Injuries
- Catheter-Associated Urinary Tract Infection (UTI) (unless present on admission)
- Vascular Catheter – Associated Infection
- Manifestations of Poor Glycemic Control: Diabetic Ketoacidosis, Non-ketotic Hyperosmolar Coma, Hypoglycemic Coma, Secondary Diabetes with Ketoacidosis, Secondary Diabetes with Hyperosmolarity
- Surgical Site Infection: (following certain orthopedic procedures and)
  - Mediastinitis, following CABG
  - Orthopedic Procedures: Spine, Neck, Shoulder, elbow
- Surgical Site Infection Following Bariatric Surgery for Obesity: Laparoscopic Gastric Bypass, Gastroenterostomy, Laparoscopic Gastric Restrictive Surgery
- Deep Vein Thrombosis & Pulmonary Embolism Following Certain Orthopedic Procedures: Total Knee Replacement, Hip Replacement
ENCEPHALOPATHY

BACKGROUND
ENCEPHALOPATHY is a general term for any diffuse disease of the brain that alters brain function or structure.

ENCEPHALOPATHY CAN BE DIVIDED INTO THREE MAJOR GROUPS:

- HYPOXIC ENCEPHALOPATHY
- METABOLIC ENCEPHALOPATHY
- TOXIC ENCEPHALOPATHY

ENCEPHALOPATHY CAN BE FURTHER IDENTIFIED AS:

<table>
<thead>
<tr>
<th>Septic</th>
<th>Hepatic</th>
<th>Uremic</th>
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</thead>
<tbody>
<tr>
<td>Hyponatremic</td>
<td>Hyernatremic</td>
<td>Hypoglycemic</td>
</tr>
<tr>
<td>Wernicke’s</td>
<td>Infectious</td>
<td>Medication induced</td>
</tr>
<tr>
<td>Post transplant</td>
<td>Glycine</td>
<td>Static</td>
</tr>
<tr>
<td>Mitochondrial</td>
<td>Hypertensive</td>
<td>Lyme</td>
</tr>
<tr>
<td>Hashimoto's</td>
<td>Spongiform</td>
<td>HIV/AIDS associated.</td>
</tr>
</tbody>
</table>

DEFINITIONS

- ENCEPHALOPATHY: an acute condition of global cerebral dysfunction. In most cases, is preceded by the various terms that describe the reason, cause, or special condition of the patient that leads to brain malfunction.

Major Symptoms of Encephalopathy:

- **Decreased level of consciousness**, fluctuating alertness, confused, agitated, delirious, lethargy, somnolent, drowsy, obtunded, stupor, coma, comatose.
- **Altered Mental Status** (a symptom of encephalopathy that can have multiple causes)
- **Delirium** (sudden severe confusion and rapid brain function that can be a manifestation of other conditions, including: infection, drug toxicity or withdrawal, seizures, brain tumor, head injury, and metabolic disturbances).
ENCEPHALOPATHY...continued

**DOCUMENTATION NEEDS**

**ON ADMISSION** - DOCUMENT the RELATIONSHIP of the MENTAL STATUS CHANGE to the DISEASE PROCESS.

- **EXAMPLE 1**) Patient presents with acute delirium, confusion, or lethargy with UTI, and acute renal failure.
  - **DOCUMENTATION MAY REFLECT** "Patient admitted with Acute Encephalopathy, UNCERTAIN whether this is METABOLIC VS. INFECTIOUS PROCESS causing this delirium (symptom), "will further workup during admission."

- **EXAMPLE 2**) Patient may present with acute confusion, waxing and waning mental status, with acute renal failure, severely acidotic, and it is determined during initial workup, that cause of AMS(encephalopathy) is likely metabolic, therefore
  - **DOCUMENTATION MAY REFLECT** "waxing and waning mental status LIKELY DUE TO  Metabolic Encephalopathy"

**DURING ADMISSION and at DISCHARGE**

SPECIFY TYPES/CAUSES of ENCEPHALOPATHY - Document the relationship and any treatment or care to that cause.

- Encephalopathy diagnosis may also be documented with Alzheimers, Chronic Dementia, and other Neurodegenerative disorders when there is an acute change from the baseline.

- It is possible to have a neurodegenerative diagnoses such as Alzheimer's diagnosis, or a chronic dementia diagnosis, as well as an overlying encephalopathy, If this is an acute change from the baseline for this patient
DEMENTIA

DEFINITIONS

- **Dementia** is a loss of mental skills that causes problems with memory/thinking. It is a brain dysfunction that can occur with other conditions. These include various diseases, infections, strokes, head injuries, drugs, and nutritional disturbances.
  - A patient may have psychological problems that supersede the decreased brain function from dementia as well. Be sure to clarify this information.

DOCUMENTATION NEEDS

DURING ADMISSION and at DISCHARGE
Identify any suspected underlying...

- **CAUSES: Organic/ Psychological / Other Specified**

<table>
<thead>
<tr>
<th>Acute Stroke</th>
<th>Alzheimer’s Disease</th>
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</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>Drug/Alcohol Induced</td>
</tr>
<tr>
<td>Encephalopathy</td>
<td>Lewy Body Dementia</td>
</tr>
<tr>
<td>Traumatic Intracranial Injuries</td>
<td>Late Effects of Stroke</td>
</tr>
<tr>
<td>TIA</td>
<td>Generalized Cerebral Ischemia</td>
</tr>
<tr>
<td>Seizure Disorder</td>
<td>Normal Pressure Hydrocephalus</td>
</tr>
<tr>
<td>Psychiatric Illness</td>
<td>Parkinson’s</td>
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</table>

- **NATURE**

<table>
<thead>
<tr>
<th>Coma</th>
<th>Confusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senile</td>
<td>Delirium</td>
</tr>
<tr>
<td>Behavioral Disturbances</td>
<td>Exhaustion</td>
</tr>
<tr>
<td>Alcohol/Drug</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>Psychosis</td>
<td>Vegetative State</td>
</tr>
<tr>
<td>Stupor</td>
<td></td>
</tr>
</tbody>
</table>

- **ACUITY**

<table>
<thead>
<tr>
<th>Acute</th>
<th>Chronic</th>
<th>Acute on Chronic</th>
</tr>
</thead>
</table>
# RESPIRATORY FAILURE

## DEFINITIONS

### ACUTE RESPIRATORY INSUFFICIENCY/ACUTE RESPIRATORY DISTRESS (one or more of the following indicators)

- Mild to moderate respiratory distress
- Elevated RR > 26, use of accessory muscles, labored breathing at rest
- Need for increase cont flow O2 (> 2-3L NC - Pt. w/o known lung dz/ hypoxia)
- Use of frequent nebulizers (i.e., q 2 hour albuterol)
- Need for monitoring in step down unit (rather than floor) because of respiratory status but does not meet criteria for acute respiratory failure

### ACUTE POST-OPERATIVE RESPIRATORY INSUFFICIENCY

Other acceptable terms: Shock lung, drowned lung, wet lung syndrome, adult respiratory distress syndrome (ARDS) following trauma/shock/surgery.

1) Less severe than failure; 2) Require supplemental oxygen only
3) Intensified Observation

### ACUTE RESPIRATORY FAILURE (one or more of following indicators)

- Moderate to severe respiratory distress
- Elevated RR > 32, use of accessory muscles, labored breathing at rest
- Need for cont nebs, Bi-PAP / C-PAP or control ventilation or for intubation
  - In patients without preexisting lung disease: 1) pCO2 > 50 or pO2 < 60 on ABG. 2) Elevated HCO3 on chem 7 also used as indicator – not as useful.
- In patients with preexisting lung disease:
  - pCO2 markedly elevated from baseline or pO2 lower than baseline

### ACUTE POST OPERATIVE RESPIRATORY FAILURE (one or more of following indicators)

- Unanticipated use of mechanical vent beyond 48-72 hours post surgery
- Unanticipated use of high flow O2 (ie > 3L) > 48-72 hours post surgery in Pt. w/o chronic underlying lung disease or previous O2 requirement.
  - **Exclusions:** 1) Patients maintained on vent due to anticipated return to OR
  2) Patients being purposely maintained on ventilator after surgery because of weakness, chronic lung disease, massive trauma

### CHRONIC RESPIRATORY FAILURE (one or more of following indicators)

- Persistent decrease in respiratory function prior to admit.
- Chronic continuous home O2
- Chronic hypercarbia due to respiratory condition (ie pCO2 > 40)
- Use of chronic steroids for underlying lung pathology
RESPIRATORY FAILURE...continued

**DOCUMENTATION NEEDS**

**IN PROGRESS NOTES AND DISCHARGE SUMMARY**

- Document if the patient had acute respiratory failure upon admission and it resolved.

**NAME/DOCUMENT THE BASIC DISEASE CAUSING THE RESPIRATORY FAILURE.**

- Clarify the acute process on top of a chronic disease
  - i.e., Pulmonary Embolism, Acute Asthma/COPD Exacerbation, Hospital Acquired Pneumonia, Aspiration Pneumonia, Congestive Heart Failure
- For example: acute respiratory failure can be due to pneumonia in a patient with chronic respiratory failure from cystic fibrosis.

**DOCUMENT ACUITY**

- Whether the respiratory failure is acute, chronic, or with acute decompensation (acute on chronic)
- Document clinical signs, symptoms, and any laboratory findings to support the diagnosis of acute respiratory failure, when present.
PNEUMONIA

BACKGROUND

FOR CODING PURPOSES, PNEUMONIAS CAN BE IDENTIFIED BY:

- Type of organism causing infection (bacteria, virus, fungi)
- Aspiration pneumonitis (includes aspiration pneumonia)
- Empyema (infected pleural effusion)
- Lung abscess

DEFINITIONS

- **PNEUMONIA** is an infection of one or both lungs usually caused by bacteria, viruses, or fungi.
- **EMPYEMA** is an accumulation of pus and necrotic tissue that can be found in the pleural space.
- **ASPIRATION PNEUMONIA** is an inflammation of the lungs due to the sucking in of food particles or fluids into the lungs.

DOCUMENTATION NEEDS

DOCUMENT RELATIONSHIP WITH ASSOCIATED CONDITIONS

- Acute Pulmonary Edema
- ARDS (Acute Respiratory Distress Syndrome)
- Acute and/or Chronic Respiratory Failure
- Acute and/or Chronic Systolic/Diastolic Heart Failure
- Lung Cancer
PNEUMONIA...continued

IN PROGRESS NOTES AND DISCHARGE SUMMARY

- Link the organism to the pneumonia
- *Stating a positive sputum culture will not suffice for the link*
  
  *Example: document as Klebsiella Pneumonia.*
- *When Pneumonia/Pneumonitis is Due to Aspiration* include this in your notes and in your discharge summary.

FOR DOCUMENTATION AND CODING REFERENCE

CONSIDER THE TABLE BELOW

<table>
<thead>
<tr>
<th>COMPLEX PNEUMONIA</th>
<th>SIMPLE PNEUMONIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPLEX PNEUMONIA</strong></td>
<td><strong>COMMON ANTIBIOTICS</strong></td>
</tr>
<tr>
<td>Aspiration</td>
<td>Ancef</td>
</tr>
<tr>
<td>Pseudomonas</td>
<td>Keflex</td>
</tr>
<tr>
<td>Staphylococcus</td>
<td>Cefotan</td>
</tr>
<tr>
<td>Klebsiella</td>
<td>Ceftin</td>
</tr>
<tr>
<td>Candida/yeast</td>
<td>Rocephin</td>
</tr>
<tr>
<td>Serratia</td>
<td>Gentamycin</td>
</tr>
<tr>
<td>Pneumocystic</td>
<td>Imipenim</td>
</tr>
<tr>
<td>Carinia</td>
<td>Ticarcillin</td>
</tr>
<tr>
<td>E coli</td>
<td>Tobramycin</td>
</tr>
<tr>
<td>Proteus</td>
<td></td>
</tr>
<tr>
<td>Enterobacter</td>
<td></td>
</tr>
<tr>
<td><strong>SIMPLE PNEUMONIA</strong></td>
<td><strong>COMMON ANTIBIOTICS</strong></td>
</tr>
<tr>
<td>Viral</td>
<td>Levaquin</td>
</tr>
<tr>
<td>Influenza</td>
<td>Rocephin</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>Claforan</td>
</tr>
<tr>
<td>H. Influenza</td>
<td>Zithromax</td>
</tr>
<tr>
<td>Community Acquired</td>
<td></td>
</tr>
<tr>
<td>Bacterial</td>
<td></td>
</tr>
<tr>
<td>Streptococcus</td>
<td></td>
</tr>
<tr>
<td>Bronchopneumonia</td>
<td></td>
</tr>
<tr>
<td>Lobar pneumonia</td>
<td></td>
</tr>
</tbody>
</table>

REMEMBER

If Pneumonia only documented as HAP (Hospital Acquired) or CAP (Community Acquired)...*Coding translates to a “general” code for Unspecified Pneumonia.*
SEPSIS

DEFINITIONS

- **BACTEREMIA** Refers to the presence of bacteria in the blood without systemic symptoms.
- **SIRS Systemic Inflammatory Response Syndrome** is a clinical response to a nonspecific insult of either infectious or noninfectious origin. Can be caused by one or a combination of Ischemia, Inflammation, Trauma, Infection.
- **SEPSIS** is an extreme immune system response to an infection that has spread throughout the blood and tissues.
- **SEVERE SEPSIS/SEPTIC SHOCK** Meets the Sepsis/SIRS criteria AND is association with organ dysfunction/failure, Hypoperfusion, or Hypotention.

DOCUMENTATION NEEDS

**DURING ADMISSION and at DISCHARGE**

**Document suspected source(s) of infection**

- Pneumonia, Urinary Tract Infection, Postoperative Infection, Cellulitis, Peritoneal Abscess, Meningitis
- Document any related organ failure: Acute Renal Failure, Septic Shock, Acute Respiratory Failure, Hepatic Failure, Critical Care Myopathy, Metabolic Encephalopathy

**Document if positive blood cultures clinically significant**

- “MRSA Sepsis”, “E.Coli Sepsis due to indwelling foley”
- “Blood cultures are a contaminant only”

**REMEMBER**

**THE ABSENCE OF POSITIVE BLOOD CULTURES DOES NOT PRECLUDE THE DIAGNOSIS OF SEPSIS.**
# SEPSIS ...continued

FOR DOCUMENTATION AND CODING REFERENCE  
CONSIDER THE TABLE BELOW

| SIRS | 1. Two of the Four criteria must be met *(usually present)*  
|      | a. Temp <36C (96F) or >38C (100.9F)  
|      | b. WBC < 4K or >12K; or >10% bands  
|      | c. Tachycardia: HR > 90 BPM  
|      | d. Tachypnea: RR > 20 or PCO2 > 32 on ABG  
|      | e. If only last 2, shouldn’t call it SIRS  
|      | 2. Does NOT require infx (e.g. trauma, pancreatitis, burns)  
|      | 3. Must deviate from physiologic baseline for patient  

## SEPSIS

| SIRS Criteria ...Plus.... | A. Known or suspected infection  
|                          | B. Does NOT require organ dysfunction  
|                          | C. Bacteremia does NOT mean sepsis, only supports diag  
|                          | D. Urosepsis has no meaning. Don’t use the term  
|                          | E. Criteria that support the diagnosis, but aren’t necessary  
|                          | 1. Hyperglycemia without presence of DM  
|                          | 2. Elevated CRP  
|                          | 3. Hypotension (SBP <90, fall of 40, MAP<70)  
|                          | 4. Lactate >1  
|                          | 5. Skin changes: decreased cap refill or mottling  
|                          | 6. Cardiac index > 3.5 L-min  
|                          | 7. Coagulopathy: INR > 1.5 or PTT >60  
|                          | 8. Blood infection: (NOT a diagnosis requirement)  

## SEVERE SEPSIS

| Sepsis ....Plus.... Acute Organ Dysfunction: | a. Encephalopathy (brain)  
|                                              | b. Sepsis-induced hypotension (cardiovascular/ 
|                                              | circulatory)  
|                                              | c. Hypoxemia (respiratory)  
|                                              | d. Rise in Cr of >0.5 or acute oliguria (renal)  
|                                              | e. Ileus (GI)  
|                                              | f. Thrombocytopenia (<100k)  
|                                              | g. Hyperbilirubinemia (>4) (liver)  

## SEPTIC SHOCK

| Sepsis .....Plus...... Refractory Hypotension | 1. SBP <90 or MAP <60 or drop of 40mmHg of SBP from baseline  
|                                              | 2. Hypotension despite adequate fluid resuscitation/cardiac  
|                                              | output  
|                                              | a. Pressors generally needed  
|                                              | b. Adequate C.O. differentiates from cardiogenic shock  
|                                              | 3. Children: BP < 2 standard deviations of normal  

DECUBITUS ULCERS

BACKGROUND
The National Pressure Ulcer Advisory Panel (NPUAP) has redefined the definition of a pressure ulcer and the stages of pressure ulcers. According to the NPUAP, a pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction.

DEFINITIONS
❖ DECUBITUS ULCER: A bed sore. This type of skin ulcer can come from lying in one position too long, especially over a bony prominence.

DOCUMENTATION NEEDS
IN PROGRESS NOTES AND DISCHARGE SUMMARY

The Decubitus ulcer must be documented by the patient’s provider.

WE NEED TO KNOW FOLLOWING THREE THINGS ABOUT THE DECUBITUS ULCERS:

1. Was the decubitus ulcer PRESENT ON ADMISSION?
2. What is the SITE of the decubitus ulcer?
3. What is the STAGE of the decubitus ulcer?

STAGES OF DECUBITUS ULCERS

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Persistent focal erythema</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Blistering</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Full thickness loss involving damage or necrosis into subcutaneous soft tissue</td>
</tr>
<tr>
<td>Stage 4</td>
<td>Full thickness loss with necrosis or soft tissue through the muscle, tendon or tissues around underlying bone</td>
</tr>
<tr>
<td>Unstageable</td>
<td>The ulcer is covered by eschar, slough or has been treated with a skin or muscle graft</td>
</tr>
</tbody>
</table>
DEBRIDEMENTS

BACKGROUND
Debridement encompasses enzymatic debridement (as with proteolytic enzymes), mechanical nonselective debridement (as in a whirlpool), and sharp debridement (by surgery).

DEFINITIONS
❖ DEBRIDEMENT: The act of debriding (removing dead, contaminated or adherent tissue or foreign material).

DOCUMENTATION NEEDS
IN PROGRESS NOTES AND/OR OPERATIVE REPORT
(Performed at bedside or in the operating room)

💡 We need to know the following three things:

1) DEPTH DEBRIDED - Down to what Layer (for example, skin/subcutaneous, fascia, muscle, bone)
2) INSTRUMENT(S) USED – i.e. scalpel, knife, versa jet
3) The term "EXCISIONAL" or "NON-EXCISIONAL"

PER CODING AND REPORTING GUIDELINES:

➢ The use of a sharp instrument does not always indicate an excisional debridement was performed.

➢ Excisional debridements must be described as a cutting away of tissue and not the minor removal of loose fragments with scissors or scraping away tissue with a sharp instrument.
CARDIOVASCULAR

HEART FAILURE

BACKGROUND

Can be described as the inability of the heart to keep up with the demands on it and failure of the heart to pump blood with normal efficiency. The heart is unable to provide adequate blood flow to other organs such as the brain, liver and kidneys.

DEFINITIONS:

HEART FAILURE

- **Left side of heart** (congestive heart failure - fluid in lungs)
- **Right side of heart** (Edema, Ascites, with jugular venous distention)
- **Both sides of heart**

Many causes of congestive heart failure

- CAD leading to heart attacks
- Primary muscle weakness from viral infections or toxins
- Heart valve disease causing heart muscle weakness
- Hypertension
HEART FAILURE...continued

**DOCUMENTATION NEEDS**

IN PROGRESS NOTES AND DISCHARGE SUMMARY

Clarify TYPE:

- **Systolic** – consider a reduced ejection fraction heart failure w LVEF < or = 50%
- **Diastolic** – consider a preserved ejection fraction
- **Both Systolic and Diastolic**

Clarify ACUITY:

- Acute, Acute on Chronic or Chronic only

WE NEED TO KNOW

1) Is the **VENTRICULAR FAILURE** considered left, right, or both?

2) If **LEFT VENTRICULAR FAILURE**:
   - Is it acute CHF?
   - Is it chronic heart failure (any causative cardiomyopathy)?
   - Is it a decompensation of a chronic heart failure?

3) Did patient have an **acute MI within 8 weeks of current admission**? (Changes to 4 weeks with ICD-10)
   - Was the acute MI the cause of the current decompensation?

4) Any **RELATIONSHIP** with Chronic Renal Failure, volume overload, or noncardiac pulmonary edema that led to the acute heart failure?

5) **Etiology** of Cardiomyopathy?
   - Ischemic
   - Hypertensive
   - Alcoholic
   - Specific Heart Valve(s)
   - Viral
HYPERTENSION and HYPERTENSIVE HEART DISEASE

BACKGROUND

- Up to 10% of individuals with chronic hypertension develop enlarged ventricles (LVH). Enlargement of the left ventricle puts the individual at greater risk of death due to CHF, Heart Rhythm irregularities, and heart attack.
- For these reasons, an enlarged ventricle in association with hypertension, is considered a definitive sign of hypertensive heart disease.

DEFINITIONS

HYPERTENSIVE HEART DISEASE

Refers to heart conditions that develop as a result of uncontrolled hypertension, and includes heart failure and other cardiac complications of hypertension when a causal relationship between the heart disease and hypertension is stated or suspected.

ACCELERATED/MALIGNANT HYPERTENSION

If the hypertension is severe and managed acutely consider a diagnosis of Accelerated/Malignant hypertension. Can be characterized by rapidly rising blood pressure, usually in excess of 140 mm Hg diastolic with the findings of visual impairment and symptoms or signs of progressive cardiac failure.

(UNCONTROLLED/ UNCOMPLICATED/ URGENCY/ EMERGENCY) HYPERTENSION

This does not necessarily refer to malignant hypertension. Failure of diuretics to control hypertension often indicates a need for antihypertensive drugs, such as beta-blockers.

**ICD-9-CM does not have a code to specify “uncontrolled”, and the hypertension is classified to its type and nature.**
HYPERTENSION
HYPERTENSIVE HEART DISEASE...continued

**DOCUMENTATION NEEDS**

IN PROGRESS NOTES AND DISCHARGE SUMMARY

For documentation and coding reference consider...

**HYPERTENSION** is defined by any one of the following:

- History of HTN diagnosed & treated w/ med, diet and/or exercise
- Prior documentation of SBP > 140 and/or DBP > 90 for patients without DM or CKD, or
- Prior documentation of SBP > 130 and/or DBP > 80 on at least 2 occasions for patients with DM or CKD, or
- Currently on pharmacologic therapy for treatment of HTN.

**HYPERTENSIVE HEART OR HYPERTENSIVE KIDNEY DISEASE**

includes these conditions due to HTN:

**Hypertensive heart disease (benign, malignant, NOS):**

- Cardiomegaly-enlargement due to (d/t) HTN
- Cardiomyopathy-synonym for hypertensive heart disease
- CV disease-functional abnormality of the heart & blood vessels
  - Any of the above with/without HF
  - Specify if acute/chronic/both and if Sys/Dias/Comb HF

**Hypertensive kidney disease (benign, malignant, NOS):**

- Arteriolar nephritis-due to arteriolar ischemia
- Arteriosclerotic kidney or arteries, nephritis—thickening or loss of elasticity d/t HTN
- HTNive nephropathy-functional disease d/t HTN
- HTNive renal failure-cessation of excretory kidney fx d/t HTN
- HTNive chronic uremia-toxicity d/t by-products of protein metabolism d/t HTN
  - All of the above are with or without documented CKD stage or ESRD d/t HTN
CARDIOGENIC SHOCK AND POSTOPERATIVE CARDIOGENIC SHOCK

BACKGROUND

CHARACTERIZED BY INADEQUATE ORGAN PERFUSION & TISSUE OXYGENATION DUE TO PUMP FAILURE

Causes: MI, cardiomyopathy, cardiac valve pathology

Acuity:
- Early compensated: tachycardia and peripheral vasoconstriction
- Decompensated: hypotension, decreased urine output, and/or cognitive impairment

Etiology:

<table>
<thead>
<tr>
<th>Damage to heart muscle i.e. Acute MI</th>
<th>Cardiomyopathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventricular Outflow Obstruction i.e. Aortic Valve Stenosis, Aortic Dissection, Systolic Anterior Motion (SAM)</td>
<td>Arrhythmias</td>
</tr>
<tr>
<td>Cardiac Valve Problems</td>
<td>Ventriculoseptal Defects</td>
</tr>
</tbody>
</table>

Signs of shock: Variable organ dysfunction, Tachycardia, tachypnea, cool extremities, mottled skin, slow capillary refill, oliguria, altered cognition (realize that this will be difficult to ascertain in intubated postoperative patients)

DEFINITIONS: Medically, shock is defined as a condition where the tissues in the body don’t receive enough oxygen and nutrients to allow the cells to function. Can lead to cellular death, organ failure, and whole body failure and death.

DOCUMENTATION NEEDS

DOCUMENT THE ASSOCIATED CONDITIONS

<table>
<thead>
<tr>
<th>Myocardial Infarction</th>
<th>Atrial/Ventricular Arrhythmia</th>
<th>Ischemic Heart Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertensive Heart Disease</td>
<td>Cardiogenic Pulmonary Edema</td>
<td>Cardiomyopathy</td>
</tr>
<tr>
<td>Heart Failure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IN PROGRESS NOTES AND DISCHARGE SUMMARY

For documentation and coding reference consider...

- The resident and/or attending will be asked to clarify in their next progress note if a patient is on vasopressor therapy for more than 24 hours,
CODE BLUE/CARDIAC ARREST

BACKGROUND

ALL CHARTS IN WHICH THERE IS A PATIENT DEATH ARE REVIEWED. A lack of specificity as to the condition preceding the event can lead to poor quality of care reporting and damage the hospital’s and physician’s reputation by having an “unexpected death” on record.

DEFINITIONS

Tell the Story!

The following examples tell a story that the inciting event led to serious complications and everything possible was done. This is very different than just stating that the “patient had a cardiac arrest”. This could lead to speculation that maybe the arrest occurred due to poor medical management. It is important to note that all patients die due to a severe illness or event that occurred before the cardiac arrest.

PUTTING IT ALL TOGETHER

Example 1)

“The patient had an aspiration event resulting in Aspiration Pneumonitis, hypoventilation, & Respiratory Acidosis, leading to Respiratory Arrest followed by Acute Respiratory Failure resulting in Cardiac Arrest as evidenced by Asystole which resulted in Death.”

Example 2)

“The patient became hypoxic followed by Acute Respiratory Failure leading to Hypotensive Shock; thus resulting in Hypoperfusion leading to AKI and Acute Respiratory Arrest. This led to Ventricular Fibrillation, advancing to Cardiac Arrest, as evidenced by Asystole, resulting Death”.

UCN Health Care 2012
DOCUMENTATION NEEDS

DOCUMENTING THE CAUSE OF DEATH IS NOT ENOUGH

The Events Leading Up to the Code Blue/Cardiac Arrest...

- Must be fully documented
- Document all related diagnosis/conditions
- Adds both severity of illness and risk of mortality
- And may result in THE REPORTING OF A NON-PREVENTABLE DEATH RATHER THAN AN UNEXPECTED ONE.

IN THE SETTING OF A CARDIAC ARREST...

Documentation Must Include Any Preceding Events that Led to Arrest

For Example:

- Did the patient have a Respiratory Arrest resulting in Respiratory Acidosis and Acute Respiratory Failure?
- Was there Hypotensive Shock for some reason such as bleeding, sepsis, etc. (or other types of SHOCK?)?
- Did the patient have an aspiration event resulting in Aspiration Pneumonitis?
- Did the patient have Acute Renal Failure resulting in Metabolic Acidosis and Electrolyte Disturbances?
- Did the patient likely have a massive PE, an Acute MI or other ACUTE event?

Use the above documentation examples in detailing the death when the family elects to withdraw support – it is just as important during this situation to adequately document the dying process.
RENAL DISEASE

**DEFINITIONS**

**PRE-Renal Azotemia**

Can be caused by direct intravascular fluid loss (eg, from hemorrhage, GI tract or urinary losses) or by a relative decrease in effective circulating volume *without* loss of total body fluid (eg, heart failure or portal hypertension w/ ascites).

- **If fluid loss is the cause**
  - Volume expansion using IV NS solution normalizes serum creatinine level.
- **If ATN is the cause**
  - IV saline typically causes no rapid change in serum creatinine.

**Acute and/or Chronic Renal Insufficiency**

- Refers to early stages of renal impairment: Determined by mildly abnormal elevated values of serum creatinine or BUN or diminished creatinine clearance.
- Clinical symptoms or other abnormal laboratory parameters may or may not be present but are usually minimal.
- Treatment of renal insufficiency depends on underlying cause, with attention given to possibility of preventing progression to renal failure.

**Chronic Renal Failure or Chronic Kidney Disease (CKD)**

- If the change in renal function is chronic (lasting longer than three months), it should be staged using the National Kidney Foundation guidelines. See table on following pages.

**Acute Kidney Injury (AKI) or Acute Renal Failure**

- An abrupt (<48hrs) reduction in kidney function and includes all AKIN stages. See table on following pages.
- May occur in pts w normal baseline renal function & those w CKD stages I-IV
- Exclusions: easily reversible causes that can be rapidly corrected e.g. dehydration, obstruction.
- Baseline serum CR may not be available. Clinical context may help establish chronicity of kidney injury & “presumed AKI or CKD” may be used.
- Rapid increase in serum CR of at least 0.3mg/dl.
RENAL DISEASE...continued

DEFINITIONS continued

ACUTE KIDNEY INJURY W/ACUTE TUBULAR NECROSIS (ATN)
- Most common cause of kidney failure in hospitalized patients
- Diabetes can make patient more susceptible
- **Suspected:** When serum creatinine rises >=0.5mg/dL day above baseline after an apparent trigger.
- **Signs/Symptoms:** Usually asymptomatic, oliguria, response to volume expansion, +/- Hematuria, muddy casts, isosthenuria, AKI

ACUTE KIDNEY INJURY WITH GLOMERULONEPHRITIS
- Acute or chronic inflammatory condition involving the glomeruli.
- **Signs:** Glomerular protineuria (higher range of proteinuria), +/-AKI or CKD, variety of granular or cellular casts, +/- hematuria, usually hypertensive, +/- edema

ACUTE KIDNEY INJURY WITH ACUTE INTERSTITIAL NEPHRITIS
- Acute or chronic inflammatory condition involving tubules and interstitium.
- **Signs:** Tubular proteinuria, usually AKI or CKD, hematuria, or pyuria (sterile), +/- HTN, +/- urine eosinophils (not required for diagnosis)

REMEMBER...

DOCUMENTATION NEEDS

If patient has **acute renal failure** related to a **contrast medium** consider documenting as ...

"**Toxic** Nephropathy" or
"**Toxic** Contrast-Induced Nephropathy"

Not "Contrast Induced Nephropathy"

Dorland’s medical dictionary defines:
- "**Contrast-induced NEPHROPATHY**" as **KIDNEY DAMAGE** by a contrast medium, **SOMETIMES** with ACUTE RENAL FAILURE. (These terms are unable to be coded without further clarification into an ICD 9 code for reporting purposes.)
- "**Contrast -induced NEPHROTOXICITY**" as **ACUTE RENAL FAILURE** by a contrast medium.
DOCUMENTATION NEEDS continued

IN PROGRESS NOTES AND DISCHARGE SUMMARY

Clarify ACUITY:
- Acute, Acute on Chronic or Chronic only

Clarify STAGE of Chronic Kidney Disease (CKD)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>GFR (mL/min/1.73m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kidney damage with normal or ↑ GFR</td>
<td>≥ 90</td>
</tr>
<tr>
<td>2.</td>
<td>Kidney damage with mild ↓ GFR</td>
<td>60-89</td>
</tr>
<tr>
<td>3.</td>
<td>Moderate ↓ GFR</td>
<td>30-59</td>
</tr>
<tr>
<td>4.</td>
<td>Severe ↓ GFR</td>
<td>15-29</td>
</tr>
<tr>
<td>5.</td>
<td>Kidney Failure</td>
<td>&lt;15 (or dialysis)</td>
</tr>
</tbody>
</table>

Clarify STAGE of Acute Kidney Injury (AKIN)

<table>
<thead>
<tr>
<th>AKIN Stage</th>
<th>SERUM CREATININE CRITERIA</th>
<th>URINE OUTPUT CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Serum creatinine increase ≥0.3 mg/dl OR increase to 1.5–2.0-fold from baseline</td>
<td>&lt;0.5 ml/kg/h for 6 h</td>
</tr>
<tr>
<td>2</td>
<td>Serum creatinine increase &gt;2.0–3.0-fold from baseline</td>
<td>&lt;0.5 ml/kg/h for 12 h</td>
</tr>
<tr>
<td>3</td>
<td>Serum creatinine increase &gt;3.0-fold from baseline OR serum creatinine ≥4.0 mg/dl with an acute increase of at least 0.5 mg/dl OR need for RRT</td>
<td>&lt;0.3 ml/kg/h for 24 h OR anuria for 12 h OR need for RRT</td>
</tr>
</tbody>
</table>

WE NEED TO KNOW ANY UNDERLYING CAUSES/CONDITIONS

- **Chronic Kidney Disease**: i.e., Diabetes Mellitus, Benign/Malignant Hypertension, Type of Heart Disease, Renal Sclerosis, Neuropathy.
- **Acute Kidney Injury or Acute Renal Failure**: i.e., Dehydration, hypovolemia, hypotension, toxicity from drugs/radiographic dyes.
- **AKI W/Acute Tubular Necrosis (ATN)** i.e., Nephrotoxin, Hypotension, Sepsis, Vascular Occlusion, Contrast, Medications, Trauma, Major Surgery, Blood Transfusions, Tubular Or Low Grade Proteinuria
- **AKI W/ Glomerulonephritis**: i.e., autoimmune condition or infections
- **AKI with Acute Interstitial Nephritis**: i.e., Drugs, autoimmune condition, infection (usually viral).
ANEMIA

BACKGROUND

In General There Are Three Major Types of Anemia, Classified by the Size of the Red Blood Cells: Microcytic, Normocytic, Macrocytic

DEFINITIONS

PANCYTOPENIA  A Deficiency of all types of blood cells (WBC, Platelets, RBCs)

NEUTROPENIA  A nonspecific abnormal laboratory finding < 3500 neutrophils on a WBC

NEUTROPENIC FEVER: Fever and an absolute neutrophil count (ANC) < 500/MM3-1000/MM3

ACUTE BLOOD LOSS ANEMIA – due to rapid and sufficient decrease in red blood cells due to hemorrhage/blood loss

DOCUMENTATION NEEDS

IN PROGRESS NOTES AND DISCHARGE SUMMARY

Document Acuity:

• Acute, Acute on Chronic or Chronic only

DOCUMENT SUSPECTED RELATIONSHIP CAUSES:

Identify Each Individual “Multifactorial” Cause.

❖ Acute Blood Loss: can be due to an acute GI bleed (stomach ulcer, diverticulosis, gastritis), related to an operation involving a large blood loss, retroperitoneal hematoma (from trauma or iatrogenic, or disseminated intravascular coagulation), rupture of aneurysm, rupture of liver, fractures, lacerations.
ANEMIA... continued

**DOCUMENTATION NEEDS**

**DOCUMENT SUSPECTED RELATIONSHIP CAUSES:**
...continued

- **Chronic Diseases**: Kidney Disease, Neoplastic Disease

- **Chronic Blood Loss**: can be due to a (slow)chronic GI bleed (stomach ulcer, colon cancer, gastritis), long-term anticoagulation, menometrorrhagia, hematuria

- **Microcytic Anemia**: major causes can be iron deficiency and thalassemia (inherited disorders of hemoglobin)

- **Normocytic Anemia**: can accompany chronic diseases (hepatitis, cancer), or an anemia related to kidney disease

- **Macrocytic Anemia**: major cause can be pernicious anemia and anemia related to alcoholism

- **Neutropenic Fever**
  - *Due to Chemotherapy/ Radiation Exposure/Drug Induced*
  - *Due to* Infection (Source: i.e. blood, sputum, catheter sites, skin, urine, cerebrospinal fluid, wound)
  - *Due to Leukemia*
  - *Splenic/Splenomegaly*
  - *Congenital*
  - *Sepsis*

- **Pancytopenia**
  - *Environmental*: Radiation or Chemotherapy Treatment/ Drug Reaction/ Toxin Exposure/ Viral Infections
  - *Idiopathic*: autoimmune (Autoimmune Lymphoproliferative Syndrome, ALPS)
  - *Aplastic Anemia, Myelodysplastic Syndromes*
MALNUTRITION

BACKGROUND

A BROAD TERM WHICH REFERS TO BOTH UNDER NUTRITION AND OVER NUTRITION

- Patient’s diet does not provide adequate calories/protein for maintenance and growth, or they cannot fully utilize the food they eat due to illness.
- Patient consumes too many calories.

DEFINITIONS

CONTRIBUTING FACTORS TO MALNUTRITION

- Poor diet may lead to vitamin and mineral deficiencies
- Aging process
- Chronic disease, especially diseases of the intestinal tract, kidney and liver, AIDS, along with various cancers, and other gastric disorders
- Physical findings include emaciation, cachexia, or muscle wasting, decubitus ulcers/non-healing ulcers, can also be present
- Risk factors include AIDS, alcoholism, malabsorption syndrome, decubitus ulcers, recent or progressive weight loss, low BMI, and biochemical markers, such as low albumin, prealbumin, BUN/creatinine ratio, and/or anemia.
- Morbidly obese patient can be severely malnourished.
- Certain psychological disorders such as bulimia and anorexia
MALNUTRITION...continued

**DOCUMENTATION NEEDS**

**IN PROGRESS NOTES AND DISCHARGE SUMMARY**

Identify the LEVEL/DEGREE of the patient’s nutritional status if appropriate (mild, moderate, severe).

**NUTRITIONAL STATUS DETERMINATION**

The ultimate diagnosis of malnutrition depends on the physicians clinical judgment, based on a number of findings (often called subjective global assessments), and can be individual for each case.

**FOR DOCUMENTATION AND CODING REFERENCE CONSIDER THE TABLE BELOW**

The nutritional status can also be determined by weight, BMI, percentage of weight changes, documentation of inadequate intake over a period of time, and lab indicators.

**MALNUTRITION REFERENCES**

<table>
<thead>
<tr>
<th>DEGREE OF MALNUTRITION</th>
<th>SEVERE MALNUTRITION:</th>
<th>MODERATE MALNUTRITION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Intake</td>
<td>Greater than 10 days: &lt; 75% of estimated nutrient needs</td>
<td>Greater than 7 days: &lt; 50% of estimated nutrient needs</td>
</tr>
<tr>
<td>% IBW Weight</td>
<td>Less than 80%</td>
<td>80-90%</td>
</tr>
<tr>
<td>BMI</td>
<td>Less than 16</td>
<td>16-18.5</td>
</tr>
<tr>
<td>UBW% Weight Change</td>
<td>&gt;10% in 6 months; &gt; 7.5% in 3 months; &gt;5% in 1 month; &gt;2% in 1 week</td>
<td>&gt;10% in 6 months; &gt; 7.5% in 3 months; &gt;5% in 1 month; &gt;2% in 1 week</td>
</tr>
<tr>
<td>Albumin</td>
<td>2.8 gl</td>
<td>3.0 gl</td>
</tr>
<tr>
<td>Transferrin</td>
<td>&lt;100 mg/dl</td>
<td>&lt;200 mg/dl</td>
</tr>
<tr>
<td>Pre-Albunin</td>
<td>&lt;15 mg/dl</td>
<td>&lt;20 mg/dl</td>
</tr>
<tr>
<td>Total Lymphocyte Count</td>
<td>&lt;800 g/ml</td>
<td>&lt;1500 g/ml</td>
</tr>
</tbody>
</table>
ELECTROLYTE IMBALANCES

Hyponatremia, Hypernatremia, Dehydration

**DEFINITIONS**

**Hyponatremia** is defined as a serum level of less than 135 mEq/L

**Hypernatremia** is defined as a serum level greater than 145 mEq/L

**DOCUMENTATION NEEDS**

**Dehydration** - When possible be more specific documenting dehydration. For example, if the patient is *Hyponatremic* or *hypernatremic* these terms will better reflect the patient's severity of illness than using the term dehydration.

PERIPHERAL VASCULAR DISEASE (PVD)

- Documented if related to DM
- If ulcer is present, document location
- Document if PVD is atherosclerotic

OPHTHALMOLOGY

**DOCUMENTATION NEEDS**

**PLEASE INDICATE:**

- Type of cataract
- Type of glaucoma
- Which Eye, Right or Left
- What specific part of eye was injured?
- If eye condition is diabetic or hypertensive;
- List all coexisting conditions (not just eye conditions) if you considered them in your evaluation and treatment.
# Cerebrovascular Accident (CVA):

## Background

The sudden death of some brain cells due to lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain.

## Documentation Needs

### Specify the Underlying Cause

- Iatrogenic/Postoperative
- Traumatic Injury
- Thrombus
- Embolic
- Precerebral Artery Occlusion w/wo Infarct
- Cerebral Artery Occlusion w/wo Infarct
- Hemorrhage
- Late Effect with Residual Defect
- Transient Cerebral Ischemia Due To
  - Insufficiency
  - Occlusion

### Specify the Location

- Right middle cerebral artery
- Cerebral Artery
- Subdural/Intracerebral/Subarachnoid
- Carotid, Vertebral, Basilar Artery

## Document Any Residual Effects or Complications of CVA

- Aphasia or Ataxia
- Dysphagia
- Coma
- Convulsions
- Dominant or Non-Dominant Hemiparesis
- Flaccid or Spastic Hemiparesis
- Neurologic neglect syndrome
- Vasogenic edema
- Limb or Muscle Weakness
**DOCUMENTATION NEEDS**

**PLEASE REMEMBER TO DOCUMENT....**

- If Labor/Delivery Was Obstructed
- Reason Why C-Section Was Done
  - If Breech Presentation Caused Obstruction
  - Previous C-Section
- Fetal Arrhythmias

**BE SURE TO COMPLETE....**

- The Delivery Record
  - Ante Partum
  - Labor/Delivery
- Post Partum Diagnoses with Procedures

**SPECIFY ALL INDICATIONS FOR DELIVERY AND ANY COMPLICATIONS....**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Diagnosis</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrombophlebitis, Postpartum</td>
<td>Obstetrical Pulmonary Embolism</td>
<td>Infections Of The Breast and Nipple</td>
</tr>
<tr>
<td>Endometritis, Postpartum</td>
<td>Pyrexia Of Unknown Origin</td>
<td>Lactating Mastitis</td>
</tr>
<tr>
<td>Breast Engorgement, Postpartum</td>
<td>Fetal Distress</td>
<td>Fetal Malpresentation</td>
</tr>
<tr>
<td>Arrested Active Phase of Labor</td>
<td>Desultory/Irregular Labor</td>
<td>Precipitate Labor</td>
</tr>
<tr>
<td>Failed Descent of Head</td>
<td>Failed/ Hypotonic Uterine Inertia (Primary/Secondary, Postpartum)</td>
<td>Hypertonic/Incoordinate/Prolonged Labor</td>
</tr>
</tbody>
</table>
RESPIRATORY DISTRESS SYNDROME IN NEWBORNS

BACKGROUND

RDS is typically seen in premature infants caused by developmental insufficiency or surfactant production and lung immaturity.

DEFINITIONS:

❖ Manifestations of Respiratory Distress Syndrome
  • tachypnea, tachycardia, chest wall retraction, expiratory grunting, flaring of the nostrils, and cyanosis during breathing efforts
  • Chest x-ray demonstrates decreased lung volumes and blood oxygen is low with increased carbon dioxide

❖ Alternate Names
  • Hyaline membrane disease; Infant respiratory distress syndrome (IRDS); RDS – infants

❖ Additional Symptoms
  • Decreased urine output, rapid/shallow breathing, sob, Unusual breathing movement -- drawing back of the chest muscles with breathing

DEFINITIONS

IN PROGRESS NOTES AND DISCHARGE SUMMARY

Clarify “TRANSIENT TACHYPNEA OF NEWBORN (TTN)” as

❖ Type I respiratory distress syndrome

❖ Type II respiratory distress syndrome, (Transitory tachypnea of newborn or TTN)

Type II respiratory distress syndrome is also referred to as "mild," and recovery is usually evident within 72 hours of birth.
ONCOLOGY

DOCUMENTATION NEEDS

- Specify PRIMARY and all METASTATIC (secondary) sites of malignant neoplasm

- All SIGNIFICANT X-RAY, PATHOLOGY, AND LAB FINDINGS must be INTERPRETED AND DOCUMENTED by the treating physician.

- When documenting “HISTORY OF”, state specifically if primary and/or metastatic (secondary sites) are STILL PRESENT AND/OR UNDER ACTIVE TREATMENT

- Define the NATURE/CAUSE of NEUTROPENIC FEVER: likely due to infection, chemo/drug, tumor, etc. If the Neutropenic Fever is infectious, identify the site and/or source when possible.

- Transplant- Please make sure the note is clear as to Bone Marrow or Stem Cell

- NEUTROPENIA, PANCYTOPENIA, ANEMIA: Specify the LIKELY UNDERLYING CAUSE.  i.e. Chemotherapy, Radiation, Acute and/or Chronic Blood Loss, Iron Deficiency

- If the patient is given Epoetin Alfa (Procrit/Epogen), why was it given?

- What TYPE OF ANEMIA is present? Specify if Aplastic, Blood Loss, Nutritional, Sideroblastic? What is the underlying condition (ESRD, cancer, s/p chemo)?

- Specify if the DIARRHEA/ COLITIS is possible/ suspected/ likely TOXIC when it is DUE TO CHEMOTHERAPY/ DRUG INDUCED.
### Trauma

**Documentation Needs**

- Define all sites of trauma as specifically as possible
- All significant x-ray and pathology findings must be affirmed by the treating physician
- Document whether the patient experienced Loss of Consciousness and duration
- Define any significant systemic complication of the trauma
  - Acute Blood Loss Anemia
  - Hypovolemia
  - Shock
  - Acute Renal Injury
  - Pulmonary Insufficiency; Acute Respiratory Failure
  - ARDS

### Psychiatry

**Documentation Needs**

**Please Indicate The Current State Of**

- Depression (Major, Manic, Neurotic, Bipolar, Drug Induced)
- Schizophrenia

**State Of Acuity**

- Mild
- Moderate
- Severe
- In Full/Partial Remission
- Recurrent
- Any Psychotic behavior

**Drug Or Alcohol Use, Abuse Or Dependence**

- Intoxicated
- Dependent
- Continuous
- Episodic
- In Remission
BE IN THE KNOW WITH ICD 10 CM/PCS

THE WHY:

ICD 9 CM has become outdated and no longer accommodates the need for expansion in new technologies and terminology. ICD 10 CM is a momentous leap forward in the quality and accuracy of medical data. Currently, over 100+ countries already use ICD 10 CM, including UK and Canada.

The International Classification Disease 10th Revision, Clinical Modification, has been developed as a replacement for, and an improvement over, Volumes 1 and 2 of the International Classification Disease 9th (ICD -9-CM) Revision, Clinical Modification.

ICD 10 CM

The ICD-10-CM diagnosis code set includes significant improvements over the International Classification of Diseases, 9th Edition, Clinical Modifications (ICD-9-CM) in coding primary encounters, external causes of injury, mental disorders, neoplasms, and preventive health. The ICD-10 diagnosis code set reflects advances in medicine and medical technology, as well as accommodating the capture of more detail on socioeconomics, ambulatory care conditions, problems related to lifestyle, and the results of screening tests. It also provides for more space to accommodate future expansions, laterality for specifying which organ or part of the body is involved as well as expanded distinctions and managed care encounters.

ICD 10 PCS

The ICD-10-PCS Procedure Coding System provides detailed codes to describe complex medical procedures for use on inpatient hospital claims at a much more granular level than its ICD-9 counterpart. It has unique, precise codes to differentiate body parts, surgical approaches, and devices used. It can be used to identify resource consumption differences and outcomes for different procedures and describes precisely what is done to the patient. The Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) will continue to be the code sets for reporting ambulatory procedures.

THE WHO:

The ICD-10 is copyrighted by the World Health Organization (WHO) which owns and publishes the classification. WHO has authorized the development of an adaptation of ICD-10 for use in the United States for U.S. government purposes.
THE WHEN:

On April 17, 2012 the Department of Health and Human Services (HHS) published a proposed rule that would delay, from October 1, 2013 to October 1, 2014, the compliance date for the International Classification of Diseases, 10th Edition diagnosis and procedure codes (ICD-10).

THE HOW:

ICD 10 represents a significant improvement in specificity and granularity in both diagnostic and procedural documentation practices. With the transition to ICD-10-CM, some documentation issues will require physicians/providers to capture new information; others involve updated, modified and otherwise expanded documentation needs. The goal is to ensure the medical record documentation is as comprehensive as it can be to support the greater specificity in the ICD-10-CM code sets to the absolute extent possible. When the specificity is greater, there should be a reduction in payment denials and requests for additional information from payers.

SOME EXAMPLES:

- Initial or subsequent encounters must be documented as such.
- Greater specificity on details such as laterality – (bilateral vs. unilateral, left vs. right, upper quadrant vs. lower quadrant, etc.)
- Much more!

ICD 9 CM / ICD 10 CM COMPARISON

<table>
<thead>
<tr>
<th></th>
<th>ICD -9-CM</th>
<th>ICD-10- CM &amp; PCS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIAGNOSIS</strong></td>
<td>13,000</td>
<td>68,000</td>
</tr>
<tr>
<td>3-8 Character Alphanumeric</td>
<td></td>
<td>3-7 Character Alphanumeric</td>
</tr>
<tr>
<td><strong>PROCEDURE</strong></td>
<td>855</td>
<td>2,033</td>
</tr>
<tr>
<td>Code Categories</td>
<td>3,000</td>
<td>87,000</td>
</tr>
<tr>
<td>3-4 Character numeric</td>
<td>855</td>
<td>2,033</td>
</tr>
<tr>
<td>Code Categories</td>
<td>3,000</td>
<td>87,000</td>
</tr>
<tr>
<td></td>
<td>7 character alphanumeric</td>
<td></td>
</tr>
</tbody>
</table>
# Examples of Good Documentation Practices

<table>
<thead>
<tr>
<th>If You Write...</th>
<th>Please Consider...</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS W/Elevated Troponin</td>
<td>NSTEMI</td>
</tr>
<tr>
<td>Any Infection, Bacteremia i.e. C.Difficile Colitis, Appendicitis, Peritoneal Abscess</td>
<td>Sepsis If Patient Has SIRS (WBC&gt;14k, “Left Shift”, Temp&gt;101, Hr&gt;90, AMS, -Due To Infection</td>
</tr>
<tr>
<td>Albumin 3.0, Underweight</td>
<td>Mild/Moderate/Severe Malnutrition</td>
</tr>
<tr>
<td>Altered Mental Status/Confusion/Mental Status Change</td>
<td>Document Alteration (Acute Confusion, Delirium, Psychosis, Dementia, Coma) Any Probable Underlying Encephalopathy (Toxic, Septic, Metabolic, Traumatic, Hypoxic, Hypertensive) &amp; Other Brain Diseases Present (Alzheimer’s, Late Effect Of Stroke, 1° Or 2° Parkinson’s) Etc.</td>
</tr>
<tr>
<td>Amiodarone/AICD</td>
<td>Underlying Rhythm Disturbance</td>
</tr>
<tr>
<td>Asthmaticus, Status</td>
<td>Acute Resp. Failure If Present</td>
</tr>
<tr>
<td>Azotemia, Bump In CR From 1.0 To 2.0 Mg/Dl.</td>
<td>Acute Renal Failure/Acute Kidney Injury AKIN Criteria: A Sustained Acute Rise Of CR&gt;0.3 Mg/Dl Within 48 Hr, Not Due To Dehydration or Obstruction</td>
</tr>
<tr>
<td>CAD/ Angina</td>
<td>Document Stable Or Unstable Angina, Angina At Rest Or Progressive Angina, If Present</td>
</tr>
<tr>
<td>Cardiac Arrest</td>
<td>Its Cause : V-Fib/V-Tach /Ami Etc.</td>
</tr>
<tr>
<td>Chest Pain</td>
<td>Type Of Pain (Angina, Pleuritic, Heartburn, Biliary Colic), It’s Probable Cause(I.E.: GERD, Gallstones, Cocaine), &amp; If At Rest Or Accelerated</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Acute, Acute On Chronic, Or Chronic And Systolic (LVEF&lt; 50%) And/or Diastolic Heart Failure, Exacerbation</td>
</tr>
<tr>
<td>Cocaine/Illegal Drug Use</td>
<td>Drug (Cocaine) Intoxication With Continuous Dependency (Document Accompanying Angina, Psychosis, Toxic Encephalopathy, Arrhythmias, Accelerated HTN, Etc.)</td>
</tr>
<tr>
<td>Alcohol Or Marijuana Use</td>
<td>Continuous Chemical Dependency (If Use Is Recurrent W/ Health Consequences Or If On Chronic RX I.E. Methadone</td>
</tr>
<tr>
<td>Chronic Renal Insufficiency Or Failure</td>
<td>Chronic Kidney Disease (CKD) &amp; Stage I, II,III,IV,V Or ESRD Based On GFR/Dialysis</td>
</tr>
<tr>
<td>COPD/Chronic Bronchitis</td>
<td>Document If Stable Or Exacerbated</td>
</tr>
<tr>
<td><strong>If You Write...</strong></td>
<td><strong>Please Consider...</strong></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| Debridement         | Excision or Non-Excisional  
Deepest Level Excised & Instrument Used |
| Diabetes            | Diabetes Type 1 Or 2 Controlled/Uncontrolled, Type 2, Insulin Dependent |
| Diabetes, Poorly Controlled | Uncontrolled DM, If Multiple Bs>250, Hgb A1c >7 |
| Decrease/Drop Hgb/Hct 2/2 Gl Bleed, Etc | Acute Blood Loss Anemia |
| Replete K           | Hypokalemia Due To________ Please Specify |
| LLL Infiltrate      | Atelectasis, Pneumonia, Fibrosis Etc. |
| Low NA, Replete NA, NA Of 138 (Examples) | Hyponatremia/Hypernatremia & Probable Cause (I.E., Diuretics, SIADH, Etc.) |
| Pneumonia           | Vent-Assoc & Underlying Organism Or Aspiration |
| Seizure             | Probable Underlying Cause (I.E., Old CVA, Alcohol Withdrawal, Epilepsy), Recurrent Or Disorder Etc. |
| Syncope             | Syncope Due To _______ Please Specify |
| Urosepsis           | Sepsis Due To UTI And Note Organism |
| Abnormal ABG's      | Metabolic Respiratory Alkalosis/Acidosis + Cause; Alkalosis/Acidosis + Cause, |
| Neutropenic Fever   | Cause: Infectious/Non-Infectious/ Drug |
| Pleural Effusions   | Probable Underlying Condition (I.E., Empyema, Chronic Heart Failure Or Condition To Be Ruled Out) |
| Cellulitis          | Cause, Sites |
| Home 02             | Chronic Respiratory Failure |
| Cystic Fibrosis     | Please Document All Manifestations |
| Decubitus/Pressure Ulcer | Stage/Site |
| DVT                 | Acute Or Chronic And Site |
| Encephalopathy      | TYPE I.E., Toxic, Metabolic, Etc. |
| End Stage COPD      | Chronic Respiratory Failure |
| Failure, Respiratory | Acute, Chronic, Or Acute On Chronic |
| Fever               | Cause/Source |
| Gastroenteritis     | Cause/Source (Viral, Infectious, Toxic) |
| Colitis             | Cause (Infectious, Ischemic, IBD, Toxic, Secondary To Chemo/Radiation) |
| Constipation        | Please State If Associated W/Fecal Impaction |
**EXAMPLES OF GOOD DOCUMENTATION PRACTICES..continued**

<table>
<thead>
<tr>
<th>If You Write...</th>
<th>Please Consider...</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;History&quot; Of Cancer</td>
<td>Specify If Still Present/Under Active RX</td>
</tr>
<tr>
<td>HIV Positive</td>
<td>HIV Disease; AIDS</td>
</tr>
<tr>
<td>Hyperglycemia</td>
<td>DM With Hyperosmolar State</td>
</tr>
<tr>
<td>Hypoalbuminemia/Weight Loss</td>
<td>Malnutrition-Degree (Mild, Mod, Severe)</td>
</tr>
<tr>
<td>Hypotension</td>
<td>Specify Cause And Severity (Shock)</td>
</tr>
<tr>
<td>Hypoxia/Low O2 Sats</td>
<td>Acute Respiratory Failure; Acute Respiratory Insufficiency</td>
</tr>
<tr>
<td>Insufficiency, Renal</td>
<td>Acute Kidney Injury, Acute Renal Failure</td>
</tr>
<tr>
<td>Respiratory Distress/Insufficiency</td>
<td>Acute Respiratory Insufficiency, Acute Resp Failure, PostOP Resp Insufficiency</td>
</tr>
<tr>
<td>Diastolic Dysfunction/Systolic Dysfunction</td>
<td>Acute, Acute On Chronic, Or Chronic And Systolic (LVEF &lt; 50%) And/OR Diastolic Heart Failure, Cardiomyopathy</td>
</tr>
<tr>
<td>Metastatic Cancer</td>
<td>Please Specify The Site And Primary</td>
</tr>
<tr>
<td>Obstructed Bowel</td>
<td>Cause Of The Obstruction, If Known</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>Underlying Cause</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Specify Organism, Pneumonia Type (CAP, Aspiration Etc.)</td>
</tr>
<tr>
<td>Prostatitis</td>
<td>Acute Or Chronic</td>
</tr>
<tr>
<td>Pyuria</td>
<td>UTI</td>
</tr>
<tr>
<td>Renal Failure, Chronic</td>
<td>Stage, If Known</td>
</tr>
<tr>
<td>Subdural Hematoma</td>
<td>Acute, Sub Acute, Chronic</td>
</tr>
<tr>
<td>SVT</td>
<td>Paroxysmal, NSVT</td>
</tr>
<tr>
<td>Elevated Troponin/Troponemia, Demand Ischemia, Cardiac Strain, Troponin Leak</td>
<td>Acute Demand Ischemia W/O Mi</td>
</tr>
<tr>
<td>Pressure Ulcer</td>
<td>Stage/Site And Type (Diabetic, Vascular Or Neuropathic, Atherosclerotic, Decubitus, Venous)</td>
</tr>
<tr>
<td>GI Ulcers</td>
<td>Acute Or Chronic, Obstructing, Bleeding, Perforated</td>
</tr>
<tr>
<td>URI</td>
<td>Bronchitis, Sinusitis, Airway Obstruction</td>
</tr>
<tr>
<td>Infected Stone</td>
<td>UTI, Pyelonephritis</td>
</tr>
<tr>
<td>PEA Arrest (Pulseless Electrical Activity)</td>
<td>List Associated Condition (Ventricular Tachycardia, Ventricular Fibrillation)</td>
</tr>
</tbody>
</table>
## EXAMPLES OF MORE COMMON COMPLICATION/CO-MORBID CONDITIONS (CC)

Entire listing of CC’s can be found at [http://cms.hhs.gov](http://cms.hhs.gov)

### CARDIOVASCULAR:

<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Myocardial Ischemia without MI</td>
</tr>
<tr>
<td>Angina, unstable, decubitus, prinzmetal</td>
</tr>
<tr>
<td>Atrial flutter</td>
</tr>
<tr>
<td>Block-complete, AV, Mobitz II, trifascicular, BBBB</td>
</tr>
<tr>
<td>CAD of bypass graft</td>
</tr>
<tr>
<td>Cardiomyopathy (except ischemic)</td>
</tr>
<tr>
<td>Heart Failure-left heart failure, systolic or diastolic (chronic)</td>
</tr>
<tr>
<td>Dressler’s Syndrome (post MI syndrome)</td>
</tr>
<tr>
<td>Endocarditis (some types, not acute)</td>
</tr>
<tr>
<td>Tachycardia-paroxysmal supraventricular/ventricular</td>
</tr>
<tr>
<td>Thrombosis/embolism of artery of vein</td>
</tr>
<tr>
<td>Thrombosis/embolism of coronary artery stent/graft</td>
</tr>
<tr>
<td>Thrombophlebitis</td>
</tr>
</tbody>
</table>

### BEHAVIORAL & NEUROLOGICAL:

<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s dementia with behavioral disturbances</td>
</tr>
<tr>
<td>Aphasia</td>
</tr>
<tr>
<td>Bipolar disorder (except unspecified)</td>
</tr>
<tr>
<td>Confused state, acute</td>
</tr>
<tr>
<td>Delirium, acute and sub acute, drug induced</td>
</tr>
<tr>
<td>Dementia with delirium, depression or delusion (pre-senile, senile or vascular)</td>
</tr>
<tr>
<td>Depression (specified types)</td>
</tr>
<tr>
<td>Hallucinations</td>
</tr>
<tr>
<td>Hemiplegia</td>
</tr>
<tr>
<td>Meningitis/encephalitis, viral NOS</td>
</tr>
<tr>
<td>Paraplegia</td>
</tr>
<tr>
<td>Schizophrenia (except unspecified)</td>
</tr>
<tr>
<td>Suicidal ideations</td>
</tr>
<tr>
<td>TIA</td>
</tr>
<tr>
<td>Vertebrobasilar insufficiency</td>
</tr>
<tr>
<td>Withdrawal-alcohol or drug</td>
</tr>
</tbody>
</table>
### EXAMPLES OF MORE COMMON COMPLICATION/CO-MORBID CONDITIONS (CC) continued...

**HEMATOLOGY & ONCOLOGY**

- Acute blood loss anemia
- Aplastic anemia, unspecified
- Lymphoma/leukemia
- Malignant neoplasm (most sites - not breast or prostate)
- Multiple myeloma
- Pancytopenia, unspecified

**GASTROINTESTINAL**

- Ascites
- Cholecystitis
- Colitis/enteritis-infections, ischemic, inflammatory, toxic or radiation
- Complications of colostomy/enterostomy
- Crohn’s disease
- Diverticulitis
- Esophagitis, acute
- GI bleed: melena, hematemesis
- Hernia with obstruction
- Ileus/fecal impaction
- Jaundice
- Pancreatitis, chronic
- Ulcer, acute-gastric, duodenal, peptic

**NEPHROLOGY & GENITOURINARY**

- Calculus of ureter or kidney
- CKD stages 4 or 5
- Hypertensive heart and kidney diagnosis with heart failure and CKD
- Hydronephrosis/hydroureter
- Nephrotic syndrome
- Polycystic kidney
- Pyelonephritis, UTI
- Acute kidney Injury
- Acute renal failure
### EXAMPLES OF MORE COMMON COMPLICATION/CO-MORBID CONDITIONS (CC) continued...

#### ORTHO/SKIN

- Abscess, non major organs
- Cellulitis
- Compartment syndrome, non traumatic
- Complications of prosthetic joint
- Stasis ulcer-inflamed or infected
- Fractures, pathologic
- Fractures, traumatic closed - many sites
- Osteomyelitis, acute, chronic, or unspecified
- Ulcer of skin, lower extremity

#### RESPIRATORY/INFECTIONS

- Asthma exacerbation
- Atelectasis
- Bacteremia
- COPD with acute exacerbation
- Hemoptysis
- Infection/complications of devices, implant, graft
- Pleural effusions (all types, except non tuberculosis bacteria)
- Ventilator associated pneumonia
- Pulmonary embolism, chronic
- Respiratory distress/insufficiency, Acute
- Respiratory failure, Chronic
- Respiratory weaning or dependence
- Thrush

#### OTHERS

- SIRS due to non infectious process
- Transplant status –most organs

---

**End of “CC” Listings**
**EXAMPLES OF MORE COMMON MAJOR COMPLICATIONS/CO-MORBID CONDITIONS (MCC)**

Entire listing of MCC’s can be found at [http://cms.hhs.gov](http://cms.hhs.gov)

<table>
<thead>
<tr>
<th>CARDIOVASCULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute MI</td>
</tr>
<tr>
<td>Cardiac arrest (if discharged alive)</td>
</tr>
<tr>
<td>Heart Failure—Acute, Acute on Chronic, systolic or diastolic, exacerbation</td>
</tr>
<tr>
<td>Cor Pulmonale, acute</td>
</tr>
<tr>
<td>Endocarditis/myocarditis Acute (excluding rheumatic)</td>
</tr>
<tr>
<td>Pericarditis</td>
</tr>
<tr>
<td>Shock (if discharged alive)</td>
</tr>
<tr>
<td>Ventricular fibrillation (if discharged alive)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GASTROINTESTINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI disorders with hemorrhage, perforation, or obstruction</td>
</tr>
<tr>
<td>Hernia with gangrene</td>
</tr>
<tr>
<td>Pancreatitis, acute</td>
</tr>
<tr>
<td>Peritonitis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEMATOLOGY &amp; ONCOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aplastic anemia (specific type such as, due to chemotherapy, drugs, or chronic systemic disease)</td>
</tr>
<tr>
<td>Pancytopenia due to drug</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>METABOLIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKA</td>
</tr>
<tr>
<td>Diabetes with hyperosmolarity or other coma</td>
</tr>
<tr>
<td>Malnutrition, severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEPHROLOGY</th>
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</thead>
<tbody>
<tr>
<td>ESRD</td>
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<tr>
<td>ATN</td>
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</tbody>
</table>
EXAMPLES OF MORE COMMON MAJOR COMPLICATIONS/CO-MORBID CONDITIONS (MCC) continued...

**NEUROLOGY**
- Coma
- CVA
- Encephalopathy - metabolic, toxic, HIE of newborn, severe Meningitis/encephalitis, except viral NOS
- Quadriplegia

**ORTHO/SKIN**
- Abscess of most major internal organs
- Decubitus ulcer stage 3 and 4
- Major injury/fractures/burns
- SIRS due to noninfectious process with acute organ dysfunction

**RESPIRATORY/INFECTIOUS DISEASE**
- Aspiration bronchitis, aspiration pneumonia
- HIV disease
- Pleural effusions
- Pneumonia
- Pulmonary embolus and infarction, acute
- Respiratory arrest (if discharged alive)
- Respiratory failure, acute
- Respiratory insufficiency, acute postoperative
- Sepsis, severe sepsis, septic shock
EXAMPLE OF SOAP PROGRESS NOTE

Reason for Admission
EXAMPLE: 62 yo M w/ rectal CA w/mets to liver, now admitted for scheduled surgery. POD # 2 s/p X-lap, LOA, colon resection w/diverting ileostomy.

Medical/Surgical History Tell this story in the H&P, and then on the first SOAP note. Eliminates confusion as to what is PMH and what are new problems or problems pertinent to this admission. It is important to denote those chronic diagnoses that will continue to need treatment this admission. See PROBLEMS on next page. Example:

(Obtained from H&P and clinic prep note):

PMH:
* ESRD on HD (Durham MWF)
* IDDM (diagnosed 2008)
* CAD
  - s/p cath 2008: “Left Main no angiographic evidence of significant disease. There is a long diffuse 50% mid LAD lesion. There is also 60-70% ostial D2 lesion. There is no angiographic evidence of significant disease in circumflex/obtuse marginal. The PDA has a 25% long tubular lesion.”
* Chronic diastolic heart failure: TTE 2/2010: LVH. EF 60-65%. diastolic LV dysfunction
* Osteoarthritis s/p bilateral arthroscopic surgery
* COPD secondary to emphysema
* OSA, nocturnal CPAP dependent.
* morbidly obese – BMI = 41.9.

Surgical history:
* s/p cholecystectomy 2/2 cholelithiasis
* s/p left BKA 2/2 diabetes
* orthoscopic knee surgery

Admission history/hospital course
MUST DOCUMENT POSTOP COURSE, INCLUDING PACU – It is the only way to capture what happened. ALSO, Use this as a summary when a pt transfers from one unit to another. EXAMPLE: Postoperatively, pt was taken to PACU where he received multi fluid boluses for hypotension r/t hypovolemia, as well as two units PRBCs 2/2 post op acute blood loss anemia. Tachycardic to 120s, Electrolyte imbalance-hyponatremia – repleted. Hypoxic to 80s. Re-intubated for acute respiratory failure and transferred to the SICU. CXR showed pulm edema and infiltrate c/w HCAP. Hyperthermic (39.4), Meets SIRS criteria. Bld cxs obtained. Broad spectrum ATBs for PNA and sepsis coverage. Continued to be hypotensive – began vasopressor support. Bi-carb to correct metabolic and respiratory acidosis.

24 Hour Events:
Now POD # 2. Stabilized in SICU who new events overnight. Weaned from vasopressor. BP now WNL. H&H remains stable at 11.5 and 36. Afebrile, continues on IV ATBs for HCAP. Weaned from vent late last evening. O2 SATs WNL on 2L via NC. Transferred to floor early this am.

Vital Signs List

Physical Exam List

Pressure Ulcer

NOTE: If is this N/A, then document “N/A” (do not leave any blank areas on the SOAP note).

In / Out

All ‘In’ must have a corresponding diagnosis (e.g. hypotension, hypovolemia, why did pt get the IV ATBs?) And then….is there a post op complication that needs to be documented?

Medications

EVERY medication must have a corresponding diagnosis (either a diagnosis found in the PMH list [example: chronic diastolic heart failure], or in the PROBLEM list). List all meds, and then ensure that all meds and diagnoses align, EXAMPLES: Diagnose why K+ was given (hyponatremia), what Cirpo is treating, TPN for severe protein calorie malnutrition, etc.

Radiology/Other Results
MUST translate/interpret all radiology/other procedural results into diagnoses. EXAMPLE: is ‘infiltrate’ PNA? If so, document it as such. Document pleural effusions, atelectasis, ground glass opacities (tell exactly what diagnosis this one is), etc. Interpret ECHO, cardiac cath, EKG, EGD, etc. In other words, give any test or procedural result a definitive diagnosis.

Labs
It is NOT sufficient to simply write “The lab results have been reviewed”… MUST translate/interpret ALL labs that are not WNL into a treatable diagnosis. Example: metabolic acidosis, lactic acidosis, respiratory alkalosis, hyponatremia / hyponatremia, acute blood loss anemia, thrombocytopenia, hyperglycemia, etc. List labs in the SOAP note.

<table>
<thead>
<tr>
<th>Date</th>
<th>Test</th>
<th>Result</th>
<th>Units</th>
<th>Flag</th>
<th>Ref. Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-01-24</td>
<td>PLATELET</td>
<td>20</td>
<td>x10 9th/L</td>
<td>L</td>
<td>150-440</td>
</tr>
</tbody>
</table>
Assessment and Plan

Problems - List all those current diagnoses that pertain to this admission only (do not include PMH unless you are actively treating [because you should have already addressed those in your PMH section] – example: ESRD or CHRONIC DIASTOLIC HEART FAILURE – then indicate PRESENT ON ADMISSION) These will transfer over to the DC SUMMARY. When completing the DC SUMMARY, address each PROBLEM again in the DC SUMMARY.

Acute blood loss anemia
POD 0: Intraop EBL = 600cc. Transfused 3 units for low H&H in the PACU. Stable post transfusion. Resolved.

Hypotension r/t Hypovolemia
Received multi boluses and vaspressors in the immediate postop period.
SBP now WNL and stabilized
Resolved.

ID: Sepsis/SIRS/HCAP
F/U CXR shows pulm edema and infiltrate c/w HCAP. Remains unchanged.
Blood Cs results pending. UA shows GNRs w/s. coli. Appreciate ID recs.
IV ATBs (name them).
Hypotension resolved. Tachycardia resolved. Afebrile. VSS.

Acute Respiratory failure
Reintubated in PACU r/t hypoxia 2/2 pulm edema, HCAP.
Now resolved.

Hypoxemia/
PMH of COPD r/t emphysema w/OSA and BMI 41.9.
Pulm edema and HCAP.
Weaned from vent. O2 via NC @ 2L w/SATs mid-90s

Electrolyte Imbalance
Hypomagnesium – repleted (Not sufficient to document combined diagnoses: “hypoK/mag/Ca+” Must list each diagnosis separately).

ESRD (Present on Admission)
Resume home HD regimen post-op.
Nephrology consult pending.

Summary:
62 yo M w/ rectal CA w/mets to liver, now POD # 2 s/p X-lap, LOA, colon resection w/diverting ileostomy, c/b post-op hypotension, hypovolemia, acute blood loss anemia, along w/acute respiratory failure, hypoxemia, sepsis, SIRS, HCAP, pulm edema

Neuro: Acute pain
- epidural
- PCA

CV: Stable at this time. Continues on home meds for chronic diastolic heart failure.
- Will continue to monitor BP.

Resp: Pulm edema and HCAP remain unchanged. O2 SATs stable on 2L NC.

FEN/GI:
- D5½ NS @75
- Surgical site w/o visible s/s of infection. Will continue w/ daily dressing changes.

GU: E.Coli UTI. Urinary retention – foley remains in place.

REMEMBER: If you have a diagnosis that is related to another diagnosis, also document exactly what that other diagnosis is.

EXAMPLES:
  1.) HYPOTENSION related to hypovolemia/sepsis/acute blood loss anemia/ etc.
  2.) FEVER related to postop infection
  3.) ERYTHEMA related to cellulitis
  4.) COPD related to emphysema

- Be as specific as possible with each diagnosis. EXAMPLE: chronic diastolic heart failure, acute delirium. Stage III CKD.
- Always distinguish your diagnosis by stating whether it is ACUTE or CHRONIC or ACUTE ON CHRONIC.

If the patient has an EXACERBATION of a chronic diagnosis, is it “acute on chronic”? Examples: acute on chronic diastolic heart failure, acute on chronic COPD r/t emphysema.
Glossary of Important Terms

**Blended Rate**: the number that is multiplied by the relative weight gives the dollar amount paid to the hospital for a given DRG assuming the LOS falls within the trim points.

**Case Mix Index**: a measurement of the type and level of resources consumption of inpatient treated by a hospital. The number is computed by adding together the weight of each DRG assigned to each patient and divided by the number of patients.

**Coding Clinic for ICD-9-CM**: a quarterly publication which provides coding advice, official coding decisions and news related to the use of ICD-9-CM. These guidelines have been approved by the four organizations that make up the Cooperating Parties for the ICD-9-CM: the American Hospital Association (AHA), the American Health Information Management Association (AHIMA), CMS, and NCHS. These guidelines are included on the official government version of the ICD-9-CM, and also appear in “Coding Clinic for ICD-9-CM” published by the AHA.

**Complications/Co-morbid Conditions (CC)**:

**Co-Morbidity**: co-morbidity is statistically defined as a pre existing condition that when coupled with a principle diagnosis, will increase the length of stay at least one day in 75% of the cases. These conditions are active, but are not necessarily symptomatic.

**Complications**: a complication is statistically defined as a condition arising during the hospital stay that prolongs the length of stay at least one day in 75% of the cases. To be considered a clinically significant complication, the condition must meet the definition of reportable secondary diagnosis as explained in the UHDDS.

**Diagnosis Related Group (DRG)**: a system of prospective payment based on hospital resources. The ICD-9-CM diagnosis codes are divided into approximately 500 diagnostic related groups that are divided into approximately 25 Major Diagnostic Categories (MDC). The MDCs are segregated by the principal diagnosis and can be modified by surgical procedures, complications, co-morbid conditions, age, and discharge status.
Glossary of Important Terms ...continued

**International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM):** is the medical classification system used in the United States for the collection of information regarding disease and injury. Volumes 1, 2, and 3 represent approximately 12,000 codes that in turn are used to calculate a DRG assignment.

**Length of Stay (LOS):** duration of a single episode of Hospitalization

**Major Co-morbidity and Complication (MCC):** a further stratification of additional diagnoses which impact the DRG assignment. The Major CC’s are differentiated from the CC as they have greater impact on resource utilization and the subsequent DRG assignment.

**Medicare Severity-Adjusted Diagnosis-Related Groups system (MS-DRG system):** a patient classification system used in hospital reimbursement. The addition of CC (Complications and Comorbid Conditions) and MCC’s (Major Complications and Co-morbid Conditions) further reflect the severity of the patient’s illness with the MS DRG payer system.

**Other reportable diagnoses:** conditions that coexist at the time of admission, develop subsequently, or affect patient care during the hospital stay. For UHDDS reporting purposes, the definition of "other diagnoses" includes only those conditions that affect the episode of hospital care in terms of any of the following: Clinical evaluation; Therapeutic treatment; Further evaluation by diagnostic studies, procedures, or consultation; Extended length of hospital stay; Increased nursing care and/or other monitoring.

**Principal Diagnosis:** is defined as the condition established after study to be chiefly responsible for admission of the patient to the hospital. It is important that the principal diagnosis be designated correctly because it is significant in cost comparisons, care analysis, and utilization review. It is crucial for reimbursement because many third-party payers (including Medicare) base reimbursement primarily on principal diagnosis.
Glossary of Important Terms ...continued

**Prospective Payment System (PPS):** a payment method in which the hospital rate is set prospectively and is based on expected classes of patient derived from the DRG.

**Provider:** a physician or any qualified health care practitioner (such as a nurse practitioner or physician assistant) who is legally accountable for establishing the patient's diagnosis.

**Relative weight (RW):** is a value assigned to each DRG which reflects the resource intensity of each DRG.

**Risk of Mortality (ROM):** a medical classification to estimate the likelihood of in-hospital death for patients. The ROM Classes are Minor, Moderate, Major and Extreme. Patients with higher ROM are more likely to consume greater healthcare resources and have a higher likely hood of death in the hospital than patients with lower ROM in the same DRG.

**Severity of Illness (SOI):** The extent of organ system derangement or physiologic decomposition for a patient. It gives a medical classification into Minor, Moderate, Major and Extreme. The SOI class is meant to provide a basis for evaluating hospital resource use or establish patient care guidelines. Patients with higher SOI are more likely to consume greater healthcare resources and stay longer in the hospital than patients with lower SOI in the same DRG.

**Surgical Procedure:** usually requiring an operating room, these procedures are accompanied by anesthetic risk and require special training.

**Uniform Hospital Discharge Data Set (UHDDS):** information used for reporting inpatient data
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## REFERENCES

### POSTOPERATIVE CARDIOGENIC SHOCK


### HYPERTENSION


### RENAL DISEASE


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**THE GAP BETWEEN MEDICAL TERMINOLOGY AND CODING LANGUAGE**

CDS team at St. Cloud Hospital in MN

**CARDIOVASCULAR**

http://www.mdguidelines.com/hypertensive-heart-disease/definition  
http://www.heartfailure.org/eng_site/hf_circulation.asp  
Mosby’s medical dictionary Sixth edition
ACUTE KIDNEY INJURY (AKIN)

Small but important differences are observed between the two systems. A time constraint of 48 h for diagnosis (using either serum creatinine levels or urine output) is required in AKIN criteria. GFR decreases are used for diagnosis only in RIFLE criteria. In both systems, only one criterion (creatinine or urine output) has to be met to qualify for a given class or stage of AKI. Classes L and E of the RIFLE criteria are not reported. Owing to the wide variation in indications for and timing of initiation of RRT, individuals who receive RRT are considered to have AKIN Stage 3 AKI irrespective of their serum creatinine level and urine output.\(^6,^{15}\) Abbreviations: AKI, acute kidney injury; AKIN, AKI Network; CR, creatinine; GFR, glomerular filtration rate; RIFLE, Risk, Injury Failure, Loss, End-stage renal disease; RRT, renal replacement therapy.


MALNUTRITION


CLINICAL SIGNS OF DEFICIENCY


The ASPEN Nutrition Support Core Curriculum: Nutrition Screening and Assessment: 2007