

SATURDAY, APRIL 21, 2018

Challenges in

Clinical Documentation Integrity

Literature Definitions and Clinical Validity

1. Acute Respiratory Failure
2. Acute Encephalopathy
3. Sepsis

Donald M. Blanton, MD, MS, FACEP
Fellow American College of Emergency Physicians

- Board Certified in Emergency Medicine
- Board Certified in Internal Medicine

AHIMA-Approved ICD-10-CM/PCS Trainer

(615) 972-1643 (cell: voice & text)
donblanton027@att.net

CDIMD
 PHYSICIAN CHAMPIONS

Disappearing Diagnoses

Conditions presenting to the emergency department in extremis, that are intervened upon by the emergency physician such that by the time the inpatient order is written, if not duly recorded, they may be lost.

- Acute respiratory failure

- Heart failure
- COPD
- Asthma

- Encephalopathy

- Sepsis

- Ventricular fibrillation —————→



Review new ICU admissions for conditions not captured by the hospitalist or the emergency physician.

3

Clinical Conditions — with critical risk adjustment impact

1
Acute Respiratory Failure

Acute Respiratory Failure

- There is no literature definition of acute respiratory failure –
 - There is, however, abundant literature about how to manage it and its underlying cause.

CDIMD definition:

- Requirements for establishing acute respiratory failure
 1. Documented hypoxia (or hypercapnea)
 2. Potentially life-threatening circumstance (clinical judgment)
 3. Immediate action required

Acute Hypoxemic Respiratory Failure

2. Life-Threatening Event

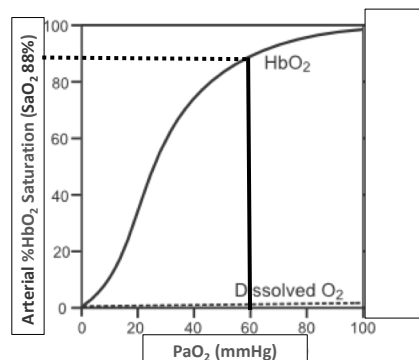
1. Confirm Hypoxia

- On room air (RA)
 - By arterial blood gas (ABG)
 - Hypoxia = $\text{PaO}_2 < 60$ mmHg, $\text{SaO}_2 < 88\%$
 - By peripheral oxygen saturation
 - Hypoxia = $\text{SpO}_2 \leq 90\%$
- On supplemental oxygen
 - (P/F ratio) Divide PaO_2 (arterial) by FiO_2
 - 60 (lowest acceptable) / 0.21 (room air) = 285
 - Hypoxia = quotient ≤ 285
 - Translating SpO_2 to PaO_2 to follow

3. Immediate Action –

- Respiratory assistance or monitoring
- Mechanical ventilation, or
 - BiPAP (non-invasive assistance), or
 - High-flow O_2 , or
 - Aggressive respiratory therapy, or
 - Frequent monitoring, usually ICU or ER

Source: Coding Clinic, 2nd Quarter 1990, pp 20, 21



Klabunde, R.E., *Cardiovascular Physiology Concepts*, 2nd Ed., Lippincott Williams & Wilkins (2011)

SpO_2 consistently $\leq 90\%$

If not an acute life-threatening state, requiring acute monitoring or intervention, document as hypoxemia only.

SpO₂ and PaO₂ Equivalency

Table 1

Doctors are less likely to document ARF if on supplemental oxygen

Hypoxia can be extrapolated:

(P/F ratio)

Divide PaO₂ (arterial) by FiO₂

60 (lowest acceptable)/0.21 (room air) = 285

Hypoxia = quotient \leq 285

- Translate SpO₂ to PaO₂ using table 1
- Estimate the FiO₂ using table 2
- PaO₂ / FiO₂ \leq 285 = hypoxia
- Many publications round the threshold to 300.

Oximetry	Blood gas
SpO ₂ (%)	PaO ₂ (mmHg)
80	44
81	45
82	46
83	47
84	49
85	50
86	52
87	53
88	55
89	57
90	60
91	62
92	65
93	69
94	73
95	79
96	86
97	96
98	112
99	145

Oxygen Delivery

Table 2

O ₂ Delivery and FiO ₂			
Method	O ₂ flow (l/min)	Estimated	
		(%)	FiO ₂
	Room air	21%	0.21
Nasal cannula	1	24	0.24
	2	28	0.28
	3	32	0.32
	4	36	0.36
	5	40	0.40
	6	44	0.44
Nasopharyngeal catheter	4	40	0.60
	5	50	0.70
	6	60	0.80
Face mask	5	40	0.40
	6-7	50	0.50
	7-8	60	0.60
Face mask with reservoir	6	60	0.60
	7	70	0.70
	8	80	0.80
	9	90	0.90
	10	95	0.95

Mechanically ventilated: see RT notes for FiO₂

Source: International Symposium on Intensive Care and Emergency Medicine.
www.tinyurl.com/OxygenCharts

Acute Hypoxemic Respiratory Failure

Determinant of Oxygenation	Means of Oxygenation	
	Room Air	Supplemental O ₂
Blood gas	PaO ₂ < 60 mm Hg	Divide PaO ₂ by FiO ₂ < 285 = hypoxia
Oxygen saturation	SpO ₂ < 90% corresponds to PaO ₂ < 60	Convert SpO ₂ to PaO ₂ , Divide PaO ₂ by FiO ₂ < 285 = hypoxia

Example

Saturation, SpO₂: 90%
 PaO₂ equiv. 60
 Oxygen delivery: BNC
 Rate: 6 L/min
 FiO₂: 44% (0.44)

PaO₂ divided by FiO₂
 60 / 0.44 = 136
 136 is < 285
 Hypoxemia confirmed

ICU Admission: Heart Failure

Hospitalist's H&P:

Patient presented to the emergency department in acute heart failure. On admission:

120/75, 85, 20, 90% on 6 L/min BNC
In the ED had UOP: 1 L

Emergency Physician's Note

CC: SOB

Hx: 65 yo M, SOB, 2 d, increasing. Unable to lay flat or walk across the room. Occasionally sweaty. No CP, N/V.
ROS: No F/C, cough. No HA.

PMH: History of HTN
History of Diabetes, Type 2
History of ASCVD

PE: 180/120, 95, 28, SpO₂ 80% (RA), 97.8°F.
General: WD WN M, alert, moderate. respiratory distress, increased work of breathing.
HEENT: JVD to angle of jaw.
CV: HRR.
Lungs: crackles to mid-lung. Increase RR and effort.
Extr: 2+ pitting edema.

Impression:

CHF
HTN

Treatment:

NTG
O₂ 10 L/min via face mask
Lasix

Reassessment:

120/75, 85, 20, 90% on 6 L BNC
UOP: 1 L

Plan: Admit to Medicine Service

Review new ICU admissions for conditions not captured by the hospitalist or the emergency physician.

Acute Respiratory Failure



- CDI checklist – *looking for red flags*
 - Clinical scenario: Heart failure, pneumonia, asthma, COPD
 - Vital signs:
 - Peripheral oxygen saturation: $\leq 90\%$ RA;
 - If on supplemental O_2 ,
 - How delivered? What rate? Check the table for FiO_2 . Do the math.
 - Tachycardia, tachypnea
 - Appearance:
 - “Respiratory distress”
 - “Increased work of breathing”
 - “NAD” (no acute distress) is disqualifying, may be subject to amendment if other evidence warrants query (sometimes they say it without thinking)
 - Blood gas:
 - $PaO_2 \leq 60$ mmHg (acute hypoxemic respiratory failure)
 - $PaCO_2 \geq 50$ mmHg (acute hypercapnic respiratory failure)
 - Query:
 - Abnormal Respiration Query

Example

Saturation, SpO_2 : 90%
 PaO_2 equiv. 60
 Oxygen delivery: BNC
 Rate: 6 L/min
 FiO_2 : 44% (0.44)

PaO_2 divided by FiO_2
 $60 / 0.44 = 136$
 $136 < 285$
 Hypoxemia confirmed

Clinical Example: Red Flags for ARF



CC: SOB

Hx: 65 yo M, SOB, 2 d, increasing. Unable to lay flat or walk across the room. Occasionally sweaty. No CP, N/V.
ROS: No F/C, cough. No HA.

PMH: ~~History of HTN~~
~~History of Diabetes, Type~~
~~History of ASCVD~~

Impression:

CHF
 HTN

Treatment:

NTG
 O_2 10 L/min via face mask
 Lasix

PE: 180/120, 95, 28, SpO_2 80% (RA), 97.8°F.
 General: WD WN M, alert, moderate. **respiratory distress, increased work of breathing.**
HEENT: JVD to angle of jaw.
CV: HRR.
 Lungs: crackles to mid-lung. Increase RR and effort.
 Extr: 2+ pitting edema.

Reassessment:

120/75, 85, 20, 90% on 6 L/min BNC
 UOP: 1 L
Plan: Admit to Medicine Service

This is what the hospitalist is going to see.

Recommendation: Hospitalists, include description of the patient **on arrival to the ED.**

- Supports medical necessity for level of care

Acute Systolic HF & ARF: Facility Impact

- Acute respiratory failure, if present in the setting of HF, is always treated.
- Recognizing it as a distinct condition, naming it, and documenting it has tremendous impact on facility reimbursement.

PDx: Acute systolic heart failure SDx: HTN		PDx: Acute systolic heart failure SDx: Acute respiratory failure HTN	
MS-DRG	Description	RW	Reimb.
293	Heart Failure & Shock w/o CC/ MCC	0.6853	\$4,088
340	Heart Failure & Shock w MCC	1.4943	\$8,915
			+ \$4,827

Acute Systolic HF & ARF: Physician Impact

	ICD-10 Code	Description	HCC #	HCC RW*	MS DRG CC/MCC
PDx	I50.21	Acute systolic heart failure	85	0.323	N/A
SDx	I10	Essential (primary) hypertension	--	--	--
		Total HCC Risk Adjustment Factor		0.323	
MS-DRG 293 HF w/o CC/MCC		Hospital Reimbursement			\$4,088

	ICD-10 Code	Description	HCC #	HCC RW	MS DRG CC/MCC
PDx	I50.21	Acute systolic heart failure	85	0.323	N/A
SDx	I10	Acute respiratory failure	84	0.302	MCC
	I10	Essential (primary) hypertension	--	--	--
		Total HCC Risk Adjustment Factor		0.625	
MS-DRG 340 HF w/ MCC		Hospital Reimbursement			\$8,915
					+ \$4,827

* HCC RW for aged. There are separate HCC RWs for Medicare+Medicaid and institutionalized (nursing home) patients.

Acute Hypercapnic Respiratory Failure

Hypercapnic respiratory failure

- Normal $\text{PaCO}_2 = 40$
- Hypercapnea classically defined as $\text{PaCO}_2 > 45-50$
 - *Coding Clinic* states **$\text{PaCO}_2 > 50$**
- pH value dependent upon chronicity and renal effects
 - *Coding Clinic* states $\text{pH} < 7.33-7.35$; however, this applies only to acute respiratory failure
 - If $\text{pH} > 7.33-7.35$, consider chronic respiratory failure

Clinical Validation: The Next Level of CDI

AHIMA Practice Brief, July 2016

In an nutshell: Clinical validity is the responsibility of CDS, not the coders. Clinical validity queries need to be resolved while the patient is hospitalized; or, if identified by coders, referred to CDS for resolution.

ONE OF THE more challenging tasks for both coding and clinical documentation improvement (CDI) professionals is clinical validation. This is a relatively new responsibility that has evolved as CDI programs mature and CDI and coding professionals advance their knowledge and collaboration on clinical care.

As explained in the 2008 Practice Brief "Managing an Effective Query Process:"

Providers often make clinical diagnoses that may not appear to be consistent with test results. For example, the provider may make a clinical determination that the patient has pneumonia when the results of the chest x-ray may be negative. Queries should not be used to question a provider's clinical judgment, but rather to clarify documentation when it fails to meet any of the five criteria listed [here]—legibility, completeness, clarity, consistency, or precision.

A query may not be appropriate simply because the clinical information or clinical picture does not appear to support the documentation of a condition or procedure (e.g., documentation of acute respiratory failure in a patient whose laboratory findings do not appear to support this diagnosis). In situations where the provider's documented diagnosis does not appear to be supported by clinical findings, a healthcare entity's policies can provide guidance on a process for addressing the issue without querying the attending physician.

should be derived from the specific medical record under review and the unique episode of care. Clinical indicators supporting the query may include elements from the entire medical record, such as diagnostic findings and provider impressions.

It is also important to note that clinical validation is a somewhat subjective concept as practitioners often disagree how to define conditions such as severe malnutrition and acute respiratory failure.

Let's take a closer look at the concept of clinical validation by examining how it is defined by the Centers for Medicare and Medicaid Services (CMS) as referenced in the Recovery Audit Contractor (RAC) Scope of Work (SOW) document from 2013:

Clinical validation is an additional process that may be performed along with DRG validation. Clinical validation involves a clinical review of the case to see whether or not the patient truly possesses the conditions that were documented in the medical record. Recovery Auditor clinicians shall review any information necessary to make a prepayment or post-payment claim determination. Clinical validation is performed by a clinician (RN, CMD or therapist). Clinical validation is beyond the scope of DRG (coding) validation, and the skills of a certified coder. This type of review can only be performed by a clinician or may be performed by a clinician with approved coding credentials.

Clinical validation is the process of CDI before the record goes to coding.

CDI: Reliability of Diagnosis

Acute Respiratory Failure

Clinical Example: COPD & Respiratory Failure

D/C
Summary

Impression 1. Marked exacerbation of COPD
2. Acute on chronic respiratory failure

- (with respiratory failure being the MCC)

Clinical data

- Room air oxygen saturation 90%
- Had not been on supplemental home oxygen (i.e., did not have chronic respiratory failure), not discharged on home oxygen (i.e., still doesn't have chronic respiratory failure)
- No ABG is identified

The clinical validity is questionable. Actually, meets criteria for neither acute nor chronic respiratory failure.

Billed as: DRG 190 – COPD w/MCC				
Relative Weight	GLOS	SOI	ROM	Reimb
1.1743	4.8	3	2	\$9,563
Corrected to: DRG 192 – COPD w/o CC/MCC				
0.7190	2.8	1	1	\$6,121

Clinical Validity: Growing aspect of RAC scrutiny, is the responsibility of CDS, before final coding.

Admitting H&P: Reliability – Respiratory Failure

HISTORY OF PRESENT ILLNESS: This patient is a 64 year-old white married male who comes in with a chief complaint of severe shortness of breath. He is having lots of coughing in spasms. He can't stop coughing, he says. He has been running a low grade fever. He is having difficulty expectorating his sputum. He is very short of breath. He is a smoker and he continues to smoke at least a pack a day, if not more. We last saw him in the office in 9/04 and again, he was still smoking. He is known with chronic obstructive pulmonary disease. He does have some sleep apnea. He has chronic bronchitis.

PHYSICAL EXAMINATION: the patient is a well developed, well nourished very pleasant male, who appears in no acute distress but who appears short of breath. Upon arrival to our emergency room, his blood pressure was found to be 184/50, pulse 124 per minute, regular respirations 34 per minute, temperature 97.8. O2 SATS were 97% on room air. His chest x-ray shows and emphysematous chest, increased markings with a possible infiltrate in the right lung base consistent with pneumonia. Pupils equal, round and reactive to light and accommodation.

IMPRESSION:

1. Acute right lower lobe pneumonitis.
2. Chronic obstructive pulmonary disease with acute and chronic bronchitis and acute exacerbation of such with acute respiratory failure.
3. Seizure disorder.
4. Arteriolosclerotic heart disease with a history cardiac arrhythmias in the past.

1. Hypoxia
2. Life threat
3. Immediate intervention

What did the emergency physician's note say?

19

Clinical Conditions – with critical risk adjustment impact

Postoperative Respiratory Failure

Reliability – Complications Postop “Respiratory Failure” After MVR

Immediate postop note:

Lines/CXR/ECG remain
 Atrial fibrillation
 (1) S/P MVR → Cardiogenic Shock on Epinephrine
 (2) Cardiogenic Shock on Epinephrine
 (3) post op bleeding - pain
 (4) Acute Hypox Resp Failure (Post op)
 (5) post op uneventful course
 (6) Hx
 (7) clean system (CHF (EF 47%))

- Note that “shock” and “respiratory failure” are documented.
- If coded, are complications to the surgeon.
- CDI must ascertain if the MDs intended for these to be coded as complications or, if expected/integral to the procedure.

Discharge summary:

On 5/3/2012, the patient underwent Redo MVR.
 Patient was extubated within 24 hours postoperatively. Patient's chest tubes and temporary pacing wires were removed without difficulty. Patient has been placed on Coumadin for his mitral valve prosthesis. Patient is to remain on Coumadin for six weeks with an INR goal of 2.0-3.0. Patient has been instructed to have his INR checked 2x a week, and follow up with his cardiologist to determine his current dose. Patient has had an otherwise uneventful postoperative course and is stable for discharge home.

21

Compliance Issues With Postoperative Respiratory Failure

- Many physicians document “acute respiratory failure” in the postoperative period, even though it is usual and customary for the procedure
 - Helps justify their E/M billing level
 - Consequently, coders have to query the physician to determine if the code should be added or not
- Appropriate to add ARF if the physician documents it as:
 - Not routinely expected or as a complication of the procedure
 - Due to another cause or due to medications or anesthesia

22

Differentiating Post-Operative Respiratory Failure due to Surgery or Another Condition

Code	ICD-10-CM Title	HCC#	HCC Name	HCC RW Medicare	HCC RW Mc+Mcaid	HCC RW Institut	AHRQ PSI	MS-DRG CC/MCC	APR-DRG SOI	APR-DRG ROM
J95.821	Acute postprocedural respiratory failure	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297	11(90)	MCC	4	3
J95.822	Acute and chronic postprocedural respiratory failure	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297	11(90)	MCC	4	3
J96.00	Acute respiratory failure, unspecified w hypoxia or hypercapnea	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297		MCC	4	4
J96.01	Acute respiratory failure w hypoxia	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297		MCC	4	4
J96.02	Acute respiratory failure hypercapnea	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297		MCC	4	4

- **Acute post-procedural respiratory failure** codes (J95...) always as a complication (PSI 90, #11)
- **Acute respiratory failure due to (a specified condition)** *is not* a complication of surgery.
 - If due to a specific condition other than the surgery, name as “due to” that condition
 - E.g., “**Respiratory failure due to morbid obesity**” or “**COPD**,” etc.
- When hypoxemic or hypercapneic respiratory failure is present, document its underlying cause (e.g., ARDS, exacerbations of COPD, Pickwickian Syndrome, or status asthmaticus, etc.)

Clinical Conditions — with critical risk adjustment impact

Postoperative Pulmonary Insufficiency

Differentiating Post-Operative Respiratory Failure and Post-Operative Pulmonary Insufficiency

Code	ICD-10-CM Title	HCC#	HCC Name	HCC RW Medicare	HCC RW Mc+Medicaid	HCC RW Institut	AHRQ PSI	MS-DRG CC/MCC	APR-DRG SOI	APR-DRG ROM
J95.821	Acute postprocedural respiratory failure	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297	11(90)	MCC	4	3
J95.822	Acute and chronic postprocedural respiratory failure	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297	11(90)	MCC	4	3
J95.1	Acute pulmonary insufficiency following thoracic surgery	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297		MCC	3	2
J95.2	Acute pulmonary insufficiency following non-thoracic surgery	84	Cardio-Respiratory Failure & Shock	0.302	0.471	0.297		MCC	3	2

- **Acute post-procedural respiratory failure** codes *always* as a complication (PSI 90, #11)
- **Acute respiratory failure due to (a specified condition)** is *not* a complication of surgery.
 - E.g., “Respiratory failure due to morbid obesity” or “COPD,” etc.
- **Postoperative pulmonary insufficiency:**
 - “conditions that only require supplemental oxygen or intensified observation”
 - Should have documentation of **hypoxemia** or a **severe lung disease** or **other convincing reason** for additional observation
 - *Coding Clinic*, 4th Quarter 2011, pp 123-125
 - **Not a complication of surgery.**

Postoperative Pulmonary Insufficiency

- “Conditions that only require supplemental oxygen or intensified observation”
 - Intervention(s) at a time in the post-operative course when routine patients do not require them:
 - Supplemental oxygen
 - Bronchodilator therapy
 - (Beyond the routine use of incentive spirometry)

Acute Respiratory Failure During Hospitalization

Question:

- The patient presented to the Emergency Department (ED) in **full cardiac arrest** and respiratory failure due to an acute myocardial infarction. He was **resuscitated** intubated and mechanically ventilated. The patient was admitted to the ICU but expired. The ED physician documented **acute respiratory failure**. However, the attending physician did not document acute respiratory failure in the health record. Is acute respiratory failure a codeable secondary diagnosis based on the ED physician's documentation of this condition?

Answer:

- Yes, code 518.81 [ICD-10-CM: **J96**], **Acute respiratory failure**, should be assigned based on the ED physician's diagnosis, as long as there is no other conflicting information in the health record. Whenever there is any question as to whether acute respiratory failure is a valid diagnosis, query the provider.

Coding Clinic, 3rd Quarter 2012, p 22

Interpretation: Resuscitation from cardiac arrest and mechanical ventilation allows addition of acute respiratory failure. Failure to resuscitate from cardiac arrest does not.

Acute respiratory failure and **respiratory arrest** are not the same.

Respiratory Failure vs. Arrest (Tables)

J96 Respiratory failure, not elsewhere classified

Excludes1: acute respiratory distress syndrome (J80)
cardiorespiratory failure (R09.2)
newborn respiratory distress syndrome (P22.0)
postprocedural respiratory failure (J95.82-)
respiratory arrest (R09.2)
respiratory arrest of newborn (P28.81)
respiratory failure of newborn (P28.5)

R09.2 MCC

Excludes1 means both codes cannot be simultaneously coded.

J96.0 Acute respiratory failure

ICD-10 Code	Description	HCC #	HCC RW Aged	MS-DRG CC/MCC
J96.00	Acute respiratory failure, unspecified whether with hypoxia or hypercapnea	84	0.302	MCC
J96.01	Acute respiratory failure with hypoxia	84	0.302	MCC
J96.02	Acute respiratory failure with hypercapnea	84	0.302	MCC
R09.2	Respiratory arrest	83	0.658	MCC

Three reasons to intubate: 1) acute respiratory failure, 2) respiratory arrest, 3) airway protection.

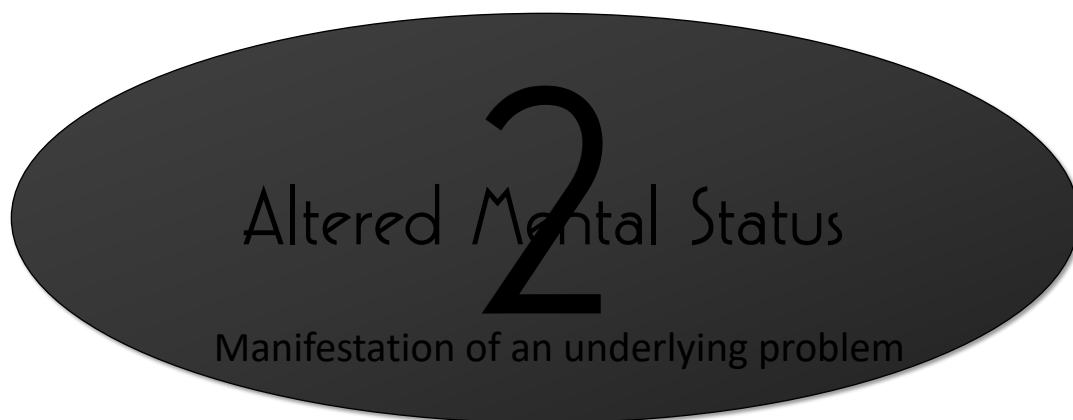
Disappearing Diagnoses

Conditions presenting to the emergency department in extremis, that are intervened upon by the emergency physician such that by the time the inpatient order is written, if not duly recorded, they may be lost.

- Acute respiratory failure
 - Heart failure
 - COPD
 - Asthma
- Altered Mental Status & Encephalopathy
- Sepsis

29

Clinical Conditions — with critical risk adjustment impact



Manifestation: Altered Mental Status

- **AMS: non-specific functional observation**
 - Provides no information about how the mental status is altered
 - Provides no information about how it came to be altered
- **Specific manifestation of AMS**
 - Delirium – poor ability to focus, sustain attention; misperceptions of sensory stimuli
 - Psychosis – loss from reality – delusions, hallucinations
 - Somnolence – drowsiness
 - Stupor – deep sleep or similar unresponsiveness
 - Coma = unconscious
- The manifestation is due to a specific underlying brain pathology (e.g. an encephalopathy, stroke, etc.)

Conditions, Details, & Interdependencies

MUSIC

M	Manifestation – Presenting Symptoms e.g., confusion, agitation, delirium, dementia, psychosis, stupor, coma. [Altered mental status and unresponsive do not have codes that add RW]
U	Underlying Cause Cerebral edema, stroke, Alzheimer's disease, encephalopathy, etc.
S	Severity or Specificity Metabolic encephalopathy due to hypoglycemia in the setting of diabetes, septic encephalopathy, uremic encephalopathy; acute/chronic
I	Instigating or precipitating causes Indwelling foley cath & UTI, insulin with no meal, ESRD, drug overdose
C	Consequences or Complications Acute respiratory failure, seizure (status epilepticus), trauma

"Caused by," "Due to," "Resulting in"

When given a diagnosis, place it one of these categories and then look for the other four, linking them with terms such as "caused by," "due to," or "resulting in" whenever possible.

32

Early Delirium can be Subtle

- Loss of ability to focus may be unapparent to one not intimate with the patient
- Family: the patient “isn’t acting quite right”
 - Should be taken seriously

Sundowning

- Some elderly get acutely confused in the hospital after dark – manifested as delirium
- Can be an acute change on top of a baseline chronic dementia
- Consider a mechanism of clear communication of the event to physicians, who typically do not round at night.

Sundowning is in the Tables under delirium (a CC)

Delirium - Epidemiology

**Delirium can occur in up to
30% of older hospitalized patients**

- Particular conditions at risk
 - Fractures after fall
 - Cardiac surgery
 - Polypharmacy
 - Infection
 - Dehydration
 - Malnutrition
 - Immobility
 - Use of bladder catheters
- Hospital environments with high rates of delirium
 - ICU, 70%
 - Hospice unit, 40%
 - Post acute care settings, 16%
 - Emergency department, 10%

Francis J, et al., Diagnosis of delirium and confusional states, UpToDate, Topic 4824, Version 15.0, Accessed 03/16/2017

“Behavioral Disturbance” with Dementia

F01 Vascular dementia

Vascular dementia as a result of infarction of the brain due to vascular disease, including hypertensive cerebrovascular disease.

Includes: arteriosclerotic dementia

Code first the underlying physiological condition or sequelae of cerebrovascular disease.

F01.5 Vascular dementia

F01.50 Vascular dementia without behavioral disturbance

F01.51 Vascular dementia with behavioral disturbance

Vascular dementia with aggressive behavior

Vascular dementia with combative behavior

Vascular dementia with violent behavior

Use additional code, if applicable, to identify wandering in vascular dementia (Z91.83)

Behavioral disturbance is a CC

Glasgow Coma Scale

- Glasgow Coma Scale (GCS) has ICD-10 codes
 - Can be coded from **non-physician documentation**
 - For example – EMTs, paramedics, RNs
 - Can be used in all clinical circumstances – trauma, medical diagnoses, etc.**
 - Must document each component score, not just the GCS total

Glasgow Coma Scale			
Score	Eye opening	Verbal response	Motor response
1	None	None	None
2	To pain	Vocal but not verbal	Extension
3	To voice	Verbal but not conversational	Flexion
4	Spontaneous	Conversational but disoriented	Withdraws from pain
5	—	Oriented	Localizes pain
6	—	—	Obeys commands

Published in 1974 by professors of NSG at the Glasgow (Scotland) Institute of Neurological Sciences

Glasgow Coma Scale

	Description	MS DRG CC/MCC	APR DRG SOI	APR DRG ROM
Eye Opening	(1) Eyes open, <u>never</u>	MCC	3	4
	(2) Eyes open, to <u>pain</u>	MCC	3	4
	(3) Eyes open, to sound	--	1	1
	(4) Eyes open, spontaneous	--	1	1
Verbal	(1) <u>Best verbal response</u> , none	MCC	3	4
	(2) Best verbal response, <u>incomprehensible words</u>	MCC	3	4
	(3) Best verbal response, inappropriate words	--	1	1
	(4) Best verbal response, confused conversation	--	1	1
	(5) Best verbal response, oriented	--	1	1
Motor	(1) <u>Best motor response</u> , none	MCC	3	4
	(2) Best motor response, <u>extension</u>	MCC	3	4
	(3) Best motor response, <u>flexion</u>	MCC	1	1
	(4) Best motor response, withdrawal	--	3	4
	(5) Best motor response, localizes pain	--	1	1
	(6) Best motor response, obeys commands	--	1	1
Total	Glasgow coma scale score 13-15	--	1	1
	Glasgow coma scale score 9-12	--	1	1
	Glasgow coma scale score 3-8	--	1	1

- When using only the final GCS tally, your patient's severity of illness is not credited

Underlying Causes

Encephalopathy

- An acute condition of **global cerebral dysfunction** in the absence of primary structural brain disease
- Caused by the direct physiological consequences of a medical condition
 - Cannot be accounted for by preexisting or evolving dementia
- Clinical manifestation is an alteration in mental status

Delirium and Encephalopathy

- Delirium/Psychosis/Dementia is a manifestation
- Encephalopathy is an underlying cause
 - Delirium does not equal encephalopathy
 - Encephalopathy does not equal delirium

“Delirium due encephalopathy of **a named condition**”

MUSIC: “caused by,” “due to,” “resulting in”

Delirium as Manifestation of Encephalopathy

Metabolic encephalopathy

- Fluid and electrolyte disturbances
 - dehydration, hyponatremia and hypernatremia
- Infections
 - urinary tract, respiratory tract, skin and soft tissue
 - Delirium due to infection represents organ dysfunction, supporting severe sepsis
- Withdrawal from alcohol
- Withdrawal from barbiturates, benzodiazepines, and selective serotonin reuptake inhibitors
- Metabolic disorders (hypoglycemia, hypercalcemia, uremia, liver failure, thyrotoxicosis)
- Low perfusion states (shock, heart failure)
- Postoperative states, especially in the elderly

Toxic encephalopathy

- Acute alcohol intoxication
- Acute drug overdose

Diabetes Control

ICD-10 Code	Description	HCC #	HCC RW	MS DRG CC/MCC	APR DRG SOI	APR DRG ROM
E109	Type 1 diabetes mellitus without complications	19	0.121	--	1	1
E10649	Type 1 diabetes mellitus with hypoglycemia without coma	18	0.368	--	2	1
E1065	Type 1 diabetes mellitus with hyperglycemia	18	0.368	--	4	3
E10641	Type 1 diabetes mellitus with hypoglycemia with coma	17	0.368	MCC	4	3
G9341	Metabolic encephalopathy	--	--	MCC	3	3
E162	Hypoglycemia (non-diabetic)	--	--	--	1	1
R739	Hyperglycemia (non-diabetic)	--	--	--	1	1

- Documenting an episode of hypoglycemia **triples** the HCC RW to the physician.
- If the mental status is altered and “metabolic encephalopathy due to hypoglycemia” is documented, the SDx has the RW of an MCC.

There are different ICD-10-CM codes for Type 2 diabetes but the coding principals and relative weights are the same.

43

Hypertensive Encephalopathy

- Rapidly evolving syndrome of severe hypertension in association with headache, nausea and vomiting, visual disturbances, confusion, and—in advanced cases—stupor and coma
 - Multiple seizures are frequent and may be more marked on one side of the body
 - Diffuse cerebral disturbance may be accompanied by focal or lateralizing neurologic signs, either transitory or lasting, which should suggest cerebral hemorrhage or infarction, i.e., the more common cerebrovascular complications of severe chronic hypertension
 - A clustering of multiple microinfarcts and petechial hemorrhages in one region may occasionally result in a mild hemiparesis, aphasic disorder, or rapid failure of vision
- Special characteristics of signal changes in the occipital white matter may occur
 - The terms reversible posterior leukoencephalopathy (RPLE) and posterior or reversible leukoencephalopathy syndrome (PRES)

Source: Adams and Victor's Principles of Neurology, 9th Edition, 2009

44

Hepatic Encephalopathy

- A wide array of transient and reversible neurologic and psychiatric manifestations usually found in patients with chronic liver disease and portal hypertension, but also seen in patients with acute liver failure
 - Occurs in 50%–70% of patients with cirrhosis
- Treatment options
 - Diet – low protein
 - Medications – lactulose, neomycin, rifaximin, probiotics
- Serves as a reason for admission
 - Only an MCC if with coma

Grade	Impairment	
	Intellectual function	Neuromuscular function
0	Normal	Normal
Minimal, subclinical	Normal examination findings. Subtle changes in work or driving.	Minor abnormalities of visual perception or on psychometric or number tests
1	Personality changes, attention deficits, irritability, depressed state	Tremor and incoordination
2	Changes in sleep-wake cycle, lethargy, mood and behavioral changes, cognitive dysfunction	Asterixis, ataxic gait, speech abnormalities (slow and slurred)
3	Altered level of consciousness (somnia), confusion, disorientation, and amnesia	Muscular rigidity, nystagmus, clonus, Babinski sign, hyporeflexia
4	Stupor and coma	Oculocephalic reflex, unresponsiveness to noxious stimuli

45

Uremic Encephalopathy

- Marked elevation of BUN
- Acute kidney failure or acute-on-chronic failure
- Marked encephalopathy may occur earlier in the elderly than the young.
- Uremic encephalopathy reverses with dialysis, but mental clearing may lag 1-2 days.
- Could reasonably be termed metabolic or toxic encephalopathy

Sodium-Related Encephalopathy

- **Hyponatremic Encephalopathy**
 - Often in the setting of the syndrome inappropriate secretion of antidiuretic hormone (SIADH)
 - Sodium levels typically below 120 mEq/L
- **Hypernatremic Encephalopathy**
 - Typically due to increase water loss and inadequate replacement
 - Mortality in patients with sodium levels greater than 160 mEq/L is typically 70%.

Septic Encephalopathy

- Delirium (as the altered mental status) in the setting of suspected or confirmed infection supports severe sepsis (S2) or sepsis (S3)
 - CDIMD endorses continued use of the term “severe sepsis” when associating an organ dysfunction, to avoid the uncertainty of whether the author is using S2 or S3 definitions.

Other Metabolic Encephalopathies

“Metabolic encephalopathy due to. . .”

- Hypercalcemia
- Hypocalcemia
- Hypophosphatemia
- Hypomagnesemia
- Wernicke’s encephalopathy
 - Due to thiamine deficiency
 - Confusion, ataxia, ophthalmoplegia
- Some transplant medications can cause encephalopathy
 - Cyclosporine
 - Corticosteroids

Chalela J, et al., Acute toxic-metabolic encephalopathy in adults, UpToDate, Topic 1661 Version 8.0, accessed 03/16/2017

Post-Ictal Encephalopathy due to Seizure

Question:

The patient is a 70-year-old female who presented to the emergency department (ED) because of mental status change. While in the ED, she had a tonic-clonic seizure that was witnessed by staff. The patient had no previous history of seizure and was admitted as an inpatient for further evaluation and management. In the discharge summary, the provider noted, "On admission the patient had mental status changes, which subsequently resolved. Consequently, we have determined that the patient had **encephalopathy secondary to postictal state**." Should encephalopathy be reported as an additional diagnosis with seizure when it's due to a postictal state? Would the encephalopathy be considered inherent to the seizure or can it be separately reported?

Answer:

Assign code 780.39, Other convulsions, as the principal diagnosis. **The encephalopathy due to postictal state is not coded separately since it is integral to the condition.** Seizure activity may be followed by a period of decreased function in regions controlled by the seizure focus and the surrounding brain. The postictal state is a transient deficit, occurring between the end of an epileptic seizure and the patient's return to baseline. This period of decreased functioning in the postictal period usually lasts less than 48 hours.

Coding Clinic, 4th Quarter 2013, pp 89-90

Complete Documentation (Made easy with **MUSIC**)

Alteration of mental status (AMS)	
M	Manifestation of the AMS <ul style="list-style-type: none"> • Delirium, psychosis, somnolence, unconsciousness, etc.
U	Underlying cause <ul style="list-style-type: none"> • Hyponatremia, hypercalcemia, hypoglycemia, HTN, hepatic failure, sepsis, etc.
S	Specificity <ul style="list-style-type: none"> • Acute metabolic encephalopathy • Acute toxic encephalopathy
I	Inciting cause <ul style="list-style-type: none"> • Diabetes • Infection • Tumor
C	Consequences

51

Disappearing Diagnoses

Conditions presenting to the emergency department in extremis, that are intervened upon by the emergency physician such that by the time the inpatient order is written, if not duly recorded, they may be lost.

- Acute respiratory failure
 - Heart failure
 - COPD
 - Asthma
- Altered Mental Status & Encephalopathy
- Sepsis

52

Clinical Conditions — with critical risk adjustment impact



Sepsis Game Changer

Clinical Review & Education

Journal of the American Medical Association

February 22, 2016

Special Communication | CARING FOR THE CRITICALLY ILL PATIENT

The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)

Mervyn Singer, MD, FRCP; Clifford S. Deutschman, MD, MS; Christopher Warren Seymour, MD, MSc; Manu Shankar-Hari, MSc, MD, FFICM;
Djillali Annane, MD, PhD; Michael Bauer, MD; Rinaldo Bellomo, MD; Gordon R. Bernard, MD; Jean-Daniel Chiche, MD, PhD;
Craig M. Coopersmith, MD; Richard S. Hotchkiss, MD; Mitchell M. Levy, MD; John C. Marshall, MD; Greg S. Martin, MD, MSc;
Steven M. Opal, MD; Gordon D. Rubenfeld, MD, MS; Tom van der Poll, MD, PhD; Jean-Louis Vincent, MD, PhD; Derek C. Angus, MD, MPH

JAMA. 2016;315(8):801-810. doi:10.1001/jama.2016.0287

<http://tinyurl.com/Sepsis2016JAMA>

Sepsis-3

- Sepsis defined: “Life-threatening organ dysfunction due to a dysregulated host response to infection.”
- Out: SIRS criteria
- In: Organ dysfunction (severe sepsis)

Historical Thoughts on Sepsis: 1991 Definition of SIRS/Sepsis (Sepsis-1)

- SIRS – 2 out of 4
 1. Body temperature > 38°C or < 36°C
 2. Heart rate > 90/minute
 3. Respiratory rate > 20/minute or PaCO₂ < 32 mmHg
 4. White blood cell count > 12,000/μL or < 4,000/μL
- Sepsis – SIRS due to infection
- Severe Sepsis – Sepsis with acute organ dysfunction

Chest. 1992 Jun;101(6):1644-55

2012 Diagnostic Criteria for Sepsis (Sepsis-2)

Infection, documented or suspected & “*some*” of the following:

- **General variables**

- Fever ($> 38.3^{\circ}\text{C}$ or 101°F)
- Hypothermia (core temperature $< 36^{\circ}\text{C}$)
- Heart rate $> 90/\text{min}$ or more than two SD above the normal value for age
- Tachypnea
- Altered mental status
- Significant edema or positive fluid balance ($> 20 \text{ mL/kg}$ over 24 hr)
- Hyperglycemia (plasma glucose $> 140 \text{ mg/dL}$ or 7.7 mmol/L) in the absence of diabetes

*Notice:
+ Blood Culture is
not on the list*

- **Inflammatory variables**

- Leukocytosis (WBC count $> 12,000/\mu\text{L}$)
- Leukopenia (WBC count $< 4000/\mu\text{L}$)
- Normal WBC count with greater than 10% immature forms
- Plasma C-reactive protein $> \text{two or SD above the normal value}$
- Plasma procalcitonin $> \text{two SD above normal}$

NOTE: Only findings that cannot be easily explained by other causes

Source: <http://www.sccm.org/Documents/SSC-Guidelines.pdf>

Specificity: Severe Sepsis (Sepsis-2)

- **Severe sepsis: sepsis with acute organ dysfunction**

- Organ dysfunction variables
 - Arterial hypoxemia ($\text{PaO}_2/\text{FiO}_2 < 300$)
 - Acute oliguria (urine output $< 0.5 \text{ mL/kg/hr}$ for at least 2 hrs despite adequate fluid resuscitation)
 - Creatinine increase $> 0.5 \text{ mg/dL}$ or $44.2 \mu\text{mol/L}$
 - Coagulation abnormalities (INR > 1.5 or aPTT $> 60 \text{ s}$)
 - Ileus (absent bowel sounds)
 - Thrombocytopenia (platelet count $< 100,000/\mu\text{L}$)
 - Hyperbilirubinemia (plasma total bilirubin $> 4 \text{ mg/dL}$ or $70 \mu\text{mol/L}$)
- Tissue perfusion variables
 - Decreased capillary refill or mottling
 - Lactate level
 - $> 2 \text{ mmol/L}$ supports organ dysfunction
 - $> 4 \text{ mmol/L}$ supports septic shock

Source: <http://www.sccm.org/Documents/SSC-Guidelines.pdf>

Sepsis

The Definition has Changed (again)

- Sepsis defined: “Life-threatening organ dysfunction due to a dysregulated host response to infection.”
 - The key element of **sepsis-induced organ dysfunction** is defined by
“an acute change in total SOFA score ≥ 2 points consequent to infection, reflecting an overall mortality rate of approximately 10%.”
 - *Out:* SIRS criteria: (WBC, T, HR, RR)
 - *In:* Organ dysfunction (required for sepsis)
 - New definition of “sepsis” begins at current “severe sepsis”

- SOFA Score:
Sequential (Sepsis-related) Organ Failure Assessment

SOFA Score: Sequential Organ Failure Assessment

System	Score				
	0	1	2	3	4
Neurologic GCS	15	13-14	10-12	6-9	< 6
Respiratory PaO ₂ /FiO ₂ room air PaO ₂ , O ₂ sat	≥ 400 84, 95%	< 400 84, 95%	< 300 63, 91%	< 200 with respiratory support 42, 80%	< 100 with respiratory support 21, < 80%
Cardiovascular	MAP ≥ 70 mmHg	MAP < 70 mmHg	Dopamine < 5 or Dobutamine (any)	Dopamine 5.1-15 or Epinephrine \leq 0.1 or Norepi \leq 0.1	Dopamine > 15 or epinephrine > 0.1 or norepi > 0.1
Hepatic Bilirubin, mg/dL	< 1.2	1.2-1.9	2.0-5.9	6.0-11.9	> 12.0
Coagulation Platelets, x 1,000	≥ 150	< 150	< 100	< 50	< 20
Renal Creatinine, mg/dL	< 1.2	1.2-1.9	2.0-3.4	3.5-4.9	> 5.0
UOP, ml/d				< 500	< 200

Abbreviations:

PaO₂: partial pressure of oxygen; FiO₂: fraction of inspired oxygen;
MAP: Mean arterial pressure

Catecholamine doses are in mcg/kg/min for at least 1 hour.

SOFA Score: Sequential Organ Failure Assessment

System	Score				
	0	1	2	3	4
Neurologic GCS	15	13-14	10-12	6-9	< 6

- Glasgow Coma Scale (GCS) has ICD-10 codes

- Can be coded from non-physician documentation
 - For example – EMTs, paramedics, RNs
- Can be used in all circumstances – trauma, medical diagnoses, etc.
- Must document each component score, not just the GCS total

Glasgow Coma Scale			
Score	Eye opening	Verbal response	Motor response
1	None	None	None
2	To pain	Vocal but not verbal	Extension
3	To voice	Verbal but not conversational	Flexion
4	Spontaneous	Conversational but disoriented	Withdraws from pain
5	—	Oriented	Localizes pain
6	—	—	Obeys commands

SOFA Score: Sequential Organ Failure Assessment

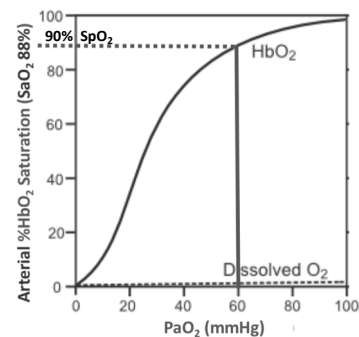
System	Score				
	0	1	2	3	4
Respiratory PaO ₂ /FiO ₂ room air PaO ₂ , O ₂ sat	≥ 400 84, 95%	< 400 84, 95%	< 300 63, 91%	< 200 with respiratory support 42, 80%	< 100 with respiratory support 21, < 80%

On room air (RA)

- By arterial blood gas (ABG)
- Hypoxia = PaO₂ < 60 mmHg, SaO₂ < 88%
- By peripheral oxygen saturation
- Hypoxia = SpO₂ ≤ 90%

On supplemental oxygen

- (P/F ratio) Divide PaO₂ (arterial) by FiO₂
- 60 (lowest acceptable) / 0.21 (room air) = 285
- Hypoxia = quotient ≤ 285
- Translating SpO₂ to PaO₂ to follow



Klabunde, R.E., *Cardiovascular Physiology Concepts*, 2nd Ed., Lippincott Williams & Wilkins (2011)

SOFA Score: Sequential Organ Failure Assessment

System	Score				
	0	1	2	3	4
Respiratory PaO ₂ /FiO ₂ room air PaO ₂ , O ₂ sat	≥ 400 84, 95%	< 400 84, 95%	< 300 63, 91%	< 200 with respiratory support 42, 80%	< 100 with respiratory support 21, < 80%

O ₂ Delivery and FiO ₂			
Method	O ₂ flow (l/min)	Estimated	
		(%)	FiO ₂
	Room air	21%	0.21
Nasal cannula	1	24	0.24
	2	28	0.28
	3	32	0.32
	4	36	0.36
	5	40	0.40
Nasopharyngeal catheter	6	44	0.44
	4	40	0.60
	5	50	0.70
	6	60	0.80
	5	40	0.40
Face mask	6-7	50	0.50
	7-8	60	0.60
	6	60	0.60
Face mask with reservoir	7	70	0.70
	8	80	0.80
	9	90	0.90
	10	95	0.95

Mechanically ventilated: see RT notes for FiO₂

Oxymetry	Blood gas
sO ₂ (%)	PaO ₂ (mmHg)
80	44
81	45
82	46
83	47
84	49
85	50
86	52
87	53
88	55
89	57
90	60
91	62
92	65
93	69
94	73
95	79
96	86
97	96
98	112
99	145

Source:
International
Symposium
on Intensive
Care and
Emergency
Medicine.
www.tinyurl.com/OxygenCharts

Mean Arterial Pressure (MAP)

System	Score				
	0	1	2	3	4
Cardiovascular	MAP ≥ 70 mmHg	MAP < 70 mmHg	Dopamine < 5 or Dobutamine (any)	Dopamine 5.1-15 or Epinephrine ≤ 0.1 or Norepi ≤ 0.1	Dopamine > 15 or epinephrine > 0.1 or norepi > 0.1

- It is believed that a MAP greater than 70 mmHG is enough to sustain organ function in an average person.
 - MAP is normally between 65 and 110 mmHg
- MAP Approximation –**
 - At normal resting heart rates MAP can be approximated using the more easily measured using systolic (SP) and diastolic pressures (DP)
 - MAP ≈ [(SP – DP) × 0.33] + DP**
- Measurement**
 - MAP = (CO × SVR) + CVP
 - CO = cardiac output
 - SVR = Systemic venous resistance
 - CVP = central venous pressure

SOFA Score: Sequential Organ Failure Assessment

System	Score				
	0	1	2	3	4
Renal					
Creatinine, mg/dL	< 1.2	1.2-1.9	2.0-3.4	3.5-4.9	> 5.0
UOP, ml/d				< 500	< 200

Acute Kidney Injury (AKI) Definition

- Any of the following:
 - Serum creatinine
 - Increase by ≥ 0.3 mg/dL within **48 hours**, *or*
 - Increase to ≥ 1.5 times baseline which is known or presumed to have occurred within the **prior 7 days**, *or*
 - Urine output
 - Volume < 0.5 ml/kg/hr for 6 hours

http://www.kdigo.org/clinical_practice_guidelines/pdf/KDIGO%20AKI%20Guideline.pdf
Published 2012

SIRS vs. Sepsis (in ICD-10-CM)

SIRS – Non-infectious origin

Systemic inflammatory response syndrome (SIRS)

Diagnostic components (2 of 4)

- Fever: $> 38^{\circ}\text{C}$ (100.4°F) or $< 36^{\circ}\text{C}$ (96.8°F)
- Tachycardia: HR > 90 per minute
- Tachypnea: RR > 20 per minute or $\text{PaCO}_2 < 32$ mm Hg
- WBC: Abnormal white blood cell count ($> 12,000/\mu\text{L}$ or $< 4,000/\mu\text{L}$ or $> 10\%$ immature [band] forms)

Non-infectious origin

- w/o organ dysfunction (CC)
- with acute organ dysfunction (MCC)

American College of Chest Physicians (ACCP) and the Society of Critical Care Medicine (SCCM), 1992

Sepsis – Infectious origin

The presence of infection (*probable or confirmed*) together with systemic manifestations of infection.

Infectious origin

- w/o organ dysfunction (MCC)
- with acute organ dysfunction, “severe sepsis” (MCC)

Critical Care Medicine, February 2013, Vol 41:2

PHYSICIAN MUST SAY “SEPSIS”, NOT “SIRS due to INFECTION”, TO GET “SEPSIS” IN ICD-10

Terms & Definitions

- **Bacteremia**
 - Bacteria in the blood
- **Septicemia**
 - Systemic disease with organisms or toxins in the blood (e.g., bacteria, fungi, virus)
- **Sepsis**
 - S-2: Systemic inflammatory response to known or suspected infection
 - S-3: Acute organ dysfunction (*not failure*) due to infection [added 2016]
- **Severe Sepsis**
 - Sepsis plus organ dysfunction
- **SIRS**
 - Systemic inflammatory response syndrome
 - Originally of infectious or non-infectious etiology
 - Subsequent interpretation, of **non-infectious etiology only**
- **Septic Shock**
 - Sepsis with impaired tissue perfusion
 - Hypotension not required

Coding Clinic, 4th Quarter, 2003, pages 79-81

Don't forget to link condition & cause: "caused by," "due to"

Conditions, Details, & Interdependencies

MUSIC

M	Manifestation Presenting signs, symptoms, syndromes • Fever, WBC 18K, pleuritic chest pain, abnormal CXR
U	Underlying Cause • "Due to:" Pneumonia
S	Severity or Specificity • Aspiration? Multi-resistant Gram-negative rods or MRSA ? Sepsis?
I	Instigating or precipitating causes • "Caused by:" Oropharyngeal dysphagia as a late effect of stroke, use of sedating medications
C	Consequences or Complications • "Resulting in:" Sepsis, septic shock, acute respiratory failure, empyema

When given a diagnosis, place it one of these categories and then look for the other four, linking them with terms such as "caused by," "due to," or "resulting in" whenever possible.

"Caused by," "Due to," "Resulting in"

69

CDI: Reliability of Diagnosis Sepsis

Reliability – Sepsis Sepsis vs. Pyelonephritis Only

CHIEF COMPLAINT: Suprapubic pain and abdominal pain and also left flank pain.

HISTORY OF PRESENT ILLNESS: An 80-year-old woman with a history of diabetes and hypertension. The patient had a urinary tract infection which was treated with Bactrim. However, the patient's symptom has not gotten better. The patient did not have any fever, chills, chest pain or palpitations. The patient has poor appetite and generalized weakness.

PHYSICAL EXAMINATION:

VITAL SIGNS: Temperature max 98.6, blood pressure 136/72, heart rate 84, respiratory rate 14.

LABORATORY DATA: White count 16.4, hemoglobin 10.8, hematocrit 33, platelet count 272. Sodium 121, potassium 4.2, BUN and creatinine 10/0.9. UA shows pyuria. CT of the abdomen and pelvis showing focal area of hypodensity involving right renal cortex suggestive of pyelonephritis.

IMPRESSION:

1. Pyelonephritis with outpatient treatment failure with the Bactrim.

H&P

Sx: Poor appetite and weakness

PE:

Temp max 98.6

HR 84

RR 14

Lab:

UA: pyuria

WBC 16,400

CT: c/w pyelonephritis

Impression:

Pyelonephritis

Note that the H&P documents only pyelonephritis.

Reliability – Sepsis Admit and Discharge Notes

Admit note GENERIC EQUIVALENT PRODUCT MAY BE USED UNLESS "DO NOT SUBSTITUTE" IS INDICATED

Admit to MS ☐ OBSERVATION STATUS ☐ ADMIT TO INPATIENT

Dx: Pyelonephritis

BCK 2 / UA / Urine C/S

Progress note

UTI

SIRS

CHG per ALZ

DM

UTI

Discharge note

1. Generalized weakness.
2. Urinary tract infection.
3. Sepsis with urinary tract infection.
4. Left hip pain, rule out left hip fracture.
5. Diabetes.
6. Hypertension.

DISCHARGE DIAGNOSES:

1. Generalized weakness.
2. Urinary tract infection.
3. Sepsis with urinary tract infection.

- Though documented in the D/C summary, upon review, lack of more than one sepsis criteria disqualifies this condition for coding as sepsis (S2).
- No organ dysfunction is identified to qualify it for severe sepsis (S3).

72

Sepsis Syndrome

- **Question:** The provided listed "sepsis syndrome" in the final diagnostic statement. How should sepsis syndrome be coded?
- **Answer:** The term "sepsis syndrome" is poorly defined. Query the physician to determine the specific condition(s) the patient has.

NOTE: "Sepsis syndrome" is not in the ICD-10-CM Index to Diseases. Consequently, a query must be rendered to determine if sepsis or severe sepsis is present.

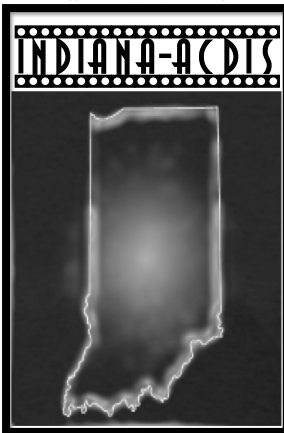
Source: *Coding Clinic*, 2nd Quarter 2012, pages 21–22

73

MDC 18 – Rules Regarding Sepsis

- **Negative or inconclusive blood cultures and sepsis**
 - Negative or inconclusive blood cultures do not preclude a diagnosis of sepsis in patients with clinical evidence of the condition; however, the provider should be queried.
- **Urosepsis**
 - The term urosepsis is a nonspecific term. It is not to be considered synonymous with sepsis. It has no default code in the Alphabetic Index. Should a provider use this term, he/she must be queried for clarification.

74



Challenges in

Clinical Documentation Integrity

Literature Definitions and Clinical Validity

1. Acute Respiratory Failure
2. Acute Encephalopathy
3. Sepsis

Donald M. Blanton, MD, MS, FACEP
Fellow American College of Emergency Physicians

- Board Certified in Emergency Medicine
- Board Certified in Internal Medicine

AHIMA-Approved ICD-10-CM/PCS Trainer

(615) 972-1643 (cell: voice & text)
donblanton027@att.net



75

