

# ICU OUTCOMES MODELS (ICOM) DATA COLLECTION INSTRUMENT

## Instructions for data collectors:

For each quarter of the year, please complete the ICU outcomes data collection instrument for the first 100 consecutive discharges from your hospital that had an ICU stay in any of your ICUs. The following data collection rules apply:

- Observations are limited to eligible ICU patients who have been discharged from the hospital (This includes patients who have died).
- Hospitals that do not have 100 hospital discharges with an ICU stay during a quarter must collect information on ALL eligible patients for that quarter

## Patient Eligibility

- A.) Is the patient  $\geq 18$  years of age at the time of admission to the ICU?  YES  NO/Unknown  
If NO  $\Rightarrow$  End Abstraction
- B.) Is this the patient's first ICU admission during the current hospitalization?  YES  NO/Unknown  
If NO  $\Rightarrow$  End Abstraction
- C.) Was the patient cared for in the ICU for  $\geq 4$  hours?  YES  NO/Unknown  
If NO  $\Rightarrow$  End Abstraction
- D.) Was the patient's primary reason for admission due to Trauma, Burns, or immediately after Coronary Bypass Graft Surgery?  YES  NO/Unknown  
If YES  $\Rightarrow$  End Abstraction
- E.) Was the patient admitted to "rule out MI", and subsequently determined not to have a myocardial infarction, or another acute process requiring ICU care?  YES  NO/Unknown  
If YES  $\Rightarrow$  End Abstraction

## Section I. Case/Patient Identification

- I-1 a. Abstractor's Certification number: \_\_\_\_\_  
b. Abstractor's Certification number: \_\_\_\_\_  
c. Abstractor's Certification number: \_\_\_\_\_
- I-2 Hospital ID #: \_\_\_\_\_
- I-3 Hospital Medical Record Number (MRN): \_\_\_\_\_
- I-4 Hospital Account Number (aka case number): \_\_\_\_\_
- I-5 SSN: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_
- I-6 a. DOB:     /     /     b. Age:      
          mm   dd   yyyy
- I-7 SEX: Male  Female

## Section II. Hospital Arrival / Index ICU Admission

The index ICU admission is the 1<sup>st</sup> ICU admission (of ≥ 4 hours) during a hospitalization.

II-1 **HOSPITAL** Arrival (Your Hospital)      DATE     /     /          TIME:    :    :     
mm    dd    yyyy

II-2 **ICU** Admission      DATE     /     /          TIME:    :    :     
mm    dd    yyyy

( Note: See data dictionary if patient admitted to ICU for ≥4 hours AND only for routine pre-operative monitoring prior to an elective surgery)

II-3 Please indicate the type of ICU to which the patient was admitted:

- |   |   |
|---|---|
| <input type="checkbox"/> a. Coronary Care / CCU       | <input type="checkbox"/> e. Neurosurgical   |
| <input type="checkbox"/> b. Cardiothoracic            | <input type="checkbox"/> f. Respiratory     |
| <input type="checkbox"/> c. Medical                   | <input type="checkbox"/> g. Surgical        |
| <input type="checkbox"/> d. Combined Medical/Surgical | <input type="checkbox"/> h. Trauma          |
|   | <input type="checkbox"/> i. Other / Unknown |

## Section III. Site Immediately Prior to this ICU Admission

III-1 Please indicate the care site prior to this ICU Admission (Choose One Below, a-g)

- |   |  |
|---|--|
| <input type="checkbox"/> a. Your Acute-Care Hospital                        | <input type="checkbox"/> d. Rehabilitation Unit ( <b>Skip to IV-1</b> )      |
| <input type="checkbox"/> b. Another Acute-Care Hospital                     | <input type="checkbox"/> e. Direct Admit – Physician ( <b>Skip to IV-1</b> ) |
| <input type="checkbox"/> c. SNF / Intermediate Care ( <b>Skip to IV-1</b> ) | <input type="checkbox"/> f. Home ( <b>Skip to IV-1</b> )                     |
|   | <input type="checkbox"/> g. Other _____ ( <b>Skip to IV-1</b> )              |

III-1a **If your choice above is “a” (Your Hospital)** ⇒ Indicate the department/unit care site prior to ICU admission.(Choose One) Then enter date and time patient admitted to the prior *department/unit* of care.

- |   |   |
|---|---|
| <input type="checkbox"/> Ward or Floor Unit                 | <input type="checkbox"/> Operating Room or Surgical Recovery Room |
| <input type="checkbox"/> Emergency Department               | <input type="checkbox"/> Other ICU                                |
| <input type="checkbox"/> Cardiac Catheterization Lab        | <input type="checkbox"/> Unknown                                  |
| <input type="checkbox"/> Step Down / Transitional Care Unit |   |

**Enter** ⇒ DATE:     /     /          TIME:    :    :    entered     prior     department/unit of care.  
mm    dd    yyyy

III-1b **If your choice above is “b” (Another Hospital)** ⇒ Enter date the patient was admitted to the prior hospital.

**Enter** ⇒ DATE:     /     /      
mm    dd    yyyy

## Section IV. Patient Characteristics on ICU Admission

	YES	NO	UNKNOWN
IV-1 Was the patient receiving mechanical ventilation at ICU admission or within one hour after arrival to the ICU?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IV-2 Cardiopulmonary resuscitation within 24 hours prior to ICU admission?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IV-3 Did the patient have intracranial mass effect at ICU admission or diagnosed within one hour after arrival to the ICU?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IV-4 Was the patient admitted to the ICU following a percutaneous transluminal coronary angioplasty (PTCA), coronary artery stenting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

and/or coronary angiography procedure?

YES NO UNKNOWN

IV-5 Did the patient have surgery prior to ICU admission?

IV-5a **If YES to IV-5** ⇒ Was the Surgery:  Scheduled (Scheduled ≥24 hours in advance)  
 Unscheduled (Scheduled < 24 hours in advance)

IV-5b **If Unscheduled** ⇒ Was the Surgery:  Emergent  
 Non-Emergent

IV-6 Highest Heart Rate within 1 hour before or after ICU admission BPM

IV-7 Lowest BP (based upon the systolic) within 1 hour before or after ICU admission /

IV-8 Life support status at admission to the ICU: (Choose One)

- Full Code
- DNR/ No CPR
- Maintenance of circulatory support for organ procurement
- Limited Interventions/Withholding Therapy
- Withdrawing Therapy/ Comfort Care
- Unknown

## Section V. Acute Diagnoses

At ICU admission, please indicate whether any of the following acute diagnoses are present (Select ALL that apply):

Cardiac Arrhythmias / Rhythm Disturbance (do NOT include chronic, stable arrhythmias)

- Atrial fibrillation / flutter with rapid ventricular response (HR ≥ 100)
- Other supraventricular: SVT / PSVT / WPW
- 2<sup>nd</sup> degree or 3<sup>rd</sup> degree heart block
- Ventricular tachycardia / fibrillation
- Other rhythm disturbance, not chronic / not stable

Cardiac Surgery

- Patient admitted to ICU after cardiac surgery

Gastrointestinal Bleeding (includes only clinically apparent GI bleeding. Examples include hematemesis, coffee ground emesis, or melena; a drop in hematocrit or perforated ulcer alone is NOT sufficient)

- Upper GI bleed from esophageal varices / or portal hypertension
- Upper GI Bleed, other source
- Lower GI Bleed
- GI Bleed, unknown source

Sepsis

- Sepsis present

Renal

- Acute renal failure OR Acute on chronic renal failure, Prerenal type
- Acute renal failure OR Acute on chronic renal failure, Non-prerenal type
- Acute renal failure OR Acute on chronic renal failure, Unknown type

Neurologic

Coma or Deep Stupor: (Does not include coma/deep stupor secondary to physician administered paralytic and/or sedative medications).

- Coma or deep stupor, traumatic
- Coma or deep stupor, non-traumatic
- Coma or deep stupor, due to drug overdose

Cerebrovascular Incident:

- Arteriovenous malformation *with* subarachnoid hemorrhage or stroke / hemorrhage
- Cerebrovascular accident / CVA /stroke (embolic and/or thrombotic)
- Epidural hematoma
- Subarachnoid hemorrhage / intracranial aneurysm (bleeding)
- Subdural hematoma
- Intracranial hemorrhage / hematoma, other

## Section VI. Medical History

Does the patient have any of the following medical conditions / treatments that have been diagnosed, symptomatic, or ongoing in the six months prior to admission? (Select all that apply).

### Hepatic

- Confirmed cirrhosis
  - By Biopsy  Other/Not Known
- Portal hypertension
- Jaundice and Ascites
- Esophageal and/or gastric varices
- GI bleed attributable to portal hypertension (e.g. variceal bleed)
- Hepatic encephalopathy

### Renal

- Renal dysfunction w/out dialysis but baseline creatinine >2.0 mg/dL (>176.8umol/L)
- Chronic dialysis (Hemo or CAPD/Peritoneal)

### Oncologic

- Metastatic disease, solid tumor type (metastasis identified by clinical assessment or biopsy proven)
- Chronic myelogenous or chronic lymphocytic leukemia AND active treatment
- Chronic myelogenous or chronic lymphocytic leukemia AND at least one of the following complications secondary to the leukemia: sepsis, anemia, stroke caused by clumping of white blood cells, tumor lysis syndrome, pulmonary edema, or ARDS
- Acute myelogenous or acute lymphocytic leukemia, multiple myeloma, or other acute hematologic malignancy
- Lymphoma

## Section VII. Mental Status

**Using the Glasgow Coma Score (GCS) table below:**

VII-1 What was the patient's GCS **at admission** to the ICU? For patients under the effects of paralytic or sedative medications use your best clinical judgment to estimate the GCS **prior** to initiation of sedation. (Please use Scale 1 below if not intubated or Scale 2 below if intubated).

EYE \_\_\_\_ MOTOR \_\_\_\_ VERBAL \_\_\_\_

VII-1a Please indicate if GCS from VII-1 is:  Physician / nurse documented  Abstractor Estimated

VII-2 Was the patient's level of consciousness significantly depressed due to the effects of sedative or paralytic agents at admission to the ICU? Yes  No

### GCS Table

**Scale 1.** GCS score if *NOT* intubated:

<b>Eye opening</b>	<b>Motor response</b>	<b>Verbal Response</b>
(4) Spontaneous	(6) Obeys verbal command	(5) Oriented and converses
(3) To verbal command	(5) Localizes pain	(4) Disoriented and converses
(2) To pain	(4) Flexion withdrawal	(3) Inappropriate words
(1) No response	(3) Flexion-abnormal / decorticate	(2) Incomprehensible sounds
	(2) Extension / decerebrate	(1) No response
	(1) No response	

**Scale 2.** GCS Score if intubated or other communication barrier (For example: aphasia, foreign language, etc.):

<b>Eye opening</b>	<b>Motor response</b>	<b>Verbal Response</b>
(4) Spontaneous	(6) Obeys verbal command	(5) Clearly oriented and able to communicate or indicate needs
(3) To verbal command	(5) Localizes pain	(3) Responsive, but orientation is questionable
(2) To pain	(4) Flexion withdrawal	(1) Completely unresponsive
(1) No response	(3) Flexion-abnormal / decorticate	
	(2) Extension / decerebrate	
	(1) No response	

**Section VIII. Discharge**

VIII-1 **ICU** Discharge DATE: \_\_\_/\_\_\_/\_\_\_ TIME: \_\_ : \_\_  
mm dd yyyy

VIII-2 **HOSPITAL** Discharge DATE: \_\_\_/\_\_\_/\_\_\_ TIME: \_\_ : \_\_  
mm dd yyyy

VIII-3 Status of patient at **ICU** discharge:

- Stable       Heart still beating but under consideration for organ donation  
 Dead       Discharged for comfort care with no expectation of recovery

***If the patient died in the ICU*** ⇒ code status at death (Choose one):

- Full Code       Limited Interventions/Withholding Therapy  
 DNR/ No CPR       Maintenance of circulatory support  
 Withdrawing Therapy/ Comfort Care for organ procurement  
 Unknown

VIII-4 Status at **HOSPITAL** discharge:      Alive       Dead

***If alive at HOSPITAL discharge*** ⇒ what was the disposition of the patient?

- Home       Hospice  
 Against medical advice       Other  
 Another Acute Care Hospital       Unknown  
 SNF/ Intermediate Care / Resident Care Facility