

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 ≥ 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 ≥ 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 1st 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:

- | | |
|---|---|
| ☐ a. Coronary Care / CCU | ☐ e. Neurosurgical |
| ☐ b. Cardiothoracic | ☐ f. Respiratory |
| ☐ c. Medical | ☐ g. Surgical |
| ☐ d. Combined Medical/Surgical | ☐ h. Trauma |
| | ☐ 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)

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

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.

- | | |
|---|---|
| ☐ Ward or Floor Unit | ☐ Operating Room or Surgical Recovery Room |
| ☐ Emergency Department | ☐ Other ICU |
| ☐ Cardiac Catheterization Lab | ☐ Unknown |
| ☐ 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?	☐	☐	☐
IV-2 Cardiopulmonary resuscitation within 24 hours prior to ICU admission?	☐	☐	☐
IV-3 Did the patient have intracranial mass effect at ICU admission or diagnosed within one hour after arrival to the ICU?	☐	☐	☐
IV-4 Was the patient admitted to the ICU following a percutaneous transluminal coronary angioplasty (PTCA), coronary artery stenting	☐	☐	☐

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 ☐ Limited Interventions/Withholding Therapy
☐ DNR/ No CPR ☐ Withdrawing Therapy/ Comfort Care
☐ Maintenance of circulatory support for organ procurement ☐ 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
☐ 2nd degree or 3rd 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:

Eye opening

- (4) Spontaneous
- (3) To verbal command
- (2) To pain
- (1) No response

Motor response

- (6) Obeys verbal command
- (5) Localizes pain
- (4) Flexion withdrawal
- (3) Flexion-abnormal / decorticate
- (2) Extension / decerebrate
- (1) No response

Verbal Response

- (5) Oriented and converses
- (4) Disoriented and converses
- (3) Inappropriate words
- (2) Incomprehensible sounds
- (1) No response

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

Eye opening

- (4) Spontaneous
- (3) To verbal command
- (2) To pain
- (1) No response

Motor response

- (6) Obeys verbal command
- (5) Localizes pain
- (4) Flexion withdrawal
- (3) Flexion-abnormal / decorticate
- (2) Extension / decerebrate
- (1) No response

Verbal Response

- (5) Clearly oriented and able to communicate or indicate needs
- (3) Responsive, but orientation is questionable
- (1) Completely unresponsive

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