

**ICU-Outcomes
Models (ICOM)
Data Collection
Instrument
Data Dictionary**

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PATIENT ELIGIBILITY

Note: Patients must have 1:1 or 1:2 nurse to patient ratio at admission to be considered an ICU admission. If >1:2 ratio on admission do not abstract for this patient.

A. Is the patient \geq 18 years of age at the time of admission to the ICU?

Justification MPM II validated on adult populations.

Instructions

- Select “Yes” if on the date of ICU admission, the patient is equal to or older than 18 years of age.
- The most consistent place to find the ICU admission time and date are on the ICU flowsheet. The first thing that a nurse does when a patient arrives in the ICU is to take vital signs, and this information is recorded on the flowsheet with the date and time.

If this information cannot be found on the flowsheet, look in the nurses’ notes or physician’s progress notes. And finally, you can refer to the admission orders for this information, but this is the least likely place to find the admission time documented.

When discrepancies occur in time of admission, refer to:

- 1st: Vital Signs taken on admission to ICU**
- 2nd: Nurses’ Notes or Progress Notes**
- 3rd: Admission Orders**

Preferred Sources: ICU Vital Sign Flow sheet, Progress Notes, Nursing Admission Note, Graphic Sheet, Admission orders.

B. Is this the patient’s first ICU admission during the current hospitalization?

Justification Excluded from MPM model. Characteristics of patients who are readmitted are different than those patients on index presentation.

Instructions

- Select “Yes” if the patient has never been admitted to the ICU during this current hospitalization.
- Select “Yes” if patient has been admitted to the intensive care unit in a prior hospitalization, but this is the first episode during this hospitalization.

- ❑ Select “Yes” if patient is being transferred from another acute care hospital and was in the ICU at any point during the outside hospital admission.

Preferred Sources: Physician progress notes, Nursing progress notes, Physicians order sets, transfer summaries, Respiratory therapists’ notes.

C. Was the patient cared for in the ICU \geq 4 hours?

Justification Defines patients who have had care provided in the ICU

Instructions

- ❑ Select “Yes” if the patient has been cared for in your ICU for \geq 4 hours.
- ❑ If transferred from an outside hospital’s ICU, do not include the amount of time at the outside hospital’s ICU.
- ❑ This applies only to the index or first ICU admission during the current hospitalization.
- ❑ The most consistent place to find the ICU admission time and date are on the ICU flowsheet. The first thing that a nurse does when a patient arrives in the ICU is to take vital signs, and this information is recorded on the flowsheet with the date and time.

If this information cannot be found on the flowsheet, look in the nurses’ notes or physician’s progress notes. And finally, you can refer to the admission orders for this information, but this is the least likely place to find the admission time documented.

When discrepancies occur in time of admission, refer to:

- ❑ **1st: Vital Signs taken on admission to ICU**
- ❑ **2nd: Nurses’ Notes or Progress Notes**
- ❑ **3rd: Admission Orders**

Preferred Sources: ICU Vital Sign Flow sheet, Progress Notes, Nursing Admission Note, Graphic Sheet, Admission orders.

D. Was the patient’s primary reason for admission due to Trauma, Burns, or immediately after Coronary Bypass Graft Surgery?

Justification MPM II exclusion criteria

Instructions Select “Yes” if there is *explicit* documentation indicating that the principal operative procedure performed on this patient that resulted in the index ICU admission was secondary to *burns, trauma or surgery for trauma, or coronary bypass graft surgery*. For the purposes of this question, only select “Yes” if at least one of the following criteria is met:

- ❑ There is explicit documentation by a physician of the terms “burns”, “trauma”, “traumatic”, and/or “...secondary to trauma” used in the

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context of the injury that resulted in this patient's index ICU admission and/or principal operative procedure, and/or

- ❑ There is explicit documentation in the patient's record that the *principal operative procedure* performed on this patient that resulted in the index ICU admission was a coronary artery bypass graft (CABG).
- ❑ There is explicit documentation that the principal operative procedure occurred in the immediate context of any of the following:
 - Bites
 - Blast Injuries Secondary to Explosions
 - Blunt Trauma
 - Burns (Thermal, Chemical, or Electrical)
 - Crush Injuries
 - Drowning
 - Electrical Injuries
 - Falls
 - Fights
 - Gun Shot Wounds / Firearm Injuries
 - Motor Vehicle Accident
 - Multiple Trauma
 - Physical Altercations
 - Stab Injuries
 - Stings
 - Suicide Attempts
 - Toxic/Chemical Injuries

Check "No" to this question if any of the following criteria are met:

- ❑ The procedure is elective and/or occurring in the context of a scheduled admission.
- ❑ There is no documentation indicating that the principal operative procedure was secondary to trauma or a traumatic event, and/or any of the following descriptors are used to describe the injury: "atraumatic", "non-traumatic", and/or "not secondary to trauma".
- ❑ Any surgery other than CABG performed on the vessels of the heart; Operations on structures adjacent to the heart valves, such as papillary muscles or chordae tendinae; Repair of septal defects; Replacement or repair of aortic mitral (bicuspid), tricuspid, or pulmonary valve; V-valvotomy; valvuloplasty.
- ❑ A patient who is in a Burn or Trauma unit, though has a non burn or trauma related diagnosis should not be excluded.

Preferred Sources: Emergency Department Record, Physician Admission Note, Anesthesia Assessment, Operative Report, Discharge Summary/ICD-9 Diagnosis

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?

Justification MPM II exclusion criteria

Instructions Select “Yes” if there is *explicit* documentation indicating that the principal reason for the current admission to the ICU for this patient was to “rule out a myocardial infarction”, and subsequent analysis confirmed the absence of evidence consistent with myocardial infarction AND there was no additional reason to treat the patient within the ICU. For the purposes of this question, only select “Yes” if at least one of the following criteria is met:

- ❑ There is explicit documentation by a physician of the terms “rule out MI”, “rule out myocardial infarction”, “rule out acute coronary syndrome”, and/or “rule out ACS” used in the a patient admitted with symptoms suggestive of a diagnosis of myocardial infarction (e.g. chest pain, shortness of breath).
- ❑ There is explicit documentation in the patient’s record that the *principal procedure* performed on this patient that resulted in the current ICU admission was limited to coronary angiogram without stenting / angioplasty / atherectomy and/or EKGs and/or laboratory analysis (e.g. troponin, myoglobin, creatine kinase levels) used to evaluate for the presence of a myocardial infarction.
 - There is explicit documentation that a troponin was within normal limits (Note: The lower limit of normal will vary from hospital to hospital) or per physician note was not felt to be consistent with a myocardial infarction.

Check “No” to this question if any of the following criteria are met:

- ❑ There is a physician’s, physician assistant’s, and/or nurse practitioner’s note stating that the patient has experienced an ACUTE myocardial infarction, or acute MI, or acute coronary syndrome, or ACS, acute ST elevation MI, acute Q-wave MI, acute non-ST elevation MI.
- ❑ There is evidence that a patient was admitted to “rule out MI” and went to the cardiac catheterization lab and underwent any of the following:
 - Balloon Angioplasty
 - Stent placement (Bare metal or Drug Eluting)
 - Balloon Angioplasty with Stent Placement
 - Balloon Angioplasty and/or Laser Angioplasty
 - Directional Coronary Atherectomy (DCA)
 - Intravascular Coronary Atherectomy (ICA)
 - Rotablator
 - Transluminal Extraction Catheterization (TEC)
- ❑ There is evidence that the patient went for an urgent / emergent coronary artery bypass graft surgery

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Preferred Sources: Emergency Department Record, Physician Admission Note, Cardiology Notes, Discharge Summary/ICD-9 Diagnosis

SECTION I. CASE/PATIENT INFORMATION

I-1 Abstractor's Certification number

Definition A unique identifier assigned to data collectors after completing ICU process measures data collection training materials.

Justification Allows identification using non personalized information of data collectors and ensures the completion of training materials prior to data collection.

Instructions

- Enter the abstractor's certification number exactly.
- Include any appropriate zeros and alpha characters.
- Omit hyphens or other punctuation.
- Each abstractor certification number is unique for each data collector who participates in data collection activities.
- Enter a separate certification number for each individual who is involved with the data collection process (For example if one individual collects patient characteristic on admission and a different individual collects past medical history information they would each enter in their number in the space provided in I-1.

Preferred Source: This number is an assigned number by the administration.

I-2 Hospital ID Number (#)

Definition Unique identifier assigned to each hospital.

Justification Allows identification of unique hospitals from one another.

Instructions Enter the unique hospital identifier assigned to your hospital by the group

Preferred Source: This number is an assigned number by the administration

I-1 Hospital Medical Record Number

Definition The unique number assigned to each patient within a hospital that distinguishes the patient and hospital record from all others in that institution.

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Synonyms	Med Rec, Med Rec #, MR, MRN, MR#, Record Number, Patient #
Exclusions	Acct #, Billing #, Control #, Encounter #, Episode #, History #, Hospital #, Medical history #, Medical record/acct #, MHN, Registration #, Unit #, URN
Justification	Allows identification of one patient from another.
Instructions	<ul style="list-style-type: none"><input type="checkbox"/> Enter the patient's medical record number exactly<input type="checkbox"/> Include any appropriate zeros and alpha characters.<input type="checkbox"/> Omit hyphens or other punctuation

Preferred Source: Face Sheet

Other Sources: Admission Record, ER Record, Registration Form, Admission H&P

I-4 Hospital Account Number (aka case number)

Definition	Unique identifier assigned consecutively by hospital to a case upon admission to the hospital.
Synonyms	Abstract #, Acct #, Account #, Billing #, Billing ID, Control #, Encounter #, Episode #, Patient Control #
Exclusions	Med Rec, Med Rec #, MR, MRN, MR#, Record Number
Justification	Allows identification of one set of admission data from another.
Instructions	Enter the unique identifier assigned to this inpatient admission to your hospital.

Preferred Source: Face Sheet

Other Sources: Admission Record, ER Record, Registration Form, Admission H&P

I-5 Social Security Number (SSN)

Definition	Nine Digit Identification Number issued to citizens, permanent residents, and temporary (working) residents by the Social Security Administration of the government of the United States.
Justification	Allows identification of one patient from another
Instructions	<ul style="list-style-type: none"><input type="checkbox"/> Enter the patient's Social Security Number exactly as it appears on the face sheet.<input type="checkbox"/> If no Social Security Number is available, enter a hyphen in the first space where you would have entered the Social Security Number.

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Preferred Source: Face Sheet

Other Sources: Admission Record, ER Record, Registration Form, Admission H&P

I-6 Patient's date of birth (DOB) or age if only age is known

Definition The patient's date of birth or age if only age is known.

Justification MPM II.

Instructions

- Enter patient's birth date using mm/dd/yyyy format.
- When the complete date of birth is unknown, as much of the date as is known should be reported. At a minimum, an approximate year of birth should be reported. If the month and year of birth are known, and the exact day is not, the year, the month and zeros for the day shall be reported. If only the age is known, the age should be reported.
- If there is no documentation or conflicting documentation on the face sheet, look at additional sources. If there is no documentation or conflicting documentation on the additional sources, enter all zeros.

Preferred Source: Face Sheet

Other Sources: Admission Record, ER record, Registration Form

I-7 Sex

Definition The sex of the patient at the start of care.

Justification Sex is important for reporting demographic statistics for admissions to your unit.

Instructions

- Select one of the following to indicate the sex of the patient
 - M for Male
 - F for Female

Preferred Source: Face Sheet

Other Sources: Admission Record, ER record, Registration Form, Nursing Admission Assessment, Admission H&P

SECTION II. HOSPITAL ARRIVAL / INDEX ICU ADMISSION

II-1 Date of Arrival to your Hospital

Definition The date the patient arrived at your hospital that encompasses the index ICU stay.

Justification: The date of arrival to your hospital is used to calculate length of stay in the hospital and account for lead time bias.

Instructions

- ❑ Enter the date the patient arrived at the hospital for a continuous hospital stay that included the index ICU admission in your hospital.
- ❑ Use mm/dd/yyyy format
- ❑ Review only acceptable sources to determine the earliest date the patient arrived at the hospital. *Do Not* use the face sheet, addressographs or stamps or ambulance records for this information. The intent of this variable is to capture the earliest date the patient was physically in the hospital. This may differ from the admission date.
- ❑ If the patient entered through the emergency department, arrival dates can be taken from triage nurse assessments, signed consent forms, and half and half ER form (half registration/half clinical information or consent form). If any of the documented dates conflict in regards to date of hospital arrival, record the earliest of the documented dates.
- ❑ If the patient is admitted for 23-hour observation and later admitted to the unit or floor, abstract the date the patient arrived at the hospital for the 23-hour observation.
- ❑ If the patient is admitted to the hospital to a non-acute care unit (i.e. psychiatric facility, skilled nursing facility, long term care facility, or rehabilitation facility) and is then transferred to acute care, the arrival date would be the date the patient is transferred to the acute care unit.
- ❑ If the patient is in an outpatient setting of the hospital (e.g., undergoing dialysis, chemotherapy or an outpatient procedure) and is subsequently admitted to the hospital, use the date the patient presents to the ED or arrives on the floor as the arrival date.

Preferred Sources: Triage Nursing Notes, Emergency Room Notes, Signed Consent Forms, Nursing Admission Assessment, Vital Signs Graphic Record, Admission H&P

II-1 Time of Arrival to your Hospital

Definition The time the patient arrived at your hospital for a continuous hospital stay that encompasses the index ICU admission. (Note: Arrival time to the hospital and ICU admission time are not necessarily the same)

Justification The time of arrival in a hospital is used to calculate length of stay in the hospital and lead time bias.

Instructions

- ❑ Enter the hour and minutes the patient arrived at your hospital using the 24 hour clock format hh:mm (military format – see below).
- ❑ Review only acceptable sources to determine the earliest time the patient arrived at the hospital. *Do Not* use the face sheet, addressographs or stamps or ambulance records for this information. The intent of this variable is to capture the earliest time the patient was physically in the hospital. This may differ from the admission time.

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- ❑ If the patient entered through the emergency department, arrival times can be taken from triage nurse assessments, signed consent forms and half and half ER form (half registration/half clinical information or consent form). If any of the documented times conflict in regards to exact time of hospital arrival, record the earliest of the documented times.
- ❑ If the patient is admitted for 23-hour observation and later admitted to the unit or floor, abstract the time the patient arrived at the hospital for the 23-hour observation.
- ❑ If the patient is admitted to the hospital to a non-acute care unit (i.e. psychiatric facility, skilled nursing facility, long term care facility, or rehabilitation facility) and is then transferred to acute care, the arrival time would be the time the patient is transferred to the acute care unit.
- ❑ If the patient is in an outpatient setting of the hospital (e.g., undergoing dialysis, chemotherapy or an outpatient procedure) and is subsequently admitted to the hospital, use the time the patient presents to the ED or arrives on the floor as the arrival time.

Military Time

HH = Hour (00-23)

MM = Minutes (00-59)

Military Time – A 24-hour period from midnight to midnight using a 4-digit number of which the first two digits indicate the hour and the last two digits indicate the minute.

Converting clock time to military time:

With the exception of Midnight and Noon:

* If the time is in the a.m., conversion is not required.

* If the time is in the p.m., add 12 to the clock time hour.

For example:

Midnight – 00:00 Noon – 12:00

5:31 am – 05:31 5:31 pm – 17:31

11:59 am – 11:59 11:59 pm – 23:59

Preferred Sources: Emergency Room notes, History and Physical, Progress Notes, Nursing Admission Assessment, Triage Record

II-2 Date of Admission to your ICU Unit (Index ICU Admission)

Definition The earliest documented date of the patient being physically in a bed in your ICU.

Justification Date/time of admission to your unit and date/time of discharge from your unit are used to calculate length of stay in your unit. Date of admission to your hospital and date of admission to your unit are used to calculate days at source prior to admission to your unit.

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Instructions

- ❑ Enter the date the patient was admitted to your unit
- ❑ Use the mm/dd/yyyy format.
- ❑ A four-digit year must be entered.
- ❑ For Pre-operative monitoring patients: If patient is admitted to the ICU for pre-operative monitoring ONLY, and goes to surgery \leq 48 hours from the time of ICU admission, ICU admission date should be the date the patient returned from the operating room / recovery room. If the patient goes to surgery $>$ 48 hours from the time of ICU admission, ICU admission date should be the initial date that the patient was admitted to the ICU prior to the surgery.
- ❑ The most consistent place to find the ICU admission time and date are on the ICU flowsheet. The first thing that a nurse does when a patient arrives in the ICU is to take vital signs, and this information is recorded on the flowsheet with the date and time.

If this information cannot be found on the flowsheet, look in the nurses' notes or physician's progress notes. And finally, you can refer to the admission orders for this information, but this is the least likely place to find the admission time documented.

When discrepancies occur in time of admission, refer to:

- ❑ **1st: Vital Signs taken on admission to ICU**
- ❑ **2nd: Nurses' Notes or Progress Notes**
- ❑ **3rd: Admission Orders**

Preferred Sources: ICU Vital Sign Flow sheet, Progress Notes, Nursing Admission Note, Graphic Sheet, Admission orders.

II-2 Time of Admission to your ICU Unit

Definition The earliest documented time of the patient being physically in a bed in your ICU unit.

Justification The date/time of admission to your unit and the date/time of discharge from your unit are used to calculate length of stay in your unit. Time of admission to your unit is important data to describe activity and utilization.

Instructions

- ❑ Enter the hour and minutes the patient was admitted to your unit in hh:mm using the 24 hour clock (military format – see below).
- ❑ For Pre-operative monitoring patients: If patient is admitted to the ICU for pre-operative monitoring ONLY, and goes to surgery \leq 48 hours from the time of ICU admission, ICU admission time should be the time the patient returned from the operating room / recovery room. If the patient goes to surgery $>$ 48 hours from the time of ICU admission, ICU

admission time should be the initial time that the patient was admitted to the ICU prior to the surgery.

- The most consistent place to find the ICU admission time and date are on the ICU flowsheet. The first thing that a nurse does when a patient arrives in the ICU is to take vital signs, and this information is recorded on the flowsheet with the date and time.

If this information cannot be found on the flowsheet, look in the nurses' notes or physician's progress notes. And finally, you can refer to the admission orders for this information, but this is the least likely place to find the admission time documented. When discrepancies occur in time of admission, refer to:

- **1st: Vital Signs taken on admission to ICU**
- **2nd: Nurses' Notes or Progress Notes**
- **3rd: Admission Orders**

Allowable Values

HH = Hour (00-23)
MM = Minutes (00-59)

Military Time – A 24-hour period from midnight to midnight using a 4-digit number of which the first two digits indicate the hour and the last two digits indicate the minute.

Converting clock time to military time:

With the exception of Midnight and Noon:

* If the time is in the a.m., conversion is not required.

* If the time is in the p.m., add 12 to the clock time hour.

For example:

Midnight – 00:00	Noon – 12:00
5:31 am – 05:31	5:31 pm – 17:31
11:59 am – 11:59	11:59 pm – 23:59

Preferred Sources: ICU Vital Sign Flow sheet, Progress Notes, Nursing Admission Note, Graphic Sheet

II-3 Type of ICU to Which Patient Admitted

Definition The classification of intensive care unit at the time of admission. ICU types are defined by groups of physicians, nursing staff, and procedures used in the care for patients with similar medical or surgical illnesses. The possible unit types include:

- **Coronary Care Unit or CCU:** A unit for non-surgical cardiac emergencies, where there is continuous EKG and physiologic monitoring. Common cardiac emergencies include acute coronary syndrome, myocardial infarction, congestive heart failure, and cardiac arrhythmias.

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- Cardiothoracic: Unit specializing in care for peri-operative care of patients undergoing cardiac or thoracic surgical procedures. Most common procedures include coronary artery bypass grafting, valve replacements, aneurysm repairs, septal defects, heart transplant, etc...
- Medical: Unit specializing in the care non-cardiac, non-surgical critical illness. Common diagnoses include pneumonia, sepsis, DKA, GI bleed, ARDS, overdose, etc...
- Combined Medical /Surgical: Unit in which clinical providers care for both medical and surgical patients with critical illness. See definition for Medical and Surgical ICU.
- Neurosurgical: Unit specializing in the care for patients with head or spinal trauma and/or peri-operative care of patients undergoing neurosurgical procedures. Units specialize in use of intracranial pressure monitoring devices, lumbar drains, and ventricular shunts. Common procedures include craniotomies for tumors and bleeding, aneurysm repairs, and placement of monitoring devices.
- Respiratory: Unit specializing in the monitoring and treatment of patients with acute respiratory failure due to a primary respiratory cause and of patients with chronic respiratory failure. Organ failure is usually limited to that of the respiratory system.
- Surgical: Unit specializing in the care for peri-operative care of patients undergoing general surgical procedures and for patients experiencing hemodynamic instability following a planned or emergency surgical intervention.
- Trauma. Unit specializing in the care for patients who have severe internal, orthopedic, and/or neurologic injuries resulting from trauma.

Justification Identifies each participating unit so that hospitals are able to utilize the data they will collect and receive back according to unit type / location. Unit location is important data to describe activity and utilization.

Instructions

- Select the type of intensive care unit to which the patient is admitted to for the index ICU admission as described above.
- An ICU *excludes* bone marrow transplant units and nursing areas that provide step-down, intermediate care or telemetry only.
- The type of ICU is determined by the service designation of the majority of patients cared for by the unit (i.e., if 80% of the patients are on a certain service [e.g., general surgery], then the ICU is designated as that type of unit [e.g., surgical ICU].
- An ICU with approximately equal numbers of medical and surgical patients is designated as a combined medical/surgical ICU.
- If unable to identify the type of unit, please indicate Other/Unknown.
- For patients whose primary diagnosis is a cardiac disorder do not assume care unit is a CCU. Mark CCU only >80% of patients cared for are cardiac.

Preferred Sources: ICU Admission H&P, Physician Progress Notes, Nursing Notes

SECTION III. SITE IMMEDIATELY PRIOR TO THIS ICU ADMISSION

General Instructions for Section III

The intent of these items is to document where the patients were before they came to your ICU. If the patient was in your hospital immediately before coming to ICU, then indicate in III-1a (described in more detail below) from which unit, and the date / time they entered the previous *unit*.

If the patient was in another hospital immediately before coming to the ICU then indicate the date they were admitted to the previous hospital.

III-1 Site Immediately Prior to ICU Admission to Your Unit (Index ICU Admission)

Definition The physical site and/or the area where the patient was located directly prior to this admission to your unit. Possible unit locations include:

- ❑ **Your Hospital:** If admitted from any acute care unit including medical/surgical floor, other ICU, operating room, recovery room, procedural area (e.g. cardiac catheterization lab) in your hospital. This does not include skilled nursing facilities (SNF), rehabilitation units, or hospice units that may be located within the hospital.
- ❑ **Another Acute Care Hospital:** If admitted from any acute care unit at an outside hospital including medical/surgical floor, ICU, operating room, recovery room, or procedural area (e.g. cardiac catheterization lab) in the outside hospital. This does not include the emergency department, SNF, rehabilitation unit, or hospice unit that may be located within the outside hospital.
- ❑ **Skilled Nursing / Intermediate Care:** Either an independent facility, or a distinct part of a hospital that provides 24-hour skilled nursing care that does not require the level of care provided in a hospital; includes services such as physical, speech and occupational therapy; assistance with personal care activities such as eating, walking, toileting and bathing; coordinated management of patient care; social services; and other activities.
- ❑ **Rehabilitation:** Either an independent facility, or a distinct part of a hospital, that provides nursing and/or physical or cognitive therapies to any acutely hospitalized individual who has a new disability (or and exacerbation of an existing one). This can vary from weakness-related inability to walk or perform activities of daily living (ADLs), to new swallowing difficulties, to higher-level thinking or behavior deficits. Common diagnoses requiring rehabilitation include: Stroke, spinal cord injury, amputation, trauma, fractures, brain injury, polyarthritis,

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neurologic disorders including multiple sclerosis, Parkinson's disease, polyneuropathy, motor neuron diseases.

- ❑ Direct Admit – Physician: Admission under the direction of a physician caring for the patient. Common direct admissions would include the admission of a patient directly from an outpatient clinic visit, a direct admission for chemotherapy, or an admission to secure an ICU bed pre-operatively.
- ❑ Home: A patient admitted from the patient's home, the home of a relative or friend, or a vacation site, whether or not the patient had been receiving home health services or hospice care at home.
- ❑ Other: A patient admitted from a source other than mentioned, including patients admitted from a hospice facility, nursing home, or extended care facility

Justification Administrative information for tracking ICU admission sources and mortality.

Instructions

- ❑ Select one of the following to indicate the physical site where the patient was located directly prior to this admission to your unit:
 - Your Hospital
 - Another Acute-Care Hospital
 - Skilled Nursing Facility / Intermediate Care.
 - Rehabilitation Unit
 - Direct Admit - Physician
 - Home
 - Other
- ❑ If a patient is located in a SNF, intermediate care facility, rehab facility, etc... and first goes to the emergency department, the department / site prior to admission should be documented as the emergency department.

Preferred Sources: ER Report, Admission H&P, Physician Progress Notes, Transfer Notes, Nursing Notes

III-1a If from a location within your hospital prior to ICU admission (choice “a” in III-1), what department/unit? Date and time entered the unit.

Definition The hospital unit prior to ICU admission is the location in which patient received care immediately prior to ICU admission. Possible hospital units include:

- ❑ Ward or Floor Unit: Division of a hospital (or a suite of rooms) shared by patients who need a similar kind of care (medical, surgical, neurologic, and psychiatric, etc...). There is daily physician staffing and 24 hour nursing care, though level of care typically does not require 24 hour physiologic monitoring.

ICU Outcomes Data Validation Instrument - Data Dictionary

- ❑ Emergency Department: Department in a hospital licensed to provide emergency medical services prior to the admission of patient to the hospital.
- ❑ Cardiac Catheterization Lab: A procedural area used primarily for insertion of a catheter into a blood vessel with the purpose of guiding it to the heart to evaluate the coronary arteries, aorta, cardiac valves, and/or hemodynamics. Common procedures include, but are not limited to:
 - Percutaneous transluminal coronary angioplasty (PTCA)
 - Coronary artery stenting
 - Balloon angioplasty
 - Coronary angiography
 - Coronary atherectomy
 - Intra-coronary ultrasound
 - Cardiac septal ablation
 - Balloon valvuloplasty
- ❑ Room or Surgical Recovery Room: An operating room is a room in a hospital used for the performance of surgical operations. The operating room may be inside a hospital, a same day/ambulatory surgery facility, or even a doctor's office. An operating room does not include medical procedure rooms (e.g. endoscopy, bronchoscopy, interventional radiology, cardiac catheterization laboratory, dialysis).

A surgical recovery room is an area of a hospital used for the close monitoring of people who have had an operation in which anesthesia was given.
- ❑ Step Down / Transitional Care Unit: A unit in the hospital where patients receive a lower, or less intense, level of care than they would get in the ICU. However, they receive a higher level of care than they would get if sent to a regular inpatient unit. Machines in a telemetry unit measure specific body functions. The most common measurements are heart rate and electrocardiogram, or ECG. Blood pressure, rate of breathing, temperature, and level of oxygen in the blood can also be measured if needed. Various machines are available to make these measurements. After the machines record and send the data, trained staff in the central monitoring area can watch for any problems.
- ❑ Other ICU: i.e. Coronary Care / CCU, Cardiothoracic, Medical, Combined Medical / Surgical, Neurosurgical, Respiratory, Surgical, Trauma
- ❑ Unknown: From the documentation provided it cannot be determined the location from which the patient was admitted to the ICU. Only use this selection if there is no documentation that provides direction as to where the patient was transferred from.

Justification The prior location is used to address lead time bias.

Instructions

- ❑ If the patient was in your own hospital prior to ICU admission, select the type of unit/area within the hospital where the patient was located.
- ❑ Enter the date (mm/dd/yyyy), and time (military format) that the patient entered that unit immediately prior to index ICU admission.
- ❑ If the patient was on a medical/surgical floor and leaves the unit for a test or non-surgical procedure (e.g. endoscopy, bronchoscopy, colonoscopy, interventional radiology) and is admitted directly from the testing/procedural area, enter the unit/area from which the patient was sent to undergo the test/procedure.
- ❑ If the patient was on a medical/surgical floor and leaves the unit for a surgical procedure and an incision was NOT made or anesthesia was NOT delivered, the source of admission should be the medical or surgical floor from which they came.
 - Only select surgical recovery room or operating room if an incision was made and/or anesthesia delivered in an operating room.
- ❑ If location is operating room or surgical recovery room, see next definition for clarification if emergency or elective surgery was performed.

Preferred Sources: Admission H&P, Physician Progress Notes, Transfer Notes, Nursing Notes

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

Definition The date the patient was admitted to the outside hospital prior to transfer to the current hospital ICU admission.

Justification The prior location is used to address lead time bias.

Instructions

- ❑ If the patient was admitted from an outside hospital prior to ICU admission enter the date and time the patient entered the outside *hospital* immediately prior to index ICU admission.
- ❑ Prior hospital must be an acute care hospital. (Does not include SNF, psychiatric units, long term care units, rehabilitation units that are separate units within a hospital).

Preferred Sources: Transfer Notes, History and Physical (H&P), Physician Progress Notes, Nursing notes

SECTION IV. PATIENT CHARACTERISTICS ON ICU ADMISSION

IV-1 Was the patient receiving mechanical ventilation at ICU admission or within one hour after arrival to the ICU?

Definition

- ❑ Mechanical Ventilation is defined as all or some of the breaths, or a portion of the breaths (pressure support), are delivered by a mechanical device. It is a treatment where some or all of the energy required to increase lung volume during inspiration is supplied by a mechanical device. Hand ventilation by a member of the clinical team is considered mechanical ventilation.
- ❑ High frequency and jet ventilators, negative pressure ventilators, and BIPAP are considered as mechanical ventilation.
- ❑ CPAP is not considered mechanical ventilation.

Justification MPM II

Instructions

- ❑ Select “Yes” or “No” to indicate if mechanical ventilation was commenced at admission to your unit or in the first hour after admission to your unit. (e.g. if the patient was admitted and not intubated at 13:01, but mechanical ventilation begins at 13:55, one would mark Yes).

Preferred Sources: Respiratory Therapist Record Sheet, ICU flowsheet, nurses’ notes, progress notes.

IV-2 Cardiopulmonary resuscitation (CPR) within 24 hrs prior to Admission?

Definition

- ❑ Cardiopulmonary resuscitation (CPR) includes chest compressions, electrical defibrillation, or cardiac massage.
- ❑ CPR is performed in Advanced Cardiac Life Support algorithms for pulseless electrical activity arrest (PEA), ventricular fibrillation, unstable ventricular tachycardia.
- ❑ Precordial thumps without cardiac massage, or chest compressions are not considered CPR.
- ❑ Emergent intubation without chest compressions, defibrillation, or cardiac massage is not considered CPR.

Justification MPM II

Instructions

- ❑ Select “Yes” or “No” to indicate whether the patient received cardiopulmonary resuscitation within 24 hours **prior** to the admission to your unit, irrespective of where cardiopulmonary resuscitation was administered.
- ❑ CPR information may be found in a “code blue” note in the 24 hours prior to admission.
- ❑ CPR is a standard part of the Advanced Cardiac Life Support (ACLS) protocol. Select “Yes” if indicated that patient received ACLS measures in the 24 hours prior to admission.

- ❑ Do not include cardiopulmonary resuscitation received after admission to your unit.

Preferred Sources: ER Reports, Transfer notes, Admission H&P, EMT record, “Code Blue Note”.

IV-3 Did the patient have intracranial mass effect at ICU admission or diagnosed within one hour after arrival to the ICU?

Definition Includes an intracranial abscess, tumor, hemorrhage, and/or subdural hematoma identified by CT or other imaging modality with documentation of any of the following by physician.

- Midline shift
- Obliteration or distortion of cerebral ventricles
- Gross hemorrhage in cerebral ventricles or subarachnoid space
- Visible mass > 4 cm
- Any mass that enhances with contrast media

Justification MPM II

Instructions

- ❑ Select “Yes” or “No” to indicate if the patient had an intracranial mass (i.e., abscess, contusion, hemorrhage, edema, tumor) identified by CT or other imaging modality that meets the above criteria.
- ❑ Select “Yes” if the mass effect is known within 1 hour after ICU admission.
- ❑ Imaging must be present in order to document intracranial mass effect. Physicians and nurses notes without imaging are not sufficient to qualify regardless of patient’s medical history.

Preferred Sources: Radiology Reports, Admission H&P, Physician Progress Notes.

IV-4 Was the patient admitted to the ICU following a percutaneous transluminal coronary angioplasty (PTCA), coronary artery stenting, and/or coronary angiography procedure?

Definition Percutaneous Coronary Intervention (PCI) or Percutaneous Transluminal Coronary Angioplasty (PTCA): A catheter-based procedure performed in order to open up an occluded coronary artery and restore blood flow to the heart muscle. Catheterization procedures include:

- Balloon Angioplasty
- Stent placement (Bare metal or Drug Eluting)
- Balloon Angioplasty with Stent Placement
- Balloon Angioplasty and/or Laser Angioplasty
- Directional Coronary Atherectomy (DCA)
- Intravascular Coronary Atherectomy (ICA)

ICU Outcomes Data Validation Instrument - Data Dictionary

- Rotablator
- Transluminal Extraction Catheterization (TEC)
- Other

Justification MPM II

Instructions

- ❑ Indicate whether the patient was in the cardiac catheterization lab immediately before admission to your ICU specifically for the performance of any percutaneous coronary intervention (PCI) or percutaneous transluminal angioplasty (PTCA).
- ❑ Do not select “yes” if a patient was transferred from a cardiac catheterization lab, but did not undergo a percutaneous coronary intervention. Example may include but are not limited to:
 - Right heart cardiac catheterization
 - Placement of an intra-aortic balloon pump
 - Balloon valvuloplasty
 - Intra-cardiac septal ablation
 - Electrophysiologic mapping and/or ablation procedures.
 - Others

Preferred Sources: Transfer notes, H&P, Cardiac Catheterization Report, Physician Progress Note

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

Definition Surgery is defined as undergoing all or part of a surgical procedure, or anesthesia for a surgical procedure in an operating or anesthesia room even if no other procedure is performed. Does not include medical procedures (e.g. endoscopy, bronchoscopy, cardiac catheterization, interventional radiology...).

- Example: If a patient is taken to the operating room, prepped and draped and has anesthetic delivered, but develops sudden drop in blood pressure requiring admission to the ICU prior to any incision or operative procedure, this would be classified as surgery.

Justification MPM II

Instructions

- ❑ Select “Yes” or “No” to indicate whether the patient underwent surgery in the period up to one week before admission to your unit
- ❑ A procedure may have been performed in another hospital but must have been within 7 days of admission to your ICU.
- ❑ Select “Yes” irrespective of the number of times the patient underwent surgery in the period up to one week before admission to your unit.
- ❑ Organ harvesting is not considered surgery.

Preferred Sources: Admission H&P, Intra-operative Anesthesia Record, Postoperative Anesthesia Notes,

ICU Outcomes Data Validation Instrument - Data Dictionary

Operating Room Record, Surgeon's Operative Note, Recovery Room/PACU Record,
Physician Progress Notes

IV-5a If patient had surgery performed prior to admission to unit, was the surgery scheduled or unscheduled?

Definition

- ❑ Scheduled surgery is defined as surgery that was scheduled ≥ 24 hours in advance of the operation.
- ❑ Unscheduled surgery is defined as any surgery that was NOT scheduled at least 24 hours in advance of the operation.

Justification MPM II

Instructions

- ❑ Select the appropriate box to indicate whether the surgery performed within one week prior to this admission to your unit was scheduled or unscheduled.

Preferred Sources: Admission H&P, Intra-operative Anesthesia Record, Postoperative Anesthesia Notes, Operating Room Record, Surgeon's Operative Note, Recovery Room/PACU Record, Physician Progress Notes

IV-5b If patient had an unscheduled surgery, was the surgery an emergent or non-emergent?

Definition

- ❑ Emergency surgery is defined as surgery that is scheduled <24 hours in advance AND is immediately required to prevent death, loss of limb or major organ system failure. This is the type of surgery that cannot be delayed for a matter of hours, even to conduct a diagnostic procedure. An emergency surgery is by definition medically required. Examples may include: ruptured aortic aneurysm, CABG in setting of acute coronary syndrome, thrombectomy for pulmonary embolism, vascular surgery for an ischemic limb or bowel, neurosurgery for ruptured aneurysm, etc.
- ❑ Non-emergency surgery is a surgery that is scheduled <24 hours in advance and may be delayed for a period of hours in order to apply medical treatments and / or conduct further diagnostic testing. Examples of Non-emergency surgery include
 - Hip replacement due to an acute fracture
 - Surgical procedures for other acute fractures
 - Appendectomy without rupture or sepsis
 - Cholecystectomy without sepsis.
 - Ureteral stone removal without evidence of infection or sepsis
 - Transplant Surgery for chronic end organ disease (Would not include transplant for fulminant hepatic failure).
- ❑ Organ harvesting is not emergency surgery.

Justification Risk stratification of unscheduled surgical patients.

Instructions

- ❑ Select the appropriate box to indicate whether the unscheduled surgery performed was an emergency surgery or a non-emergency procedure.
- ❑ If more than one surgery was performed in the week prior to admission to your unit, enter information pertaining to the most urgent surgery.

Preferred Sources: Admission H&P, Intra-operative Anesthesia Record, Postoperative Anesthesia Notes, Operating Room Record, Surgeon's Operative Note, Recovery Room/PACU Record, Physician Progress Notes

IV-6 Highest Heart Rate within One Hour of Admission to Unit

Definition The highest ventricular rate measured and recorded within one hour before or after admission to the unit.

Justification MPM II

Units Beats per minute

Instructions

- ❑ Record the highest ventricular rate measured and recorded within one hour before or after admission to your unit.
- ❑ Where no ventricular rate was measurable, enter "000".
- ❑ If patient has pacemaker, record the actual ventricular pulse rate, not the rate at which the pacemaker is firing as seen by pacer spikes.
- ❑ Ventricular rates should not be recorded during periods of iatrogenic disturbance, for example, physiotherapy, turning, periods of crying etc.
- ❑ Values from the operating room are not allowed.

Preferred Sources: ICU Flow Sheet

Other Sources: Physician progress notes, Admission H&P, Nursing notes

IV-7 Lowest Blood Pressure within One Hour of Admission to Unit

Definition The lowest blood pressure value based on the lowest systolic value measured and recorded within one hour before or after admission to the intensive care unit.

Justification MPM II

Units Millimeters of mercury (mmHg)

Instructions

ICU Outcomes Data Validation Instrument - Data Dictionary

- ❑ Record the blood pressure with the lowest systolic value noted within one hour before or after admission to your unit.
- ❑ If the patient did not have a measurable systolic blood pressure due to a cardiopulmonary arrest during the hour prior to ICU admission, enter “000/000”.
- ❑ Blood pressure values should not be recorded during periods of iatrogenic disturbance; for example, physiotherapy, turning, periods of crying etc.
- ❑ Blood pressure values are included irrespective of the measurement method used.
- ❑ Values from the operating room are not allowed.

Preferred Sources: ICU Flow Sheet

Other Sources: Physician progress notes, Admission H&P, Nursing notes

IV-8 Life Support Status at Admission to the ICU

- Definition** The patients’ and/or families’ instructions to the medical team on how to therapeutically proceed should the need for cardiovascular and/or respiratory assistance be needed to sustain one’s life. Options include:
- ❑ Full code - no restrictions on therapies or interventions
 - ❑ DNR/No CPR - applies where there is NO chest compression, NO intubation, and NO electrical cardioversion permitted. ALL 3 therapies must be prohibited to choose this category.
 - ❑ Limited intervention/Withholding therapy - specific limits are in place which either prevent the initiation of a specific therapy or technology and/or prevent further increase of a specific therapy or technology. Includes situations in which dialysis, blood product administration, nutritional support, chemical cardioversion, intubation & other therapies are not to be initiated. Also includes the situation in which it is permitted to do one or two of the interventions listed in the CPR category but not all three.
 - ❑ Withdrawing therapy/Comfort care - applies to situations in which therapy already in place is being withdrawn or removed. Commonly referred as palliative care in the medical community. This may include any OR all of the following: removal from vent support, removal of pressors, stopping of dialysis and/or stopping of other therapeutic measures. Palliative care includes attention to the psychological and spiritual needs of the patient and support for the dying patient and the patient's family. Comfort Measure Only are not equivalent to the following: Do Not Resuscitate (DNR), living will, no code, no heroic measure.
 - ❑ Maintenance of circulatory support for organ procurement following determination of brain death.

Synonyms: Code Status

Instructions:

- ❑ Select the life support status that best describes the patient's wishes on admission to the ICU.
- ❑ Changes in life support status/code status after admission should not be documented with this question.
- ❑ If there is no clear documentation of code status, then select full code.

Preferred Sources: Admission History and Physical, Physician Orders, Code Status Documentation

SECTION V. Acute Diagnoses:

At ICU admission, please indicate any of the following acute medical diagnoses present (Select all that apply).

Cardiac – Arrhythmias / Rhythm Disturbances

Definition Acute cardiac rhythm disturbances as evidenced by an EKG or telemetry tracing. Does not include chronic, stable arrhythmias that have been previously diagnosed and have not changed clinically from previous examinations (e.g. chronic atrial fibrillation / flutter that is rate controlled with HR < 100). Possible arrhythmias include:

- 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

Justification MPM II

Instructions

- ❑ Select box if on admission pt with acute arrhythmia.
- ❑ Do not select box for cardiac arrhythmias / rhythm disturbances for chronic and stable arrhythmias (i.e. chronic stable atrial fibrillation with HR < 100)
- ❑ If pt in chronic atrial fibrillation at baseline, but HR now > 100 then select this box.
- ❑ Do not select box for sinus tachycardia

Preferred Sources: Current Admission Notes, Physician progress notes, Consultation Notes, EKG reports.

Cardiac Surgery – Patient Admitted to ICU After Cardiac Surgery

Definition Includes any surgical procedure, under general anesthesia, that involves any structure of the heart and/or aorta. Does not include cardiac catheterization procedures or electrophysiological procedures (e.g. coronary artery stent placements, coronary artery balloon angioplasty,

pacemaker placement, defibrillator placement). Examples of cardiac surgical procedures include:

- Abdominal aortic aneurysm surgery (including dissection / rupture)
- Thoracic aortic aneurysm surgery (including dissection / rupture)
- Atrial Septal Defect (ASD) Repair
- Coronary Artery Bypass Surgery (including redo or with valve)
- Complications of previous open-heart surgery, surgery for (e.g. bleeding, infection, mediastinal rewiring, leaking aortic graft etc.)
- Congenital defect repair
- Embolectomy (with general anesthesia)
- Pericardiectomy (total/subtotal)
- Thrombectomy (with general anesthesia)
- Tumor removal, intra-cardiac
- Valve repair and/or replacement
- Valve anuloplasty
- Ventricular Septal Defect (VSD) Repair

Justification MPM II

Instructions

- Select box if pt admitted to ICU following a cardiac surgery.
- Do not mark for Electrophysiology Procedures (Pacemaker placement, defibrillator placement, radiofrequency ablation / mapping, etc..)
- Do not mark for any procedure performed in the cardiac catheterization lab (coronary angiography, coronary angioplasty, coronary stent placement, atrial septal defect repair via catheterization, alcohol septal ablation, etc.)
- Do not mark for vascular procedures not including the aorta (Subclavian vessel, carotid arteries, inferior vena cava)

Preferred Sources: Current Admission Notes, , Physician progress notes, Operative Reports, Consultation Notes,

Gastrointestinal Bleeding

Definition Defined as clinical evidence of gastrointestinal bleeding that may include hematemesis, “coffee grounds emesis”, melena, or bright red blood per rectum. May be identified by clinical observation or via a nasogastric tube placement. May also be diagnosed via an upper endoscopy or colonoscopy. A drop in hematocrit or perforated ulcer alone is NOT sufficient to qualify as an acute diagnosis of GI bleeding. Gastrointestinal bleeding may include.

- Upper GI bleed from esophageal varices or portal hypertension
- Upper GI Bleed: Includes any clinical evidence of hematemesis, coffee grounds emesis, or melena (Actual underlying diagnosis not required).

ICU Outcomes Data Validation Instrument - Data Dictionary

Diagnoses may include: Bleeding peptic ulcer, gastric ulcer, Mallory Weiss tear, gastric erosions, hemosuccus pancreaticus, etc.

- Lower GI Bleed, other: Would include any evidence of bright red blood per rectum. Diagnoses may include: Diverticular bleed, angiodysplasia, colonic ischemia, etc.
- GI Bleed, unknown source (Bleeding is clinically apparent from the gastrointestinal tract yet the source definitive source is unknown).

Justification MPM II

Instructions

- Select box if pt with acute diagnosis of gastrointestinal bleed at the time of admission to the ICU. .
- Select box if GI bleed identified by clinically evident hematemesis (vomiting bright red blood), coffee ground emesis (vomiting coffee ground appearing gastric contents), melena (dark, black, tarry, malodorous stools that are Guaiac positive), or bright red blood per rectum.
- A guaiac positive stool without clinically observed bleeding is insufficient to make the diagnosis.
- A hemoglobin drop is not sufficient evidence of acute GI bleeding
- A perforated ulcer does not necessarily indicate GI bleeding

Preferred Sources: Current Admission Notes, Physician progress notes, Endoscopy Reports, Emergency Room Notes, Nursing Notes, Consultation Notes,

Sepsis

Definition A severe systemic response to an infection. There **Must** be clinical or microbiological evidence of an infection (e.g. meningitis, pneumonia, pyelonephritis, endocarditis, gastroenteritis). May or may not have bacteremia. Does not include inflammatory response due to non-infectious pancreatitis, end organ ischemia, multiple trauma and tissue injury. In the presence of clinical and / or microbiological evidence of an infectious source, must also include at least two of the following.

- Temperature: greater than 38°C or less than 36°C
- Heart rate: greater than 90 beats per minute
- Respiratory rate: greater than 20 breaths per minute or PaCO₂ less than 32 mm Hg
- White blood cells: greater than 12,000 cells per µL or less than 4000 cells per µL or greater than 10% immature (band) forms

Justification Important for assessing risk of patients admitted to ICU and determination of case-mix.

Instructions

- Select box if a patient is admitted with a diagnosis of sepsis
- Do not select if there is no clinical or microbiological evidence of infection

- Do not select if systemic inflammatory response is secondary to trauma, tissue injury, pancreatitis (unless believed infectious), or other non-infectious entity.

Preferred Sources: Current Admission Notes, Physician progress notes, Laboratory Reports, Emergency Room Notes, Nursing Notes, Consultation Notes,

Renal

Definition A group of diseases that may be associated with decreased GFR and manifested by retention of BUN and creatinine. Acute renal failure is defined as a rapidly (over a period of days) increasing creatinine level or decreasing urine output. Any of the following criteria would qualify as acute renal failure.

- Creatinine levels that is > 2 times the baseline creatinine level
- Glomerular filtration rate needs to be reduced by 50%.
- Sudden drop in urine output less than 5ml / kg / h over a period of 12 hours.
- Documentation by physician of acute renal failure.

The possible types of renal failure include:

- *Acute renal failure / acute on chronic renal failure, Prerenal:* Renal dysfunction due to diseases that decrease temporarily arterial blood supply to the kidney. Examples include: Hypovolemia (vomiting, diarrhea, diuretics), CHF, liver failure, and renal arterial stenosis (RAS). Common diagnostic characteristic of pre-renal failure include the following: (Note none of the following by themselves are diagnostic of pre-renal failure)
 - Pre-renal disease is usually reversible once the underlying etiology of the disease is reversed. If the damage to the kidney is irreversible, it is less likely due to pre-renal etiologies.
 - Urinalysis typically reveals a normal urinary sediment without hemoglobin, protein, cells.
 - The BUN to Creatinine Ratio is typically > 20
 - Urine indices that suggest prerenal ARF include the following:
 - Urine specific gravity >1.018
 - Urine osmolality (mOsm/kg H₂O) >500
 - Urine sodium (mEq/L) <15-20
 - Urine/plasma creatinine ratio >40
 - $FeNa = (\text{urine Na}/\text{plasma Na})/(\text{urine creatinine}/\text{plasma creatinine})$
FeNa <1 % = prerenal ARF
 -
- *Acute renal failure / acute on chronic renal failure, Not Prerenal:* Renal dysfunction due to diseases of the renal parenchyma, specifically involving the renal tubules, glomeruli, interstitium. Renal dysfunction also includes dysfunction due to postrenal failure, or diseases causing urinary obstruction from the level of the renal tubules to the urethra. Intrinsic and Postrenal processes include:

ICU Outcomes Data Validation Instrument - Data Dictionary

- Acute Tubular Necrosis (ATN): One of the most common causes of renal failure in ICU patients. Any form of pre-renal failure may lead to ATN if severe or prolonged enough to cause tubular cell death.
- Ischemia, toxins (e.g., aminoglycosides, radiocontrast, heme pigments, cisplatin, myeloma light chains, ethylene glycol)
- Interstitial diseases - Acute interstitial nephritis, drug reactions, autoimmune diseases (e.g., systemic lupus erythematosus [SLE]), infiltrative disease (sarcoidosis, lymphoma), infectious agents (Legionnaire disease, hantavirus).
- Acute glomerulonephritis
- Vascular diseases - Hypertensive crisis, polyarteritis nodosa, Vasculitis
- Tubular obstruction from crystals (e.g., uric acid, calcium oxalate, acyclovir, sulfonamide, methotrexate, myeloma light chains)
- Ureteral obstruction - Retroperitoneal tumor, retroperitoneal fibrosis (methysergide, propranolol, hydralazine), urolithiasis, papillary necrosis
- Urethral obstruction - Benign prostatic hypertrophy; prostate, cervical, bladder, colorectal carcinoma; bladder hematoma; bladder stone; obstructed Foley catheter; neurogenic bladder; stricture
- Common diagnostic characteristics of acute renal failure that is not prerenal include: (Note none of the following by themselves are diagnostic).
 - Urinalysis may be normal or reveal any of the following:
 - Muddy-Brown Casts.
 - Granular Casts
 - Hemoglobinuria
 - Proteinuria
 - RBC casts or WBC casts
 - Crystals
 - Dysmorphic red cells.
 - The BUN to Creatinine Ratio is typically < 20.
 - Urine indices that suggest NON prerenal ARF include the following:
 - Urine sodium (mEq/L) >40
 - Urine/plasma creatinine ratio <20
 - $FeNa = (\text{urine Na}/\text{plasma Na})/(\text{urine creatinine}/\text{plasma creatinine})$ $FeNa >1\% = \text{ATN}$

Justification MPM II

Instructions

- Select box if pt with diagnosis of acute renal failure at admission to ICU.
- Do not select box if there is only evidence of chronic renal failure.

- ❑ Do not select box unless there is prior historical or laboratory documentation of baseline renal function in which to compare the current creatinine, GFR, or urine output. (In other words do not select as acute renal failure unless it is known that this is worse compared to baseline).
- ❑ If do not know etiology of the acute renal failure select “Unknown Type”

Preferred Sources: Current Admission Notes, Physician progress notes, Laboratory Reports, Emergency Room Notes, Nursing Notes, Consultation Notes,

Neurologic – Coma or Deep Stupor

Definition Coma: No response to any stimulation, no twitching, no movement in extremities, no response to pain or command. Deep Stupor: Exhibits decorticate or decerebrate posturing, posturing is spontaneous or in response to stimulation or deep pain, not in response to commands. Possible causes of Coma / Deep stupor include

- Traumatic Injury
- Medical, non-traumatic: Includes hepatic encephalopathy, metabolic Encephalopathies, stroke, intracerebral hemorrhage, anoxic brain injury, etc.)
- Drug Overdose

Justification MPM II

Instructions

- ❑ Select box if pt with diagnosis coma or deep stupor at admission to ICU.
- ❑ For patients taking a paralyzing muscle relaxant, awakening from anesthesia, or heavily sedated, use your best judgment of the level of consciousness prior to sedation.

Preferred Sources: Current Admission Notes, Physician progress notes, Emergency Room Notes, Nursing Notes, Consultation Notes,

Neurologic – Cerebrovascular Incident

Definition Any acute cause of a stroke and / or bleed involving the brain or deep brain structures (e.g. pons, midbrain, cerebellum), or structures surrounding the brain (dural space). Possible causes include:

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

Justification MPM II

Instructions

- Select box if pt with diagnosis coma or deep stupor at admission to ICU.
- Does not include chronic arteriovenous malformation
- Does not include chronic cerebral aneurysm
- Do not include chronic epidural / subdural bleed.

Preferred Sources: Current Admission Notes, Physician progress notes, Emergency Room Notes, Nursing Notes, Consultation Notes, Radiology Reports

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).

Confirmed Cirrhosis

Definition Cirrhosis is a progressive, irreversible disease of the liver characterized by diffuse damage to hepatic parenchymal cells, with nodular regeneration, fibrosis, and disturbance of normal architecture; associated with failure in the function of hepatic cells and interference with blood flow in the liver, frequently resulting in jaundice, portal hypertension, ascites, and ultimately hepatic failure. Confirmed cirrhosis includes cirrhosis that is confirmed by biopsy, endoscopy, or an imaging study such as CT, US, or MRI.

Justification MPM II

Instructions

- Check box if the PMH indicates confirmed cirrhosis
- Confirmed cirrhosis includes cirrhosis that is confirmed by biopsy, endoscopy, or an imaging study such as CT, US, or MRI.
 - Please indicate if method of diagnosis know, biopsy proven vs. clinical / imaging based diagnosis.
- If cirrhosis is diagnosed on this admission, then this should count as a chronic health variable as was likely present prior to admission.
- If the patient has a functioning liver transplant, this chronic health variable does not apply.
- If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Current or past Admission Notes, Discharge Summaries, Pathology Report, Physician/nurses' emergency room notes, Physician progress notes, Operative Reports, Radiology Reports.

Portal Hypertension prior to ICU admission

Definition Seen most frequently in patients with liver disease, such as cirrhosis or hepatitis, portal hypertension is a condition in which the normal flow of blood through the liver is slowed or blocked by scarring or other damage. Patients with the condition are at risk of variceal bleeding or other life-threatening complications.

Justification MPM II

Instructions

- Check box if the PMH documents portal hypertension. Evidence of portal hypertension includes:
 - Esophageal or gastric varices demonstrated by surgery, imaging, or endoscopy.
 - Portal hypertensive gastropathy demonstrated by surgery, imaging (ultrasonography, CT scan, MRI, or endoscopy).
 - Retrograde splenic-venous flow or hepatofugal flow on any imaging procedure (example: ultrasonography, MRI)
 - Direct hemodynamic measurement of portal pressure via femoral or internal jugular vein catheter. Measurement of the hepatic venous pressure gradient (HVPG).
 - Prior history of transjugular intrahepatic portosystemic shunt (TIPS) procedure or porto-systemic shunt surgery.
 - History of ascites that is documented by physician to be secondary to portal hypertension.
- Do not include gastrointestinal bleeding without evidence of portal hypertension.
- Do not include history of ascites without evidence of portal hypertension.
- If portal hypertension is diagnosed on this admission, then this should count as a chronic health variable as was likely present prior to admission.
-
- If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Jaundice AND Ascites prior to ICU admission

Definition Jaundice is a yellowish staining of the skin, sclera, and mucous membranes by bilirubin which may rise in patients with acute or chronic liver disease. The discoloration typically is detected clinically once the serum bilirubin level rises above 3 mg per dL (51.3 μ mol per L).

Ascites is the presence of excess fluid in the peritoneal cavity. It is a common clinical finding with a wide range of causes, but develops most

frequently as a part of the decompensation of previously asymptomatic chronic liver disease.

Justification MPM II

Instructions

- ❑ Check box if there is prior documented medical history indicating the simultaneous presence of jaundice and ascites in the past 6 months.
- ❑ Ascites may be diagnosed by imaging (ultrasonography, CT scan, MRI), prior history of ascites visualized either during surgery, or with an abdominal paracentesis.
- ❑ Physical examination alone for ascites is not adequate to make diagnosis of ascites. There must also be supporting imaging evidence (ultrasonography, CT scan, or MRI), or prior history of fluid visualized during surgery or with an abdominal paracentesis.
- ❑ Physical examination alone is not adequate to make diagnosis of jaundice. Serum bilirubin level must be $\geq 3\text{mg/dL}$ ($51.3\ \mu\text{mol/L}$) to clinically visualize jaundice.
- ❑ Do not check box unless jaundice and ascites are believed to be secondary to cirrhosis.
- ❑ Do not check box if there is only documentation of jaundice alone.
- ❑ Do not check box if there is only documentation of ascites alone.
- ❑ If the patient has a functioning liver transplant, this chronic health variable does not apply.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

GI Bleeding attributed to Portal Hypertension prior to ICU admission

Definition Bleeding from ruptured dilated gastric or esophageal veins due to portal hypertension in the setting of cirrhosis.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates episode(s) of variceal bleeding prior to admission to your unit.
- ❑ Do not include history of upper GI bleed unless specifically documented that bleed is variceal in nature.
- ❑ Do not include history of variceal bleeding unless patient meets criteria for cirrhosis.
- ❑ If GI bleed attributable to portal hypertension is diagnosed on this admission, then this should count as a chronic health variable as the portal hypertension was likely present prior to admission.

ICU Outcomes Data Validation Instrument - Data Dictionary

- ❑ If the patient has a functioning liver transplant, this chronic health variable does not apply.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Hepatic Encephalopathy and/or Hepatic Coma prior to ICU admission

Definition A syndrome observed in patients WITH cirrhosis of the liver. It is characterized by personality changes, intellectual impairment, and a depressed level of consciousness. Grades of hepatic encephalopathy include:

- Grade 0 No abnormality detected.
- Grade 1 Slowness in cerebration, intermittent mild confusion and euphoria.
- Grade 2 Confused most of the time, increasing drowsiness.
- Grade 3 Severe confusion, arousable, responds to simple commands.
- Grade 4 Unconscious, responds to painful stimuli.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates episodes of hepatic encephalopathy, Grade 1 or greater, in the six months prior to admission to your unit.
- ❑ There is no need to figure out the grade. The grading system is presented to assist you in determining if there is encephalopathy. Patient would have exhibited slow thinking, euphoria, confusion, drowsiness, or altered consciousness.
- ❑ Do not include history of hepatic encephalopathy unless patient meets criteria for cirrhosis and / or portal hypertension.
- ❑ If the patient has a functioning liver transplant, this chronic health variable does not apply.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Renal Dysfunction without Dialysis but Creatinine > 2.0mg/dL prior to ICU admission

Definition Specifies whether the patient currently has chronic kidney disease with a baseline creatinine chronically greater than 2.0 mg/dL *prior to this admission to the hospital*, for ≥ 3 months.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates chronic renal insufficiency or dysfunction with a baseline creatinine chronically greater than 2.0 mg/dL *prior to this admission to the hospital*, for ≥ 3 months.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Chronic Renal Replacement Therapy (Dialysis) prior to ICU admission

Definition Renal replacement therapy (dialysis) is a process of purifying and adding nutrients into the blood through artificial means for irreversible kidney damage. There are two primary methods of dialysis. Hemodialysis is where the patient's blood is removed from an artery, purified through a dialysis machine, and then returned into a vein along with added nutrients. Peritoneal dialysis is where the peritoneum (the membrane lining the abdominal cavity) is used to filter the blood. Chronic is defined as ≥ 3 months.

Inclusions Chronic hemodialysis (HD), Chronic peritoneal dialysis, Chronic renal dialysis, Continuous peritoneal dialysis, ESRD with evidence of chronic dialysis treatment.

Exclusions Dialysis for current acute renal failure without a history of chronic renal disease and/or dialysis < 3 months duration.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates current renal replacement therapy for irreversible renal disease.
- ❑ Do not include patients who are status post kidney transplant that no longer need dialysis.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Metastatic Disease within 6 months prior to admission to the ICU

Definition The patient has distant (not regional lymph node) metastasis of a solid tumor documented by surgery, imaging or biopsy, and evident in the six months prior to admission to the unit.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates that the patient has distant (not regional lymph node) metastases, evident in the six months prior to admission to the unit, and documented as a metastasis in the note or by surgery, imaging, biopsy, or clinical assessment.
- ❑ This does not include hematologic malignancies (Examples. Chronic lymphocytic leukemia, chronic myelogenous leukemia, acute lymphocytic leukemia, acute myelogenous leukemia, multiple myeloma, polycythemia vera, essential thrombocytosis, Waldenstrom's).
- ❑ Metastatic melanoma is considered a metastatic solid organ malignancy.
- ❑ If metastatic disease is diagnosed on this ICU admission, then this should count as a chronic health variable as was likely present prior to admission.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Pathology Reports, Operative Report, Radiology Results, Discharge Summary, Physician's H&P/admission Notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes, Oncology Notes

Chronic myelogenous leukemia or chronic lymphocytic leukemia with associated treatment and/or complications attributable to the disease

Definition Specifies whether the patient has chronic myelogenous leukemia(CML) or chronic lymphocytic leukemia(CLL) evident in the six months prior to admission to the intensive care unit AND has either received chemotherapy for the disease, or experienced complications attributable to the disease. Complications include: Sepsis, anemia, "blast crisis", stroke caused by clumping of white blood cells, tumor lysis syndrome, pulmonary edema including lymphangiectatic form or ARDS.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates that the patient has chronic myelogenous leukemia(CML) or chronic lymphocytic leukemia(CLL) evident in the six months prior to admission to the unit and has either received chemotherapy or experienced complication attributable to the disease.
- ❑ Do not check box if patient has CML and/or CLL and has not undergone treatment, or experienced complications attributable to the disease in the 6 months previous to ICU admission.

ICU Outcomes Data Validation Instrument - Data Dictionary

- ❑ If chronic leukemia is diagnosed on this ICU admission, then this should count as a chronic health variable as was likely present prior to admission.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes

Acute myelogenous leukemia, acute lymphocytic leukemia, multiple myeloma, or other acute hematologic malignancy in 6 months prior to ICU admission

Definition The patient has a history of acute or chronic myelogenous or lymphocytic leukemia, or multiple myeloma evident in the six months prior to admission to the intensive care unit.

Justification MPM II

Instructions

- ❑ Check box if the PMH indicates that the patient has acute myelogenous leukemia, acute lymphocytic leukemia or multiple myeloma evident in the six months prior to admission to the unit.
- ❑ Check box regardless of history of treatment or complications attributable to the disease.
- ❑ If acute leukemia is diagnosed on this ICU admission, then this should count as a chronic health variable as was likely present prior to admission.
- ❑ Check this box for all other acute hematologic malignancies. Examples may include Hairy Cell Leukemia, Waldenstrom's Macroglobulinemia, and Acute Granulocytic Leukemia.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Discharge Summary; Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes, Oncology Notes

Lymphoma in 6 months prior to ICU admission

Definition Specifies whether the patient has lymphoma, documented by surgery, imaging or biopsy, and evident in the six months prior to admission to the unit. Lymphoma type may be of the Hodgkin's or Non-Hodgkin's type. Hodgkin's disease is a type of lymphoma described by Thomas Hodgkin in 1832, and characterized by the presence of Reed-Sternberg cells.

Justification MPMII

Instructions

- ❑ Check box if the PMH indicates that the patient has lymphoma, documented by surgery, imaging or biopsy, and evident in the six months prior to admission to your unit.
- ❑ Check box if PMH indicates that lymphoma is Hodgkin's, Non-Hodgkin's or unknown.
- ❑ Check box regardless of history of treatment or complications attributable to the disease.
- ❑ If lymphoma is diagnosed on this ICU admission, then this should count as a chronic health variable as was likely present prior to admission.
- ❑ If this information is not available on admission, but becomes available at a later date, it should be updated.

Preferred Sources: Pathology Report, Operative Report, Radiology Results, Discharge Summary, Physician's H&P/admission notes, Physician/nurses' Emergency Room Notes, Physician Progress Notes, Oncology Notes

SECTION VII. MENTAL STATUS

VII-1 Glasgow Coma Score at admission to the ICU

Definition The Glasgow Coma Scale is a scoring instrument used to quantify depth and duration of impaired consciousness based on a patient's eye opening, verbal performance, and motor responsiveness.

Justification MPMII.

Instructions

- ❑ Enter total Glasgow Coma Score at admission to the intensive care unit.
- ❑ The total Glasgow Coma Score must equal the sum of the associated eye, motor and verbal components, further defined below.
- ❑ All three components of the Glasgow coma score (eyes, verbal and motor) must be documented at the same time.
- ❑ A GCS score at admission is required, thus for patients under the effects of paralytic or sedative medications use your best clinical judgment to estimate the patient's GCS at the time prior to initiation of sedation / paralytic agents.
 - Estimates while on sedative medications are allowed as long as it is not thought to alter the patient's level of consciousness. (Example. A patient on a patient controlled analgesia (PCA) pump with rare boluses should still have a Glasgow Coma Score assessed.)
 - By definition, the patient's level of consciousness is not lowered by the medications if patient has a score of 15 while on sedation / pain medications.
- ❑ For surgical patients who return from the operating room sedated and/or paralyzed, the patient's GCS immediately prior to surgery should be recorded as the estimate.

- ❑ Patients with an ICU admitting diagnosis of self-inflicted overdose(OD) should have their actual Glasgow coma score determined because the sedation is part of the pathology of an OD.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

VII-1 Associated Eye Opening Response from Admission Glasgow Coma Score

Definition The eye opening response is one of three components of the total Glasgow Coma Score (GCS). Eye opening response is scored on a scale from 1 to 4. The values correspond to the following:

1. No eye response to any stimuli
2. Eye opening to pain only
3. Eye opening to verbal command
4. Spontaneous eye opening

Justification MPMII.

Instructions

- ❑ Enter the eye component associated with the total Glasgow Coma Score at admission to your intensive care unit.
- ❑ A GCS score at admission is required, thus for patients under the effects of paralytic or sedative medications use your best clinical judgment to estimate the patient's GCS as close to the time prior to initiation of sedation / paralytic agents.
 - Estimates while on sedative medications are allowed as long as it is not thought to alter the patient's level of consciousness. (Example. A patient on a patient controlled analgesia (PCA) pump with rare boluses should still have a Glasgow Coma Score assessed.)
- ❑ For surgical patients who return from the operating room sedated and/or paralyzed, the patient's GCS immediately prior to surgery should be recorded as the estimate.
- ❑ Patients with an ICU admitting diagnosis of self-inflicted overdose(OD) should have their actual Glasgow Coma Score determined because the sedation is part of the pathology of an OD.
- ❑ If lowest total Glasgow Coma Score equals 3, the associated eye can be automatically entered as 1.
- ❑ If lowest total Glasgow Coma Score equals 15, the associated eye component value can be automatically entered as 4.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

VII-1 Associated Motor Component from Admission Glasgow Coma Score

Definition The motor response is one of three components of the total Glasgow Coma Score (GCS). Motor response is scored on a scale from 1 to 6. The values correspond to the following:

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

Justification MPM II.

Instructions

- ❑ Enter the motor component associated with the total Glasgow Coma Score at admission to your intensive care unit.
- ❑ A GCS score at admission is required, thus for patients under the effects of paralytic or sedative medications use your best clinical judgment to estimate the patient's GCS as close to the time prior to initiation of sedation / paralytic agents.
 - Estimates while on sedative medications are allowed as long as it is not thought to alter the patient's level of consciousness. (Example. A patient on a patient controlled analgesia (PCA) pump with rare boluses should still have a Glasgow Coma Score assessed.)
- ❑ For surgical patients who return from the operating room sedated and/or paralyzed, the patient's GCS immediately prior to surgery should be recorded as the estimate.
- ❑ Patients with an ICU admitting diagnosis of self-inflicted overdose (OD) should have their actual Glasgow coma score determined because the sedation is part of the pathology of an OD.
- ❑ If lowest total Glasgow Coma Score equals 3, the associated motor component can be automatically entered as 1.
- ❑ If lowest total Glasgow Coma Score equals 15, the associated motor component value can be automatically entered as 5.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

VII-1 Associated Verbal Component from Admission Glasgow Coma Score

Definition The verbal response is one of three components of the total Glasgow Coma Score (GCS). Verbal response is scored on a scale from 1 to 6. The values correspond to the following:

ICU Outcomes Data Validation Instrument - Data Dictionary

1. No response, OR if patient intubated or unable to speak, patient is clearly unresponsive
2. Incomprehensible sounds – not words
3. Inappropriate words, OR if patient intubated or unable to speak, patient is responsive but orientation and ability to communicate reasonably are in question
4. Disoriented and converses
5. Oriented and converses, OR if patient intubated or unable to speak, patient is clearly oriented and able to converse or indicate needs

Justification MPM II

Instructions

- ❑ Enter the verbal component associated with the total Glasgow Coma Score at admission to your intensive care unit.
- ❑ If the patient is unable to speak or vocalize for any reason, such as aphasia, Parkinsonism, intubation, or foreign language barrier, use your clinical judgment to assess the patient's actual ability to communicate and assign verbal scores according to the modified verbal score.
 - An example of this is the patient who is intubated, but clearly follows all verbal commands accurately. This is evidence that the patient understands verbal communication. If the patient nods appropriately to questions asked, it is apparent that he or she understands and is attempting to communicate. These are also those patients that write notes such as "What time is Jeopardy on?" Therefore, even a patient who cannot verbalize, it is clear that they are still able to communicate and normal verbal score of 5 should be assigned. Similarly, if the patient is able to follow commands, but you are unsure of orientation, assign a verbal score of 3. Only those patients that are clearly unresponsive should have a score of 1 assigned.
- ❑ A GCS score at admission is required, thus for patients under the effects of paralytic or sedative medications use your best clinical judgment to estimate the patient's GCS as close to the time prior to initiation of sedation / paralytic agents.
 - Estimates while on sedative medications are allowed as long as it is not thought to alter the patient's level of consciousness. (Example. A patient on a patient controlled analgesia (PCA) pump with rare boluses should still have a Glasgow Coma Score assessed.)
- ❑ For surgical patients who return from the operating room sedated and/or paralyzed, the patient's GCS immediately prior to surgery should be recorded as the estimate.
- ❑ Patients with an ICU admitting diagnosis of self-inflicted overdose(OD) should have their actual Glasgow coma score determined because the sedation is part of the pathology of an OD.
- ❑ If lowest total Glasgow Coma Score equals 3, the associated verbal component can be automatically entered as 1.

- ❑ If lowest total Glasgow Coma Score equals 15, the associated verbal component value can be automatically entered as 6.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

VII-1a Is GCS Physician/Nurse documented or Estimated Score?

Definition Physician or nurse documented requires that the evaluation of the neurologic status was derived from any form of nursing or physician documentation of the patient's mental status. This is not limited to a GCS score, and includes statements such as: Opens eyes to my commands, Moves all extremities to pain, Speaking but disoriented, etc.

Justification Data Quality Assessment.

Instructions

- ❑ Select whether the GCS recorded at admission was derived from explicit neurologic descriptors from nursing / physician notes, or estimated using your best clinical judgment.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

VII-2 Was the patient's level of consciousness significantly depressed due to the effects of sedative or paralytic agents at ICU admission?

Definition At ICU admission a patient's ability to verbally or non-verbally interact is limited due to the administration of medications that may include sedative agents, analgesic agents, anesthetic agents, and paralytic agents.

The following is a listing of common sedative medications:

Alprazolam	Haldol
Amidate	Haloperidol
Ativan	Inapsine
Brevital	Ketalar
Clonazepam	Ketamine
Chlordiazepoxide	Klonopin
Chlorpromazine	Librium
Dexmedetomidine	Lorazepam
Diazepam	Methohexital
Diprivan	Midazolam
Droperidol	Niravam
Estazolam	Oxazepam
Etomidate	Pentothal
Halcion	Precedex

ICU Outcomes Data Validation Instrument - Data Dictionary

The following is a listing of common analgesic medications:

Alfenta	Meperidine
Alfentanil	Methadone
Buprenex	Nalbuphine
Buprenorphine	Nubain
Butorphanol	Palladone
Dalgan	Pentazocine
Demerol	Remifentanil
Dezocine	Stadol
Dilaudid	Sublimaze
Duragesic	Sufenta
Fentanyl	Sufentanil
Hydromorphone	Talwin
Morphine	Ultiva

The following is a list of common paralytic medications:

- Anectine
- Atracurium
- Cistracurium
- Curare
- Doxacurium
- Metocurine
- Mivacron
- Mivacurium
- Nimbex
- Norcuron
- Nuromax
- Pancuronium
- Pavulon
- Pipecuronium
- Rapacuronium
- Rocuronium
- Succinylcholine
- Tracrium
- Tubocurarine
- Vecuroniumr
- Zemuron

Justification MPM II

Instructions

- ❑ Use your best clinical judgment to determine whether the patient’s level of consciousness is significantly depressed at the time of ICU admission.
- ❑ This does not include if a patient is receiving sedative medications, but the patient’s level of consciousness is judged not to be significantly depressed by the medications. (Example. A patient on a patient controlled analgesia (PCA) pump with rare boluses should still have a Glasgow Coma Score assessed.)
- ❑ Select “No” if at any time the patient had a GCS score of 15 in the 12 hours prior to admission, regardless of the sedative or analgesic agents the patient may have been on at the time of GCS assessment.
- ❑ Select “No” for patients with an ICU admission diagnosis of self-inflicted overdose (OD).
- ❑ Select “Yes” for a surgical patient who returns from the operating room sedated and/or paralyzed.

Preferred Sources: Admission H&P, Physician Progress Notes, Physician/Nurse ER record, Nursing Notes, ICU Flowsheet, Neurology Consultation Notes

SECTION VIII. DISCHARGE

VIII-1 Date of Discharge from your ICU Unit

Definition The month, day, and year the patient was physically discharged from the intensive care unit, left against medical advice, or expired during this ICU stay.

Justification The date of admission to your unit and time of admission to your unit and date of discharge from your unit and time of discharge from your unit are used to calculate length of stay in your unit. Date of discharge from your unit and date of discharge from hospital are used to calculate days in hospital after discharge from your unit.

Instructions

- ❑ Enter the month, day, and year that the patient was discharged from this admission to your unit, left against medical advice, or expired.
- ❑ The date of discharge from your unit is the latest documented date of the patient being physically in your unit.
- ❑ Discharge does not include temporary transfer from your unit, for example, either for surgery, radiology, medical procedures, other investigation or to the recovery room due to pressure on beds in the expectation of a return to your unit.

ICU Outcomes Data Validation Instrument - Data Dictionary

- ❑ Discharge to the recovery room, with no expectation of returning to your unit, is considered as physical discharge from your unit.

Preferred Sources: Nursing Discharge Notes, ICU Flow Sheet

Other Sources: Physician orders, Physician Progress Notes, Transfer Notes.

VIII-1 Time of Discharge from Unit

Definition The time (military) the patient was discharged from the intensive care unit, left against medical advice (AMA), or expired during this ICU admission.

Justification Date of admission to your unit and time of admission to your unit and date of discharge from your unit and time of discharge from your unit are used to calculate length of stay in your unit.

Instructions

- ❑ Enter the time of the day that the patient was discharged from this admission to your unit in hh:mm (military) format
- ❑ Discharge from your unit is defined as the physical discharge and recording of that discharge from a bed in your unit.
- ❑ Time of discharge from your unit is the latest documented time of the patient being physically within your unit.

Military Time

HH = Hour (00-23)

MM = Minutes (00-59)

Military Time – A 24-hour period from midnight to midnight using a 4-digit number of which the first two digits indicate the hour and the last two digits indicate the minute.

Converting clock time to military time:

With the exception of Midnight and Noon:

* If the time is in the a.m., conversion is not required.

* If the time is in the p.m., add 12 to the clock time hour.

For example:

Midnight – 00:00 Noon – 12:00

5:31 am – 05:31 5:31 pm – 17:31

11:59 am – 11:59 11:59 pm – 23:59

Preferred Sources: ICU Flow Sheet, Nursing Discharge Notes

Other Sources: Physician orders, Physician Progress Notes, Transfer Notes.

VIII-2 Date of Discharge from your Hospital

Definition The month, day, and year the patient was discharged from acute care, left against medical advice, or expired during this acute care hospital stay.

Justification Date of discharge and date of admission to your hospital are used to calculate length of stay in your hospital.

Instructions

- ❑ Enter the date the patient was discharged from your hospital.
- ❑ A four-digit year must be entered.
- ❑ The date of discharge is the latest documented date of the patient being physically in a bed in your acute care hospital.
- ❑ If transferred to a rehabilitation unit, or skilled nursing unit in your same hospital, document this date as the discharge date.

Preferred Sources: Discharge Summary, Nursing Discharge Notes, Physician Orders

Other Sources: Physician Progress Notes, Transfer note

VIII-2 Time of Discharge from Hospital

Definition The exact time (military time) represented in hours and minutes, at which the patient was discharged from inpatient care.

Justification Date of admission to your hospital and time of admission to your hospital and date of discharge from your hospital and time of discharge from your hospital are used to calculate length of stay in your hospital.

Instructions

- ❑ Enter the time of the day that the patient was discharged from this admission to your hospital.
- ❑ Time of discharge from your hospital is the latest documented time of the patient being physically within your hospital.
- ❑ If transferred to a rehabilitation unit, or skilled nursing unit in your same hospital, document this date as the discharge date.
- ❑ Enter the hour and minutes the patient was discharged from your hospital in hh:mm (military) format.

Military Time HH = Hour (00-23)
 MM = Minutes (00-59)

Military Time – A 24-hour period from midnight to midnight using a 4-digit number of which the first two digits indicate the hour and the last two digits indicate the minute.

Converting clock time to military time:

ICU Outcomes Data Validation Instrument - Data Dictionary

With the exception of Midnight and Noon:

- * If the time is in the a.m., conversion is not required.
- * If the time is in the p.m., add 12 to the clock time hour.

For example:

Midnight – 00:00	Noon – 12:00
5:31 am – 05:31	5:31 pm – 17:31
11:59 am – 11:59	11:59 pm – 23:59

Preferred Sources: Discharge Summary, Nursing Discharge Notes, Physician Orders

Other Sources: Physician Progress Notes, Transfer note

VIII-3 Status of Patient at Discharge from ICU Unit

Definition The physical condition of the patient at discharge from your intensive care unit.

Justification Required for survival statistics

Instructions

- Select one of the following to indicate if the patient was alive when discharged from your unit.
 - Stable - patient's condition improving or without significant change. Does not require intensive intervention.
 - Heart still beating but under consideration for organ donation.
 - Discharged for comfort care with no expectation of recovery.
 - Dead (includes admissions who leave your unit to become heart beating organ donors).

Preferred Sources: Discharge Summary, Nursing Discharge Notes, Physician Progress Notes, Transfer Notes

VIII-3a If patient died in ICU, life support status at death

Definition Code status is a physician documented indication as to the patient's wishes for further treatment, or lack thereof, should they have a cardiopulmonary arrest.

Instructions

- Full code - no restrictions on therapies or interventions.
- DNR/No CPR - applies where there is NO chest compression, NO intubation and NO electrical cardioversion permitted. ALL 3 therapies must be prohibited to choose this category.
- Limited intervention/Withholding therapy - specific limits are in place which either prevent the initiation of a specific therapy or technology

and/or prevent further increase of a specific therapy or technology. Includes situations in which dialysis, blood product administration, nutritional support, chemical cardioversion & other therapies are not to be initiated. Also includes the situation in which it is permitted to do one or two of the interventions listed in the CPR category but not all 3.

- Withdrawing therapy/Comfort care - applies to situations in which therapy already in place is being withdrawn or removed. Commonly referred as palliative care in the medical community. This may include any OR all of the following: removal from vent support, removal of pressors, stopping of dialysis and/or stopping of other therapeutic measures. Palliative care includes attention to the psychological and spiritual needs of the patient and support for the dying patient and the patient's family. Comfort Measure Only are not equivalent to the following: Do Not Resuscitate (DNR), living will, no code, no heroic measure.
- Maintenance of circulatory support for organ procurement following determination of brain death.

Preferred Sources: Physician Progress Notes, Discharge Summary, Transfer Summary, Physician Orders, Code Status Documentation

VIII-4 Status at Discharge from Hospital, Alive vs. Dead

- Definition The mortality status of the patient at discharge from your hospital.
- Justification Required for survival statistics
- Instructions Select one of the following to indicate if the patient was alive when discharged from your hospital.
- Alive
 - Dead. This includes physician documented brain death that is defined as the absence of brain and brain stem activity indicating death of all brain tissue. Diagnosis of brain death may be made by bedside examination and confirmed by electroencephalography (EEG, brain wave study).

Preferred Sources: Discharge Summary, Transfer Summary, Physician Progress Notes.

VIII-4(cont'd) If patient discharged from hospital alive, disposition of patient

- Definition The place or setting to which the patient was discharged.

ICU Outcomes Data Validation Instrument - Data Dictionary

Justification Determining the population for many measures.

- Instructions** Select one of the following to indicate where the patient went when discharged from your hospital.
- Routine (went home): Discharged to the patient's home, the home of a relative or friend, or a vacation site, whether or not the patient had been receiving home health services or hospice care at home.
 - Another Acute Care hospital: If discharged to any acute care unit at an outside hospital including medical/surgical floor, ICU, operating room, recovery room, or procedural area in the outside hospital. This does not include the emergency department, SNF, rehabilitation unit, or hospice unit that may be located within the outside hospital.
 - Against medical advice: Leaves the acute care facility against the advice of the physicians. Documented commonly as AMA or AWOL.
 - Skilled Nursing Facility/Intermediate care/Residential Care/Hospice:
 - Skilled Nursing / Intermediate Care: Either an independent facility, or a distinct part of a hospital that provides 24-hour skilled nursing care that does not require the level of care provided in a hospital; includes services such as physical, speech and occupational therapy; assistance with personal care activities such as eating, walking, toileting and bathing; coordinated management of patient care; social services; and activities.
 - Hospice: A medical facility such as hospital, SNF, ICF or freestanding hospice that provide palliative care intended for the end of life.
 - Other or unknown

Preferred Sources: Discharge Summary, Transfer Summary

ICU Outcomes Data Validation Instrument - Data Dictionary