I. POLICY:

The following clinical criteria must be considered in planning admission to and discharge or transfer from the Intermediate Care Unit.

Admission Criteria:

Cardiovascular

- Low-probability myocardial infarction; rule out myocardial infarction
- Hemodynamically stable myocardial infarction
- Any hemodynamically stable dysrhythmia
- Any hemodynamically stable patient without evidence of myocardial infarction but requiring temporary or permanent pacemaker
- Mild-to-moderate congestive heart failure without shock
- Hypertensive urgency without evidence of end-organ damage
- Patients with non-life-threatening cardiac disease requiring low-dose intravenous inotropic, vasopressor, or vasodilator therapy
- Patients undergoing cardiac procedures who require close monitoring and who do not have hemodynamic or respiratory compromise, such as, but not limited to. PCI, permanent pacemaker placement, and open thoracotomy.

Respiratory

- Medically stable ventilator patients for weaning.
- Hemodynamically stable patients with evidence of compromised gas exchange with the potential for worsening respiratory insufficiency who require non-invasive positive pressure ventilation
- Patients with moderate pulmonary or airway disease requiring multidisciplinary intervention and frequent monitoring, including but not limited to those with
  - Potential need for endotracheal intubation.
  - Progressive pulmonary (lower or upper airway) disease of moderate severity with risk of progression to respiratory failure or with obstruction potential.
  - Acute need for supplemental oxygen (fraction of inspired oxygen ≥ 0.6), regardless of cause admitted or
  - Need for aggressive pulmonary physiotherapy
  - Patients requiring frequent (at intervals < 2 hours) or continuous nebulized medications for an extended time period.
Neurologic Disorders
Patients with non-life-threatening neurologic disease requiring multidisciplinary intervention, frequent monitoring, and neurologic assessment not more than every 2 hours, including but not limited to the following, may be admitted:

- Patients with established, stable stroke who require frequent neurologic assessments or frequent suctioning or turning.
- Acute traumatic brain injury patients who have a Glasgow Coma Scale above 9 but require frequent monitoring for signs of neurologic deterioration.
- Stable severe traumatic brain injury patients who require frequent positioning and pulmonary toilet.
- Stable cervical spinal cord injured patients.
- Patients with seizures responsive to therapy and without hemodynamic compromise but requiring continuous cardiorespiratory monitoring due to potential for respiratory compromise.
- Patients with altered sensorium in whom neurologic deterioration or depression is unlikely and neurologic assessment is required.
- Patients with acute inflammation or infections of the central nervous system without neurological deficiency or other complications.
- Patients with head trauma without progressive neurologic signs or symptoms.
- Patients with progressive neuromuscular dysfunction without altered sensorium requiring cardiorespiratory monitoring.

Hematologic/Oncologic Diseases
Patients with potentially unstable hematologic or oncologic disease or non-life-threatening bleeding requiring multidisciplinary intervention and frequent monitoring, including but not limited to the following, may be admitted:

- Patients with severe anemia without hemodynamic or respiratory compromise.
- Patients with moderate complications of sickle cell crisis, such as respiratory distress.
- Patients with thrombocytopenia, anemia, neutropenia, or solid tumor who are at risk of cardiopulmonary compromise, but who are currently stable and, as a result, require close cardiorespiratory monitoring.
- Patients requiring plasmapheresis after the first 24 hours of therapy.

Endocrine/Metabolic Diseases
Patients with potentially unstable endocrine or metabolic disease requiring multidisciplinary intervention and frequent monitoring, including but not limited to the following, may be admitted:

- Patients with moderate diabetic ketoacidosis (blood glucose concentration< 500 mg/dL or pH ≥ 7.2) requiring continuous insulin infusion therapy without altered sensorium or significant risk factors for cerebral edema.
- Patients with thyrotoxicosis, hypothyroid state requiring frequent monitoring.
Patients with other moderate electrolyte and/or metabolic abnormalities requiring cardiac monitoring and therapeutic intervention, such as:
  o Hypokalemia (blood potassium concentration < 2.0 mEq) and hyperkalemia (blood potassium concentration > 6.0 mEq).
  o Hyponatremia and hypernatremia with alterations in clinical status
  o Hypocalcemia or hypercalcemia.
  o Hypoglycemia or hyperglycemia.
  o Moderate metabolic acidosis requiring bicarbonate infusion.

Patients with inborn errors of metabolism requiring cardiorespiratory monitoring

Gastrointestinal Diseases
Patients with potentially unstable gastrointestinal disease requiring multidisciplinary intervention and frequent monitoring, including but not limited to the following:
  • Patients with acute gastrointestinal bleeding but who do not have cardiorespiratory compromise
  • Patients with a gastrointestinal foreign body or other gastrointestinal problem requiring emergency endoscopy but who do not have cardiorespiratory compromise.
  • Patients who have acute or chronic gastrointestinal or hepatobiliary insufficiency but do not have coma, hemodynamic or respiratory instability or severe coagulopathy.

Surgery
All patients requiring multidisciplinary intervention and frequent monitoring who have undergone surgical procedures but who do not have hemodynamic or respiratory instability, including but not limited to the following categories, may be admitted:
  • thoracic surgery.
  • vascular procedures.
  • upper or lower airway surgery
  • craniofacial surgery.
  • thoracic or abdominal trauma.
  • multiple traumatic injuries.
  • orthopedic procedures.

Renal Diseases
Patients with potentially unstable renal disease requiring multidisciplinary intervention and frequent monitoring, including but not limited to the following, may be admitted:
  • Patients with hypertension without seizures, encephalopathy, or other symptoms, but who require frequent intermittent therapeutic intravenous or orally administered medication.
  • Patients with non-complicated nephrotic syndrome (regardless of cause) with chronic hypertension requiring frequent blood pressure monitoring.
  • Patients with renal failure, regardless of cause.
  • Patients requiring chronic hemodialysis or peritoneal dialysis at levels that require more intensive nursing care that what is possible on the floor.
Multisystem
Patients with potentially unstable multisystem disease requiring multidisciplinary intervention and frequent monitoring, including but not limited to the following, may be admitted:

- Patients requiring the application of special technological needs, including:
  - Use of respiratory assistance, such as continuous positive airway pressure (CPAP) bi-level positive airway pressure (BiPAP) with low risk of progressing to endotracheal intubation, or chronic home ventilation.
  - Tracheostomy care requiring frequent pulmonary hygiene and suctioning.
  - Pleural or pericardial drains after initial stabilization (without respiratory or hemodynamic compromise).
  - Medications or resources exceeding those provided in the general patient care unit.

- Appropriately treated and resolving early sepsis without evidence of shock or secondary organ failure.

Miscellaneous
- Patients requiring closely titrated fluid management.
- Patients with uncomplicated toxic ingestion who do not have cardiovascular, neurologic (GCS > 12), or respiratory compromise and who require cardiorespiratory monitoring.
- Patients requiring continuous monitoring for moderate procedural sedation.

Discharge Criteria:
Patients will be evaluated and considered for transfer to general care or special care units when the disease process has reversed or the physiologic condition that prompted admission has resolved and the need for multidisciplinary intervention and treatment is no longer present. The decision to transfer or discharge to home will be made on the basis of the following criteria:

- If patient’s condition deteriorates requiring care beyond the capabilities of the intermediate care unit, he or she should be admitted or readmitted to an intensive care unit.

- Patient should be transferred to a floor or specialty care unit or discharged from the hospital, as appropriate, if the following criteria apply:
  - Patient has stable hemodynamic parameters for at least 6 hours.
  - Patient has stable respiratory status and has been extubated with evidence of acceptable gas exchange for more than 6 hours.
  - Patient has minimal oxygen requirements as evidenced by a fraction of inspired oxygen (FiO2) of 0.4 or less.
  - Intravenous inotropic support, vasodilators, and antiarrhythmic drugs are no longer required, or, when applicable, low doses of these medications may be administered to otherwise stable patients in a designated patient care unit.
  - Cardiac arrhythmias are controlled for a reasonable period of time but not less than 24 hours.
  - Patient has neurologic stability with control of seizures for a reasonable amount of time.
  - All invasive hemodynamic monitoring devices have been removed.
  - In chronic conditions, resolution of the acute illness that required intermediate or intensive care has now returned to baseline clinical status.
The need for multidisciplinary intervention is predictable and compatible with policies of the receiving patient care unit. The health care team, after multidisciplinary assessment and together with the patient and/or family, decides that there would be no benefit in continued hospitalization or that the course of treatment is medically futile.

II. PURPOSE:

The use of guidelines for appropriate admission and discharge for the intermediate care unit will permit safe and efficient care of JHMC patients throughout the continuum of critical illness. Intermediate care provides nursing care and monitoring for patients at a lower acuity on the continuum of critical care. Intermediate patients are moderately stable with less complexity than ICU patients but require greater resources and nursing intensity, or are stable with a high potential for becoming unstable and require greater nursing vigilance than general care patients. Characteristics of progressive care patients, relative to Intensive care level patients include:

- Decreased risk of a life-threatening event
- Decreased need for invasive monitoring
- Increased stability
- Increased ability to participate in their care

The intermediate care unit promotes safe, efficient and effective care by increasing the flexibility of patient triage, improving resource and staff utilization, and providing evidence-based cost-effective care.

VIII. REFERENCES: