

**VANDERBILT UNIVERSITY MEDICAL CENTER  
MULTIDISCIPLINARY SURGICAL CRITICAL CARE**

**SURGICAL INTENSIVE CARE UNIT EARLY MOBILITY POLICY**

**Goal:** As ICU survival rates improve, critical care clinicians are faced with the responsibility of mitigating the short-term and long-term consequences of critical illness that pose significant challenges to the quality of life of patients. As demonstrated by Schweickert et al. in 2011, “the benefits of early mobilization include reductions in delirium, in length of stay in the ICU and hospital as well as improvements in strength and functional status at discharge.” The goal of the SICU Early Mobility Policy is to deliver early, appropriate, and safe physical therapy to SICU patients in order to optimize recovery, prevent and improve ICU acquired weakness, reduce ventilator days and therefore ventilator- associated pneumonia, and decrease length of ICU stay.

**Eligibility:** All patients admitted to the Surgical Intensive Care Unit.

**Process:**

- Each SICU patient will be evaluated upon admission and daily during rounds by the Mobility Safety Screen below. Any patient passing the Mobility Safety Screen criteria will be considered eligible for progressive mobilization (as described below), unless the SICU Attending or the primary team attending specifies via an order in the medical record that it is unsafe to mobilize that particular patient.

**Mobility Safety Screen:**

- ❖ No hemodynamic instability or active resuscitation
- ❖ No ongoing SpO2 ≤ 88% or FiO2 ≥ 70; RR ≤ 8 and ≥ 35/min; PEEP ≥ 12cm H2O
- ❖ No recent agitation (RASS ≥ +2 in last 4 hours)
- ❖ No active myocardial ischemia or arrhythmias
- ❖ No active seizures
- ❖ No contraindication for mobility (open abdomen, unstable spine, difficulty airway, VDR ventilation, surgical procedure requiring immobilization, comfort care, etc.)
- ❖ No femoral vascular devices
- ❖ No sustained systolic blood pressure >180mmHg or HR >130/min

- If the patient passes the Safety Screen criteria above, then the following algorithm will be utilized to delineate the patient’s level of mobility based on level of arousal utilizing the patient’s RASS score.

<b>Stupor/Coma RASS -4/-5</b>	<b>Awakens to Voice RASS -3</b>	<b>Alert and Calm RASS -2/-1/0/+1</b>
Passed Mobility Safety Screen  Bedside RN Initiated Passive ROM	Passed Mobility Safety Screen  Bedside RN initiated progressive mobility ranging from: PROM Sit/Dangle PT Consult to be put by ICU team	Passed Mobility Safety Screen  Bedside RN initiated progressive mobility ranging from: Passive/Active ROM Sit/Dangle Stand Walk

Adapted from Morris *Crit Care Med* 2008  
Brummel, et al. *Physical Therapy*, 2012 ePub

3. The Bedside Nurse is responsible for initiating progressive mobility based on criteria above including passive ROM, active ROM, sitting/dangling, and walking. A PT/OT Evaluation before mobilization is NOT required for the Bedside Nurse to initiate mobilization.
4. Patient's progress with mobility will continue to progress as tolerated. Cessation of mobility session with the RN will be determined by the following criteria.
  - a. Symptomatic drop in mean arterial pressure (e.g., dizziness, light-headedness, syncope)
  - b. Heart rate <40 or >150 /min
  - c. Respiratory rate <8 or >40 breaths/min
  - d. Systolic blood pressure >180 mm Hg
  - e. Pulse oximetry <88%
  - f. Marked ventilator dysynchrony
  - g. Significant patient distress (nonverbal cues, gestures)
  - h. New arrhythmia, concern for myocardial ischemia
  - i. Concern for airway device integrity
  - j. Fall
  - k. Endotracheal tube removal

**Passive range of motion (PROM):**

Passive ROM should be performed on appropriate SICU patients every two hours, alternating bilateral upper extremities and bilateral lower extremities in coordination with turning. The bedside nurse is ultimately responsible for ensuring passive ROM is performed. This can be performed by the family after education from the physical/occupational therapist, nurse, or care partner. Pamphlets will be distributed to family including diagrams of PROM maneuvers and instructions on its performance. The bedside nurse will be responsible for assuring safety with lines and tubes during family-assisted passive range of motion.

**Last Revised March 21, 2013 by:**

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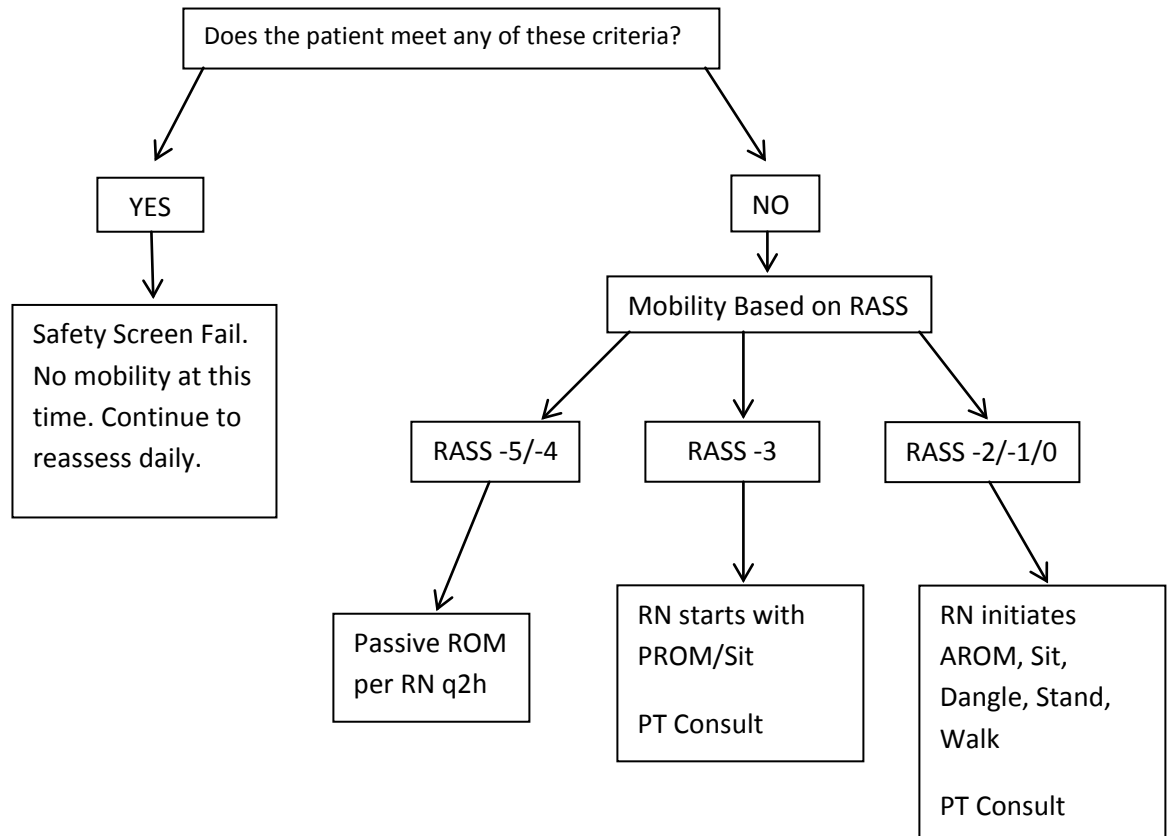
Approved: \_\_\_\_\_



Date: April 9, 2013

## SICU Early Mobility Flow Chart

1. Hemodynamic instability or active resuscitation
2. SpO<sub>2</sub> ≤ 88% or FiO<sub>2</sub> ≥ 70; RR ≤ 8 and ≥ 35/min
3. Ongoing agitation (RASS ≥ +2 in last 4hours)
4. Active myocardial ischemia or arrhythmias
5. Active seizures
6. Contraindication for mobility (open abdomen, unstable spine, difficulty airway, VDR ventilation, surgical procedure requiring immobilization, comfort care, etc.)
7. Femoral vascular devices
8. Sustained systolic blood pressure >180mmHg or HR>130/min



### Criteria for Cessation of Physical Therapy Session for the RN:

- Symptomatic drop in mean arterial pressure (e.g., dizziness, light-headedness, syncope)
- Heart rate <40 or >150 /min
- Respiratory rate <8 or >40 breaths/min
- Systolic blood pressure >180 mm Hg
- Pulse oximetry <88%
- Marked ventilator dyssynchrony
- Patient distress (nonverbal cues, gestures)
- New arrhythmia, concern for myocardial ischemia
- Concern for airway device integrity
- Fall
- Endotracheal tube removal