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| Supplemental Table 36. Summary of studies evaluating criteria for the safe initiation of physical rehabilitation or mobilization. | | | |
| Parameter | Lowest reported values | Highest reported values | Comments |
| Cardiovascular | | | |
| Heart Rate (HR) in beats/minute | <40 [1-3]to <60 [4, 5]; bradycardia with pharmacological support | >130 [1-5] to >150 [6] | 9 unique studies reported heart rate considerations [1-10]; 7 reported specific threshold values [1-7, 11]; 1 reported duration of HR (>=5 min; [4]) |
| Mean  Arterial Pressure (MAP) in mmHg | <55 [12] to <65 [1-3] | >110 [1, 3] to >140 [12] | 7 unique studies reported MAP [1-7, 11]; 6 reported specific threshold values [1-3, 5, 7, 8, 12], 1 reported symptomatic drop [4] |
| Systolic Blood Pressure (SBP) in mmHg | < 90 [3, 5, 9] | >200 [5, 9] | 6 unique studies reported SPB [1, 3, 5, 8-10] 4 reported specific threshold values [1, 3, 5, 9] 1 reported “too high” or “too low” [8] and 1 study did not provide specific threshold [10] |
| Diastolic BP (DBP) in mmHg |  |  | No studies reported thresholds for DBP |
| Chest Pain/Cardiac Ischemia |  |  | 6 unique studies reported data [1, 2, 4, 7-9, 13]: 2 studies reported new/active myocardial infarction (MI) as defined by Electrocardiogram (EKG) and/or elevated cardiac enzymes [8, 9], 1 study reported no evidence of MI on EKG [7], 1 study reported MI in last 24 hours without providing criteria [4], 1 study reported concern for myocardial ischemia without providing criteria [1], 1 study excluded major cardiac conditions [7] and 1 study did not report criteria [13] |
| New/Symptomatic Arrhythmia |  |  | 6 unique studies reported data [1, 5, 7-9, 12]: 1 dysrhythmia requiring the addition of a new antiarrhythmic [8], 1 no evidence of arrhythmia [7], 1 presence of a new arrhythmia [1], 1 any arrhythmia [5], 2 did not report any specific criteria [9, 12] |
| Vasoactive Infusion |  | Norepinephrine >0.2 mcg/kg/min or between 0.1 and 0.2 mcg/kg/min with >25% increase in last 6 hours [6] | 5 unique studies reported data [5, 6, 8, 13, 14]: 1 specific values [6]; 1 new pressor [8], 1 increased pressors in last 2 hours [13], 1 described as increment dose of pressors [5] . No studies reported lower limit doses of pressors. |
| Respiratory | | | |
| Artificial Airway |  |  | 2 studies reported data [1, 4]. 1 study reported on both endotracheal tube (ETT) and tracheostomy [4] Both reported not starting activity if airway inadequately secured [1, 4]. |
| Fraction of inspired Oxygen (FiO2) |  | 6 studies <0.6 [4-6, 9, 13, 15] | 8 unique studies reported data [4-7, 9, 13-15]: 6 used specific thresholds above which mobility was not performed; 1 study reported Partial Pressure of O2 (PaO2)/FiO2 >300 [7]. No study reported a lower limit of FiO2. |
| Positive End-Expiratory Pressure (PEEP) |  | 1 study <15 cmH2O [6]  4 studies <10 cmH2O [4, 5, 13, 15] | 6 studies reported data [4-6, 8, 13, 15]: 5 reported specific thresholds [4-6, 13, 15] 1 reported “an increase in PEEP or change to assist-control once on a weaning mode” [8]. No studies reported a lower limit for PEEP. |
| Respiratory Rate, in breaths per minute | <5 [1, 3, 4] | >45 [6] | 8 studies reported data [1, 3-7, 9]: 7 included specific thresholds [1, 3-6, 9, 14], 1 reported respiratory pattern satisfactory  [7] |
| Oxygen Saturation | <85% for >3 min  [12] |  | 9 unique studies reported specific thresholds [1-5, 7-9, 12, 14]: 3 reported <90% [5, 7, 9], 4 <88% [1-4, 8], 1 <85% for >3 min [12], 1 PaO2<65 [14] |
| Ventilator Modes |  |  | 3 studies reported data [6, 7, 16]: no specific thresholds. 1 Aggressive modes of ventilation [16], 1 mechanical ventilation able to be maintained during treatment [7], 1 High frequency oscillatory ventilation, inhaled nitric oxide, proning or prostacyclin (15) |
| Neurological | | | |
| Intracranial pressure (ICP) |  |  | 4 unique studies reported data [1, 2, 4, 14-16]. No specific thresholds for safety reported. 3 reported elevated ICP [1, 2, 4, 16], 1 ICP monitoring [15], 1 excluded patients with ICP >20mmHg [14] |
| Sedation | Richmond Agitation Sedation Score (RASS) +4 [4] | RASS -3  [13] | 4 studies reported data [1, 4, 5, 13]: 3 reported thresholds [4, 5, 13], 1 reported agitation requiring increased sedative administration in past 30 min [1] |
| Spinal Precautions |  |  | 2 studies reported data [7, 16]: 1 unstable spine [16], 1 neurological contraindications [7] |
| Other |  |  | 2 studies reported data [7, 16]. No specific thresholds were reported. 1 study reported active stroke or <24 hours since receipt of thrombolysis [16]. 1 study stable conscious state [7] |
| Hematologic | | | |
| Bleeding | Hemoglobin (Hg) stable and >7 [7] |  | 5 unique studies reported data [1, 2, 4, 5, 7, 17]: 2 unique studies reported active gastrointestinal bleed [1, 2, 4], 1 reported uncontrolled bleeding at surgery site [17], 1 reported minimum threshold of Hg >7 [7]. |
| Coagulopathy - Platelets | >20,000 [7] |  | 2 studies reported data [7, 14]. |
| Coagulopathy – International Normalized Ratio | <1.5 [14] |  | 1 study reported data [14]. |
| Deep Venous Thrombosis (DVT) / Pulmonary Embolism (PE) |  |  | 2 studies reported data [5, 7]. 1 study reported patient must be medically stable in presence of DVT or PE [7]. |
| Other | | | |
| White Blood Cell Count | >4,300 [7] | <10,800 [7] | 1 study reported data [7]. |
| Fever - Temperature |  | <38 [7] | 1 study reported data [7]. |
| Medical device – Femoral vascular access device |  |  | 3 studies reported data [4, 16, 18]. 1 study reported femoral sheath was a contraindication [16]. 1 study reported presence of femoral arterial, dialysis or venous was an exclusion [4]. 1 study specifically evaluated safety of rehabilitation with femoral arterial, dialysis or venous access [18] and found that there were no catheter-related adverse events (with majority of data in this study being for venous devices). |
| Continuous renal replacement therapy (CRRT) |  |  | 3 studies reported data [1, 11, 16]. 1 study reported OK to start with CRRT, but not with intermittent hemodialysis [1]. |
| Surgical |  |  | 5 unique studies reported data [7, 9, 13, 14, 16]: 1 traction [16], 1 no orthopedic complications or recent skin graft/flap to lower limbs or trunk [7], unstable fracture [13], open abdomen [9], excluded trauma or surgery of leg, pelvis, or lumbar spine [14] |

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