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A-1.0 Guidelines* for Level of Care in Medical-Surgical, Intermediate (CCU & SCU) and Critical Care (ICU) Units

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	Medical-Surgical Units	Intermediate (CCU & SCU)	Critical Care (ICU)
	➔Monitoring nd/or treatments by nursing Q4H-Q8H -More frequent monitoring is possible for limited periods of time while actively being treated (depending on staffing resources) ex: Q 1 hr X 2 -	➔Monitoring and/or treatments by nursing Q2H-Q4H -Exceptions include POCT/Blood sugar monitoring for insulin titration ➔1:3 RN to patient ratio ➔Nursing Assessments: Full Assessment every shift with focused re-assessments Q4H	➔Management using invasive and non-invasive life sustaining equipment/technology. ➔Medications that demand frequent, astute assessments and titration/management by nursing. ➔Frequent (**Q2 hours or less**) vital/neuro sign monitoring and/or treatments by nursing ➔1:1 or 2:1 RN to patient ratio to facilitate close monitoring depending on patient condition
	Medical-Surgical Units	**Intermediate (CCU & SCU)**	**Critical Care (ICU)**
Resp	➔Oxygen requirement of <60 % and flow 8L/min not requiring continuous O2 saturation monitoring ➔ ➔Patient at baseline respiratory status or on home oxygen dose and device	➔Patients with **Acute Hypoxic Respiratory Failure** with High flow O2 supplementation with plan to wean ➔ Patients on high flow O2 or BiPAP who are DNR/DNI ➔Stable high flow with FiO2 to keep O2 saturation ≥93% (88% for COPD) and/ or at baseline WOB	➔Patients with **Acute Hypoxic Respiratory Failure:** receiving high flow O2 support -FiO2 >60% and/**OR High flow for continuous increased WOB** -100% non-rebreather mask continuous -➔Respiratory decline requiring intubation
	➔Patients with **Chronic** hyper carbic respiratory failure requiring BiPAP/CPAP at hour of sleep.	➔ **NEW** BiPAP in patients whose goals of care do not include intubation (DNR/DNI) ->Patients with Acute onset of CHF/Pulmonary edema on BiPAP expected to wean within 2 hours after receiving IV diuretics (CCU preferred)	➔Patients requiring **NEW and/or Continuous** BiPAP/CPAP for ventilatory support to recover from Acute Hypoxic Respiratory Failure, acute hypoxic (e.g., CHF) **or** hypercarbia respiratory failure (e.g., COPD).
		Chronic tracheostomy patients ➔ Tracheostomies old who require BIPAP ➔Stable post op who has an existing tracheostomy (VSS and can use call system for assistance or can manage their secretions) ➔Chronic tracheostomy patients who use ventilator mode at HS at baseline or as needed for management of irreversible condition	➔Need for invasive mechanical ventilation. ➔New post operative tracheostomy patients ➔All post op Laryngectomy patients
	➔Stable patients with chronic tracheostomy requiring respiratory treatments, pulmonary toilet, tracheostomy care **Every 4-8 hrs** ➔**3E accepts patients with recently created tracheostomy**	➔Patients with a tracheostomy or laryngectomy requiring respiratory treatments, pulmonary toilet/suctioning, tracheostomy care **2-4 hours (suctioning may also include PRN needs)**	➔ Need for respiratory therapy treatments, pulmonary toilet, tracheostomy care frequently/ more often than **Q1H or for complex condition**
	➔Normal work of breathing and reduced angioedema	➔Airway monitoring for airway edema (mild-moderate angioedema) requiring suctioning or other airway care every **2 -4 hours according to clinical picture**	➔Concern for acute airway compromise (i.e., patients with severe angioedema or epistaxis) Or who require suctioning **more frequently than every 2 hours**
	➔Stable Pulmonary Embolus with **no evidence of right heart strain** ➔Heparin infusions are appropriate	Pulmonary embolus with no evidence of right heart strain with HR 100-129, hypoxia and/or significant medical comorbid conditions (CHF, COPD, others) ➔ PE with right heart strain in patients whose goals of care do not include thrombectomy or thrombolysis OR after initial 24 hours of ICU LOC	➔Pulmonary Embolus with right heart Strain (as indicated by any of: elevated BNP, troponin or tachycardia (HR>130)) will be managed in ICU for at least 24 hours ➔ All patients with thromboembolic disease (DVT or PE) who receive thrombolytic agents, first 24 hours. Ex: Alteplase/TPA

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SIRS, Severe Sepsis & Septic Shock	➔Hemodynamic stability (with 10 % of baseline HR, BP, RR/WOB, oxygen saturation and mentation) ➔**≤2** of the SIRS Criteria ➔**SIRS criteria**: WBC count > 12,000 or < 4,000 10% bands HR >90 RR >20 T>100.4F or <96.8F	➔**Severe sepsis and/or multiple comorbid conditions with hemodynamic stability with a down-trending lactate more than 25% or lactate <4** ➔**SBP** greater than or equal to **≥90** after adequate fluid resuscitation ➔**SIRS criteria:** WBC count > 12,000 or < 4,000 10% bands HR >90 RR >20 T>100.4F or <96.8F	➔**Severe Sepsis/ Septic Shock:** ➔**SBP <90 mm Hg** and/or serum lactate **≥ 4.0 related to shock state,** despite adequate initial resuscitation and/or requiring chemical support ➔**SIRS criteria:** WBC count > 12,000 or < 4,000 10% bands HR >90 RR >20 T>100.4F or <96.8F
Endocrine	➔Resolved DKA no longer requiring continuous insulin infusion. ➔Glucose checks **Every 4-8 hrs**	➔DKA (Diabetic Ketoacidosis) requiring continuous insulin infusion with pH **≥ 7.1** expected to improve within 8-12 hours ➔Severe hyperglycemia requiring continuous insulin infusion, ***Q1H Blood glucose monitoring acceptable*** ➔Insulin drip for hypertriglyceridemia	➔DKA or hyperglycemia requiring continuous infusion of insulin and pH **<7.1** or concomitant renal failure, sepsis, myocardial infarction, severe electrolyte abnormalities or other process
Electrolyte and pH abnormalities	➔Electrolyte checks **Every 4-8 hrs** ➔**Sodium >120** **-Hyponatremia with mild symptoms (anorexia n/v, fatigue, headache)**	➔Patients requiring frequent monitoring (electrolyte checks or ECGs Q 1 hr for > 8 hrs) of non-life-threatening electrolyte abnormalities ➔**Sodium: 115-120,** ➔ **Sodium: 145-170, (related to hyperglycemia/HHS, or DI)**	➔**Metabolic Acidosis** with pH <7.1 ➔**Serum sodium:** < 115 or > 170 ➔**Serum potassium:** < 2.0 or > 6.0 with EKG changes or abnormalities or ➔**Potassium** > 8 ➔**Serum Calcium**: Abnormality with ECG changes
Temperature Management	➔**Normothermia** **Deviations not accompanied by VS or neurological changes** and is a single system failure (no clinical instability) ➔Mild hypothermia and hyperthermia with stable VS and responsive to nursing and pharmacological interventions -Use of Bair Huggar (air flow) **not acceptable** -Blanketrol (water) with rectal probe for continuous temperature reading is acceptable* *Provider orders REQUIRED for temperature goal and temperature/VS schedule	➔ Mild-Moderate hypothermia ranging 92-95F Hyperthermia in the absence of hemodynamic instability or CNS complications such neuroleptic malignant syndrome -Use of nursing interventions, pharmacological and external warming/cooling using Blanketrol* -*Bair Hugger **NOT accepted on intermediate units** *Provider orders REQUIRED for temperature goal and temperature/VS schedule	➔**Hypothermia** – temperature <33.3C (92° F) or suspected Sepsis with multi system compromise ➔Use of fluid warmer for hypothermia ➔Use of Blanketrol or Bair Hugger for temperature control ➔Use Gaymar for TTM ➔Use of nursing interventions (and antipyretics) for hypo/hyperthermia *Provider orders temperature goal and temperature/VS schedule

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Cardiac/ Hemodynamic Instability	➔Hemodynamic stability (baseline HR, BP, RR/WOB, mentation and no complaints such as CP, dizziness, SOB/breathing difficulty) ➔SBP >90 with improving clinical status or within 10% of patients baseline. ➔Blood pressure monitoring, VS, neurological monitoring **≥Q4H** ➔Stable Diltiazem infusions with changes that only require close monitoring for a limited period of time are acceptable. ➔Albumin administration appropriate	➔Hypertensive Urgency without evidence of end-organ damage (intracranial hemorrhage, renal failure, myocardial infarct) ➔Active titration of medications within intermediate limits (see below) for BP and/or HR in accordance with the titration guidelines pending effectiveness. NO additional administration/concomitant infusions to be added for poor hemodynamic response; consider transfer to higher LOC ➔A-Lines and CVP monitoring accepted on intermediate units ➔**Consider CCU Placement:** Tachy and Brady arrhythmias, BNP/Trop right sided heart failure **Continuous Drips Appropriate for Intermediate Units:** **Note:** hospitalist service will manage only diltiazem and amiodarone infusions **Diltiazem** **NiCARdipine** **NitroGLYCERIN** **Labetalol** **Lidocaine** **Procainamide** **Phenylephrine** **Amiodarone** **DOBUTamine:** 10mcg/kg/min (Max rate ***Not titratable***) **DOPamine:** ≤10mcg/kg/min continuous **Esmolol** **Isuprel** **Eptifibatide** **Cangrelor** **Milrinone** ***Hospitalists only manage Diltiazem and Amiodarone infusions**	➔Continuous hemodynamic monitoring by **invasive means** ➔Need for frequent titration of multiple **vasoactive drugs** ➔**Cardiopulmonary arrest with intubation** with or without Hypothermia (HACA) ➔Patient management with **intra-aortic balloon pump or Impella Ventricular Assist** ➔Peripheral vascular disease requiring **EKO Sonic®** with thrombolytic therapy. ➔**Hypertensive emergency** requiring continuous infusion or titration of antihypertensive agent or with evidence of end-organ damage. ➔**Drug desensitization** (i.e., aspirin, antibiotics), during initial medication therapy ➔**Hypotension** – systolic blood pressure <90 mm Hg, unresponsive to immediate fluid resuscitation of 30 cc/kg ➔**Tachycardia** – sustained heart rate > 150 bpm despite intervention ➔**Bradycardia** – sustained heart rate < 30 bpm despite intervention ➔**Hyperthermia** – temperature ≥107° F ➔**Hypothermia**:<92° F or presence of clinical instability
Acute Alcohol Withdrawal	➔**<10mg** Ativan in 8 hour period ➔ CIWA Protocol effective for withdrawal symptoms	➔**Ativan >10 mg** Ativan in 8-hour period and still actively scoring. ➔Phenobarbital dose 5-10 mg/kg, not to exceed 60 mg/min or 1,000mg/24 hrs (per the Intermediate unit Severe ETOH Wtithdrawal Guidance)	➔Increased dosing and treatment requirements despite CIWA protocol ➔Severely agitated condition requiring mechanical restraint. ➔Withdrawal seizure and Severe withdrawal symptoms: HR >115, SBP > 170, RR > 25, Temp > 101 ➔Severe alcohol withdrawal requiring MICU AWS protocol or additional administration(s) of Phenobarbital, propofol, or continuous infusion of benzodiazepine agent.

Level of Care Guidelines

GI Bleeding	➔Stable H/H with Hemoglobin checks **≥6hrs**	➔Acute ongoing active blood loss (Hematemesis, melena, bright red rectal blood or ongoing anemia) of mild to **moderate** volume	➔Evidence of GI bleeding with **Hemodynamic instability**: **SBP < 90 mm Hg; HR > 120 despite appropriate fluid resuscitation**. ➔Acute ongoing active blood loss (hematemesis, melena, bright rectal blood) of **moderate to severe** volume requiring rapid infusion. ➔GI bleed with strong clinical suspicion for esophageal variceal bleeding ➔Elevated BNP AND troponin AND signs of right heart failure on CT PE, EKG or echocardiogram

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Toxic Ingestions/Overdose	➔Awake ➔Hemodynamic stability (Stable=pt's BP, HR/ECG, RR, effort and oxygen saturation wnl or at baseline; may be lethargic, but otherwise neurologically intact) ➔Acetaminophen OD requiring Mucomyst (Acetadote) is appropriate. ➔EKG Q2 hr for limited time ≤6 hrs	➔Drug overdose requiring **Q2H or less frequent** treatment ➔ECG Q1H for limited period of time <24hrs	➔Drug overdose cases that lead to neuro or hemodynamic changes requiring more frequent than Q 2hr monitoring, management or expected decompensation. ➔Concentrated insulin infusion for BB/CCB OD (HIET) ➔Drug overdose requiring medication or other critical care treatment with reversals. ➔Narcan infusions ➔EKG Q30 min