NOTHING CONTAINED IN THIS POLICY OR IN ANY OTHER POLICY CREATES A CONTRACT RIGHT. CONSISTENT WITH SOUTH CAROLINA LAW, ALL TEAM MEMBERS ARE EMPLOYED "AT WILL," WHICH MEANS THAT THE TEAM MEMBERS HAS THE RIGHT TO TERMINATE HIS OR HER EMPLOYMENT AT ANY TIME, WITH OR WITHOUT NOTICE OR CAUSE, AND THAT PALMETTO HEALTH RETAINS THE SAME RIGHT. EXCEPTIONS TO THE POLICY THAT ALL TEAM MEMBERS ARE EMPLOYED "AT WILL" MAY BE MADE ONLY BY WRITTEN AGREEMENT SIGNED BY THE PRESIDENT OF PALMETTO HEALTH.



	Palmetto Health Baptist (PHB)	
	Palmetto Health Baptist Parkridge (PHBP)	
X	Palmetto Health Richland (PHR)	
	Palmetto Health Tuomey (PHT)	
	All Non-Hospital Locations	

Children's Hospital: Admission/Transfer Criteria PGR

Effective Date: 03/01/2016 Review Date: 01/10/2020

Name of Associated Policy: <u>Provision of Care Policy</u>

RESPONSIBLE POSITIONS (TITLES):

Physicians:

In order to provide safe care, and meet current standards of care, patients meeting the following criteria should be admitted to the PICU on the critical care or peds general surgery service. If a generalist feels a patient needs a monitored bed, or a level of nursing care that cannot be delivered on the floor, the patient may be admitted to the PIICU under the generalist service. If a patient meets the following criteria but the generalist wants to manage the patient in the PIICU, the intensivist must agree to the plan. Note the term generalist here includes providers who are not peds general surgeons and not Intensivists.

PROCEDURE STEPS, GUIDELINES, OR RECOMMENDATIONS:

- 1. Children's Hospital Admission Criteria:
 - 1.1. Children's Hospital accepts patients' newborn through 18 years of age. Children's Hospital does not admit pregnant patients or married patients. Pediatric patients who are 6 weeks post partum may be admitted.

1.1.1. Exceptions:

- 1.1.1.1 Young adult patients through age 21 still followed by a pediatrician or pediatric subspecialist.
- 1.1.1.2. Young adult patients through age 21 with developmental delay.
- 1.2. Non-violent DJJ patients may be admitted to CH. DJJ patients classified as violent will be addressed on a case by case basis and factors such as disease process and care needs will be taken into account when placing these children. Attending physician, Director, and AOD will be involved in this decision.
- 1.3 Exceptions may be made by two of the following:
 - 1.3.1. Medical Director, Children's Hospital (or designee)
 - 1.3.2. Nursing Director, Children's Hospital (or designee)
 - 1.3.3. Medical Director, USC Hospitalist Service (or designee)
 - 1.3.4. Medical Director PICU (or designee)
 - 1.3.5. Elected Chief
- 1.4. Patient condition, medical needs, nursing competencies, and current census will be taken into consideration.

2. High Census:

- 2.1. When beds are not immediately available, Patient Placement will obtain a call back number from the MD and notify the AOD (see alternate options below).
- 2.2. Physicians will receive notification of the floor assignment within 30 minutes and will not be told beds are unavailable until all options have been explored by the AOD.
- 2.3. When four or less available (non-posted) beds exist with no immediate pending discharges:
 - 2.3.1. Notify admission resident on beeper 115-4656.
 - 2.3.2. Normal business hours: include notification of Director of Nursing (434-6044) and Medical Director (545-5036)
- 2.4. Beds will not be held in CBD or PICU when patients are holding in the ED after midnight. CBD will be filled first, followed by the last PICU bed.

3. Alternate Options:

- 3.1. Local patients will not be turned away and may be held in the ED until beds are available.
- 3.2. Consider admitting clean patients to CBD and floor status patients to PICU.
- 3.3. Consider admitting patients temporarily to the Day Hospital.

- 3.4. Patients age sixteen and above will be considered for admission or transfer to an adult unit. The AOD will assess the appropriateness of this option, discuss with attending physician, and implement as necessary.
- 3.5. Discharged patients (non-contagious) waiting for a ride may be allowed to wait in play areas or in the first floor lobby area accompanied by parent or guardian.

ADDITIONAL SPECIFICATIONS: indicating admission to PCCM service in PICU unless otherwise determined by intensivist & pediatrician/hospitalist/subspecialist:

4. Neurological:

- 4.1. patients requiring more frequent than every 2 hour neurological checks
- 4.2. GCS < 13
- 4.3. declining mental or neurological status; patients with an acutely diminished or decreased level of consciousness
- 4.4. acute inflammation or infections of the spinal cord, meninges, or brain with neurological depression, metabolic or hormonal abnormalities, respiratory or hemodynamic compromise or potential for increased intracranial pressure
- 4.5. status epilepticus or seizures unresponsive to therapy or requiring continuous infusion of anticonvulsive agents
- 4.6. post-operative neurosurgical procedure requiring invasive monitoring or continuous observation
- 4.7. pre-operative neurosurgical conditions (i.e. shunt malfunctions, etc) with neurological deterioration
- 4.8. external ventricular drain (EVD) or other intracranial pressure monitor
- 4.9. head trauma with increased intracranial pressure
- 4.10. progressive neuromuscular dysfunction with or without altered sensorium requiring cardiovascular monitoring and/or respiratory support
- 4.11. spinal cord compression or impending compression
- 4.12. uncontrolled pain requiring infusion titration by nurse

5. Endocrine:

5.1. diabetic ketoacidosis (glucose >200 mg/dL, ketones, HC03 < 16 or pH < 7.3). Patients on insulin drips must be in the PICU

- 5.2. newly diagnosed diabetic one year of age or less must be admitted to PCCM
- 5.3. hypokalemia/hyperkalemia (< 2 or > than 6.5 mmol/L without hemolysis).
- 5.4. hyponatremia/hypernatremia (\leq 125 mmol/L or \geq 160 mmol/L) or with symptoms of hyper/hyponatremia
- 5.5. hypocalcemia/hypercalcemia (ionized calcium < 0.9 or > 1.5)
- 5.6. metabolic acidosis requiring bicarbonate infusion or bolus with intensive monitoring or complex interventions (excludes bicarbonate in TPN/maintenance fluids)
- 5.7. inborn errors of metabolism with acute deterioration requiring respiratory support, acute dialysis, hemoperfusion, management of intracranial hypertension or inotropic support
- 5.8. cardiac dysrhythmia(s) secondary to electrolyte imbalance
- 5.9. unstable patients will receive hemodialysis in PI/PIICU; stable floor patients will be transported to the dialysis unit for treatment
- 5.10. insulin administration other than via subcutaneous route (exception: in TPN)
- 6. Hematology/Oncology:
 - 6.1. significant anemia or blood loss; anemia resulting in or with potential for hemodynamic and/or respiratory compromise
 - 6.2. tumors or masses compressing or threatening to compress vital vessels, organs or airway
 - 6.3. severe complications of sickle cell crisis, such as neurological changes and acute chest syndrome or aplastic anemia resulting in hemodynamic instability with *deteriorating respiratory status*
 - 6.4. severe coagulopathy
 - 6.5. continuous heparin infusion (exception in TPN, 0.5units/mL or less)
 - 6.6. exchange transfusions; patient receiving exchange transfusion(s) with or without sequela
 - 6.7. plasmapheresis or leukopheresis with unstable clinical condition
 - 6.8. exchange transfusions; patient receiving exchange transfusion(s) with or without sequela
 - 6.9. plasmapheresis or leukopheresis with unstable clinical condition

7. Cardiovascular:

- 7.1. fluid volume resuscitation requiring \geq 40 ml/kg within 2 hours
- 7.2. persistent significant tachycardia defined as critical (per VS guidelines) and of unexplained etiology.
- 7.3. unstable congestive heart failure with unstable cardiorespiratory status
- 7.4. acute profound symptomatic anemia
- 7.5. acute myocarditis
- 7.6. acute pericarditis with moderate hemodynamic symptoms
- 7.7. intravenous inotropic/vasoactive drips (except milrinone); patients who require acute pharmacologic or mechanical support of circulation; vasopressor therapy for shock
- 7.8. hypertensive emergency or refractory stage 2 hypertension as defined below:

Stage 2 HTN = 99% by age/height/gender + 5mmHg (to a max of adult stage 2 w SBP≥160, DBP≥100) Loosely based on 75% for height, averaged male/female: http://www.nhlbi.nih.gov/guidelines/hypertension/child_tbl.pdf

Age	SBP	DBP
1y	117	70
2y	120	75
3y	121	80
4y	123	83
5y	125	85
6y	126	87
7y	128	89
8y	129	90
9y	131	91
10y	132	92
11y	135	93
12y	137	94
13y	139	95
14y	141	95
15y	143	96
16y	145	97
17y	146	98
18y+	160	100

Notes:

Recommend discussion between attending regarding possible transfer to PICU if symptomatic or if BP continues to exceed threshold despite interventions (pain management, po antihypertensives) x4-6h. This assumes BP has been rechecked with dynamap then manually. For more accurate definition of stage 2 HTN for individual patient, plot using actual height/gender/age charts to determine whether truly meets criteria. Baseline BP should taken into consideration (ie slightly above baseline even if stage 2 may be less concerning than person with baseline normal BP and now stage 2 HTN). Ongoing medical management of BP should be taken into consideration (ie if requiring constant rechecks and multiple prns). IV anti-hypertensives should only be given in PICU unless in crisis and being transferred to PICU. Symptomatic hypertension = HTN emergency PICU for probable antihypertensive drip. Symptoms may include headache, vision changes, vomiting, seizures. Hypertensive urgency = stage 2 HTN without symptoms; strong consideration re: transfer to PICU. Goal is to lower BP by no more than 20% so as to avoid decreased cerebral perfusion. Consider pain and other causes of HTN. For more info on peds HTN... http://www.kidney.org/site/107/pdf/PediatricHypertension.pdf

- 7.9. post-cardiopulmonary resuscitation
- 7.10. life-threatening dysrhythmia(s)
- 7.11. congenital heart disease with unstable cardiorespiratory status
- 7.12. SVT requiring intravenous medications
- 7.13. hypothermia (rectal temperature ≤ 96°) which is not baseline for the child or hyperthermia ≥106°F (exception: DNR)
- 7.14. use of coolant blankets, radiant heat warmers or baby warmers (excludes DNR patients)
 - 7.14.1 Post operative patients with hypothermia not at baseline who require warming via Bair Hugger may be care for on the general floors for one hour in an attempt to warm. Temperature will be obtained and documented every 15 minutes times 4. If temperature is still not at baseline within one hour, nurse will call the physician for further orders.

8. Respiratory:

- 8.1. oxygen requirement greater then 5L face mask or FiO2 50% (exception: non-rebreather mask for pneumothorax on stable patient)
- 8.2. rapidly progressive pulmonary disease of high severity with risk of progression to respiratory failure and/or total obstruction
- 8.3. blood gas with evidence of worrisome/worsening respiratory acidosis
- 8.4. apnea that is not self-correcting

- 8.5. invasive mechanical ventilation, including home ventilators and tracheostomy plus support other than trach collar
- 8.6. acute barotrauma compromising the upper or lower airway
- 8.7. newly placed tracheostomy with or without the need for mechanical ventilation (patients may go to the floor after the first tracheotomy tube change providing they are stable and do not require mechanical ventilation)
- 8.8. requirement for every hour nebulizer treatments or continuous nebulizer treatments (may do a single hour long treatment on the floor).
- 8.9. Vapotherm/high flow nasal cannula
- 8.10. All children who are receiving CPAP/BiPAP for the first time and not presently on home CPAP/BiPAP will be placed in a monitored bed for the first night of therapy. Note mandatory set rate must not be greater than 10.
- 8.11. Heliox therapy
- 8.12. unstable airway or the need for intubation
- 9 FEN
 - 9.1. hypokalemia/hyperkalemia (< 2 mmolL or > 6.5 mmol/L without hemolysis)
 - 9.2. hypernatremia or hyponatremia not at baseline (Na < 125 or > 160mmol/L) or with symptoms of hyper/hyponatremia
 - 9.3. hypocalcemia/hypercalcemia (ionized calcium < 0.9 or > 1.5mmol/L)
 - 9.4. tumor lysis syndrome
 - 9.5. anuria (not baseline) greater than 12 hours with abnormal creatinine or elevated BP
 - 9.6. initiation of hemodialysis or peritoneal dialysis
 - 9.7. metabolic acidosis requiring bicarbonate bolus, intensive monitoring or complex intervention
 - 9.8. complex intervention to maintain fluid balance
 - 9.9. hypoglycemia or hyperglycemia requiring intensive monitoring
 - 9.10. laboratory specimens scheduled every 2 hours (or more frequently) may be done for up to 6 hours on the floor. If the need continues, patient will be transferred to the unit.

- 10. GI:
 - 10.1. fulminant hepatic failure
 - 10.2. severe acute gastrointestinal bleeding leading to hemodynamic or respiratory instability
- 11. Toxicology
 - 11.1. any symptomatic toxic ingestions with potential acute decompensation
 - 11.2. Acetaminophen ingestions above the treatment line, too early to plot on the nomogram, or concerning subacute/chronic ingestions http://www.tylenolprofessional.com/assets/Nomogram.pdf http://medcalc3000.com/AcetaminophenTox.htm
- 12. Multisystem:
 - 12.1. electrical or lightening injuries
 - 12.2. Hypothermia (rectal temperature ≤ 96 °) which is not baseline for the child or hyperthermia ≥106°F (exception: DNR)
 - 12.2.1. Post-operative patients with hypothermia not at baseline who require warming via bear hugger may be cared for on the general floors for one hour in an attempt to rewarm. If not at baseline within one hour, nurse will call the physician for further orders
 - 12.3. multi-organ dysfunction:
 - 12.3.1 Post operative patients with hypothermia not at baseline who require warming via Bair Hugger may be care for on the general floors for one hour in an attempt to warm. Temperature will be obtained and documented every 15 minutes times 4. If temperature is still not at baseline within one hour, nurse will call the physician for further orders.
 - 12.4. all near-drownings
 - 12.5. ALTE requiring CPR
 - 12.6. ALTE with continued apnea
- 13. Special intensive technological needs:
 - 13.1 CRRT
 - 13.2. Pheresis
 - 13.3 all patients with arterial lines will be PICU status and line will be transduced

- 14. Situations appropriate for care in PICU or PIICU:
 - 14.1. DNR with frequent nursing care requirements
 - 14.2. RN/RT staffing not adequate to care for the patient on the floor
 - 14.3 Laboratory specimens scheduled every 2 hours or more frequently may be done for up to 6 hours on the floor. If the need continues, patient will be transferred to the unit.
- 15. Criteria for continuous cardiorespiratory monitoring in the floor setting
 - 15.1. Patients on 3rd, 4th, or 5th floors requiring continuous cardiorespiratory monitoring due to medication administration or procedure may remain on the floor if 1:1 nursing care can be provided. A critical care nurse (includes transport team nurse) may provide care on the floor for the duration of the therapy or until a patient can be transferred to a monitored bed. In the event a critical care nurse is not available to come to the floor, the patient must be transferred to a monitored bed.
 - 15.2. The following may be provided by the critical care nurse with cardiopulmonary monitoring on the floor:
 - 15.2.1. IV midazolam
 - 15.2.2. loading dose of iv valproate Sodium
 - 15.2.3. IV calcium and magnesium boluses
 - 15.2.4. IV fosphenytoin- maintenance doses may be given on the floor by a PICU nurse with a portable monitor. All patients receiving an IV dose of fosphenytoin should be on continuous cardiac monitoring during the infusion and every 15 minute vitals for 1 hour after the infusion at a minimum
 - 15.3. Patients requiring the following medications will be transferred to a monitored bed:
 - 15.3.1. Vasoactive agents
 - 15.3.2. drugs requiring titration
 - 15.3.3. continuous infusion of furosemide or bumetanide
 - 15.3.4. IV digoxin
 - 15.3.5. IV vitamin K (may be given in TPN, PO, SubQ, or IM on the floor)
 - 15.3.6. antivenin

- 15.3.7. narcotic infusions except those given via PCA and for end of life care
- 15.3.8. any IV anticoagulant drips including, but not limited to heparin and tPA
- 15.3.9. neuromuscular blocking agents
- 15.3.10. IV terbutaline
- 15.3.11. IVP bicarbonate (excludes bicarbonate in TPN/maintenance fluids)
- 15.3.12. IV magnesium over less than 30 minutes or IV push
- 15.3.13. IV calcium other than that in TPN/IVF
- 15.3.14. IV potassium bolus (for TPN/IVF total potassium infusion not to exceed 40 mEq/L and rate not to exceed 10 mEq/hour for floor patients)
- 15.3.15. loading dose of IV fosphenytoin- All patients receiving an IV dose of fosphenytoin should be on continuous cardiac monitoring during the infusion and every 15 minute vitals for 1 hour after the infusion at a minimum.
- 16. Acceptable criteria for admission/transfer to floor: patients may not be admitted or transferred to one of the general pediatric units if they meet criteria for admission/transfer to a monitored bed. Medications and treatments requiring a monitored bed will not be held from floor patients while transfer arrangements are made. Every effort will be made to provide physician, critical care nursing and pharmacy support during the transition period.
- 17. Discharge/transfer from PCCM service: Patients in the PICU will be evaluated and considered for discharge based on the reversal of the disease process or resolution of the unstable physiologic condition that prompted admission to the unit and it is determined that the need for complex intervention exceeding general patient care unit capabilities is no longer needed. Transfer/discharge will be based on the following criteria:
 - 17.1 stable hemodynamic parameters
 - 17.2 stable respiratory status (patient extubated with stable arterial blood gases) and airway patency
 - 17.3 minimal oxygen requirements as per 8.1
 - 17.4 intravenous inotropic or vasoactive medications are no longer required (exception: milrinone)
 - 17.5 cardiac dysrhythmias controlled
 - 17.6 intracranial pressure monitoring equipment has been removed
 - 17.7 neurological stability with control of seizures

- 17.8 removal of all hemodynamic monitoring catheters
- 17.9 patients on stable CPAP/BiPAP whose critical illness has been reversed or resolved and are otherwise stable
- 17.10 routine peritoneal or hemodialysis with resolution of critical illness not exceeding general patient care unit guidelines
- 17.11 patients with mature artificial airways (tracheostomies) who no longer require excessive suctioning
- 17.12 The health care team and the patient's family, after careful assessment, determine there is no benefit in keeping the child in the PICU or that the course of treatment is medically futile.
- 17.13 DKA patients have decreasing nursing requirements (diagnostic and therapeutic interventions) including goal of < 80 urine ketones at time of transfer.

REFERENCES:

AAP guidelines for PICU admission 9/08;

http://aappolicy.aappublications.org/cgi/reprint/pediatrics;103/4/840.pdf

Mass General PICU guidelines-

http://www2.massgeneral.org/mghfc/residency/nathan picu goals files/picu admission criteria.htm