This is a general guideline and does not represent a professional care standard governing providers' obligations to patients. Care is revised to meet individual patient needs. This is a quality improvement document and should not be part of a patient's medical record.

Guidelines for Pediatric Chronic Ventilator Patients on the Floor

- There should be a maximum of **4** ventilator patients on the floor at any given time, including patients receiving non-invasive ventilation (aka "BiPAP") with a ventilator.

- Transfers from the PICU to the floor should **not** routinely occur at night or on weekends

- If extenuating circumstances require the need to exceed 4 patients, or transfers during nights/ weekends, the following people should be contacted:
  - PMP and PICU attendings, floor charge nurse, PAC, floor RT, and PICU bedside nurse. If there is a lack of consensus, contact Children's Administrator on-Call.

- **Respiratory Therapy** and **Floor Nurse Manager** should confirm adequate staffing prior to transfer.

- **Pediatric Pulmonology** (PMP) should be the primary service except in unique situations*
  *In cases when it is unclear that a vent patient should be on PMP, the PMP attending should discuss with the PAC. Regardless of service, *PMP should round on and leave a note daily on all floor vent patients*.

- Patients admitted for acute respiratory symptoms needing increased support from baseline (except small increases in oxygen) should **not** be admitted to the floor.
- Patients should be stable before transfer, *ideally* including:
  - Able to tolerate at least 15 **seconds** off the ventilator without desaturations/ distress
  - Should **not** have **moderate or severe** pulmonary hypertension
  - Not requiring suctioning more than every **1-2** hours

- Other subspecialties following home ventilator patients should continue to comanage home ventilator patients while on the PMP service and leave daily notes, which must be confirmed before transfer out of the PICU.

- **Modest** ventilator titration and weaning may be done by the Pulmonology fellow/attending. If a patient is experiencing acute worsening of their respiratory status requiring more than a small increase in FiO2, they should be transferred to the PICU.
  - **Respiratory therapy** should make or be present for any ventilator setting changes, and the physician should place a new EPIC order with updated settings.
  - Residents should **not** make changes to ventilator settings by themselves.

- Ventilator settings should be documented **daily** by Respiratory Therapy as a separate progress note using the smartphrase **.ppulmtrachventdocumentation**

- Additionally, patients who have tracheostomies but not require mechanical ventilator support do not need to be admitted or transferred to the Inpatient Pulmonary (PMP) Service unless the child has a "critical airway," as determined by the pediatric otolaryngology and pulmonary providers.

Process Owners: Will Stoudemire, Katie Clement

Updated 3/1/24

Guidelines for transfer and care of children with special care needs requiring chronic mechanical ventilator support to the pediatric ward.

Based on a recent Human Resources and Services Administration survey (https://mchb.hrsa.gov/programs-impact/focus-areas/children-youth-special-health-care-needs-cyshcn), more than 14 million children in the United States with special health care needs. Few present with more challenges than those faced by children requiring chronic mechanical ventilator support. The shift from care in the pediatric intensive care unit, to the pediatric ward, and ultimately to home can be challenging, since many of these children are complex, clinically fragile, and have wide-ranging, complex medical needs. Some have advanced or progressive pulmonary conditions, abnormalities in central control of breathing, or underlying neurological or neuromuscular diseases that lead to insufficient minute ventilation to maintain normocapnea or adequate oxyhemoglobin saturations. Their respiratory compromise also varies in severity, from children who have inadequate respiration solely during sleep and require support only at night, to those who require continuous ventilatory assistance for survival.

Three years ago, North Carolina Children's Hospital adjusted its policy and permit children requiring chronic mechanical ventilator support to receive care on the pediatric ward, specifically Children's Hospital sixth floor, including transfers from the Inpatient Pulmonary (PMP) Service. Inpatient Pulmonary (PMP) Service attending has been the physician of record and assumed responsibility for the child's care and after transfer the primary service. That arrangement will not change.

Due to limitation in nursing and respiratory therapy support outside the critical care units, no more than four children with invasive ventilatory needs can be present on the pediatric ward at any given time. Transfers do not occur at night or weekends, though in rare, extenuating circumstances, that can be waived with the consensus among the Inpatient Pulmonary (PMP) Service attending physician, Critical Cate attending, Pediatric Intensive Care Unit bedside nurse, sixth floor charge nurse, the ward respiratory therapist, and PAC. The respiratory therapy and floor nurse manager should confirm adequate staffing and the necessary expertise before transfer.

Patients who have tracheostomies but not require mechanical ventilator support do not need to be admitted or transferred to the Inpatient Pulmonary (PMP) Service unless the child has a "critical airway," as determined by the pediatric otolaryngology and pulmonary services. The inpatient pulmonary attending physician, fellow, and/or nurse practitioners will regularly evaluate the patient and provide consultation notes with specific recommendations regarding airway management.

Children requiring chronic mechanical ventilator support admitted for acute respiratory symptoms requiring greater support from baseline, except for small increases in supplemental oxygen support, should not be admitted to the Children's Hospital sixth floor.

For transfers from the Pediatric Intensive Care Unit, children must be clinically stable, without significant changes in supplemental oxygen or mechanical ventilator support for more than 48-hours before transfer. Children who have inadequately controlled or unstable non-respiratory conditions, e.g., seizures, should not be admitted directly or transferred to the Children's Hospital sixth floor.

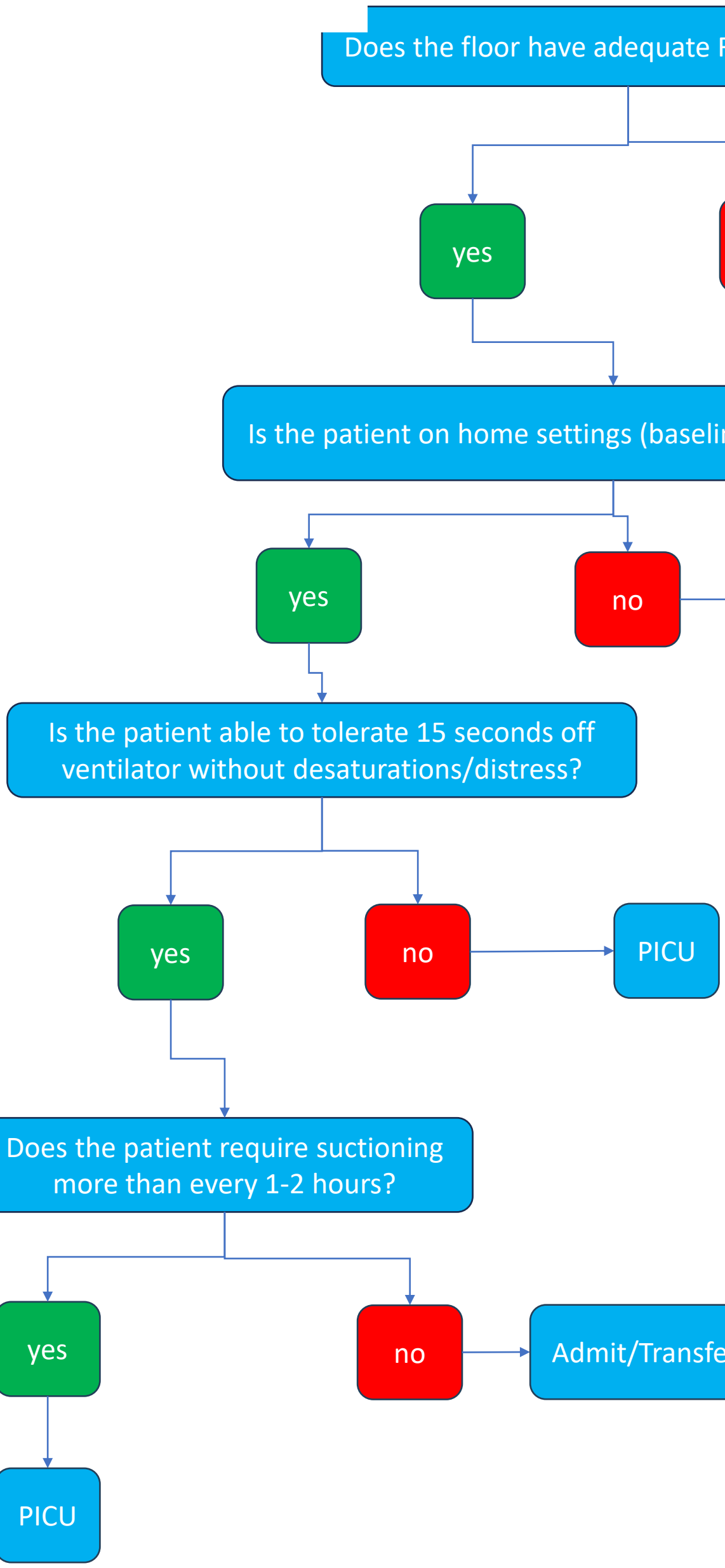
Additionally, the child must be able to tolerate at least 15-seconds removed from ventilator support without oxyhemoglobin desaturations or respiratory distress, and not require airway suctioning more often than more every two hours. Moderate or severe pulmonary hypertension is another contraindication to transfer.

Because many of these children have non-pulmonary complications, often active, it is important for subspecialty consultative service remain involved in the child's care after transfer, and these services will continue to write daily, detailed consultation notes with specific recommendations regarding diagnostic studies and management plans until the primary service determines the problem has resolved or no longer requires regular care from the subspecialty service.

Following transfer, modest titration of chronic mechanical ventilator support in a clinically stable child can be performed by the Inpatient Pulmonary (PMP) Service attending or fellow. A respiratory therapist should make or be present for any changes to mechanical ventilator settings, and a nurse practitioner or physician from the Inpatient Pulmonary (PMP) Service should place a new order with updated settings. Residents should not change ventilator settings independently. Ventilator settings will be documented daily by Respiratory Therapy as a separate progress note using the smartphrase .ppulmtrachventdocumentation.

However, if a patient is experiencing acute respiratory deterioration requiring more than modest increases in supplemental oxygen support, he or she should be transferred to the Pediatric Intensive Care Unit for monitoring and management.

Nursing Guidelines for Pediatric Chronic Ventilator Patients on the Floor



Other considerations:

- Maximum of 4 vents on floor unless approved by Children's Leadership
- Patient should be on PMP Service
- PICU transfers preferred between 8am-4pm Monday-Friday (*except for urgent bed needs)
- No more than 50% FiO2 for > 1 hour
- Should not be titrating settings due to respiratory illness on floor