Transition from ICU to Portable home ventilator (PHV) in children with severe Bronchopulmonary Dysplasia (BPD)

Amit Agarwal¹ and Robin McKinney²

August 28, 2022

Abstract

As the population of ventilator-dependent children (VDC) with tracheostomies due to underlying severe BPD grows, there is an increasing need to shift the care of these children from hospital to home. Transitioning the ventilator-dependent child from the hospital to home is a complex process that requires coordination between the medical team and the family. One crucial step in the process is transitioning from an Intensive care unit (ICU) ventilator to a portable home ventilator (PHV). The Clinical team needs to understand the nuances in transitioning to PHV, including assessing readiness to transition and choosing the optimum settings on an available home ventilator. In recent years, various ventilator modes have been available in PHV that can help achieve synchronous breathing to allow for adequate gas exchange for the infant. This review details some approaches to asses readiness to transition and the process of Transition along with commonly used modes of support available in PHV, as well as the primary and secondary settings in which we should be mindful in supporting a child with chronic respiratory failure in the home setting.

Hosted file

Transition to PHV in children with severe BPD _final_2.docx available at https://authorea.com/users/504234/articles/583654-transition-from-icu-to-portable-home-ventilator-phv-in-children-with-severe-bronchopulmonary-dysplasia-bpd

Hosted file

Table 1- Readiness Assessment and Considerations for Transition to PHV.docx available at https://authorea.com/users/504234/articles/583654-transition-from-icu-to-portable-home-ventilator-phv-in-children-with-severe-bronchopulmonary-dysplasia-bpd

Hosted file

Transition to PHV in children with severe BPD _final_1.docx available at https://authorea.com/users/504234/articles/583654-transition-from-icu-to-portable-home-ventilator-phv-in-children-with-severe-bronchopulmonary-dysplasia-bpd

Hosted file

Table2 PHV Alarms.docx available at https://authorea.com/users/504234/articles/583654-transition-from-icu-to-portable-home-ventilator-phv-in-children-with-severe-bronchopulmonary-dysplasia-bpd

¹University of Arkansas for Medical Sciences Department of Pediatrics

²Brown University Warren Alpert Medical School Department of Pediatrics