

<b>Medical Necessity Guideline:</b> Backup Mechanical Ventilators	<b>Creation Date:</b> 04/08/2020	<b>Review Date:</b> 05/31/2024	<b>Effective Date:</b> 06/11/2024
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**PURPOSE:**

To clarify the indications for, documentation, and processes to determine medical necessity for Backup Mechanical Ventilators.

**GUIDELINE**

A backup ventilator is defined as an identical or similar device used to meet the exact medical needs of the client’s primary ventilator but provided in the home as a precaution in case of malfunction of the primary ventilator.

Requests for a backup ventilator in the home must meet both the following criteria to be considered medically necessary <sup>(6)</sup>:

1. The client cannot maintain spontaneous ventilation for four or more consecutive hours.
2. The client lives in an area where a replacement ventilator cannot be provided within two hours.

**Documentation Requirements:**

1. Requests for backup ventilators *are only accepted from the pulmonologist* managing the member’s primary ventilator.
2. Clinical documentation from the pulmonologist should document the member’s diagnoses, current condition, ventilator settings, and the number of hours per day must be submitted along with the request. Documentation should clearly state the amount of time the member can maintain spontaneous ventilation. There must be an attestation that “the member cannot maintain spontaneous ventilation for four or more hours and that to the best of the physician’s knowledge, a replacement ventilator cannot be provided within two hours.”
3. The Respiratory DME provider will provide all of the following:
  - The distance from its closest office or distribution center to the member’s home.
  - The delivery time of a replacement ventilator to the member’s home.
  - The distance from a member’s home to the closest hospital.
  - A detailed explanation of the provider’s limitations and barriers to providing a replacement ventilator within two hours.
  - A description of the after-hours, emergency, and other coverage arrangements that could reasonably assure delivery of a replacement ventilator within two hours

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## BACKGROUND

The American Thoracic Society approved a clinical practice guideline for chronic home ventilation of children in 2016. Within this guideline was this statement: “We suggest the following pieces of equipment for use in the home when caring for a patient mechanical ventilation: the ventilator, batteries, a self-inflating bag and mask, suctioning equipment (portable), heated humidifier, supplemental oxygen for emergency use, nebulizer, and a pulse oximeter (non-recording) (Strength of Recommendation: Conditional; Quality of Evidence: Very Low”<sup>(1)</sup>. This guideline is intended to review all available evidence on children’s home care on mechanical ventilation. The intent, however, was not to establish a standard of care because of the complexity of conditions that result in children being on mechanical ventilation in the home. The Society made nine recommendations that all lacked high qualities of evidence. A strong recommendation was made for having an awake and trained caregiver present in the home at all times. Conditional recommendations were that at least two specifically trained family caregivers are available to care for the child and that all the professionals and the family are trained in all aspects of respiratory care for the child.<sup>(1)</sup>

Returning to the issue of a backup ventilator, the Society cited a 1998 consensus statement from the United Kingdom that “equipment chosen for the home for children requiring long-term ventilation be ‘portable, durable, and simple to use.’” The statement also posited that a second ventilator should be required for any child who was not able to be off the ventilator for 6 continuous hours.<sup>(2)</sup> There was, however, limited data to support this consensus statement. Thus, in creating their guideline, the Thoracic Society surveyed Pediatric Pulmonary specialists. They were able to construct a list that 70% or more of the surveyed specialists believed were absolutely required to be in the home of a mechanically ventilated patient. A backup ventilator was on this list.

Similarly, The Canadian Thoracic Society (2011) published a lengthy meta-analysis of home mechanical ventilation. They asserted that when a patient goes home from the hospital, all persons providing care for the patient must be taught basic respiratory anatomy and physiology, airway management, including troubleshooting problems, manual ventilation, suctioning, and tracheostomy care including tracheostomy changes. These recommendations were also made based upon limited evidence from the empiric literature but were agreed upon by the consensus of an expert panel of pulmonary specialists. The issue of a backup ventilator was not addressed in this review.<sup>(3)</sup>

The American Association for Respiratory Care had previously revised and updated its guidelines on the long-term care for mechanically ventilated children in the home. The guidelines emphasized the need for a second ventilator when the patient could not maintain spontaneous ventilation for four or more consecutive hours. A replacement ventilator must be able to be delivered to the home within 2 hours. These guidelines also emphasized that all

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personnel involved in the care of a mechanically ventilated must be trained on the use of self-inflating bags when the ventilator fails as well as how to effectively respond to acute life-threatening situations (e.g., accidental decannulation, medical deterioration, loss of electrical power, etc.).<sup>(4)</sup>

Finally, the American Association for Respiratory Care (AARC) re-reviewed their previous Clinical Practice Guidelines of 2007 and other literature believed to be relevant to the effective management of patients on home mechanical ventilation. They reemphasized the importance of adequate training and backup equipment (e.g., self-inflating bag, replacement tracheostomy, portable suction machine, et) and made a very explicit statement: “A backup ventilator should be placed in the home setting of any home ventilator patient who lives greater than a 2-hour drive from the home care/DME provider, and a plan should be communicated to the patient, caregiver, and physician of how to handle equipment failure situations and natural disaster situations in the home setting.”<sup>(4)</sup>

### **PROVIDER CLAIMS CODES:**

**CPT: E0465, E0466, E0467**

### **REFERENCES:**

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**DOCUMENT HISTORY:**

DHP Committee that Approved	<i>Review Approval Date (last 5 years)</i>				
Medical Director	05/23/2022	05/30/2023	05/31/2024		
CMO	06/07/2022	06/06/2023	06/11/2024		
Medical Policy Workgroup	06/07/2022	06/06/2023	06/11/2024		
Utilization Management & Appeals	06/21/2022	06/20/2023	06/18/2024		
Provider Advisory Committee (PAC)	06/17/2022	06/09/2023	07/01/2024		
Clinical Management & Committee	06/24/2022 & 08/23/2022	07/20/2023	07/24/2024		
Executive Quality Committee	06/28/2022	07/25/2023	07/30/2024		

<i>Document Owner</i>	<i>Organization</i>	<i>Department</i>
Dr. Fred McCurdy, Medical Director	Driscoll Health Plan	Utilization Management

<i>Review/Revision Date</i>	<i>Review/Revision Information, etc.</i>
04/08/2020	Creation and Implementation of Process Guideline
05/13/2020	Conversion to new format and update
06/08/2020	Review and editing with additional references done by Dr. McCurdy
05/17/2021	Review, editing, and updating referenced by Dr. McCurdy; Editorial review by Dr. Brendel
05/23/2022	Review and final editing by Dr. McCurdy
05/30/2023	Review by Dr. Fred McCurdy, MD, no changes
05/31/2024	Reviewed and Revised by Drs. Tessa Perez and Fred McCurdy

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