Current Effective Date: 5/1/25
Status: Approved
Reviewed by Medical Policy Subcommittee: 5/19/19, 12/14/23, 5/1/25
Reviewed Dates: 5/9/19, 12/5/23, 12/14/23, 3/11/25

INSTRUCTIONS FOR USE DISCLAIMER:
SummaCare posts policies relating to coverage and medical necessity issues to assist members and providers in administering member benefits. These policies do not constitute a contract or agreement between SummaCare and any member or provider. The policies are guidelines only and are intended to assist members and providers with coverage issues. SummaCare is not a health care provider, does not provide or assist with health care services or treatment, and does not make guarantees as to the effectiveness of treatment administered by providers. The treatment of members is the sole responsibility of the treating provider, who is not an employee of SummaCare, but is an independent contractor in private practice. The policies posted to this site may be updated and are subject to change without prior notice to members or providers.

Medical policies in conjunction with other nationally recognized standards of care are used to make medical coverage decisions.

High-flow Humidified Nasal Cannula Oxygen Therapy for Home Use Policy

Indication/Usage:

High-flow oxygen therapy allows for 21-100% oxygen content generating up to 60 L/min flow (during hospital use). The gas is heated and humidified through an active heated humidifier via a single-limb heated inspiratory circuit. The benefits of high-flow oxygen therapy include:

- High flow washed out carbon dioxide in anatomical dead space.
- High flow overcomes resistance against expiratory flow and creates positive nasopharyngeal pressure and while relatively low it is adequate to increase lung volume and decreased collapsed alveoli FiO2 remains relatively constant.

- The humidified gas is warmed to 37 Celsius; mucociliary function remains good and is tolerated well.

High flow oxygen therapy is indicated for COPD, End-stage cancer, Heart failure, OSA, Pre and Post intubation. High-flow humidified nasal cannula oxygen therapy for home use system: myAirvo 2™ with Optiflow™ nasal cannula interface. Per the manufacturer Fisher & Paykel Healthcare (Fisher & Paykel, 2017):

- myAirvo 2™ interfaces with Optiflow™ nasal interface. The cannula has soft, flexible prongs, and wide bore design to reduce gas jetting. Supplemental oxygen can be added from a concentrator or cylinder and has inbuilt ultrasonic analyzer that requires no calibration, service, or replacement.
- Designed for simple setup, use and cleaning. Features onscreen animations to assist with setup and troubleshooting. Quiet operation day and night.
- Adjustable temperature and flow setting. Three temperatures (37°, 34°, 31°C) help achieve conform and compliance. Flow generator delivers a wide flow range (up to 60L/min) with no compressor or wall air supply required.
- Dual spiral heater wires and integrated temperature sensor with no separate temperature probes or heater-wire adapters required.

Medical Indications for Authorization Commercial and Medicare Members

SummaCare considers for high-flow humidified nasal cannula oxygen therapy for home use experimental and investigational because it efficacy and safety has not been established.

There are currently no NCD or LCD for high-flow humidified nasal cannula oxygen therapy for home use.

Limitations

There is limited evidence to support high-flow humidified nasal cannula oxygen therapy for home effective and safe.

Coverage Decisions

Coverage decisions made per CMS, Hayes and industry standards research

Plans Covered By This Policy

Commercial and Medicare
Considered experimental and investigational for all lines of business

Sources Reviewed

Austin M, W. K.-B. (2010). Effect of high flow oxygen on mortality in chronic obstructive pulmonary disease patients in prehospital setting: randomized controlled trial. BMJ.

CMS.gov Centers for Medicare & Medicaid Services. Home - MCD Search

Food and Drug Administration (FDA). 501K Summary. 2013, October, 24. Accessed: 2017, September 7 2017. https://www.accessdata.fda.gov/cdrh_docs/pdf13/K131895.pdf

Fisher &Paykel. (2017). Retrieved September 7, 2017, from my AIRVO 2: https://www.fphcare.com/homecare/myairvo/myairvo-2/

Fraser JF, S. A. (2016). Nasal high flow oxygen therapy in patients with COPD reduces respiratory rate and tissue carbon dioxide while increasing tidal and exd-expiratory lung volumes: a randomized crossover trial. Thorax, 759-761.

Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. Global Initiative for Chronic Obstructive Lung Disease.

Nishimura, M. igh-flow nasal cannula oxygen therapy in adults. Journal of Intensive Care.

Pilcher J, E. L H. (2017). Physiological effects of titrated oxygen via nasal high-flow cannula in COPD exacerbations: A randomized controlled cross-over trial. Respirology, 1149-1155