Abstract

Recently there has been growing interest in an alternative to conventional oxygen therapy: the heated, humidified high flow nasal cannula oxygen therapy (HFNC). A number of physiological effects have been described with HFNC: pharyngeal dead space washout, reduction of nasopharyngeal resistance, a positive expiratory pressure effect, an alveolar recruitment, greater humidification, more comfort and better tolerance by the patient, better control of FiO2 and mucociliary clearance. There is limited experience of HFNC in adults. There are no established guidelines or decision-making pathways to guide use of the HFNC therapy for adults. In this article we review the existing evidence of HFNC oxygen therapy in adult patients, its advantages, limitations and the current literature on clinical applications. Further research is required to determine the long-term effect of this therapy and identify the adult patient population to whom it is most beneficial.

Keywords

High flow nasal cannula, Non-invasive ventilation, Gas exchange, Respiratory failure.