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ERS clinical practice guidelines: high-flow nasal cannula in acute respiratory failure

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This guideline provides evidence-based recommendations for the use of high-flow nasal cannula alongside other noninvasive forms of respiratory support in adults with acute respiratory failure
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Abstract

Background High-flow nasal cannula (HFNC) has become a frequently used noninvasive form of respiratory support in acute settings; however, evidence supporting its use has only recently emerged. These guidelines provide evidence-based recommendations for the use of HFNC alongside other noninvasive forms of respiratory support in adults with acute respiratory failure (ARF).

Materials and methodology The European Respiratory Society task force panel included expert clinicians and methodologists in pulmonology and intensive care medicine. The task force used the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) methods to summarise evidence and develop clinical recommendations for the use of HFNC alongside conventional oxygen therapy (COT) and noninvasive ventilation (NIV) for the management of adults in acute settings with ARF.

Results The task force developed eight conditional recommendations, suggesting the use of 1) HFNC over COT in hypoxaemic ARF; 2) HFNC over NIV in hypoxaemic ARF; 3) HFNC over COT during breaks

from NIV; 4) either HFNC or COT in post-operative patients at low risk of pulmonary complications; 5) either HFNC or NIV in post-operative patients at high risk of pulmonary complications; 6) HFNC over COT in nonsurgical patients at low risk of extubation failure; 7) NIV over HFNC for patients at high risk of extubation failure unless there are relative or absolute contraindications to NIV; and 8) trialling NIV prior to use of HFNC in patients with COPD and hypercapnic ARF.

Conclusions HFNC is a valuable intervention in adults with ARF. These conditional recommendations can assist clinicians in choosing the most appropriate form of noninvasive respiratory support to provide to patients in different acute settings.