

New clinical practice guidelines for noninvasive ventilation

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New clinical guidelines for use of noninvasive ventilation in critical care settings are published in CMAJ (*Canadian Medical Association Journal*).

The use of noninvasive positive-pressure ventilation and noninvasive continuous positive airway pressure by mask has increased significantly among acutely ill patients. A growing body of literature and variations in practice in recent years have necessitated the development of new clinical practical guidelines to help manage patients with [acute respiratory distress](#) or failure.

The guidelines were created by the Canadian Critical Care Trials Group/Canadian Critical Care Society Noninvasive Ventilation Guidelines Group. They address the use of noninvasive ventilation in the postoperative setting, in immunocompromised patients, in patients being weaned from conventional mechanical ventilation and in patients at high risk of [respiratory failure](#) after removal of breathing tube.

Noninvasive positive pressure ventilation should be the first choice in patients with [chronic obstructive pulmonary disease](#) (COPD) or cardiogenic pulmonary edema. It can be used postoperatively or in people with compromised immune systems.

"Implementation of these guidelines may require clinician education, additional health care personnel, organizational change or additional resources (equipment or beds with cardiopulmonary monitoring) to ensure safe and appropriate application of noninvasive positive-pressure

ventilation and continuous positive airway pressure," writes Dr. Sean Keenan, Royal Columbian Hospital, with coauthors.

"Strategies for the implementation of these guidelines should be developed for each relevant clinician group (physicians in different clinical areas and with different levels of training and expertise, respiratory therapists and nurses)," they conclude.

In a related commentary (pre-embargo link only) www.cmaj.ca/embargo/cmaj110122.pdf, Dr. Andrew Bersten from Flinders Medical Centre in Adelaide, Australia, writes "many factors appear to influence the effective implementation of noninvasive ventilation. These factors include an experienced team of health care staff able to provide 24-hour service and detailed attention to mask interface and leaks, choice of equipment, ventilator settings, inspired oxygen levels, glottic function and clearance of secretions."

"For these guidelines to change clinical practice, they have to be supported by appropriate education, implementation and review. Helping clinicians know when and when not to use noninvasive ventilation is perhaps the most important role for these guidelines," he concludes.

Provided by Canadian Medical Association Journal

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