

ACCP Releases Statement on Dyspnea Treatment in Patients with Advanced Lung or Heart Disease

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More than 90 percent of patients with advanced chronic obstructive pulmonary disease and more than 60 percent with advanced heart disease experience breathlessness. Approximately 94 percent of patients with chronic lung disease experience dyspnea in the last year of life. One study found that many patients who died of chronic obstructive pulmonary disease had dyspnea, with serious dyspnea more common than serious pain. Although it is not known what causes dyspnea, physicians should provide treatment for this symptom. Patients have not received consistent or effective treatment for dyspnea; therefore, the American College of Chest Physicians (ACCP) wrote a consensus statement to influence clinical practice and provide suggestions regarding the management of dyspnea in patients with advanced lung or heart disease.

Measurement

Physicians are ethically obligated to treat dyspnea. They should routinely ask patients about the intensity of their breathlessness, which should then be documented in the medical record. Physicians should also reassure patients and their families that they will treat dyspnea.

Evaluation of dyspnea should include asking about the distress, meaning, and needs that come with breathlessness. Three instruments are available to measure dyspnea: the Borg scale, visual analog scale, and numerical rating scale. Currently, there is no reason to use one instrument over another. Physicians should start treatment with the understanding that they should reassess

whether the treatment is improving dyspnea without causing adverse effects.

Treatment

NONPHARMACOLOGIC

Oxygen therapy is the standard of care for patients with hypoxemia, but only a limited number of studies have assessed the short-term effects of supplemental oxygen on breathlessness at rest in patients with advanced lung disease. Two studies found significant improvements in dyspnea with oxygen therapy, whereas two found no benefit. No randomized controlled trials have evaluated the effect of oxygen therapy in patients with advanced heart disease. The ACCP determined that supplemental oxygen can provide relief for patients with dyspnea who are hypoxemic at rest or during minimal activity. No studies were found that evaluated the effect of supplemental oxygen in patients without hypoxemia at rest.

Pursed-lip breathing, a breathing strategy often used by patients with airway obstruction, can provide relief of dyspnea. When performed at rest, pursed-lip breathing improves oxygen saturation, reduces carbon dioxide levels, and promotes slower, deeper breathing.

Relaxation therapy can also relieve dyspnea. One study found that, compared with patients who sat quietly, those who listened to a recorded relaxation message reported less dyspnea. Another study found that progressive muscle relaxation reduced dyspnea in patients with chronic obstructive pulmonary disease after each of four weekly sessions, but not at the end of the four-week period.

Noninvasive positive pressure ventilation can provide some relief. Three systematic reviews of noninvasive positive pressure ventilation concluded that it improved the patient's perception of dyspnea. Four other studies found modest to significant improvement of dyspnea, as reported by the patient.

PHARMACOLOGIC

Oral and parenteral opioids can improve dyspnea. One review of 13 studies of persons with a variety of advanced chronic diseases found that morphine was effective for

Practice Guidelines

treating dyspnea. Two reviews of palliative care determined that short-term opioid therapy is effective for treating dyspnea at the end of life. Dosing and titration considerations should include renal, hepatic, and pulmonary function, and current and past opioid use.

Respiratory depression and overdose are concerns with the use of opioids. One study found that higher doses of opioids used in the withdrawal of life-sustaining treatment were not associated with decreased time from withdrawal of life support to death. Other studies determined that survival time was not related to the dosage of morphine. Only one of 11 studies on arterial blood gases or oxygen saturation reported significant changes in oxygenation with opioids. Arterial carbon dioxide partial pressure did increase with the use of opioids; however, it did not exceed 40 mm Hg. Opioids may cause other adverse effects, including constipation, confusion, drowsiness, hallucinations, nausea or vomiting, and psychosis.

Ethical Issues

Treatment of dyspnea should not be limited by concerns about addiction or dependence. The principle of double effect is a rationale for using opioids or sedatives that may hasten death, assuming the reason for increasing the dose is to provide relief from dyspnea. Physicians should assess patients for anxiety and depression, which often accompany dyspnea.

Physicians should communicate with patients about end-of-life care. Although it has been shown that most patients with advanced disease want to discuss end-of-life care with their physicians, few physicians discuss such issues with their patients. It is important to understand the barriers to this communication. In some cultures, family members may have different views regarding the role of family and who should be involved in decision making about treatment at the end of life. Differences in family perspectives or spiritual beliefs on the value of maintaining consciousness at the end of life, as well as the value of suffering, should be anticipated. Physicians should be prepared to apply principles of culturally effective end-of-life care in these situations. ■

Answers to This Issue's CME Quiz

Q1. C	Q6. B	Q11. D
Q2. D	Q7. C	Q12. B, C, D
Q3. A, B, C, D	Q8. D	Q13. B, D
Q4. C	Q9. C	
Q5. C	Q10. A, B, D	



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