Noninvasive Ventilation in COPD Patients with Do-Not-Intubate Orders

Use of noninvasive ventilation (NIV) to treat patients with acute exacerbations of chronic obstructive pulmonary disease (COPD) has become standard; however, the role of NIV in the treatment of COPD patients who refuse endotracheal intubation and who have active do-not-intubate (DNI) orders is a subject of debate. In this small, prospective, descriptive study of COPD patients who were treated with NIV for acute hypercapnic respiratory failure, researchers compared characteristics and outcomes of 37 patients who had active DNI orders and of 43 patients who did not.

The DNI group was significantly older than the non-DNI group (mean age, 75 vs. 71; \( P=0.029 \)) and was more ill at baseline (according to the comorbidity score, dyspnea score, Katz Activities of Daily Living score, and percentage of patients with chronic anemia; \( P<0.001 \) for all comparisons). Outcomes were significantly worse in the DNI group, with longer hospital stays (\( P=0.001 \)), lower 1-year survival rate (30% vs. 65%; \( P<0.0001 \)), and shorter event-free survival (102 vs. 292 days; \( P=0.0004 \)). Seven patients in the non-DNI group failed NIV and were intubated, and two patients chose DNI orders during their hospital stay. No patients in the DNI group rescinded their DNI orders. The authors did not describe or measure the utility or success of NIV.

**Comment:** Clearly, COPD patients with DNI wishes are extremely ill and have poor prognoses. These results may help clinicians more accurately describe a patient's prognosis, thereby allowing patients or family members who have decided against intubation to make a more informed decision about NIV. Further discussion is needed, however, to determine whether NIV should be part of end-of-life decisions and whether DNI orders apply to NIV.

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