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NIV should be delivered in do-not-intubate patients in acute respiratory failure, but how?

Accepted: 23 January 2013
Published online: 16 February 2013
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Dear Editor,

We read with great interest the recently published study by Azoulay et al. [1], who cogently addressed the very controversial issue of noninvasive ventilation (NIV) in do-not-intubate (DNI) patients in acute respiratory failure (ARF). In spite of their poor prognosis, a substantial number of DNI patients survive hospital discharge after having experienced ARF, when treated by NIV in the intensive care unit (ICU). More importantly, the results of this study suggest that NIV does not have any detrimental effect on the quality of life of DNI patients or their relatives following their ICU stay.

We agree that NIV is a very efficient treatment that may be proposed as first-line therapy in almost all patients with ARF, especially those in whom escalation to intubation is deemed inappropriate. However, if NIV is offered to these frail patients, particular attention should be paid to improving the patients' comfort. DNI patients with ARF often require long periods of continuous NIV, a situation that commonly leads to painful facial

skin breakdown and discomfort despite careful precautions. We have recently shown that switching to a total face mask might be an interesting option in DNI patients, when face mask-delivered NIV fails to reverse hypercapnic ARF or when NIV cannot be carried on because of intolerance of the interface [2].

Another practical hurdle to overcome at the bedside when NIV is considered in DNI patients is that hypercapnic encephalopathy is commonly associated with agitation and delirium. Of course there is a serious ethical concern regarding the use of restraints to maintain NIV in agitated patients with treatment-limitation decisions. Some have successfully used a protocol of light sedation with short-acting drugs such as remifentanyl to enhance patient comfort and pursue NIV [3, 4]. Nevertheless, such "intervention that deprives patients of their dignity and ability to recognize that family members are present" may be considered unethical. The risk of insidiously slipping into futile burdensome care should also be kept in mind when managing patients with treatment-limitation decisions in the ICU.

Finally, in the setting of the limited availability of ICU beds, one may consider that admission of debilitated patients with an underlying end-stage chronic illness in the ICU may merely deprive other critically ill candidates for the ICU who may clearly derive more benefit from ICU resources.

So the question is no longer "should we use NIV in DNI patients?"—the answer is obviously 'Yes', NIV should at least be offered to these patients, especially when the underlying cause of ARF is reversible—but rather "how can we apply NIV to DNI patients without drifting toward unreasonable care?"

Conflicts of interest All authors have read the manuscript and declare no potential conflict of interest, no prior publication or concurrent submission and no copyright constraints.

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