Reviewer’s report

Title: The cost-effectiveness of early noninvasive ventilation for ALS patients.

Version: 1 Date: 28 July 2005

Reviewer: Edward Kasarskis

Reviewer’s report:

This is a well-conceived, theoretical study of the impact of noninvasive positive pressure ventilation (NIPPV) in patients with ALS. The arguments and assumptions are made based on currently available data. The issues are that NIPPV use, when instituted according to the guidelines of the American Academy of Neurology, appear to afford relief of symptoms associated with respiratory insufficiency and to extend survival. NIPPV is an expensive modality and it is logical to evaluate the cost/benefit of this therapy, especially if started earlier in the course of the illness. The authors demonstrate, using conservative assumptions, that if NIPPV confers as little as 13.5% benefit it would be a cost-effective treatment.

This work will be an important contribution to the evolving role of NIPPV in ALS. It would have been more complete if the authors performed their analysis at different FVC strata (e.g., the benefit realized starting at FVC of 100%, 90%, . . . 60%). They argue that many ALS patients already experience respiratory decline at the time of diagnosis. Although that is true, not all patients find themselves in this category. Since this is a theoretical paper, they could have produced a “grid” showing the cost-effectiveness when initiating therapy at different levels. A second issue is their choice of performing the analysis with a 1 year time horizon until 50% FVC (the trigger for insurance reimbursement). This is an arbitrary choice. The conclusions may be different in a patient with intrinsically rapid progression vs one with intrinsically slow progression. An analysis of the cost-benefit of NIPPV on these extremes, in addition to the average, would have been of interest.

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interest