Reviewer's report

Title: Using respiratory rate and thoracic movement to assess respiratory insufficiency in amyotrophic lateral sclerosis: a preliminary study

Version: 2 Date: 27 November 2012

Reviewer: Annette Edwards

Reviewer's report:

This study aimed to clarify if respiratory rate and thoracic movement are reliable preliminary clinical signs in the development of respiratory insufficiency in patients with ALS, and the re-writing has made this significantly clearer, in particular in relation to the numbers of patients involved. However, there are still areas that need further clarity

Major compulsory revision:

"it appears that NIV can be recommended for ALS patients with a respiratory rate of at least 20 BPM."

I don't think this can be stated. Whilst the authors have acknowledged that this is a small study, more emphasis needs to be put on that fact ie this is preliminary exploratory work, retrospectively assessing resp rate and thoracic movement at diagnosis and seeing if there is a link between these and the timing of the need for / recommendation of NIV - it suggests there might be a link, but the data is not robust enough to give a value eg recommending NIV for patients with a resp rate of at least 20 BPM. Interestingly later the author says "our clinical impression is ....." which is a reflection on clinical practice rather that "it appears that", and may be a better way of expressing this difficulty - I think this needs to be clearer before acceptance

Discretionary Revisions

1. Patients who received NIV within six months of the diagnosis of ALS had higher respiratory rates and smaller thoracic movement AT DIAGNOSIS compared with patients who received NIV later

2. The records for 42 patients with ALS (20 male, 22 female) were complete enough to be included in this (trial) - STUDY

3. There was no clear relationship between symptoms and respiratory values and this would be worth commenting on further eg in relation to why we offer a trial of NIV and what we hope to achieve

4. Clearer statement that resp assessment does vary internationally, and often overnight oximetry is done at home and the decision around NIV may be based on that and symptoms and arterial blood gas may not be taken etc, but that this is the routine practice in your clinic
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare I have no competing interests