Author's response to reviews

Title: Predictive value of daily living score in acute respiratory failure of COPD patients requiring invasive mechanical ventilation: a pilot study.

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Author's response to reviews:

Reviewer: Nicola Makhoul

Reviewer’s report:

1. To compare between the two groups of patients with and without invasive MV.

R1. The criteria of inclusion of this study was ARF requiring EI for MV. Patients improving with only NIV were excluded. We made this point clearer in the new version, clearly stating that patients improving with NIV only were excluded (Page 5).

As our study focused on patients with ARF requiring EI for MV, data concerning the group of patients improving with NIV only have not been collected. The comparison between patient between NIV and invasive MV can then not be performed.

2. Curare administration: how many patient (%) treated with these drug may is the cause of long period of invasive ventilation in some of them

R2. The use of curare might be responsible of more frequent failure of weaning, even if it is not statistically significant in our study. In our study, 12.5% patients were treated with curare.

The use of curare is more frequent when the situation is serious, which can constitute a bias as for their association with the failure of weaning. Nevertheless, toxicity of curare on neuromuscular function is known, potentially slowing the weaning, especially when they are used for a long time.

This point has been discussed in the new version (Page 12)
Reviewer: Raymond Farah

Reviewer’s report:

1. I think that is better to give us the ADL values of all the ventilated patients with IMV and those without ventilation.

R1. Data concerning the group without invasive MV have not been collected, so it is impossible to give you the ADL values. We agree that it would be a very interesting point to assess in further studies.

Reviewer: Peter Depuydt

1. Please provide an abstract, as this was missing from the files for peer review.

R1. We provided an abstract in the new version.

2. In my experience, some COPD patients may not be totally weaned from mechanical ventilation, but may be stabilized in an acceptable condition with chronic intermittent ventilation (e.g. nocturnal ventilation with a home ventilator), especially when muscular deconditioning is present. I would be important to know if the hospital of the authors has facilities or a policy (e.g. referral to a tertiary hospital) to provide such care. Similarly, we must know the policy in case of weaning failure and regarding do-not-resuscitate codes.

R2. In this study, the occurrence of nosocomial infection associated with failure organs led to stop active therapy. The do-not-resuscitate decision, in these patients, was warranted by the reject or the disability to perform a tracheostomy. In this study, almost all patients (8/9), who failed to wean died and no patient has been stabilized with chronic intermittent ventilation.

This point has been discussed in the new version (Page 11).

3. The authors state that nosocomial infection is a risk factor for weaning failure and mortality. This implies a causal relationship, which is however not evident. It can be assumed that patients who fail to wean have an increased duration of mechanical ventilation, require higher levels of sedation etc., and thus have higher a priori risk to develop nosocomial infection (such as VAP). We can only state that there is an association between weaning failure and nosocomial infection; both weaning failure/mortality and the risk for nosocomial infection may be a consequence of poor status at admission.

R3. We thank the reviewer for this comment. We share this point of view which is now included in the new version in the discussion section.

4. Failure to wean occurs in 30% of patients. This important information should
be presented more upfront in the paper e.g. in the results text (and in the abstract), as it is now only shown in the heading of table 1.

It is not clear whether the percentages of readmission apply to the full cohort, or only to the patients surviving their acute episode. Please clarify.

Details about the mode of ventilation should be provided in the methods section instead of the results.

Please provide the full word the first time an abbreviation is used (e.g. ARF, AE-COPD, ...)

The style is a bit uneven and rough in places: as such it could benefit from grammatical and stylistic review.

e.g. p3 (Methods/Data collection):

'Weaning success or failure and its length were noted'

Please rephrase and clarify what is meant by 'length'

e.g. p9 (Discussion)

"final stage of respiratory insufficiency collapsed pulmonary function parameters’ please rephrase.

" several limitations which do not permit to come to a definitive conclusion regarding" (to draw a definitive conclusion, to come to a conclusion about)

R4. We thank the reviewer for these suggestions. We have made all the changes proposed in the new version.