Author's response to reviews

Title: Lung function changes from childhood to adolescence: a seven-year follow-up study

Authors:

Pavilio Piccioni (ppiccioni@qubisoft.it)
Roberta Tassinari (roberta.tassinari@unito.it)
Aurelia Carosso (aur.carosso@gmail.com)
Carlo Carena (carlocarena@yahoo.it)
Massimiliano Bugiani (maxbugiani@libero.it)
Roberto Bono (roberto.bono@unito.it)

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Author's response to reviews: see over
Dear Editor of *BMC Pulmonary Medicine*:

Please find enclosed the manuscript “Lung function changes from childhood to adolescence: a seven-year follow-up study” by P.Piccioni *et al.*

The following are the comments point by point sub-grouped by each referee.

**Referee n.1**

**Major Compulsory Revisions**

1) The abstract has been rewritten following the suggested order and, at the same time, the parts concerning methods and conclusions were integrated.

2) In the background we rewrited the objectives of this work and provided additional background information to motivate the choice of aims.

3) We agree with referee about the non correct definition: “asthma like symptoms” (ALS). Thus, in the present corrected version we have used the acronyms “AS” to indicate asthma symptoms (asthma attacks or wheezing in the previous 12 months) and ALS to indicate other asthma like symptoms (cough, dyspnea and allergic rhinitis), but only in the description of questionnaire.

4) Line 147-151: This section has been rewritten following the recommendations and in particular we have explained how GLI-ref values are compared with those measured.

   - Table 3 and table 4 have been revised: table 3 shows the mean of lung function parameters observed and predicted in the 2 occasions of study; furthermore, this new table shows the observed-predicted differences, the mean of lower normal limits of the individual reference values, the median and the 5th percentile of the z-score computed for the observed values. Instead, in table 4 and in figure 1 the group with mean annual changes significantly different from that of asymptomatic subjects were marked with an asterisk.

   - Line 185. We have corrected the mistake rewritting the whole phrase and specify the decrease of FEV1/FVC.

5) As suggested by the referee n.1 we have added a section concerning some “study potential limitations”.

**Minor Essential Revisions**
6) Line 32: we agree that “consistent” and “concordant” are synonyms; so we deleted “concordant”.
7) Line 130: The mistake was corrected replacing 2003 with 2010.
8) Line 134: as suggested, we have added the exclusion criteria adopted in 2003. So, these criteria have been also extensively reported in the text.
9) abbreviations and footnotes in the tables were completed.
10) We agree that numbers in lung function parameters (e.g. FEV, FEF,..) must be subscripted and we have done it. Furthermore, to avoid some confusions we have omitted FEV\(_{0.5}\) and FEF\(_{75}\) because in GLI reference values are not recommended.
11) Line 151: As suggested this paragraph has been rewritten to better clarify the topic.

**Referee n.2**

**Major Compulsory Revisions**

1) Subjects having acute respiratory symptoms, as well as medication use at the time of examination, were excluded and studied only after adequate period of washout for drugs or after symptom remission.
2) See section “Major Compulsory Revisions” of referee 1, point 4.
3) About the use of ALS, please see section of referee n.1 named “Major Compulsory Revisions” at the point 3. In addition, the exclusion of physician–diagnosed asthma was due to too little numbers of positive response.
4) An adequate section of results in Abstract on “GLI” was added.
5) Line 172-174: this paragraph was rewritten according to the new table n.1.
6) Line 168-169: we have corrected the mistake concerning the number of children that declined to participate in the second survey.
7) Table 4. Please see the comment reported to referee n. 1, point 10.
8) Table 1. Findings on FEV\(_1\)/FVC were added. About FEF\(_{75}\) (see point above and point 10 of comments to referee n.1).

**Minor Essential Revisions**

1) Please see comment n. 7 to referee n.1
2) Line 31. We replaced “increase” with “changes”.
3) See point 7 (section “Major Compulsory Revisions”).
4) The phrase was completely rewritten.
5) If yours is a question, the answer is “yes”
6) Figure 1. Done.
7) Table 4 and Figure 1. See “Major Compulsory Revisions”, referee 1, point 4.
8) As suggested, we have checked and corrected some typing errors throughout the manuscript.

Hoping that the manuscript may be now fulfil the all the commens and suggestions, my best regards.

Roberto Bono, Ph. D.
Contacts:
Phone: (+39) 011-670-5818
Fax: (+39) 011-236-5818
e-mail: roberto.bono@unito.it