Reviewer’s report

Title: Lung ultrasound: a useful tool in diagnosis and management of bronchiolitis

Version: 2  Date: 18 March 2015

Reviewer: Francesco Raimondi

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Dear Editor,

I had the privilege to review for BMC Pediatrics the manuscript titled “Lung ultrasound: a useful tool in diagnosis and management of bronchiolitis” by Basile and coworkers. While I commend the authors for their attempt to investigate the expanding field of lung ultrasound, I have some significant concerns:

1- The aim of the investigation is not phrased correctly. The authors might consider (line 127-129): “…the agreement between a lung ultrasonography and clinical scores in the … of infants with suspected bronchiolitis”

2- There no reference to how much the ultrasound findings may be specific for bronchiolitis. Has the proposed score been validated?

3- Patient enrolment in the suspected bronchiolitis group includes both RSV positive and negative infants. Yet, the vast majority of RSV negative patients have a normal ultrasound scan and 9% of their total series has a normal chest auscultation. Their age span is considerably wide. The authors should comment on these points.

4- Diagnostic accuracy might be ill defined since ultrasound score (>3 cut-off for moderate bronchiolitis) is used to predict oxygen requirement, a variable that is not in the study aims or elsewhere in the manuscript. Also in this respect, there is no reference to a sample size calculation that might support this observation.

5- Both ultrasound and clinical scores are composed by several items and are not of immediate comprehension. The authors should comment on the practical use of their results in daily neonatal practice.

6- The Abstract paragraph is poorly informative on both LUS and clinical examination. Second sentence is out of context (line 58-59).

7- Please report consistent terminology: VRS is SRV twice in line 205 and elsewhere.

8- There is no Discussion paragraph between “Methods” and “Conclusions”. References on lung ultrasound in the neonatal period should be implemented.

9- Typos and short forms are scattered throughout the manuscript. Cfr line 235, 244, 276 and 287 (it is ); line 260 please explain “artifactual landmarks”.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I do not have any competing interests