Reviewer's report

Title: Retrospective Analysis of Demographic and Clinical Factors Associated With Etiology of Febrile Respiratory Illness Among US Military Basic Trainees

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Reviewer: Chun-Yi Lu

Reviewer's report:

1. This is a large-scale, prospectively designed study on the feasibility of using demographic or clinical characteristics to predict the etiologies of FRI in US military trainees. The authors found that several clinical characteristics combined have a high PPV for adenovirus. They claim their findings are useful in guiding diagnosis and treatment of military trainees presenting with FRI.

2. Basically, the study is aimed to tackle a common and important clinical condition, the study is reasonably designed and performed, and the manuscript is well written. Their results provide a better understanding of the usefulness of demographic and clinical data in diagnosis of FRI in military training environment. For example, their analysis showed that sore throat, nasal congestion, and nausea/vomiting were associated with laboratory-confirmed adenovirus but not with influenza, while acute onset of illness and body aches were associated with influenza.

3. In short, this is a concise and well-written report of a long-term and large-scale study. The study results are partly confirmatory of what already known. Nevertheless, it indeed provides interesting results that might, to certain degree, help clinical practice in the military training setting.

4. Regarding the lab methods, I am not sure why influenza B was determined by culture only but not PCR as well. Influenza A and adenovirus were detected by PCR. Will this lead to underestimation of influenza B?

5. There are some additional minor concerns: Please make sure abbreviation like “FRI” needs not to be expanded at its first appearance in the Abstract. Page 10, Multivariate analysis, line 1: Is “with” a typo of “between”?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.