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Utility of Xpert Ultra on Different Respiratory Specimens in Children

To the Editor:

We read with great interest the recent article on the yield of Xpert Ultra on different respiratory samples in children by Zar and colleagues (1). We must congratulate the authors for conducting such a novel study that will definitively increase the horizon of diagnosis of tuberculosis (TB) in children. However, there are some crucial points in this article that need clarification and further consideration.

The main objective of this study was to investigate diagnostic accuracy and yield of Xpert Ultra on repeated induced sputum (IS), nasopharyngeal aspirates (NPAs), or a combination of IS and NPAs. Although Ultra was performed on repeated (two) NPA specimens, it was performed on only one IS specimen, despite the fact that two IS specimens were collected. The author's previous study had shown that Xpert Ultra had good sensitivity and specificity (77%

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and 97%, respectively) on IS (2). Furthermore, in this study, the authors have also concluded that IS provides higher yields than NPAs and that it is a preferable sample for Ultra. Therefore, the inclusion of Xpert Ultra on second IS specimens also might have further increased its sensitivity and specificity.

The semiquantitative results of Xpert Ultra were mainly trace or very low; however, these results were only on NPA specimens. It would be worthwhile to know such results on IS specimens in comparison with NPA specimens.

According to the result of this study, Xpert Ultra was positive on 20 first NPA (17 in confirmed TB and 3 in unconfirmed TB) specimens. In this way, the positive predictive value should be 17/20 (85%); however, in Table 3 of Reference 1, it was mentioned as 156/175 (89.1%). It commences confusion among readers, which needs rectification.

The result of this study gives the impression that Xpert Ultra is more sensitive than Xpert MTB/RIF (74.3% vs. 68.6%, respectively). However, Xpert MTB/RIF was performed only in 165 IS specimens in comparison with Xpert Ultra, which was performed on 195 IS specimens. Therefore, the yield of Xpert Ultra does not seem to be better than the Xpert MTB/RIF, at least on IS specimens. ■

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Reply to Jain et al.

From the Authors:

Thanks for the opportunity to respond to these points. As noted, the semiquantitative results of the Xpert Ultra (Cepheid) test were

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