

## To TST or not to TST, that is the question! Part 2

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The use of TST in the diagnosis of NTM has its own set of problems, as highlighted in [the article on nontuberculous mycobacterial \(NTM\) infections in the April issue of Pediatrics in Review](#). It is important to remember that the standard criteria to define a positive TST result are based on the size of induration and the presence of risk factors for TB, and there are three cut off values depending on those factors. The criteria to define a positive TST when evaluating a child for NTM have not been standardized. It has been suggested that in children without risk factors for TB who have not received BCG, a TST with 5mm induration at 48 hours is suggestive of NTM infection <sup>1</sup>. Additionally, it is generally accepted that TST 15mm is more suggestive of TB infection than NTM. However, in one study of children with confirmed NTM lymphadenitis, 59% had induration 15mm <sup>2</sup>. In the end, the interpretation and usefulness of TST always depends on the presence or absence of risk factors for TB and the receipt of BCG vaccination.

If NTM is suspected in a child without risk factors for TB who has not received BCG, TST may be helpful. A positive TST would support the diagnosis of NTM in some cases. However, in a child with risk factors for TB and/or who has received BCG, a positive TST does not differentiate NTM from TB or a reaction to BCG. In this case, an IGRA would be the better test and a positive IGRA would confirm TB. A negative IGRA and a positive TST could be due to cross-reaction with NTM or BCG. A caveat to this interpretation is that there are patients that may have TB-NTM co-infection, especially patients living in geographic areas with high prevalence of TB or with history of significant TB exposures. In these cases, efforts should be made to obtain samples for mycobacterial culture. The bottom line is that there is no practical use of TST or IGRA for making the diagnosis of NTM, and the tests should not be used for this purpose. These two tests should be used only for diagnosis and exclusion of TB.

### References

1. Lindeboom JA, Kuijper EJ, Prins JM, et al. Tuberculin skin testing is useful in the screening for nontuberculous mycobacterial cervicofacial lymphadenitis in children. *Clin Infect Dis* 2006; 43:1547-51
2. Haimi-Cohen Y, Zeharia A, Mimouni M, et al. Skin indurations in response to tuberculin testing in patients with nontuberculous mycobacterial lymphadenitis. *Clin Infect Dis* 2001; 33:1786-8

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