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**Title:** Screening for tuberculosis in patients with rheumatic diseases commencing anti-TNF- $\alpha$  treatment: A regional survey

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**Body:** Introduction: The increase in active tuberculosis (TB) associated with anti-tumor necrosis factor  $\alpha$ (anti-TNF- $\alpha$ ) treatment has led to screening for active/latent TB before anti-TNF- $\alpha$  is given. Marked variation in TB incidence has been noted depending on patients' ethnicity, country of birth and, for those not born in the UK, the length of time since their first entry. We aimed to evaluate our risk assessment mechanism. Method: Retrospective study of 227 patients (F 65.2%, M 34.8%; median age: 53 yrs) with rheumatic diseases receiving anti-TNF- $\alpha$  (infliximab, etanercept, adalimumab) in 2001-2009. This sample represents a particularly multiethnic patient population. Results: 1 patient (0.44% of the total) underwent tuberculin skin testing (TST). All patients were on additional immunosuppressants interfering with the accuracy of TST. No patients underwent interferon-gamma assay testing for latent TB. 9 patients (4% of the total) received chemoprophylaxis prior to anti-TNF-α. 2 patients (0.88% of the total) who had not received chemoprophylaxis developed active TB. The first was on etanercept & adalimumab prior to developing miliary TB. The second was on adalimumab & infliximab prior to TB diagnosis. Both patients recovered with quadruple anti-TB therapy. Both patients were born in the Indian subcontinent and had been in the UK for over 5 years. The TB incidence rate was 196.8 per 100,000 patient-years. Conclusion: TB screening prior to starting anti-TNF- $\alpha$  can be improved so as to facilitate appropriate chemoprophylaxis targeting. Interferon-gamma assays could be a useful tool in the diagnosis of latent TB when patients are already on immunosuppressants.