



Briefing Note

Serial number 2021/060

Date 26/10/21

Event Tuberculosis (TB) Testing and potential interactions with COVID-19 vaccinations

Notified by TB Unit, Clinical and Public Health Group, UKHSA

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UK Health Security Agency NIERP Level - N/A

Incident Lead N/A

Background and Interpretation:

Although it is thought that potential interactions between COVID-19 vaccines used in the UK and the TST and IGRA tests is a minimal likelihood event, this briefing note is issued to provide background information and guidance on some precautionary measures to take and will be updated as further information or evidence emerges.

The primary screening methods for latent TB infection are the Mantoux tuberculin skin test (TST) and Interferon Gamma Release Assay (IGRA) blood test. Both are designed to detect latent TB infection; they pick up an immune response that suggests past or present exposure to TB bacilli. TST is also used prior to BCG immunisation as outlined in [Chapter 32 of the Green Book on Tuberculosis](#).

Some people may not react to the TST or IGRA despite being infected with TB. There are a number of reasons for false-negative reactions including recent live virus vaccines. A false-negative reaction could mean that latent TB infection is not detected leading to the risk of developing active TB disease in the future.



In January 2021 the American CDC provided information on TB Testing and COVID-19 vaccines [TB Tests and mRNA COVID-19 Vaccines - Dear Colleague Letter](#) and following this, a question has arisen regarding the potential interactions between COVID-19 vaccines used in the UK and the TST and IGRA tests used to screen for LTBI.

In the UK, three COVID-19 vaccines have been authorised for supply; two use an mRNA platform (Pfizer BioNTech COVID-19 mRNA vaccine BNT162b2 and Moderna mRNA-1273 COVID-19 vaccine) and the third uses an adenovirus vector (AstraZeneca COVID-19 vaccine). These are all considered to be inactivated (including the non-replicating adenovirus vaccine). [Chapter 14a of the Green Book on Covid-19](#).

According to the [Vaccine Recommendations and Guidelines of the Advisory Committee on Immunization Practices \(ACIP\)](#), inactivated vaccines do not interfere with TB screening test results. Vaccination with live viruses (such as the MMR vaccine) can cause mild immune system suppression, and may reduce the reactivity of the TST, possibly causing a false-negative reaction.

However, there is no data or direct evidence on the possible effects of COVID-19 vaccination on the immune response to the TST and IGRA test. Due to the ongoing COVID-19 vaccination programme and possible roll out of booster vaccinations it has been decided to take some precautionary measures which are outlined below.

Implications for and recommendations for UKHSA Regional teams

UK Health Security Agency regions are asked to share this briefing note with their local TB services.

Implications for and recommendations for TB and Occupational Health services.

Recommendations:

- For clear documentation purposes consider adding a specific question on COVID-19 vaccination (including dates administered) on TB screening proforma used locally.
- Where it is decided that screening for latent TB infection is required, particularly of high-risk vulnerable contacts of patients with infectious TB, it is recommended to proceed with screening even if this is within four weeks of the person receiving a COVID-19 vaccination. Clearly documenting that this is the case, treat the results with caution if negative and a repeat test to be considered within the appropriate timeframe if required.



- For those where screening for latent TB infection is not immediately required defer TST or IGRA until four weeks after the COVID-19 vaccination.
 - The offer of a COVID-19 vaccination should not be delayed in order to conduct an IGRA or a Mantoux test and the TST or IGRA can be performed on the same day.
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