

11. Education, Research and Information

11.1 Education

The increased rates of TB in Ireland over the last seven years demand better education of our medical, nursing and pharmacy personnel about this important disease. Our public health priorities include such issues as dealing with LTBI in at-risk populations, TB disease prevention and treatment in immigrants and multiple drug-resistant TB disease. The small amount of time invested in TB education of Irish HCWs leaves them poorly prepared to address these emerging challenges.

Recommendation:

Given the increased importance of LTBI and TB diagnosis and treatment, TB education in the undergraduate and postgraduate medical/nursing disciplines needs to be strengthened.

11.2 Research

Research into TB has progressed apace, since the publication of the last national TB guidelines,¹¹³ with new drug options, and new tests that seek to address resistant TB and difficult to diagnose TB disease. In this regard, a diarylquinoline anti-TB drug is under development,³⁸⁰ and the IGRA blood tests have become a mainstream option to diagnose LTBI.⁵⁷ IGRA on pleural fluid and bronchoscopy washings are also under study.³⁸¹ Meanwhile, basic research has improved our understanding of the host response to TB and allowed new vaccine designs that may improve on BCG.³⁸² Finally, our understanding of the host response has allowed us predict and prevent reactivation of TB in patients taking specific cytokine blockers which make these immunosuppressants safer.⁹³

A number of researchers in TB have relocated to Ireland and they are collaborating with immunologists, epidemiologists and scientists with an interest in bovine TB. Such work will inform better treatment, tests and vaccine design. It is noted however, that we specifically lack any data on LTBI prevalence and also on the use of IGRA in the diagnosis of LTBI in the Irish population.

In contrast to other diseases, TB research often lacks industry sponsorship. We therefore encourage continued research funding of this neglected disease by our governmental funding agencies. Research fellows willing to undertake TB research should be fostered and given seed money to try and promote such activity. The challenge falls to us to encourage our brightest investigators into the field of TB research.

The development of the IGRA blood tests for LTBI, the development of immunotherapies to treat multiple drug-resistant TB cases and the advances in vaccinology makes the TB field a scientifically exciting one to pursue. A number of worldwide consortia have been established to investigate TB (e.g. TBNET), and it is encouraged that Irish investigators should join such consortia to deliver answers to important questions that require a large number of patients (e.g. MDR-TB or XDR-TB treatment regimen development).

Recommendation:

Research that seeks to improve our understanding of the pathobiology of tuberculosis as well as the nature of the disease in our own country is to be encouraged; research funding agencies should foster such activity, which has the potential to improve the treatment of the disease both locally and internationally.

Studies to determine the prevalence rate of LTBI should be initiated and supported.

11.3 Information

Even as we see the deterioration of the general level of TB knowledge amongst our healthcare workers, it is important that we address this trend through specific information and research centred events. This document will help this process, however, it should be supported with publications and articles in the medical journals and medical literature as well. A formal annual TB meeting might serve as a focus point for this activity. Where possible, members of this committee should be available to provide a balanced and informed view of the disease when called upon by television, radio and/or public newspapers.