key points

SELECTED BY

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More than 25% of the world population has been infected with tuberculosis (TB), however only 10% of those infected will ever develop active disease. Clinically significant disease occurs through progression of primary infection or through later reactivation of latent TB infection (LTBI); this is most likely to occur in the first few years following infection, although late reactivation can occur several decades later, particularly in individuals who become immunosuppressed through disease or therapy.

TB infection can only be transmitted if patients are producing sputum. Risk of acquisition is increased in people who have come to the UK from high incidence countries or who are born in the UK but come from high-risk ethnic minority groups. In 2015, 73% of those diagnosed with active TB were born outside the UK. Other risk groups in the UK include those who are homeless, in prison or who misuse drugs or alcohol. Once infected people who are immunosuppressed are at greater risk of progression to active disease. Infants below the age of 12 months can develop rapidly progressive and potentially fatal infection. It is important for TB teams to be aware of infants who may have been exposed to an infectious case and to refer the child to paediatric services as a matter of urgency.

A clear distinction should be drawn between the investigation of suspected active TB and the detection of LTBI, as the diagnostic and therapeutic pathways differ significantly. Cough is the main symptom in pulmonary disease but is not always accompanied by production of sputum. Malaise, weight loss, fever and night sweats are common to both pulmonary and extrapulmonary disease.

Initial clinical assessment with chest radiography and the collection of three deep respiratory samples for smear microscopy and culture remain the standard of care. The management of active TB has not changed significantly over many years. The most significant changes in the 2016 NICE guidance relate to screening for LTBI in individuals who are contacts of a patient with active TB, or who are recent entrants to the UK from a high incidence country. NICE recommends that only contacts of patients with active pulmonary or laryngeal TB be screened in order to focus resources on contacts of the most highly infectious cases.

Standard treatment for LTBI is with three months of rifampicin and isoniazid, or six months of isoniazid alone. The former regimen is associated with reduced hepatotoxicity and improved compliance. The isoniazid only regimen is of value in patients where there is risk of drug interactions with rifampicin: important interactions occur with oral or implanted contraceptives, warfarin and methadone, among many other drugs. The upper age limit for offering to test and treat individuals for LTBI is now 65.