

Tuberculosis and the Practice of Dentistry

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Tuberculosis and Occupational exposure

Tuberculosis is a contagious disease caused by inhalation of airborne particles containing the bacterium *Mycobacterium tuberculosis*. Overall, one third of the global population is infected with this mycobacterium or its variants. The advent of the human immunodeficiency virus pandemic has accelerated its spread inexorably whilst the multi-drug resistant strains of the bacillus have hampered disease management. Given the alarming spread of the disease there appears to be a potential for occupationally acquired tuberculosis infection amongst health care workers, including dental care workers. However current and generally accepted epidemiological information supports the conclusion that there is no significant risk of contracting tuberculosis through the provision of dental treatment when appropriate infection control procedures are followed.

FDI urges all its Member Associations and all oral health professionals to be cognisant of this pandemic disease and stay current with regard to its demographic features in each locale, as the prevalence of the disease varies widely in global terms.

Controlling the spread of Tuberculosis

A key element of infection control in dentistry is the concept of universal precautions centered on the premise that medical history and examination cannot reliably identify all patients or carriers of infections. All patients, therefore, must be regarded as potentially infectious. Recently however, universal precautions have been combined with guidelines intended to reduce the risk of transmission of pathogens by droplets, aerosols or direct contact into a unified set of clinical practices known as 'standard precautions'. Additional precautions or deferral of care may be indicated when patients present for dental treatment with diseases such as tuberculosis, that may be transmitted through these routes of exposure.

FDI strongly reaffirms the importance of adherence to current infection control recommendations as set forth by the appropriate local and international bodies, in minimising spread of respiratory and other disease in dentistry. Particular emphasis in this context should be placed on vaccination, use of particulate respirators and adequate ventilation as follows:

Vaccination

The BCG vaccine is an effective measure that can help control the spread of tuberculosis.

FDI endorses the policy of BCG vaccination for dental care workers in geographic regions or clinical settings where there is a high prevalence of tuberculosis.

Facemasks and Ventilation

There is consensus that common sense precautions such as good surgery ventilation, control of aerosols by high volume externally vented aspirators and, wearing of particulate respirators are important in curbing the transmission of respiratory diseases including tuberculosis. There is evidence however, that facemasks routinely used by healthcare workers may not always provide an effective means of preventing infection.

FDI supports all measures that control the quality of air in the dental surgery environment. These include the use of particulate respirators, externally vented aspirators and good surgery ventilation.

Diagnosis and referral for medical evaluation

Oral health professionals should be alert to signs and symptoms of tuberculosis that may be identified during the provision of dental care. Patients with medical histories or conditions possibly indicative of tuberculosis should be referred to their physicians for diagnosis, counselling and follow-up. Patients who are skin-test positive for tuberculosis but do not have symptoms of active tuberculosis are not contagious and may be treated using standard precautions.

FDI urges all oral health professionals to be alert to signs and symptoms of tuberculosis, and refer such individuals for appropriate medical health care.

Access to Care

Individuals with tuberculosis should be treated with compassion and dignity and should have access to dental treatment based on current and generally accepted scientific knowledge. Oral health professionals should not refuse to provide dental health care solely because the patient has tuberculous infection. Dental health care providers may elect to defer non-emergency treatment until patients exhibiting symptoms of active disease have received medical treatment and are non contagious.

FDI believes that individuals with tuberculosis should be treated with compassion and dignity and should have access to dental treatment within the realm of the care provider's competence.

References

FDI Science Commission Project 1-99: Re-emergence of Tuberculosis and its Variants: Implications for Dentistry Samaranayake L P. Re-emergence of tuberculosis and its variants: implications for dentistry. *Int Dent J*. 2002 Oct;52 (5):330-6
[Dental Practice Committee](#)