Is the initiation of non-invasive dental hygiene procedures* contra-indicated? Potentially – this depends whether the patient/client has latent TB infection (which is not contagious to others and therefore there is no contraindication) OR the patient/client has active TB disease of the lungs, respiratory tract, or oral cavity (in which cases there is a contraindication until the patient/client is treated and becomes non-infectious).

- In cases of active pulmonary (lung) or respiratory tract tuberculosis (which pose infectious risk by airborne spread to others, particularly when the patient/client has a cough) or active oral tuberculosis (which is rare, but which poses a small risk of direct transmission), deferral is indicated until the patient/client is no longer infectious to others nor has oral lesions which interfere with non-invasive procedures.

- A positive tuberculin (Mantoux) skin test does not necessarily indicate active TB disease (particularly if the test was performed as part of a routine screening process in an asymptomatic individual, rather than for diagnostic or contact investigation purposes). If the tuberculin positive patient/client has no signs or symptoms of TB coupled with a negative chest X-ray, the patient/client likely has latent TB infection, rather than active TB disease. Latent TB infection is not a contraindication to non-invasive nor invasive dental hygiene procedures.

- Is medical consult advised? Yes. Persons suspected of having TB disease should be referred to a physician for work-up, which will include a medical history, physical examination, test for TB infection (tuberculin skin test or TB blood test), chest X-ray, sputum collection, and other tests as appropriate. A medical consult is particularly urgent where active pulmonary TB disease is suspected (see below) given the infectious risk to others. Persons diagnosed with latent TB infection are often prescribed a prophylactic anti-tuberculous antibiotic (e.g., isoniazid for 6 to 12 months) to reduce the likelihood of future conversion from latent infection to active disease. Persons diagnosed with active pulmonary TB are usually treated with several anti-tuberculous medications for 6 to 9 months and are closely monitored. Drug resistance is a growing concern in many countries, although a lesser concern in Canada.

Is the initiation of invasive dental hygiene procedures contra-indicated?**

- Is medical consult advised? Yes, see above.
- Is medical clearance required? Yes – specifically for active tuberculosis.
- Is antibiotic prophylaxis required? No (pertaining to prophylaxis for invasive dental procedures, as distinct from prophylaxis for latent TB infection).
- Is postponing treatment advised? Yes, if patient/client presents with active pulmonary/respiratory/oral TB; see above.

Oral management implications

- Mode of transmission for active pulmonary or respiratory tract TB is airborne via droplet spread from one person to another via coughing, sneezing, speaking, or singing. The tubercle bacilli may be inhaled by others and cause infection. Active TB is most infectious when TB bacilli are found in the infected person’s sputum (phlegm).

- TB transmission to workers in health care settings has been documented. If you think you have been exposed to someone with active TB disease, contact your physician or nurse practitioner.

- When entering a room where it is known that a patient/client has active untreated or incompletely treated pulmonary TB, health care professionals should wear personal respiratory protective devices capable of filtering submicron particles.

cont’d on next page...
Disease/Medical Condition

TUBERCULOSIS

(also known as TB; caused by *Mycobacterium tuberculosis* complex bacilli bacteria which attack the lungs in about 70% of cases, but can attack any part of the body)

Oral management implications (cont’d)

- Typically, patients/clients treated for active pulmonary TB are rendered non-contagious to others (i.e., sputum negative) following 4 to 8 weeks of appropriate drug treatment.
- In the case of oral TB (see below), it is possible, but unlikely, for oral health professionals to contract infection through contact with living tubercle bacilli. Direct invasion through mucous membranes or breaks in the skin may rarely occur.
- While a tuberculosis vaccine (BCG) exists, it is not widely used in Canada and the USA (beyond select populations at elevated risk, such as certain First Nations and Inuit populations) given the relatively low prevalence of TB in these countries, as well as issues associated with the vaccine itself. Thus, BCG immunization is not generally considered a preventive measure for Ontario health care workers, but may be considered on an individual basis in at-risk settings.

Oral manifestations

- While active TB usually affects the lungs, TB bacilli can spread via the blood (i.e., hematogenously) to other parts of the body, including bones such as the mandible or maxilla.
- While uncommon, tuberculous lesions of the oral cavity do occur. Lesions of the oral mucosa are usually secondary to pulmonary disease, whether via hematogenous spread or via sputum-borne organisms entering mucosal tissue through small breaks in the surface.
- While lesions may occur at any site on the oral mucous membrane, the tongue is most commonly affected, followed by the palate, lips, buccal mucosa, gingiva and frenula. The typical tuberculous lesion is an irregular, superficial or deep, painful ulcer, which tends to increase slowly in size. More rarely, mucosal lesions show swelling or fissuring without obvious ulceration. Tuberculous gingivitis is another unusual manifestation of TB.

Related signs and symptoms

- Symptoms of active TB disease may include:
  - a bad cough that lasts 3 weeks or longer;
  - chest discomfort;
  - coughing up blood or sputum;
  - general weakness;
  - fatigue;
  - weight loss;
  - decreased appetite;
  - chills;
  - fever; and
  - night sweats.
- In addition to the lungs, tuberculosis may affect any organ or tissue, including the lymph nodes, pleura, pericardium, kidneys, bones and joints, larynx, middle ear, intestines, peritoneum, eyes, brain, and spinal cord. Disseminated, or miliary, TB involves the whole body.
Disease/Medical Condition

TUBERCULOSIS

(also known as TB; caused by *Mycobacterium tuberculosis* complex bacilli bacteria which attack the lungs in about 70% of cases, but can attack any part of the body)

**Related signs and symptoms (cont’d)**

- Certain population groups in Canada have an increased risk of latent TB infection, including:
  - people who have come into close contact with individuals with known or suspected TB (e.g., family members or people sharing living spaces);
  - people with a history of active TB who received inadequate treatment;
  - people living in communities with high rates of latent TB infection or disease (e.g., some First Nations and Inuit communities and immigrant and refugee populations from endemic countries in Asia, Africa, Latin America, the Caribbean, Eastern Europe, and Russia);
  - the poor, especially the urban homeless;
  - residents of long-term care and correctional facilities; and
  - persons who work with any of the above groups (e.g., health care workers and correctional staff).

- While many people who have latent TB infection never go on to develop active TB disease (10% lifetime risk in adults), persons at elevated risk for the development of TB disease include:
  - persons who became infected with TB bacteria in the last 2 years;
  - persons with HIV infection;
  - persons with other health problems that compromise the body’s ability to fight infection (e.g., diabetes, chronic kidney failure, or head and neck cancer);
  - babies and young children;
  - persons being treated with immunosuppressive drugs;
  - persons who abuse alcohol or use illegal drugs;
  - elderly people;
  - persons who were inadequately treated for TB in the past; and
  - persons with a chest X-ray showing signs of old TB.

**References and sources of more detailed information**


* Includes oral hygiene instruction, fitting a mouth guard, taking an impression, etc.

** Ontario Regulation 501/07 made under the Dental Hygiene Act, 1991. Invasive dental hygiene procedures are scaling teeth and root planing, including curetting surrounding tissue.

Date: January 28, 2013