

## Guidelines on prevention and management of TB in schools

### Introduction

Tuberculosis (TB) is an airborne infectious disease caused by the tubercle bacillus. TB cases can be broadly classified as “open” and “non-open”. Tiny tubercle bacilli can be seen, with special staining, inside the sputum under direct microscopy for “open” cases. “Open” cases are generally considered infectious, while “non-open cases” are not.

Not everyone exposed to an infectious TB patient will be infected, and those infected may not develop disease. The occurrence of infection and disease depends on a number of factors, in particular the intensity of exposure, and each individual’s body immunity. Only about one out of ten infected individuals will develop disease as a life-time risk. The disease may develop weeks, months, years, or even decades after the infection. Unless disease develops, the infected individual will remain well and non-infectious like other healthy individuals.

When a staff or student in a school is diagnosed as having TB, the attending doctor should notify the case to the Department of Health. In general, contact examination will be conducted for close contacts of an “open” case. In the school, close contacts usually refer to those in the same class or those in frequent contact with the index patient. However, the actual decision will depend on careful assessment of the individual circumstances which often vary. Advice may be sought from the nearby chest clinics of the Department of Health. In fact, contact examination should be regarded as an adjunctive measure only. The more important issues are to observe preventive measures like healthy lifestyle, environmental hygiene, and early symptom awareness (see below).

### Arrangement of contact screening

- The client or his/ her guardians will be contacted by phone or interviewed by a health nurse and explained of the need for any public health actions including any need to contact the school and whether contact screening is indicated. The nurse will help to alleviate their anxiety and concerns regarding confidentiality and possible stigmatisation, if necessary.

- The principal/ supervisor of the school may be interviewed by the health nurse and explained of the necessary public health actions. Information about the staff/ student's close contacts, previous cases of TB and the school environment may have to be collected.
- Health information on TB will be provided to the principal/ supervisor. This may be supplemented by distribution of pamphlets, video show, or health talks, depending on the actual needs.
- Staff or other students with symptoms suggestive of TB will be advised to seek prompt medical consultation at the chest clinics.
- Advice will be provided on the need for examination of asymptomatic contacts. In case of need, X-ray examination may be arranged at one of the X-ray centres.

#### Advice on prevention of TB

- Symptom surveillance  
At any time, staff or students with symptoms suggestive of TB including persistent cough over 3 to 4 weeks, blood in sputum, weight loss, afternoon fever and night sweating should seek prompt medical consultation.
- Environmental hygiene  
TB spreads mainly by air. It is essential to maintain good indoor ventilation by means of natural ventilation or mechanical ventilation such as exhaust fans. Furniture, tables and walls do not play any significant role in the transmission of the infection. Regular cleaning of the environment should be done as general hygienic practice. The dust filters of air-conditioners should be cleansed as usual.
- Healthy lifestyle  
A healthy lifestyle helps to build up good body resistance. This includes observation of good personal hygiene, balanced diet, exercise, adequate rest, maintaining a cheerful mood, quit smoking and refraining from alcohol.
- Need to isolate TB patients?

“Non-open” TB cases are non-infectious. For “open” cases, once anti-TB treatment is started, the risk of spreading the infection is rapidly reduced. For most TB patients, strict isolation is not necessary. However, sick leave may be recommended for patient when indicated (usually 2 weeks or more). The patient may resume usual school work after medical assessment for the rest of the treatment period. The total duration of treatment usually lasts for 6 or more months.

## Conclusions

Prompt notification of TB cases inside institutions allows proper assessment and institution of appropriate public health actions, which are important adjunctive measure in the overall control of TB. However, with the high local prevalence and variable latency of this disease, we have to maintain our vigilance, even in absence of any recent contact history.

TB telephone hotline: 2572 6024

TB website: [http://www.info.gov.hk/tb\\_chest](http://www.info.gov.hk/tb_chest)