

GUIDANCE NOTES FOR NOTIFICATION OF TUBERCULOSIS

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Background

Today, tuberculosis (TB) is still one of the major public health problems in many places in the world. The local TB notification rate reached a peak of 697.2 per 100 000 in 1952. Thereafter, this rate decreased to 100.9 in 1995, but started to increase slightly to 103.0 in 1996, 108.8 in 1997 and 114.7 in 1998. In fact, the TB notification rate in the Hong Kong Special Administrative Region (HKSAR) is still quite high, being more than ten times the rates reported in certain western developed countries.

According to the Prevention of the Spread of Infectious Diseases Regulations Cap. 141, a medical practitioner who makes a diagnosis of TB should notify the case to the Director of Health, using the notification form DH1A(s) (Rev.96). The aims of notification are to facilitate surveillance of the disease and implementation of public health measures like contact tracing and examination.

As regards the sources of TB notifications, the number of notifications from private practitioners and private hospitals increased from 276 cases in 1995 to more than 600 cases per year from 1996 to 1998 (Table 1). The number of notifications from public general hospitals also increased from 277 cases in 1995 to 740 cases in 1997 and 1 189 in 1998. These significant increases from previously rather minor notification sources suggest changes in notification behaviour, although a genuine resurgence of TB cannot be excluded. Increased awareness of the condition and increased readiness to notify are certainly good signs for the improvement of TB surveillance in the HKSAR. However, short-term fluctuations in notification behaviour may confound the real trend of the disease, the correct interpretation of which should otherwise be required to assess this public health problem and to evaluate and guide the TB control strategies. Moreover, it has been observed that confusion exists in some areas on when to notify¹. Hence, after consultation with various experts, the following set of guidance notes and case definitions are prepared to help minimize such variations and improve the quality of data in the local TB surveillance system.

Table 1 Sources of TB notifications in the HKSAR, 1994 - 1998

[Text version](#)

Sources	1994	1995	1996	1997	1998
Hospital Authority hospitals with Tuberculosis and Chest Specialist Service	1 270	1 349	1 282	1 591	1 505
Other hospitals of Hospital Authority	327	277	287	740	1 189
Private practitioners and private hospitals	73	276	678	642	653
Chest clinics of Department of Health	4 631	4 294	4 251	4 094	4 319
Other government institutions	18	16	3	5	7
Total	6 319	6 212	6 501	7 072	7 673

Guidance Notes²

1. Case Definition of Tuberculosis

(a) Clinical Description

TB is a chronic bacterial infection caused by *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site of disease is the lung, but other organs may be involved. Classical symptoms of pulmonary tuberculosis include persistent cough, haemoptysis, afternoon fever, night sweating and weight loss. However, these may not be present in every case and symptom combinations do vary from case to case. Involvement of extrapulmonary sites may cause clinical features referable to the respective organ system. In cases of late stages or disseminated TB, overt systemic symptoms and signs affecting general being of the individual may predominate.

(b) Clinical Case Definition

A case that meets the following criteria:

- (i) Signs and symptoms compatible with active tuberculosis;
- (ii) Supporting evidence from relevant and clinically indicated diagnostic evaluation (e.g., abnormal,

- unstable [i.e. worsening or improving] chest radiographs);
- (iii) The attending physician forms the opinion that treatment with anti-tuberculosis medications is required.

(c) Laboratory Criteria for Diagnosis

- (i) Isolation of *Mycobacterium tuberculosis* from a clinical specimen (through culture and identification tests);
- (ii) Demonstration of *Mycobacterium tuberculosis* from a clinical specimen by nucleic acid amplification test (e.g., polymerase chain reaction together with species-specific probe); or
- (iii) Demonstration of acid-fast bacilli in a clinical specimen (e.g., histological examination);

where the clinical picture is compatible with the diagnosis of active tuberculosis.

2. Cases which should be notified:

- (a) All cases that meet the clinical case definition should be notified. Where there is strong clinical suspicion of active tuberculosis, cases may be notified before all the criteria for clinical case definition are met, so as to facilitate the early implementation of public health measures.
- (b) All cases that meet the laboratory criteria for diagnosis of TB should be notified. In case that the patient has died, TB notification should still be required.
- (c) For those cases where anti-tuberculosis treatment may have been given for empirical trial, the attending physician may judge or seek expert advice on whether or not and when to notify, on a case by case basis.
- (d) When a fresh episode of active tuberculosis (e.g., relapse of pulmonary tuberculosis) occurs in the same patient, notification should be made again.

3. Cases for which TB notification is not required:

- (a) For cases without evidence of currently active disease, notification is not required. Examples include persons who are found to have old TB scars on chest radiographs which, according to the opinion of the attending physician, do not require treatment.
- (b) Recent conversion of tuberculin skin test from negative to positive in persons without any evidence of active disease is not a specific indicator of active TB infection. Thus, persons with such result should not be considered as cases for notification.
- (c) Cases given medications for TB chemoprophylaxis only are not required to be notified.
- (d) Cases diagnosed as having disease caused by non-tuberculosis mycobacteria instead of *Mycobacterium tuberculosis* are not required to be notified.

Notification Forms

Notification forms can be obtained from the headquarters of the Department of Health (Tel: 2961 8570, Fax: 2893 9425), Statistics Unit in the Tuberculosis and Chest Service (Tel: 2572 3487, Fax: 2834 6627) or from any nearby chest clinic. Alternatively, notification forms may be downloaded from the homepage of the Department of Health (<http://www.info.gov.hk/dh/>). Prompt notification and accurate completion of all items on the form will facilitate the implementation of any necessary public health measures including contact tracing. In case certain information (e.g., culture results) are not yet available at the time of notification, the results can be sent at a later date when available.

Summary

Today, TB is still a major public health problem in the HKSAR. A good surveillance system is essential for a vigilant TB control programme. It is a statutory requirement for TB cases to be notified to the Department of Health. However, grey areas and confusion do occur, e.g. on when to notify. With these guidance notes, it is hoped that most of these areas can be clarified and the variation in notification practice can be minimised. Complete and accurate data obtained from notification will allow continuous evaluation to follow the real trend of the disease. Cooperation of all medical practitioners is necessary to achieve this goal. With a quality surveillance programme, public health measures for TB can be planned, implemented and monitored more effectively. The fight against this important contagious illness is a long battle. Continuous and coordinated effort from all sectors is the key to success.

References

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2. CDC. Case definitions for infectious conditions under public health surveillance. MMWR 1997;46:40-41.

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