Annex A

About Tuberculosis and its Treatment

1. Tuberculosis (TB) is caused by a type of bacteria called *Mycobacterium tuberculosis*. Active TB usually affects the lungs, but can also affect other parts of the body. Symptoms of TB include a persistent cough that lasts at least three weeks, low-grade fever, night sweats, fatigue, weight loss and chest pain.

2. Inappropriate treatment of TB and poor adherence of patients to TB treatment increases the likelihood of development of drug-resistant TB, including multi-drug resistant TB (MDRTB). MDRTB bacteria is resistant to the two most important drugs used to treat TB i.e. *isoniazid* and *rifampicin*. In such cases, it is much more difficult to treat the patient because less effective medicines will have to be used. Treatment of drug resistant TB takes longer (up to 20 to 24 months), compared to six to nine months for non-drug resistant TB.

3. TB is spread when the person suffering from TB coughs the TB bacteria into the air, and the bacteria is inhaled by those who have close and prolonged contact with an infectious individual. Transmission of the TB bacteria usually requires prolonged exposure (days to weeks, rather than minutes to hours). MDRTB is spread in the same way as non-drug resistant TB.

4. A person cannot get TB from sharing cups, eating utensils, food, or cigarettes. TB is not spread through shaking someone’s hand, kissing, touching bed linens or toilet seats.

5. The TB vaccine (Bacillus Calmette–Guérin (BCG)) given at birth is only effective at preventing serious forms of TB (such as TB meningitis) in young children. It does not protect against lung TB in adults.

**Latent TB**

6. When a person is exposed to the TB bacteria from an infectious TB case, they may develop latent TB infection (LTBI). Persons with LTBI do not have symptoms of TB (e.g. cough) and they do not spread TB to others. The TB bacteria remains inactive in their body in the vast majority of healthy adults with LTBI.

7. In about 10 percent of persons with LTBI, active TB disease may develop over the course of their lifetime. Half of such persons do so in the first two years after acquiring the infection. The risk of developing active disease is higher in persons with a weak immune system and young children under five years of age.

8. LTBI is not uncommon in Singaporeans. It is estimated that between 2 to 29 percent of Singaporeans have LTBI and the prevalence of LTBI increases with age.
Treatment of TB

9. Patients who do not adhere to their medications have a higher chance of developing drug resistance, treatment failure, and future disease relapse. Directly Observed Treatment (DOT) therefore remains a pillar of the Singapore TB Elimination Programme (STEP) as it is the best way of assuring patients’ adherence for the sake of their health and others around them. DOT consists of daily administration of TB medicines by a trained nurse to the patient, and is available at polyclinics. STEP manages an outreach DOT programme for patients who are unable to commute to clinics for their medications due to age or infirmity.

10. To prevent disruption to TB treatment, patients are counselled on the importance of adhering to DOT for the entire duration of their treatment regimen. It is in the best interest of the patient and the community that TB patients adhere to the recommended treatment protocol. If patients are not treated promptly, or if they are not strictly adherent to treatment, the danger to the community is greater.
Cluster of MDRTB Cases at Block 203 Ang Mo Kio Avenue 3

**Index Case’s Unit**
- 3 cases
- Index MDRTB case diagnosed in **Feb 2012**
- **Members in unit monitored.**
- 2 members diagnosed with active MDRTB in **May 2012 and Oct 2015 respectively.**

**2nd Unit**
- One individual diagnosed with MDRTB in **Apr 2014**

**3rd Unit**
- One individual diagnosed with MDRTB in **Oct 2015**

**Block 203, Ang Mo Kio Ave 3**

**4th Unit**
- One individual diagnosed with MDRTB in **May 2016**