

TB control provides lessons in managing medicines

Tuberculosis (TB) is a serious disease. The organism which causes TB is carried by two billion people – a third of the world's population – and there are an estimated two million deaths every year. The World Health Organisation (WHO) has declared TB to be a global health emergency and designated 24 March each year as World TB Day.

In contrast to most of the rest of the world, Australia is fortunate in having a relatively low but nevertheless constant pattern of TB. There is an average of around 1,000 new cases here every year. This is primarily due to reactivation of a dormant infection in people who were first infected in another country before emigrating to Australia; or who may have been originally infected during their childhood in Australia when the TB rates among the general community were much higher.

TB is a contagious disease which spreads through the air. When infectious people cough, sneeze, talk or spit they propel the TB organisms into the air. Only small numbers of these organisms (called bacilli) need to be inhaled for people to become infected. In poorly ventilated and enclosed environments bacilli can remain airborne for hours.

We will never eliminate TB without the development of new and more effective medicines, vaccines and diagnostic procedures. Today's most commonly used method for diagnosing TB is actually more than 100 years old. Today's vaccine, which is more than 85 years old, provides some protection against TB in children but is unreliable against the most common form of TB – pulmonary TB (i.e., affecting the lungs). Furthermore, the drugs currently used to treat TB are more than 40 years old, and must be taken for six to nine months.

As explained on the Victorian Health Department's website, active TB is very much a disease of human stress – stress due to overcrowding, poverty, poor living conditions and malnutrition. TB is also often associated as a co-infection with HIV/AIDS; and other conditions such as diabetes or malignancies which put our immune system under stress increasing the risk of TB becoming active.

The principles of preventing the spread of TB infection are similar to those for preventing the spread of colds. Sneezing and coughing should be into disposable tissues (not into hands); and spitting should be absolutely forbidden – fortunately spitting is not as common a habit as it once was. In terms of treatments, the principles are the same too – use medicines wisely.

TB is a perfect example of the problems associated with antibiotic resistance. Inappropriate prescribing and poor patient compliance are the culprits. When the correct antibiotics are chosen, and they are taken for the required length of time, TB is completely curable. However, so-called multi-drug resistant TB is now widespread and is becoming extremely difficult to treat.

Antibiotics are a valuable resource; we need to use them carefully to maintain their beneficial effect. Of course antibiotics are not the only medicines sometimes used inappropriately. Medication misadventure is estimated to be responsible for between 15 – 22% of all emergency admissions among older Australians. And around 140,000 hospital admissions in Australia are thought to be related to the incorrect use of medicines – too much, too little, interactions or side effects. Research has consistently shown that people with long term medical conditions very often do not take their medicines as prescribed. This is sometimes referred to as non-adherence.

Talk to your pharmacist if you are concerned about your medicines. If you want to stop taking a medicine, check with your pharmacist or doctor first. If you start a new medicine (prescription or complementary) inform all the doctors in your healthcare team and your pharmacist.

Your pharmacist can make a list of all your medicines, with their names, the doses and how they work. Pharmacies providing the Pharmaceutical Society's Self Care health information can give you more details about this service. To locate your nearest Self Care pharmacy, simply go to www.psa.org.au/pharmacies

If you're interested in World TB Day, you can get more information on the World Health Organisation website www.stoptb.org/events