

TB continued

The World Health Organization (WHO) has declared TB to be a global health emergency and designated 24 March each year as World TB Day. The theme this year was “stop TB in my lifetime”; a very ambitious aim. Certainly, hopes that TB might be eradicated by 2025 have all but evaporated as a variety of medical and social factors resulting in the emergence of multi-drug resistant strains present a new challenge in the battle against TB.

The TB infection is carried by two billion people – almost a third of the world’s population – and there are an estimated two million deaths every year. TB is a contagious disease which spreads through the air. When actively infectious people cough, sneeze, talk or spit they propel the TB organisms into the air. Only a small number 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.

Of course TB is not new. Genetic evidence gathered from archaeological excavations in the eastern Mediterranean has indicated strains of TB existed nine thousand years ago; and fragments of spinal column from Egyptian mummies from 2,400 BCE show definite signs of TB.

In the early eighteenth century it was suggested that TB could be caused by “wonderfully minute living creatures” and 150 years later the actual organism (mycobacterium tuberculosis) was identified by Dr Robert Koch. When he announced his discovery in 1882, TB was raging through Europe and the Americas; and was responsible for one in every seven deaths

Up until then and indeed really until the middle of the last century, so-called sanatorium care – rest, fresh air and good nutrition – provided the only even mildly effective treatment. Real success came in the 1940s with the development of the antibiotic streptomycin. Though streptomycin has potentially side effects; and monotherapy (treatment with one drug) quickly results in resistant strains of the bacteria.

However, with proper treatment almost all cases of TB are curable. Generally a TB patient must take four different antibiotics for at least two months then two antibiotics for four more months. But because the medicines often cause unpleasant side effects and patients start feeling better a month or so, not everyone completes the full course. As well, in many less developed countries where TB is most common, drug supplies may be inadequate.

According to the Global Tuberculosis Institute at the New Jersey Medical School in the US, while wealthy industrialised countries with good public health systems can be expected to keep TB under control, in much of the developing world a catastrophe awaits.

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 about 1,000 cases a year. This is primarily due to re-activation 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.

But wherever TB exists, successful treatment will depend on early and accurate diagnosis, correct selection of medication and patient adherence – that is taking the right dose for the appropriate length of time.

Naturally these principles apply to the treatment of all medical conditions, especially infectious diseases.

For more advice about the use of antibiotics, ask for a fact card at one of the two thousand pharmacies around Australia providing the Pharmaceutical Society’s Self Care health information. For the nearest location, log on to www.psa.org.au and click on “Self Care” then “find a Self Care Pharmacy”. And if you want more specific information about World TB Day, go to the WHO website www.stoptb.org