THE AURUM INSTITUTE

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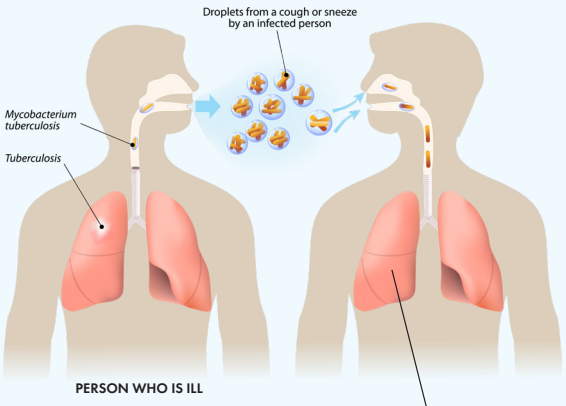
3HP

3HP is a short-course Tuberculosis Preventive Treatment (TPT) regimen which is endorsed by the World Health Organisation

What is Latent TB infection?

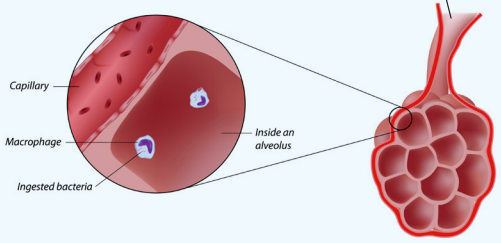
Not everyone who is infected with Tuberculosis (TB) immediately develops TB disease. Some people go on to have a dormant form of TB that can be reactivated over time or when the immune system is suppressed. This form is called latent TB infection (LTBI), and treating it will prevent the person from getting active TB.

Overview of TB transmission



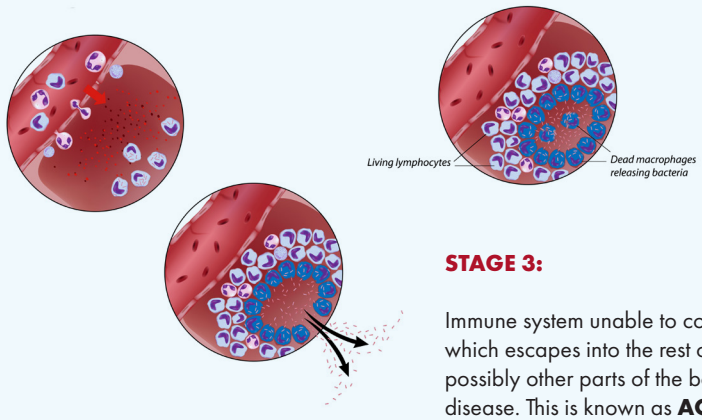
STAGE 1:

Exposure
TB Bacilli are inhaled into the lungs of a healthy person via droplets sneezed, coughed or spat by another **PERSON WHO IS ILL WITH TB**



STAGE 2:

TB Bacilli are recognised as invaders and are contained by the healthy immune system (white blood cells - including **CD4 CELLS**)
This is known as **LATENT TB OR TB INFECTION**



STAGE 3:

Immune system unable to contain the TB BACILLI which escapes into the rest of the lungs - and possibly other parts of the body causing disease. This is known as **ACTIVE TB**

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Is treatment of TB infection effective?

Strong evidence shows that the treatment of TB infection (with isoniazid or rifampicin monotherapy, or in combination with other drugs) is effective in preventing progression to active disease in adults and children. There were an estimated 10 million new cases of tuberculosis (TB) and around 1.6 million deaths attributable to TB in 2017. The World Health Organisation (WHO) has set ambitious targets for reducing TB incidence and mortality in the next 10–20 years, with an aim to eliminating TB by 2035. Elimination of TB, however, cannot be considered without discussion of TB infection, its diagnosis and treatment. 1.7 billion people are estimated to have TB infection and are at risk of developing TB in their lifetime.

Is treatment of TB infetion necessary?

It is extremely important to treat TB infection, particularly in those at high risk of progression to active TB disease, as it can avert the suffering and catastrophic economic costs associated with developing active TB.

What is 3HP?

3HP is a short-course Tuberculosis Preventive Treatment (TPT) regimen which is endorsed by the WHO. It combines high dose isoniazid and high dose rifapentine weekly for three months. 3HP is associated with significantly **lower hepatotoxicity and higher rates of treatment completion** than isoniazid preventive treatment.

Is 3HP superior to IPT?

There is no evidence that 3HP is more effective than IPT, but studies have shown 3HP to be **equivalent** to isoniazid in preventing progression to active disease. There is evidence, however, to show that 3HP is **less toxic** to the liver than isoniazid-based regimens. However, the risk of drug reactions is increased among those taking 3HP, but these are less likely to lead to discontinuation.

There is strong evidence to show that people taking shorter regimens such as 3HP are much more likely to complete their course of treatment than people taking isoniazid.

Is 3HP superior to other TB prevention therapy interventions other than isoniazid?

In the few studies where 3HP has been compared with other shortened regimens such as a four month regimen of rifampicin with or without isoniazid, there has been no difference in clinical effectiveness.

Is 3HP cost-effective?

Most studies have found 3HP to be expensive in the short-term, primarily because of the current cost of rifapentine, but the shorter duration of treatment and higher rates of treatment completion make it more cost-effective in the long-term.

3HP is associated with significantly lower hepatotoxicity and higher rates of treatment completion

Johns Hopkins University · KNCV Tuberculosis Foundation To eliminate TB · Clinton Health Access Initiative · TAG Treatment Action Group · Stop TB Partnership Global Drug Facility · World Health Organization

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