

Public Health in the News

New TB drug offers glimmer of hope in S.Africa

Drug-resistant tuberculosis is a major health challenge across much of Africa, but a new medicine being pioneered in South Africa could be a breakthrough after decades of frustration. Bedaquiline is being made available to 3,000 people suffering side effects of the usual drug-resistant tuberculosis treatment, or who have developed complete drug resistance.

The early signs are encouraging, doctors say, though bedaquiline hasn't yet been tested in large-scale clinical trials. The new drug -- one of the first new tuberculosis antibiotics released in 40 years -- was first given to 217 South African patients as part of an early access programme. Jennifer Hughes, a 36-year-old British doctor in Cape Town, said she has seen the benefits. Already, word has spread at Hughes's clinic in Khayelitsha, a poor township, and people are coming from all over the city requesting the new drug, developed by US-based pharmaceutical company Janssen...

Source: *Health24*, 10 April 2015

Context

According to the World Health Organization (WHO), the emergence of drug resistance is a major threat to global tuberculosis (TB) care and control. WHO estimates that up to half a million new cases of multidrug-resistant tuberculosis (MDR-TB) cases (i.e. resistant to, at least, rifampicin and isoniazid) occur each year globally. Current treatment regimens for MDR-TB are far from satisfactory: the overall duration is 20 months or more, requiring daily administration of drugs that are more toxic and less effective than those used to treat drug-susceptible TB, and have a high cost. Among MDR-TB patients started on treatment globally in 2009, only 48% were treated successfully, largely as a result of a high frequency of patient deaths (15%) and loss to follow-up (28%), which is commonly associated with adverse drug reactions, among other factors.

In a subset of 200 extensively drug-resistant tuberculosis (XDR-TB) patients in 14 countries, treatment success reached only 33% overall and 26% of the patients died. New drugs that would help build a better, safer, less toxic, shorter and cheaper regimen are therefore urgently needed to reduce patient suffering and mortality.

For the first time in over 40 years, a new TB drug with a novel mechanism of action - bedaquiline- is available, and was granted accelerated approval by the United States Food and Drug Administration in December 2012. There is considerable interest in the potential of this drug to treat MDR-TB. However, information about this new drug remains limited. It has only been through two Phase IIb trials for safety and efficacy. The World Health Organization (WHO) has therefore issued "interim policy guidance".

According to the US Centers for Disease Control, the most important way to prevent the spread of drug-resistant TB is to take all TB drugs exactly as prescribed by the health care provider. No doses should be missed and treatment should not be stopped early. People receiving treatment for TB disease should tell their health care provider if they are having trouble taking the drugs. Health care providers can help prevent drug-resistant TB by quickly diagnosing cases, following recommended treatment guidelines, monitoring patients' response to treatment, and making sure therapy is completed.

Sources: *WHO* and *CDC*, 2015



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