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Media release

Challenges in the fight against tuberculosis in Europe

An international study led by the Inselspital, University Hospital Bern, shows that exorbitantly priced drugs, lack of essential medicines and limited diagnostics negatively impact the treatment of multidrug-resistant tuberculosis in a number of European countries.

Tuberculosis (TB) is the most common fatal bacterial infectious disease worldwide. The World Health Organization's (WHO) EndTB Strategy aims to eradicate TB by 2035 – at least that was the plan. The reality, however, is different. Over the past 10 years, TB incidence (the number of cases per 100,000 people in the population) worldwide has barely changed and deaths from tuberculosis is now on the rise for the first time in decades. Of particular concern is the increase in antibiotic-resistant cases of TB.

In some countries of Eastern Europe, the proportion of patients with multidrug-resistant tuberculosis – where the first-line medicines are no longer effective - is particularly high. In countries bordering the European Union, i.e. the Russian Federation, Belarus, Republic of Moldova and Ukraine, more than 25 percent of patients are affected by multidrug-resistant tuberculosis, while in European Union countries this figure is less than 3 percent of all tuberculosis patients. Overall, more than 85% of all tuberculosis patients can be cured but, for patients with multidrug-resistant tuberculosis, the prognosis is much worse. At the moment, less than 60% of those affected have a chance of being cured.

The Tuberculosis Network European Trials group (TBnet), a Europe-wide network of tuberculosis researchers, has analysed the current availability of drugs to treat tuberculosis patients, the cost of therapies, and the availability of diagnostics for antibiotic resistance testing in the WHO European Region. The results, published in the journal "Clinical Microbiology and Infection", are alarming.

As first author PD Dr. Gunar Günther from the Inselspital, University Hospital Bern, Switzerland, explains: "The new antituberculosis drugs - Bedaquiline and Delamanid - are only available in 36 (84%) and 24 (56%) of the 43 countries included in the survey of the WHO European Region, respectively. That's despite the fact these drugs are on the WHO list of essential medicines. Rifapentine, a drug that can reduce standard tuberculosis therapy from 6 months to 4 months and can reduce preventive therapy for tuberculosis from 3 months to 1 month, is available in only 6 of the 43 countries (14%). Combination therapy for patients with extensively drug-resistant tuberculosis (so-called XDR-TB) is available in only 17 of the 43 (40%) countries.

At the same time, the cost of the medicines is exorbitantly high in some countries in Europe where the treatment of a patient can amount to several hundred thousand Euros.”

Also of concern is the finding that while new drugs are available in some countries, diagnostics for antibiotic resistance testing are frequently lacking there. "Without antibiotic resistance testing, patients simply receive standard therapies without knowing how many of the drugs in the cocktail are effective," says Professor Christoph Lange of the Borstel Research Center and German Center for Infection Research, one of the coordinators of the TBnet project.

“This inevitably leads to the selection and spreading of resistant strains of tuberculosis bacteria. Optimal treatment for tuberculosis must be accessible and affordable for all patients - regardless of the extent of antibiotic resistance of the bacteria. There is an urgent need to improve diagnostic capacity to provide tailor-made treatments against tuberculosis for each patient with the best medicines.”

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