

S050

2-hour Symposium

Current topics in tuberculosis

Update on new drugs and diagnostics

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The United Nations Millennium Development Goal of reversing global spread of tuberculosis by 2015 has been offset by the re-emergence of drug-resistant tuberculosis, in particular multidrug-resistant and extensively drug-resistant tuberculosis. Among the different regions of the world the highest number of patients that have been identified with multidrug-resistant and extensively drug-resistant tuberculosis live in the European Region of the World Health Organization. Major advances have been achieved in the diagnosis of *M. tuberculosis* drug resistance with the roll-out of automated nucleic acid amplification diagnostics to high burden areas of drug-resistant tuberculosis. Identification of mutations that result in antimicrobial drug-resistance is now becoming possible by sequencing the whole genome of *M. tuberculosis* at a reasonable cost. After decades of quiescence in the development of antituberculosis medications, bedaquiline and delamanid have been conditionally approved for the treatment of drug-resistant tuberculosis, while several novel compounds (AZD5847, PA-824, SQ109, and sutezolid) have been evaluated in phase II clinical trials. Before novel drugs may find their place in the battle against drug-resistant tuberculosis, linezolid has been compassionately used with success in the treatment of fluoroquinolone-resistant multidrug-resistant tuberculosis. This presentation will provide an overview of novel diagnostics for the rapid identification of tuberculosis, especially drug-resistant tuberculosis and novel drugs that have been evaluated in clinical trials as well as the potential for repurposing existing drugs for the treatment against tuberculosis.