



## A three-year evaluation of universal surveillance of tuberculosis drug resistance (TB-DR) in Chile

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### Abstract:

In 2017 WHO reported 160.684 cases of multidrug-resistant and rifampicin-resistant TB (MDR/RR-TB). In Chile, an initial resistance study was carried out in 2012 on a part of the notified pulmonary-TB cases, the study showed a global resistance to 1.3% of MDR/RR-TB. However, since the total number of cases was not assessed, the data could not be representative. In 2014, as recommended by the WHO, Chile implemented universal susceptibility surveillance for rifampicin and isoniazid for all bacteriologically confirmed pulmonary-TB cases. The aim of this study was obtained the resistance profile of the country with the application of the new standard between 2015-2017. Laboratories of the National Tuberculosis Program of Chile performed sputum smears and cultures to symptomatic respiratory patients. All positive cultures were sent to the National Reference Laboratory, where drug susceptibility test (DST) for rifampicin and isoniazid was carried out using Line Probe Assays. The DST coverage was stable at 79% between 2015-2016 for new and previously-treated patients, however, 82% coverage was achieved in 2017. Regarding isoniazid-resistance, the frequency among total cases decreased from 4.1% (2015) to reach 2.4% (2017). For MDR/RR-TB cases, the frequency showed an increase in the last years to reach in 2017 2.1% and 6.7% for new and previously-treated cases respectively. The expected frequency of MDR/RR-TB among new cases was 2% and 5.9% previously-treated cases. Both estimates are reached in Chile, which reinforces the importance of universal surveillance. Further studies should be performed in order to appraise the effects of this public policy on MDR/RR-TB treatment.



### Biography:

Karla Kohan-Ivani has completed his PhD at the age of 29 years from University of Chile. Since 2015 she works in the National Reference Laboratory of Tuberculosis of Chile. In 2016 she was in charge of the molecular epidemiology area of tuberculosis and since the present year she has been focused on the antibiotic resistance phenomenon of this disease.

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