

## FIRST CASE OF EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS IN GREECE

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**Purpose:** To describe the first extensively drug-resistant tuberculosis (XDR-TB) case in Greece. According to the World Health Organization, XDR-TB is TB showing resistance to at least isoniazid (INH) and rifampicin (RMP), in addition to any fluoroquinolone, and to at least one of the three following injectable drugs used in anti-TB treatment: capreomycin, kanamycin and amikacin

**Case Presentation:** *Mycobacterium tuberculosis* was isolated on 9-6-2004 from the sputum of a Hepatitis-B Virus-positive 44-year-old Romanian illegal male immigrant with multiple submissions to Romanian and Greek hospitals due to active tuberculosis, among others. Drug susceptibilities of the isolate were determined with Lowenstein-Jensen slants incorporating the relevant antibiotics (bioMerieux, France) using the conventional proportions method. The strain was resistant to isoniazid (1 µg/ml), rifampicin (40 µg/ml), streptomycin (10 µg/ml) and pyrazinamide (200 µg/ml), and it was susceptible to ethambutol (3µg/ml), and para-aminosalicylic acid (1 µg/ml). The strain was further tested with an extended panel of anti-tuberculosis drugs (Liofilchem, Italy) exhibiting susceptibility to rifabutine (10 µg/ml), ofloxacin (5 µg/ml), cycloserine (30 µg/ml), kanamycin (10 µg/ml) and amikacin (5 µg/ml), and resistance to ethionamide (10 µg/m), nicotinamide (10 µg/ml), capreomycin (10 µg/ml), pyruvate 0.2%, pefloxacin (2 µg/ml) and rifapentin (9 µg/ml). Although it is generally accepted that there is cross-resistance/susceptibility amongst fluoroquinolones, it has been shown in the past that ofloxacin is a more active molecule than pefloxacin against *M. tuberculosis*. Based on the above resistance profile, the strain was considered as an XDR-TB strain.

**Conclusion/Discussion:** XDR-TB is a major threat to public health and TB control worldwide. The patient consistently refused to fully cooperate with the medical and other public authorities and he has become a "moving threat" for the community. Such incidents should be taken into serious consideration by the authorities, and appropriate regulations, even at the level of legislation, should be devised.