TB OR NOT TB? - *THAT IS THE ERROR!*

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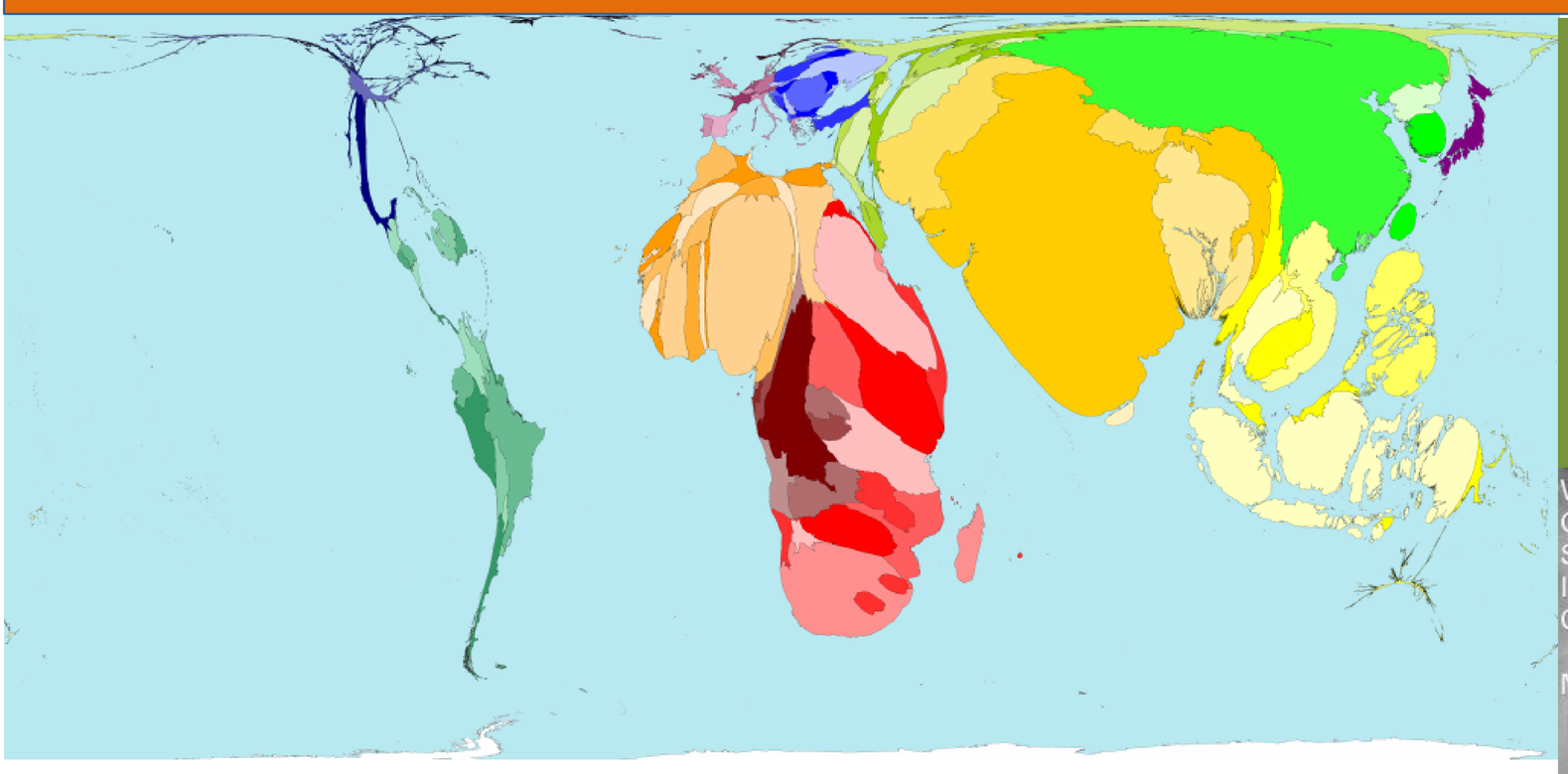
INTRODUCTION:

TB has been one of the most significant global pathogens in terms of human morbidity and mortality: **8.8 million** incident cases and **1.45 million** deaths worldwide each year.



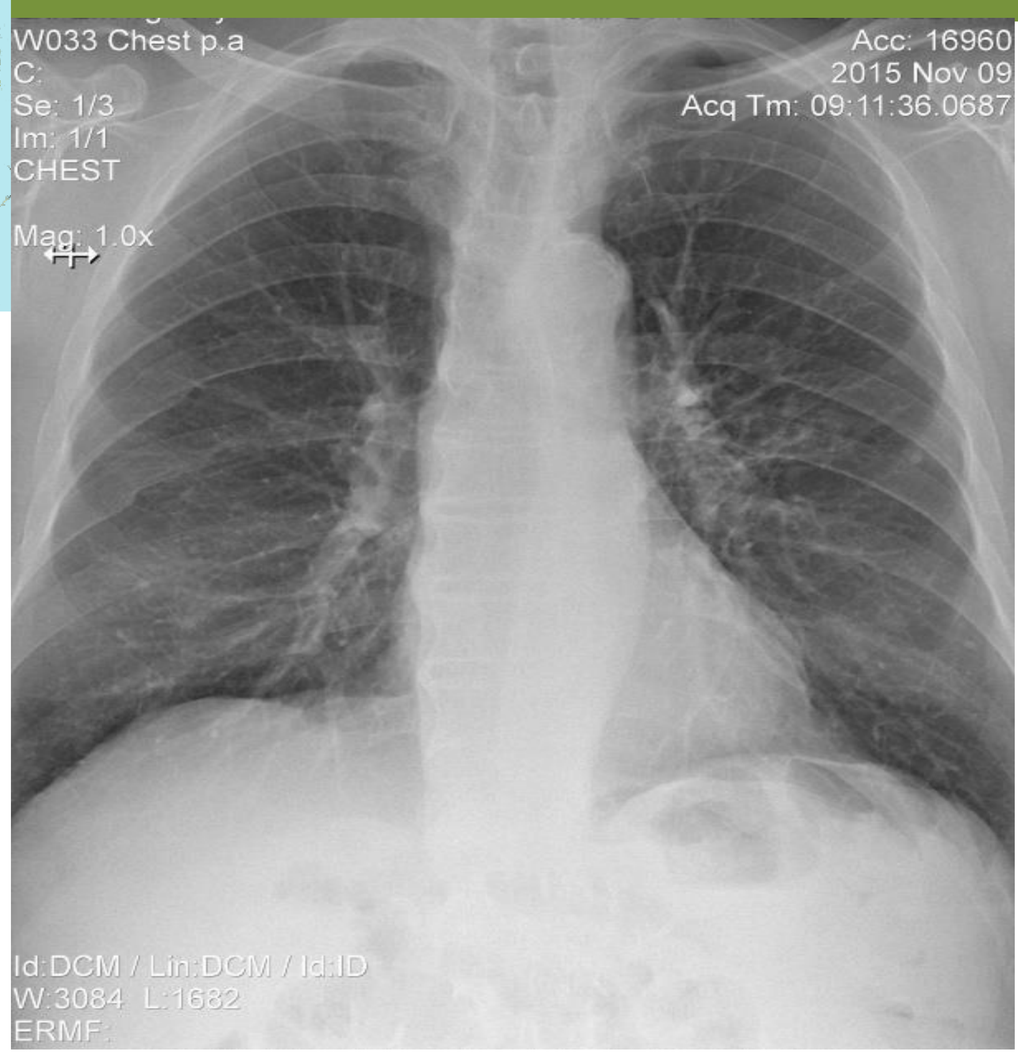
LEARNING OBJECTIVES:

In order to reduce the prevalence of diagnostic errors, healthcare professionals need to improve the collaboration involving patients and their families, as well as prolonging the anamnesis phase.

CASE INFORMATION

An 87-years-old man, who arrived at the hospital with an insidious onset of dry cough, followed by intermittent changes of this symptom. He revealed that this symptom had caused him multiple nights of insomnia in the 4 months prior to his presentation to the clinic.

At the time of **the clinical exam**, the primary doctor documented only a stage 2 dyspnea (mMRC scale) and subjected the patient to a chest X-ray and a spirometry test which turned out to be normal. Following the clinical context and the normal results of the investigations, the patient was discharged with the diagnosis of chronic cough. For this, he was prescribed an herbal-based treatment for a period of 7 days and he was advised to take a chest computed tomography.



Three days after the first episode, the patient returned, complaining about the fact that his cough had worsened, becoming mucopurulent. The clinical exam revealed coarse crackles of the lungs, a peripheral oxygen saturation of 98% and a heart rate of 71 bpm. Since the chest X-ray and the spirometry were recently taken, the patient was examined by the ENT doctor, who did not find any modifications of his superior airways.

The blood work panel showed an important systemic inflammation (ESR=70 mm/h), but the leucocyte number and formula were within normal parameters. This led to the diagnosis of acute bronchitis, for which he was prescribed a seven-day treatment with Cefixime.

Being deeply involved in the diagnosis process, the patient returned again after four months with the same mucopurulent cough, dysphonia and a nasopharyngeal seromucos secretion. The clinical exam did not show any modification of his health state and once again the chest X-ray and the spirometry test were absolutely normal.

A sputum exam was requested, for which the patient provided samples of poor quality. In the current context of events and fulfilling the patient's request, a bronchoscopy exam was conducted, which produced yellowish white mucopurulent secretions, positive in optical microscopy for *M. tuberculosis* that finally led to the correct diagnosis of bronchial tuberculosis.

DISCUSSION:

While TB is rare to encounter in the Western States, which makes it even harder to detect, tuberculosis is a common disease in Romania. However, the atypical presentation of the disease in this case has led to a misdiagnosis. The increasing number of MDR-TB cases is also due to the diagnostic errors.

CONCLUSIONS:

- ✓ **Patient-doctor collaboration and perseverance are key factors in reducing diagnostic errors.**
- ✓ **Patient involvement can make a difference in the diagnosis process.**

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The authors declare that there is no conflict of interest