



BMJ Best Practice and BMJ Learning are helping physicians in Azerbaijan to improve their knowledge and skills.

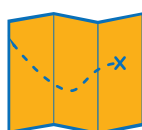


## About Me

Dr Irada Akhundova is a pulmonologist and Deputy Director of Scientific Research at the Institute of Lung Diseases in Azerbaijan. She has worked there since 1988, focusing mainly on tuberculosis. She is also part of a working group set up to implement the BMJ Clinical Decision Support Training Initiative in Azerbaijan.

My major responsibility is coordinating the development of national clinical guidelines. Thanks to the support of BMJ Best Practice and BMJ Learning, our team has instigated a number of new clinical protocols including:

- **Treatment of pulmonary and extra-pulmonary tuberculosis (TB).**
- **TB in children.**
- **Surgical approaches in the treatment of pulmonary TB.**
- **Prevention of TB.**
- **Monitoring and treatment of side effects of anti-TB drugs.**
- **Clinical protocols on Bronchial asthma, COPD, Pneumonia, Bronchiolitis and Sarcoidosis.**



### The local context

Our Institute is the clinical base for graduate university students doing residency programmes in the field of TB and microbiology. All our resident students now make frequent use of BMJ Best Practice and BMJ Learning. It enables them to study evidence-based content and provides access to some of the highest quality information available.



### Ongoing Professional Development

In my opinion, the BMJ Clinical Decision Support Training Initiative provides an opportunity for physicians from Azerbaijan to expand their knowledge and improve their clinical skills.

Both BMJ Best Practice and BMJ Learning are accessed online which enables distance learning and helps specialists, both in the city and in regional locations, to improve their knowledge.

In addition, modules and topics can be accessed in the local language. This removes a barrier for those who cannot read English. It also makes it possible for more physicians throughout Azerbaijan to obtain the latest evidence-based guidelines and clinical protocols, which will help with the diagnosis, treatment and prevention of infectious diseases in their communities.

The BMJ Initiative is also providing fantastic support for resident students at the Azerbaijan State Medical University



### Patient consultation - Overview

Within my own practice, I would like to share two recent cases where BMJ Best Practice and BMJ Learning supported me in my clinical decisions and in the treatment process.

# Improving differential diagnosis



## Patient A

I recently saw a 28-year old man who lived in Thailand and worked in tourism. While in Thailand, he developed a cough that lasted three weeks. Other symptoms included chest pain, unintentional weight loss, fatigue, fever, night sweats and loss of appetite. He also had a previous history of Hepatitis B.

X-ray examination showed the presence of focal changes in the upper lobes of both lungs and enlarged lymph nodes in the bronchopulmonary and paratracheal groups. Sputum analysis was also performed: microscopy, GeneXpert-Mycobacterium tuberculosis/Rifampicin, HAIN test and sputum culture on liquid Mycobacteria Growth Indicator Tube and on solid Lowenstein-Jensen media.

Mycobacterium tuberculosis was not detected. However, the patient received an initial diagnosis of focal pulmonary tuberculosis and started anti-tuberculosis treatment with the following regimen: intensive phase HRZES-2 months (Isoniazid, Rifampicin, Pyrazinamide, Ethambutol, Streptomycin), continuation phase HR-4 months (isoniazid, rifampicin).

Unfortunately, the patient's condition did not improve. In addition, dense, painless, rounded brown formations appeared on his skin. A repeated X-ray examination did not show an improvement in the lung lesions.

He came to our Institute and, after considering sarcoidosis of the lungs and skin, I turned to the BMJ Best Practice module on 'Sarcoidosis'. The information of this module helped me choose the correct investigations for the patient: CT of the thorax, bronchoscopy with transbronchial lymph node biopsy and biopsy of skin lesions followed by a cytological examination of biopsy specimens.

Granulation tissue, characteristic of sarcoidosis, was found. The patient was diagnosed with Sarcoidosis of the lung and skin and treated with glucocorticoids. His condition has now started to improve.



## Patient B

An 18-year-old female student went to see her local family doctor after experiencing fevers, a cough with sputum, weakness and malaise. She was referred for an X-ray examination and a general blood test. Minor inflammatory changes in the lower lobe of the left lung were detected on X-ray as well as minor leukocytosis and an increased erythrocyte sedimentation rate (ESR). The doctor prescribed broad-spectrum antibiotics for 10 days.

Following the treatment her temperature decreased but the coughing continued. After a month, her condition worsened, the cough increased and her temperature rose again.

She visited a different general practitioner and, again, a course of antibiotic therapy was prescribed but her condition did not improve. She experienced a deterioration in the radiographic pattern, cough with phlegm, low-grade temperature and a lack of appetite.

When she was referred to the Research Institute, I suspected pulmonary tuberculosis, although she denied contact with an infected patient. Using the investigations algorithm from the BMJ Best Practice 'Tuberculosis' topic, I tested her sputum for Mycobacterium Tuberculosis. Sputum Microscopy was negative.

But a further test: GeneXpert – Mycobacterium tuberculosis/Rifampicin – revealed the presence of multidrug-resistance to Rifampicin. The case scenario was presented to the medical committee and, in accordance with the national clinical protocol, treatment with second line anti-tuberculosis drugs for MDR TB was prescribed. The patient's health has now improved and treatment is ongoing.

**If you would like to know more about the Clinical Decision Support Training Initiative or would like to share your feedback with BMJ, please email:**

**Michele Cheng**  
mcheng@bmj.com

## Improving local conditions

These two cases highlight the need for doctors in Azerbaijan to have access to timely medical guidance supported by the latest evidence base, to improve the diagnosis and differential diagnosis of infectious diseases.

## Support for ongoing medical education

BMJ Best Practice and BMJ Learning give doctors the latest information in very convenient ways – at work, within the patient consultation and after-hours at home. They support Continuing Medical Education (CME), which is being implemented by the Ministry of Health, and will be required for ongoing certification of all medical professionals. The medical professionals can use BMJ best practice and BMJ learning as a valuable tool for gaining the required credit during the 5 years' certification period within the framework of ongoing medical education.

The development of this initiative is made possible due to the strong partnership between the Ministry of Health of Azerbaijan and BMJ.