

## Development Cooperation: Which Role in Combating Tuberculosis?

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### Dear Editor

Despite the years go by, Tuberculosis (TB) remains one of the top ten causes of death worldwide [1]. It has been estimated that in 2015 10.4 million people were diagnosed with TB worldwide, causing 1.8 million deaths. The incidence and mortality rates are significantly higher in low and middle income countries; in particular, over 90% global TB cases and deaths occur in developing countries. [2]. For these reasons, the entire healthcare communities of these countries are devoted to fighting TB, and the cooperation among various healthcare organizations play a key role in the process. The post-2015 global tuberculosis target aims to reduce TB incidence by 90% by 2035 [3]. The WHO urges the developing countries to provide integrated patient-centered care and prevention, bold policies, and supportive systems, research and innovation [3]. We believe these approaches are an effective means to achieve the goals in fighting TB, and healthcare cooperation is essential in driving these changes. But how can these goals be achieved? A rapid social and healthcare acceleration will surely bring forth challenges amongst the poor and socially excluded groups. Thus, many aspects in life, healthcare, economy and diseases are closely interwoven in fighting and eradicating TB [4].

A pharmacological approach alone is unlikely to be sufficient to eradicate TB and synergistic actions are needed. Expanding care, strengthening prevention, and intensifying research will be central of health programs.

Accurate information dissemination and healthcare education play a central role in disease intervention. In low-income countries, health care has to deal with many socio-cultural aspects as myths, superstitions and traditional healers that turn away patients from conventional medicine. Moreover, people are often reluctant to be tested for TB in fear of marginalization.

From a clinical point of view, in low-income countries, there is the highest burden of disease and the lowest health care resource both in terms of health workers and infrastructures. For an effective and appropriate approach in order to eradicate or, at least contain TB, it is mandatory to improve and increase efforts in terms of early and reliable diagnosis, appropriate management and effective follow-up. In our opinion, these goals can be achieved by joint efforts through cooperation of all healthcare providers in order to increase the number of competent healthcare workers and to standardize the medical

procedures. In particular, facilitated diagnosis of TB would be pivotal to fight TB, especially in low income countries where incidence is high and radiological techniques are scarce. Chest ultrasonography (CUS) is becoming an attractive non-invasive medical imaging modality for resource-limited settings, [5] where radiological equipment and expertise are scarce. Chest ultrasound may become a tool for TB diagnosing in low settings and research has a crucial role in developing new diagnostic methods.

In fact, although we face with little research capacity in low-income settings, operational research could play a crucial role in TB fighting. Through a scientific approach we can achieve many results: 1) to assess TB burden, including risk factors, at risk hotspot and associated diseases; 2) to reduce the gap between demand and healthcare delivery, identifying the best strategy and evaluating the effectiveness of intervention; 3) to increase local staff capacity building and, thus, convey appropriate competences and skills.

In conclusion, we think that only a multitasking, dynamic and into the context, development cooperation could have high social, clinical and scientific impacts on prevailing in the fight against TB. The challenge for aid workers will be to immerse themselves in the context, gain the trust of healthcare workers and local authorities and pass on their knowledge adapting to the environment without losing quality. Only in this way could we ensure a sustainable, lasting and high impact intervention for the people, the centre of our works, actions and dreams.

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