

Systematic screening for TB at clinical settings: Don't miss the TB patients at hand

Date: Tuesday, 5 October 2021

Time: 13:00 to 16:00 CEST

Registration link for course:

<https://us06web.zoom.us/meeting/register/tZEtc-mhqz0qH9UbmZvBE3zXBjf7gWXXP58Z>

Objectives of the course: WHO has recently published consolidated guidelines on systematic TB screening for high-risk populations to increase TB case detection by active case finding (ACF). However, passive case finding at clinical settings is the greatest opportunity for TB diagnosis because patients with some sort of respiratory symptom and other outpatients like with diabetes are at high risk of TB. In fact, 54% of bacteriologically confirmed TB cases identified by prevalence survey in Cambodia were not diagnosed as TB before the survey although they already had visited a medical facility due to some sort of respiratory symptom, probably because of lack of typical TB symptoms (subclinical TB), a low bacterial load in sputum, or a low sensitivity of a diagnostic tool.

This workshop aims to promote more active use of chest radiography (CXR) with a high sensitivity for systematic TB screening to accelerate TB detection at clinical settings.

Expected outcomes:

To put systematic TB screening into practice, the participants will discuss by using a worksheet in a group:

- 1) what subjects to be targeted for CXR, 2) how, where and who to approach such subjects, 3) who covers CXR cost, 4) what classification of CXR results to be used, 5) what next steps with or without bacteriological examination to be taken.
- At the end of the workshop, the participants can understand what they should do to introduce and implement systematic screening for TB among people attending medical facility.

- Prior to the discussion, each of five speakers will make a presentation on experience in Japan, Cambodia, and Indonesia where they actively used CXR for TB case detection, roles of CXR for TB detection and subclinical TB, and experience of ultraportable CXR with AI-CAD, respectively.

Session sponsor: Japan Anti-Tuberculosis Association (JATA)

Chairs: Dr. Ikushi Onozaki, JATA; Bintari Dwihardiani, Center for Tropical Medicine, Faculty of Medicine, Public Health and Nursing, Gadjah Mada University

Coordinators: Kosuke Okada (JATA)

Target audience: policy makers, NTP managers, Civil Society Organizations

Speakers:

Seiya Kato, Research Institute of Tuberculosis (RIT)/Japan Anti-Tuberculosis Association (JATA): Roles of CXR mass-screening in TB control in Japan

National TB prevalence survey 1953 in Japan revealing highly prevalent TB led to nationwide implementation of TB mass-screening by CXR. Representatives of community, workplace, and school took accountability for its implementation based on TB Prevention Law. Consequently, TB cases detected by mass-screening accounted for 20-30% of all notified cases at that time. Women's TB Society encouraged the community to participate in mass-screening, and patients' support by public subsidies and health center ensured the completion of TB treatment. I would like to discuss the roles of mass-screening in TB control in Japan where a 10% decline in incidence was observed.

Tieng Sivanna Deputy director of National Center for TB and Leprosy Control (CENAT): Downward trend in TB notification after nationwide DOTS decentralization in Cambodia

Notification of TB in Cambodia showed an increase after the DOTS expansion to primary health centers, and then a steady decline which cannot be seen in other high burden countries with TB. It is probably because of improved accessibility to public health services for smear microscopy by decentralized DOTS, active use of CXR for diagnosing smear-negative TB at hospital and active case finding in the community by mobile CXR teams. We will discuss why such downward trend in TB notification has been observed in Cambodia by presenting the data in province or country.

Bintari Dwiwardiani, Zero TB Yogyakarta Project, Center for Tropical Medicine, Faculty of Medicine, Public Health, and Nursing, Gadjah Mada University, Yogyakarta, Indonesia: Country experience in Indonesia: opportunities and challenges in the use of CXR in ACF

Zero TB Yogyakarta project conducted a pilot ACF in two subdistricts in Yogyakarta using CXR van. The project included TB detection activities at the primary health facilities (Puskesmas). Presumptive TB cases detected in the ACF were tested for Xpert MTB/Rif at a designated district hospital by good communication to the Puskesmas, which decided the diagnosis and case management. As CXR is usually not available at the primary health facility, the capacity of the Puskesmas doctors to diagnose TB with CXR should be developed. The presentation will describe the collaborative works between the project team and the primary health facilities.

Beatrice Frascella, Public Health Resident, Università Vita-Salute San Raffaele, Milano: Roles of CXR for detection of TB and subclinical TB

The updated WHO guidelines include not only the advantages in the individuals earlier diagnosed with TB by CXR, but also the expectation of decreasing TB prevalence and incidence. A significant proportion of the global TB burden is subclinical and not detectable by current symptom-based screening efforts. We extracted data from TB prevalence surveys conducted since 1990 and found that CXR detected 89% of bacteriologically-confirmed TB disease, highlighting the potential of changing current TB case-finding policies. We will discuss the role of CXR in TB detection, including the introduction of the updated guidelines and the natural TB history including subclinical TB.

Kinz Eman, Director, Programmes from DOPASI Foundation, Islamabad, Pakistan: Performance of ultraportable CXR and CAD from the experience in the field

Ultraportable CXR and AI-CAD are now commercially available, and its contribution to promoting efficiency in TB diagnosis in the field is expected especially in high burden countries with TB. The speaker will share her team's experience of using the ultra- lightweight portable chest X-ray system with CAD for TB screening in resource limited settings. As a pioneer with this format of systematic screening for TB, they conducted various projects, which were showcased by demonstrating how the system can operate under different circumstances such as mining communities targeting 14,000 coal miners in extremely hard-to-reach areas.

Chairs and Speaker biographies

Chair: Dr. Ikushi Onozaki, Executive advisor, Research Institute of Tuberculosis/Japan Anti-Tuberculosis Association (RIT/JATA), Tokyo, Japan

Dr. Ikushi Onozaki just moved back to Japan Anti-TB Association and its Research Institute of TB, completing his service as a staff member of WHO Global TB Programme (GTB) since 2007. He is a public health expert as well as a trained physician on respiratory medicine and infectious disease. He is a pioneer to implement TB prevalence survey and active case detection in TB high burden and resource limited settings. He was a secretariat of WHO Task Force on Retooling to introduce, adapt and disseminate new and re-purposed tools and technologies and Prevalence survey group of TB impact measurement.

Chair: Dr. Bintari Dwihardiani, Zero TB Yogyakarta Project, Center for Tropical Medicine, Faculty of Medicine, Public Health, and Nursing, Gadjah Mada University, Yogyakarta, Indonesia,

Dr. Bintari Dwihardiani is a public health professional who have been working in TB control in Indonesia and other developing countries in Asia and Africa for more than 10 years. She is currently a manager of Zero TB Yogyakarta project for ACF, which aims to eliminate TB in Yogyakarta, Indonesia. She has provided technical assistance to the TB Prevalence Surveys in Indonesia, Nepal, Myanmar, DPR Korea, the Philippines, and Mongolia.



Dr. Seiya Kato

Dr. Kato, Director of the Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association (RIT/JATA) has played key roles nationally and internationally in TB control as an executive board & chairperson of prevention committee of the Japanese Society for Tuberculosis, a member of the Strategic and Technical Advisory Group (STAG) on TB at WHO HQ, a member of STAG on TB at WHO WPRO, and Chairperson of the TB Committee, National

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Health Science Council, Ministry of Health, Labour and Welfare, Japan. He published more than 200 research articles on TB control and public health.



Dr. Tieng Sivanna

Dr. Sivanna, Deputy Director of National Center for TB and Leprosy Control (CENAT), has been working for national TB control programme (NTP) in Cambodia for nearly 30 years including 5 years as Project Manager for Global Fund grant. During this period, he led various repeated nationwide surveys such as HIV sero-prevalence surveys among TB patients, TB drug-resistance surveys and TB prevalence surveys in Cambodia, which provided scientific data for NTP to implement evidence-based policy and strategy, and consequently contributed to rapid decline in TB incidence in these 20 years.



Dr. Bintari Dwihardiani

Dr. Bintari Dwihardiani is a public health professional who have been working in TB control in Indonesia and other developing countries in Asia and Africa for more than 10 years. She is currently a manager of Zero TB Yogyakarta project for ACF, which aims to eliminate TB in Yogyakarta, Indonesia. The project started implementing ACF with CXR screening in two subdistricts since the beginning of 2020 and it continued to operate during COVID-19 pandemic with adaptation in its approach. Currently the project is being scaled up to cover two districts in Yogyakarta.



Dr. Beatrice Frascella

Dr. Beatrice Frascella is a medical doctor and public health resident at Università Vita-Salute San Raffaele in Milan, Italy. With a strong interest in Global Health, she carried on TB-based research collaborating with the TB Modeling Group at the London School Of Hygiene and Tropical Medicine, and is a student at Harvard T. H. Chan School of Public Health where she attends the Master of Public Health in Global Health.

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Ms. Kinz ul Eman

Ms. Kinz ul Eman is a chartered accountant and project management professional who has been in public health programmatic management and research with a focus on Tuberculosis Control over the last 10 years. She is currently leading DOPASI Foundation's Programmatic interventions, while acting as the secretarial lead for Stop TB Pakistan and the recently established End TB Parliamentary Caucus in Pakistan. DOPASI Foundation has over 25 years of experience in implementing development sector projects, and currently it is initiating work on Wave 6 Scale-up with highly promising achievements, despite the lockdown in force due to the COVID-19 pandemic.