



END TREATMENT ASSESSMENT AND PULMONARY REHABILITATION

Background

Over 2 million patients are initiated on anti-TB treatment annually in India. A comprehensive end of treatment assessment is essential to evaluate patient responsiveness to TB drugs and to further coordinate care for patients with treatment failure or drug resistance.

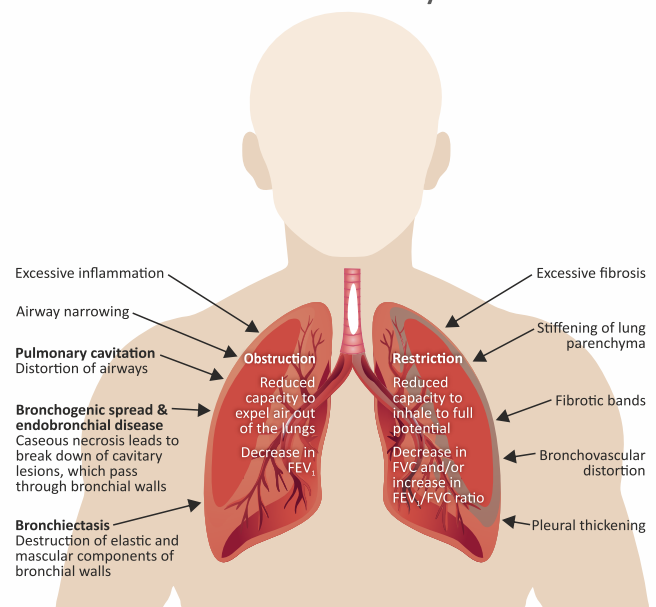
Even with successful treatment completion, patients remain at risk of developing a recurrent TB episode. Over half of TB survivors also suffer from post-TB sequelae with various secondary complications, despite microbiological cure. Pulmonary impairment can range from residual abnormalities to development of chronic lung disease.

End of treatment assessments are therefore critical to better classify these risk factors to ensure both short-term and long-term recovery, so patients can achieve the same quality of life pre-disease.

As per the revised Technical and Operational Guideline on Tuberculosis (2016), patients should be evaluated at the end of treatment with culture follow-up in order to assign a more accurate treatment outcome.

However, these guidelines are neither routinely implemented in practice, nor are they expanded to assess risk of recurrence and post-TB sequelae.

Features Associated with Pulmonary Impairment in Patients with a History of TB¹



INTERVENTION GOAL

The intervention aims to conduct a comprehensive End Treatment evaluation of drug-sensitive TB patients, consisting of bacteriological, radiological, and pulmonary rehabilitation assessments.

Objectives

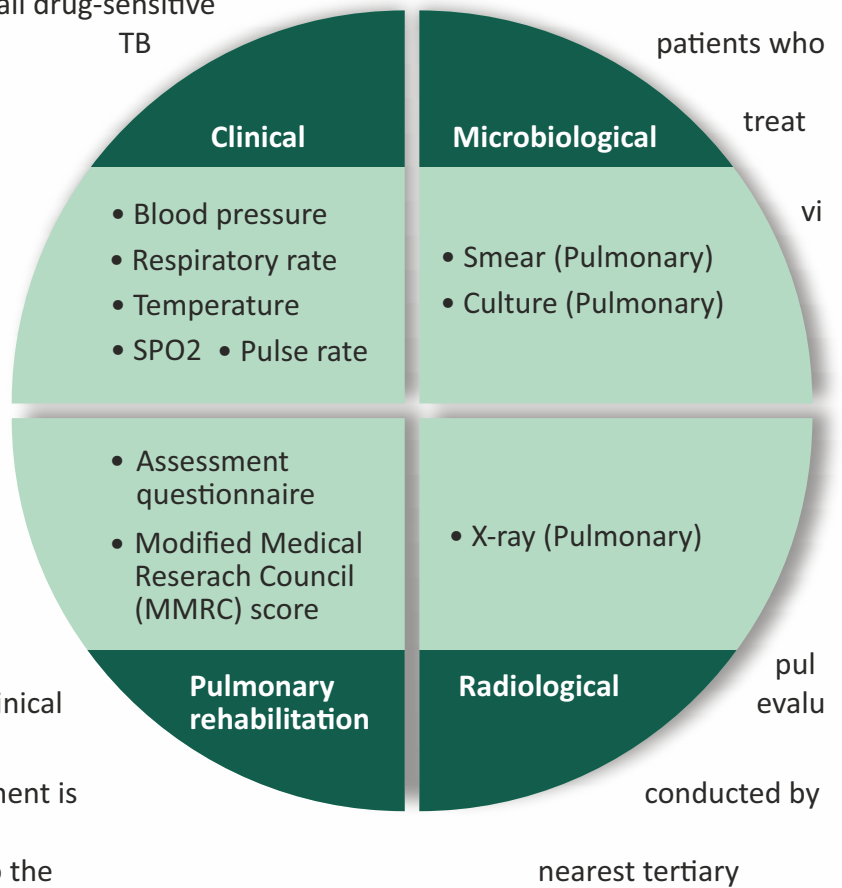
Evaluate smear and culture conversion by end of the treatment under program conditions

Assess the operational feasibility of providing comprehensive evaluation services (clinical, bacteriological, and radiological) for DS-TB patients to identify non-responders

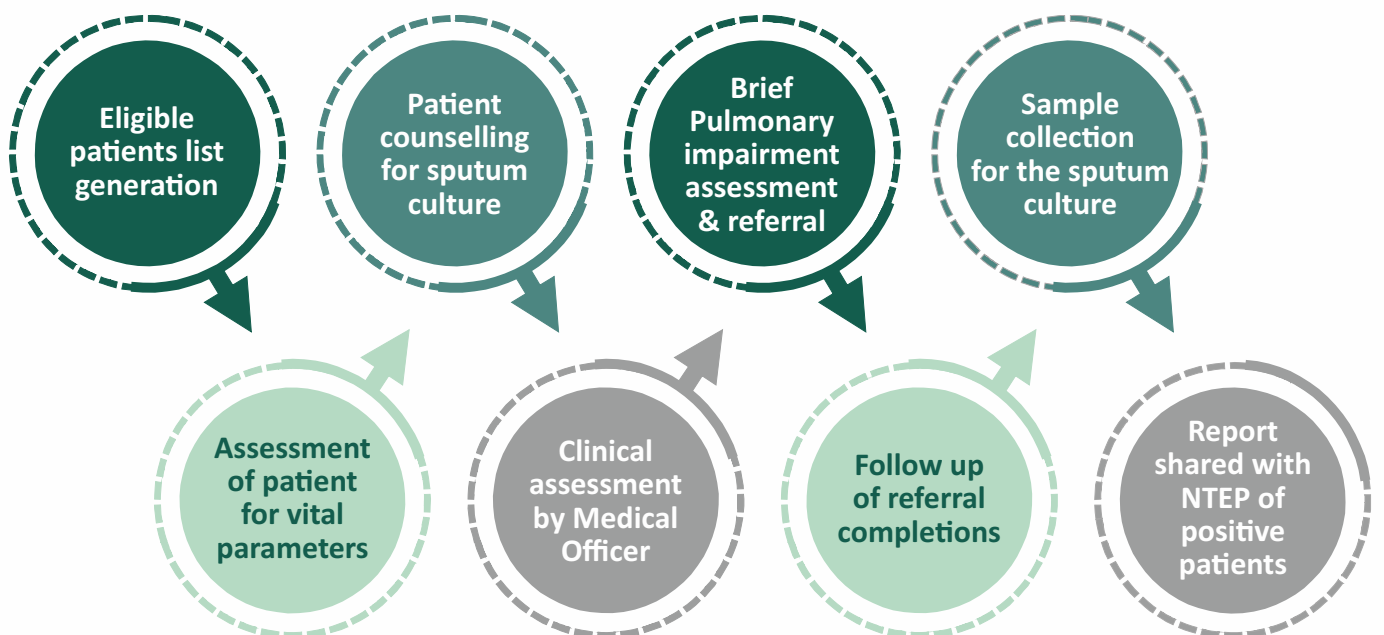
To identify patients with pulmonary impairment and link them with rehabilitative services to improve functional independence

INTERVENTION METHODOLOGY

- A home visit is carried out to evaluate all drug-sensitive TB patients who are within 24-28 weeks of treatment initiation
- Project team assesses the patient for vital parameters; sample collection is facilitated for a culture test to be conducted by an engaged laboratory
- Pulmonary patients are referred for a free chest X-ray with an electronic voucher
- All patients (pulmonary and extra pulmonary) are referred for a complete clinical examination by a medical officer
- A brief pulmonary impairment assessment is the project team; high-risk patients are referred to the facilities for further assessment and pulmonary rehabilitation support



INTERVENTION WORKFLOW FOR THE PROJECT STAFF



INTERVENTION WORKFLOW FOR LABORATORY

- Upon receiving sputum samples from patients, the lab processes the specimen with a reported turnaround time
- Liquid culture-MGIT is conducted. Liquid culture positive specimen is shared with the Intermediate Reference Laboratory (IRL) of the concerned state to offer additional Drug Susceptibility Test (DST)
- Lab reports the presumptive Non-TB Mycobacteria (NTM) and positive cases in real-time until forty- two days of standard reporting time to declare a negative result
- Clinicians and state NTEP officials evaluate the presumptive NTM cases identified



Post treatment clinical evaluation of a TB patient

RESULTS

Till 30th June 2022, among the 1334 TB patients who responded, 859 were clinically assessed at Public Health Institutions, 598 were evaluated using Chest X-ray.

Under lab investigations samples were collected for 871 patients of which 17 were NTM positive, 23 were smear positive and 07 were culture positive. Rest samples are under processing. Furthermore, among the 117 eligible for pulmonary rehabilitation on, 91 were referred for care seeking and the rest are being followed up.

KEY CHALLENGES AND LESSONS LEARNED

- Response rate for sample collection is over 90% among patients screened and counselled
- Tracking patient with contact details available in Nikshay is challenging due to patient migration and frequent change in contact number, especially in urban areas
- Specimen collection services are limited to urban/ peri-urban areas only. Additional effort is required to cover rural areas
- 10% of extra pulmonary TB patients reported chest symptoms at the time of end treatment evaluation
- Referral for pulmonary rehabilitation evaluation requires a high degree of facilitation and continuous motivation



Patient referred for clinical evaluation

ABOUT THE CGC PROJECT

Closing the gaps in TB Care Cascade (CGC) is a four-year (2020-2024) project funded by United States Agency for International Development (USAID) and is being implemented by World Health Partners (WHP) in four districts- Ranchi & East Singhbhum (Jharkhand) and Surat & Gandhi Nagar (Gujarat). The project will be further scaled-up to additional five states - Bihar, Uttar Pradesh, Sikkim, Punjab and Himachal Pradesh.



Team member assessing the vital parameters of a TB patient

World Health Partners (WHP) is a non-profit Indian society that sets up programs to bring sustainable healthcare within easy access to underserved and vulnerable communities. It innovatively harnesses already available resources more efficiently by using evidence-based management and technological solutions. WHP is best known for its programs focused on early detection and treatment of tuberculosis in urban and rural settings supported by community-based activities to ensure prevention. The organization uses all available resources - both in the public and private sectors to ensure that people living in any part of the country will have access to high-quality treatment.

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