DIFFERENTIATED TB CARE MANAGEMENT

A comprehensive package of clinical, radiological and pathological services to reduce preventable morbidity & mortality among TB patients

Background

Tuberculosis is still a leading cause of death in India and reduction of TB mortality is one of the goals under the National Strategic Plan for TB (2017-25). Under the SDG and End TB Strategy, the goal has been set to reduce TB mortality rate to 90% of the 2015 baseline by 2030.

Morbidity and mortality during treatment in patients with active TB can occur either due to extensive tuberculosis with complications or due to serious co-morbidities like severe undernutrition, advanced HIV infection, uncontrolled diabetes, substance abuse, mental illness, immunosuppressive therapy etc.

Care coordinator assessing a TB patient in Gujarat

With a view to improving treatment outcomes of TB patients, "Differentiated Care of TB Patients" is developed which involves assessment of every TB patient for basic clinical, laboratory and radiological assessment at the time of TB diagnosis. It lays down criteria for risk stratification of TB patients through a scoring system, and institutionalized patient-centered care to mitigate the risk factors for rapid reduction of preventable mortality among TB patients.

Context

Patient prioritization based on the risk stratification provides the opportunity to providing TB prevention, care and support services to those who need it the most. High priority patients groups as narrated in the diagram below.

Intervention Geography

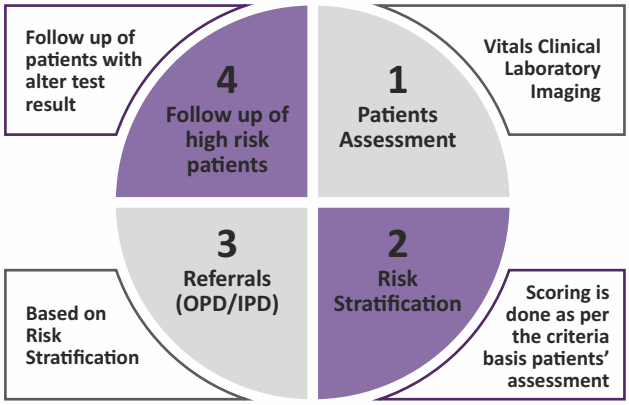
Jharkhand
Ranchi & East Singhbhum

Gujarat:
Gandhinagar & Surat

Key objective of the activity

- To segregate the high-risk patients at an early stage and link them with appropriate services
- To identify vital parameters determining poor treatment outcome and prioritize the system response to address it
- To establish a sustainable and effective model to manage differentiated TB care within the system
- To identify the requirements to build the Nikshay

Intervention workflow



IDENTIFICATION OF HIGH RISK PATIENTS BASED ON ASSESSMENT

Patient Assessment, Risk Stratification and Referral

Identified health facility staff ensures patient's clinical examination, laboratory and radiological investigation. Based upon the score and clinical condition of the patient, the Medical Officer of the concerned facility categorize it and link it to the required services. It could be outpatient-based management/ in-patient care/ critical care management at an appropriate health facility. The patient will be advised to avail the suggested services and project team will track and facilitate. The project team follows the high-risk patient referred to assess the progress till the treatment outcome.

Patient Assessment

Clinical Examination

- Vital parameter - Temperature, Pulse Rate, Blood Pressure
- Respiratory Rate
- Oxygen Saturation
- Icterus
- Oedema
- **General condition:** bedridden / ambulatory, conscious / drowsy
- Hymoptysis

Laboratory Investigation

- Haemoglobin levels
- Complete blood count (Total Count, Differential Count, Platelet Count)
- HIV
- Random Blood sugar
- SGPT
- S. Creatinine
- S. Bilirubin

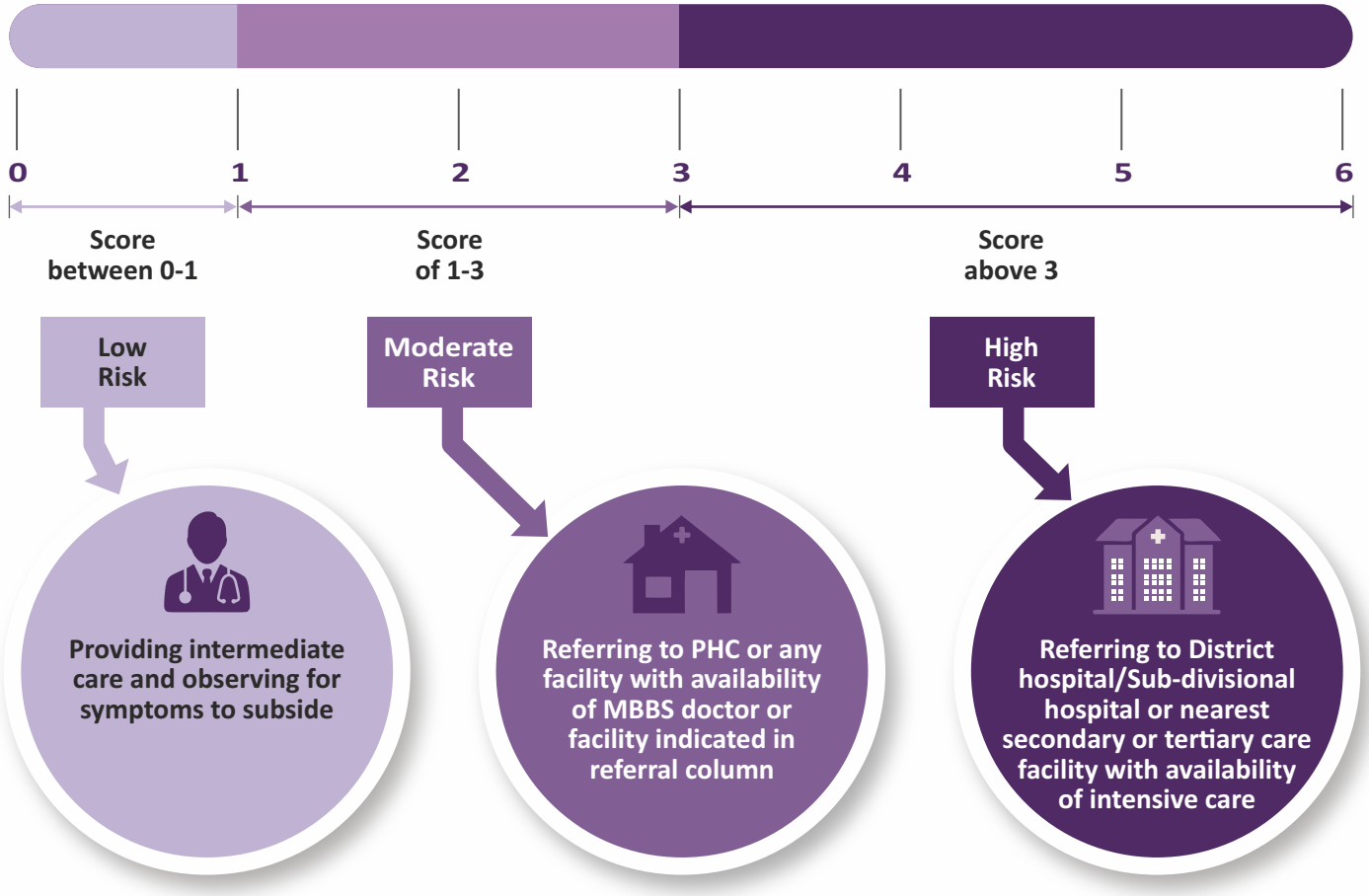
Imaging

- Chest X-ray

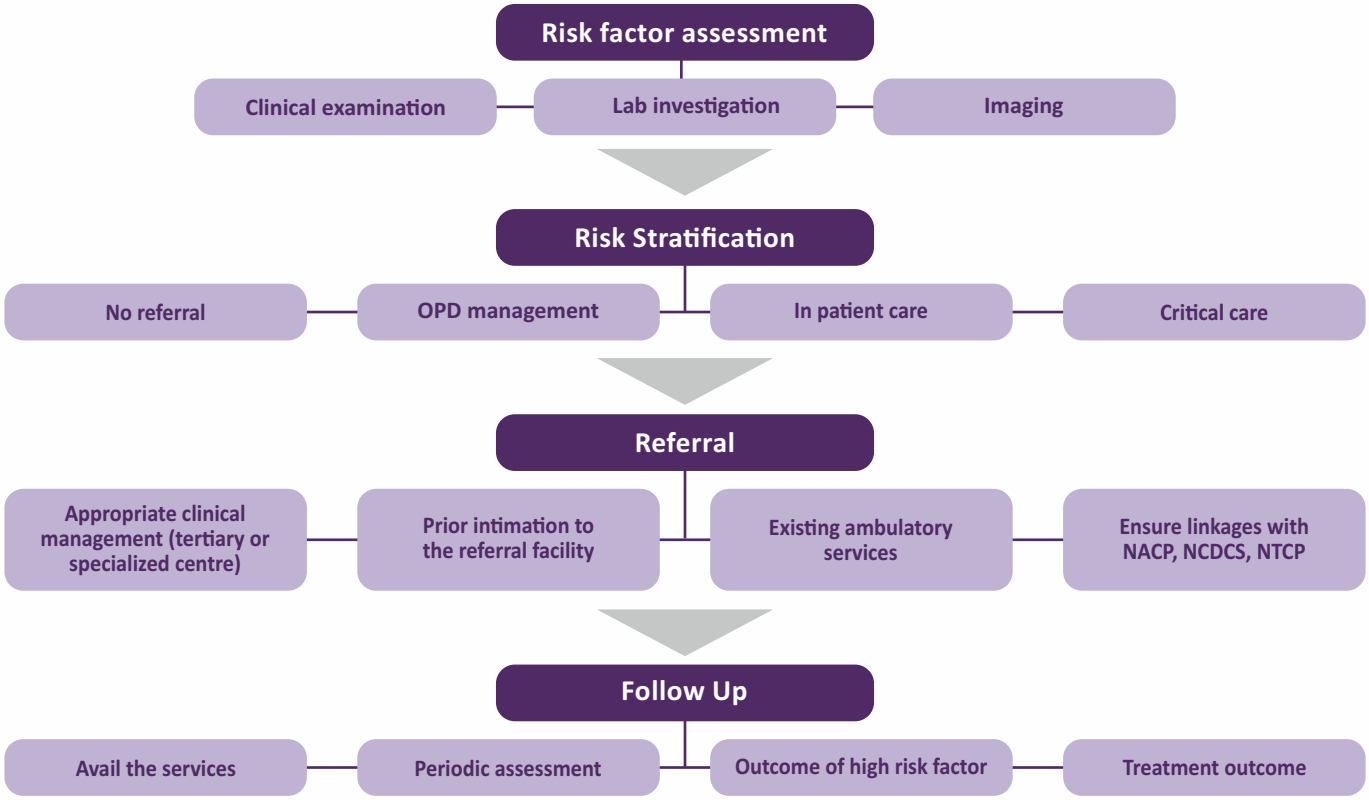
Nutritional Assessment

- BMI
- MUAC

Risk Stratification



COMPREHENSIVE PACKAGE OF DIFFERENTIATED CARE



Institutional Service Delivery Package

Facility assessment	Designing service delivery package and costing	Addressing diagnostic gaps	Capacity building of staff
• Essential diagnostics • Desirable diagnostics • HR Skill mapping • Referral linkages	• Existing services • NHM PIP (free diagnostic initiative) • State budget	• Project support will be extended toaddress the gaps identified between the need and requirement of diagnostic services	• All GHS • Different cadres of NTEP • Involvement of TB & chest departments of medical colleges

Follow-up examination of high-risk patients will be carried out periodically with respect to assess the progression in response to the services received from the linked health facility. Entire enrolled cohort including the patient with the evaluation tests values fall in “normal” range will be followed till the treatment outcome.

Results

Till April 2023, 2,170 TB patients were screened, among them 1,799 (83%) patients had altered clinical parameters based on the risk severity scale. Among these with altered parameters 1,104 (61%) patients were followed up and 30 death reported within two months of enrolment. As the intervention is ongoing end IP, CP and Post treatment follow-up will be conducted subsequently.

Early learnings

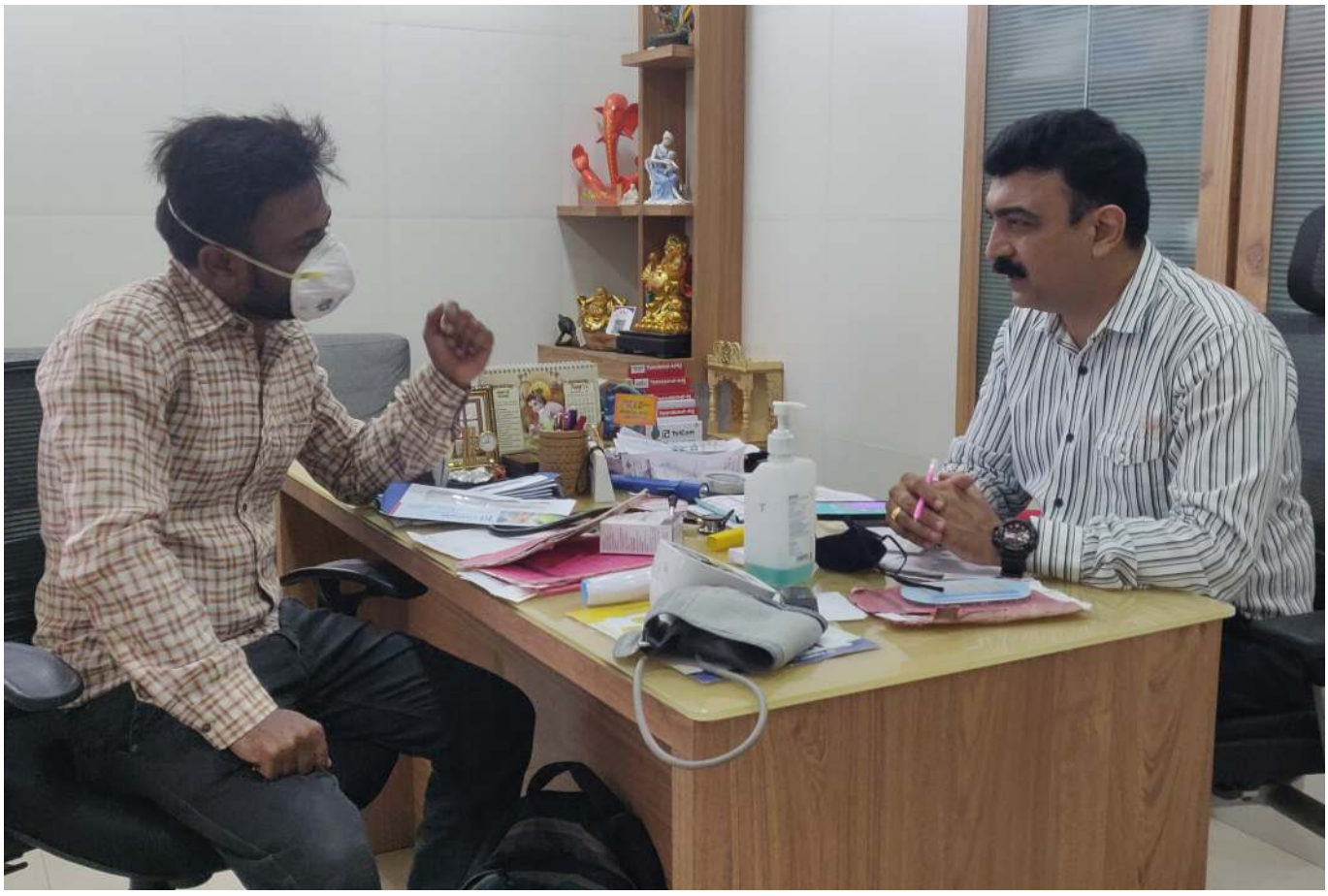
- Essential to ensure free access to evaluation tests to avoid out-of-pocket expenditure even in public health facility.
- The referral is easy and the patient is motivated if the referral services are accessible within the same campus or nearby as in the case of tertiary care facilities.
- Challenges to assess Respiratory Rate (manual), especially for female patients and Mid Upper Arm Circumferences (MUAC) due to operational issues.
- Need for the additional tests (apart from those recommended by programme guidance) in a specific situation for further evaluation.

Way forward

- Automated scoring based risk stratification of patients for decision making on referrals
- Institutionalization of required evaluation tests through sustainable mechanism
- Building a task list to prioritize high-risk patients through the Nikshay to improve efficiency

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.



Referral to healthcare facilities to ensure improved health outcomes

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.

For more information, please contact: Ms. Prachi Shukla, Country Director, World Health Partners (WHP), A 151, Sector - 72, Noida - 201301, India, info@whpindia.org

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