

Cutaneous Tuberculosis

Dhruva Chaudhry¹, Ashutosh N Aggarwal², Anil Kumar Jain³, Ashwani Khanna⁴, Camilla Rodrigues⁵, Jai Bhagwan Sharma⁶, Jyotirmay Biswas⁷, Kusum Sharma⁸, Mandira Varma-Basil⁹, Manish Modi¹⁰, Manjula Datta¹¹, Narayan Jana¹², Nitish Naik¹³, Priscilla Rupali¹⁴, Rajesh Malhotra¹⁵, Ramprasad Dey¹⁶, Ritesh Aggarwal¹⁷, Rohit Bhatia¹⁸, Roy Thankachen¹⁹, Sambit N Bhattacharya²⁰, Thangakunam Balamugesh²¹, Uday Pratap Singh²², V Ramesh²³, Vineet Ahuja²⁴, Vishal Sharma²⁵, Vishali Gupta²⁶

¹Pulmonary & Critical Care Medicine, Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak; ²Pulmonary Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh; ³Orthopedics, University College of Medical Sciences, New Delhi; ⁴National Tuberculosis Elimination Program, Govt of India, New Delhi; ⁵Parmanand Deepchand Hinduja and Medical Research Centre, Mumbai; ⁶Obstetrics and Gynaecology, All India Institute of Medical Sciences, New Delhi; ⁷Uveitis & Ocular Pathology Department, Sankara Nethralaya, Chennai; ⁸Medical Microbiology, Postgraduate Institute of Medical Education and Research, Chandigarh; ⁹Microbiology, Vallabhbhai Patel Chest Institute, University of Delhi, Delhi; ¹⁰Neurology, Postgraduate Institute of Medical Education and Research, Chandigarh; ¹¹ASPIRE Chennai; ¹²Obstetrics and Gynaecology, Chittaranjan Seva Sadan College of Obstetrics, Gynaecology and Child Health, Kolkata; ¹³Cardiology, All India Institute of Medical Sciences, New Delhi; ¹⁴Infectious Diseases, Christian Medical College, Vellore; ¹⁵Orthopedics, All India Institute of Medical Sciences, New Delhi; ¹⁶Obstetrics and Gynaecology, Chittaranjan Seva Sadan College of Obstetrics, Gynaecology and Child Health, Kolkata; ¹⁷Pulmonary Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh; ¹⁸Neurology, All India Institute of Medical Sciences, New Delhi; ¹⁹Cardio-thoracic and Vascular Surgery, Christian Medical College Vellore; ²⁰Dr Baba Saheb Ambedkar Medical College & Hospital, Delhi; ²¹Pulmonary Medicine, Christian Medical College, Vellore; ²²Urology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India; ²³Employees' State Insurance Corporation Medical College and Hospital, Faridabad; ²⁴Gastroenterology, All India Institute of Medical Sciences, New Delhi; ²⁵Gastroenterology, Postgraduate Institute of Medical Education and Research, Chandigarh; ²⁶Advanced Eye Centre, Postgraduate Institute of Medical Education and Research, Chandigarh

CORRESPONDING AUTHOR

Dhruva Chaudhry, Pulmonary & Critical Care Medicine, Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak, Haryana

Email: dhruvachaudhry@yahoo.co.in

CITATION

Chaudhry D, Aggarwal AN, Jain AK, Ashwani Khanna, Rodrigues C, Sharma JB, Biswas J, Sharma K, Varma M, Modi M, Datta M, Jana N, Naik N, Rupali P, Malhotra R, Dey R, Aggarwal R, Bhatia R, Thankachen R, Bhattacharya SN, Balamugesh T, Singh UP, Ramesh V, Ahuja V, Sharma V, Gupta V. Cutaneous Tuberculosis. Journal of the Epidemiology Foundation of India. 2024; 2(1Suppl):S227-S228. DOI: <https://doi.org/10.56450/JEFI.2024.v2i1Suppl.114>

This work is licensed under a Creative Commons Attribution 4.0 International License.

©The Author(s). 2024 Open Access

DISCLAIMER

This article/STW, was originally published by Indian Council of Medical Research (ICMR) under Standard Treatment Workflow. The reprinting of this article in Journal of the Epidemiology Foundation of India (JEFI) is done with the permission of ICMR. The content of this article is presented as it was published, with no modifications or alterations. The views and opinions expressed in the article are those of the authors and do not necessarily reflect the official policy or position of JEFI or its editorial board. This initiative of JEFI to reprint STW is to disseminate these workflows among Health Care Professionals for wider adoption and guiding path for Patient Care.

March 2022

Standard Treatment Workflow (STW) for the Management of CUTANEOUS TUBERCULOSIS ICD-A18.4

ETIOLOGY

- M.tuberculosis
- M.bovis
- NTM
- BCG (rarely)

WHEN TO SUSPECT







- Presence of ulcer or discharging sinus over lymph node, bone & joints
- Persistent asymptomatic reddish/reddish brown lesion of >6 months duration which may show scarring
- Persistent warty or verrucous lesion of >6 months duration

OTHER FEATURES

- Extracutaneous involvement
- Lymph node & lungs involvement
- Other organ systems involvement (bones, GIT & CNS)

TYPES OF CLINICAL DISEASE

- Primary Inoculation tuberculosis
- Tuberculosis verrucosa cutis
- Lupus vulgaris
- Scrofuloderma
- Acute miliary tuberculosis
- Orificial tuberculosis
- Metastatic tuberculosis
- Abscess (tuberculousgumma)
- Normal primary complex-like reaction
- Postvaccination
- Perforating regional adenitis
- Lichen scrofulosorum
- Papulonecrotictuberculid
- Facultative tuberculids
- Nodular vasculitis & Erythema nodosum

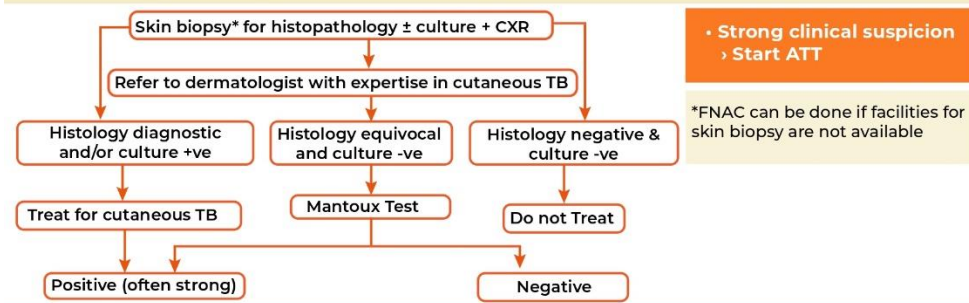
INVESTIGATION

<h4>INVESTIGATIONS</h4> <ul style="list-style-type: none"> • Histopathology: Granulomas with epithelioid histiocytes & Langerhans - type giant cells • FNAC: If indicated • IGRA/PCR: Not recommended for diagnosis 	<h4>SCREENING FOR SYSTEMIC INVOLVEMENT</h4> <ul style="list-style-type: none"> • Examination: <ul style="list-style-type: none"> › Lymph node to be examined (FNAC) › Other organ system can be done if indicated • Essential: <ul style="list-style-type: none"> › Chest X-ray › FNAC from the indurated part of lesion • Desirable: <ul style="list-style-type: none"> › Histopathology › Culture from biopsy sample (Not swab) 	<h4>CASE DEFINITION</h4> <p>A) Confirmed case:</p> <ul style="list-style-type: none"> › M.tuberculosis complex identified by either culture or NAAT or histology shows typical morphology › Full course of ATT which led to complete clearance of lesions <p>B) Probable case:</p> <ul style="list-style-type: none"> › Typical skin lesion with no positive features/investigation as mentioned above (A)
--	---	---

DIAGNOSTIC ALGORITHM

Suspected TB case based on presence of clinical signs

- Ulcers/discharging sinuses over sites of LN, bones & joints
- Persistent, asymptomatic raised reddish/reddish brown lesion of >6 months' which may show scarring at one end
- Persistent, warty skin lesion of >6 months'



MANAGEMENT

<h4>TREATMENT</h4> <ul style="list-style-type: none"> • Similar to Pulmonary TB as per NTEP • DR -TB to be kept in mind • No role of steroids, oral or topical, in management of CT 	<h4>FOLLOW UP</h4> <ul style="list-style-type: none"> • 1st follow-up after 4-6 weeks; majority improves • If no response after 8 weeks • Alternate diagnosis/DR-TB; refer to higher centre
--	--

ABBREVIATION

ATT: Anti-Tubercular treatment BCG: Bacille Calmette Guerin vaccine CNS: Central Nervous system CT: Cutaneous Tuberculosis CXR: Chest X-ray	DR-TB: Drug resistant Tuberculosis FNAC: Fine needle aspiration cytology GIT: Gastro-intestinal tract IGRA: Interferon Gamma Release assay LN: Lymph node	NAAT: Nucleic acid amplification test NTEP: National TB Elimination Programme NTM: Non-Tuberculous Mycobacterium PCR: Polymerase chain reaction test TB: Tuberculosis
---	---	---

REFERENCES

1. National TB Elimination Programme, Central TB Division, Training Modules for Programme Managers & Medical Officers. Ministry of Health & Family Welfare, Government of India <https://tbcindia.gov.in/index1.php?lang=1&level=1&sublinkid=5465&lid=3540> Last access on 15 March, 2022.
2. Guidelines for programmatic management of drug resistant tuberculosis in India March 2021. National TB Elimination Programme, Central TB Division, Ministry of Health & Family Welfare, Government of India <https://tbcindia.gov.in/showfile.php?lid=3590> Last access on 15 March, 2022.

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal (stw.icmr.org.in) for more information.
© Indian Council of Medical Research and Department of Health Research, Ministry of Health & Family Welfare, Government of India.