

STANDARD TREATMENT WORKFLOW (STW)

Adult Lymph Node 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. Adult Lymph Node Tuberculosis. Journal of the Epidemiology Foundation of India. 2024; 2(1Suppl):S217-S218.

DOI: <https://doi.org/10.56450/JEFI.2024.v2i1Suppl.109>


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



Department of Health Research
Ministry of Health and Family Welfare, Government of India



icmr
INDIAN COUNCIL OF
MEDICAL RESEARCH
Established on 26th March 1952

Standard Treatment Workflow (STW) for the Management of ADULT LYMPH NODE TUBERCULOSIS ICD-10-A18.2

WHEN TO SUSPECT?

- Swelling (>1 cm) in neck, armpit or groin (>2 cm) +/- redness, fluctuation, sinus discharge
- May or may not be associated with fever, weight loss, night sweats or cough
- History of similar swelling in the past / past history of tuberculosis
- History of contact with a patient with a diagnosis of TB

DIAGNOSTIC ALGORITHM

Lymphnode enlargement > 1cm ± systemic symptoms*

ABDOMINAL/MEDIASTINAL (INACCESSIBLE)

Sputum / induced sputum

Send for NAAT[#]

+ve

Treat as LN TB

-ve

Refer for FNAB

Tissue for
• NAAT
• Cultures/ LPA

FNAC / LN aspirate

Send for NAAT[#]

+ve

Treat as LN TB

-ve

LN biopsy (refer if indicated)

LN tissue for
• NAAT
• Cultures/ LPA

*Tender LN, fluctuation, pain, fever, weight loss, night sweats
[#]Xpert/TrueNat/ICMR or CTD approved test
[†]MGIT/LJ

Treatment : As per NTEP Guidelines

ASSESS RESPONSE TO THERAPY AT 3-4 MONTHS

- Resolution:** Decrease in size of LN with settling of systemic symptoms
- Delayed response -Paradoxical reaction:** Increase in size of LN or new signs of inflammation (up to 3 months of starting treatment) OR appearance of new LN at same/other site
- May require tissue cultures, if not done, to rule out treatment failure/resistance
- Therapeutic drug monitoring to ensure adequate drug levels
- If cultures reveal susceptible TB it is likely due to paradoxical worsening: May require anti-inflammatory agents (inaccessible)/surgical removal (accessible)

Response to therapy at 3 months

Yes

Symptom resolution

Continue ATT

No

Increase in size of LN ± signs of inflammation

Check old culture report
Send new cultures if not available

Susceptible TB

Paradoxical worsening

Therapeutic drug monitoring

Refer to higher centre

Drug resistant TB

Refer to DOTS plus centre

Constitutional symptoms persist

R/o alternate diagnosis

COMPLICATIONS

- Abscess formation
- Rupture may lead to sinus formation

REFER TO HIGHER CENTRE IF

- Non responders
- Needs treatment for Drug Resistance
- Large Nodal Mass/Abscess requiring surgical intervention

ABBREVIATION

ATT: Anti Tubercular Treatment	FNAB: Fine Needle Aspiration Biopsy	LPA: Line Probe Assay	NTEP: National TB Elimination Programme
BCG: Bacille Calmette Guerin	FNAC: Fine Needle Aspiration	MGIT: Mycobacterial Growth Indicator Tube	PCR: Polymerase Chain Reaction
CTD: Central TB Division	Cytology	MTB: Mycobacterium Tuberculosis	TB: Tuberculosis
DOT: Directly Observed Treatment Short-course	LJ: Lowenstein Jensen	NAAT: Nucleic Acid Amplification Test	
	LN: Lymph Node		

BCG LYMPHADENITIS

- Age is usually < 2 years
- Axillary and/or supraclavicular LN on same side as BCG vaccination (usually given on left)
- No systemic symptoms in immunocompetent children
- Treatment:**
 - Wait & watch if small
 - If large & suppurative, repeated aspiration or rarely incision & drainage is required

NAAT/AFB smear positivity can not differentiate between BCG & MTB

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 accessed on 11 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?file=3590> Last accessed on 11 March, 2022.
3. Gaiswad P, Samuel VM, Rupali P. Th or not Tb. Paradoxical response and the role of selective lymphadenectomy in tuberculous cervical lymphadenitis. Indian J of Applied Research, October 2016; Vol 6(10): 40-43.
4. Alsultan A, Pelouqui CA. Therapeutic drug monitoring in the treatment of tuberculosis: an update. Drugs. 2014 Jun; 74(8):839-54. Erratum in: Drugs. 2014 Jun; 74(9):2061.

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.

© 2024 JEFI

S218