

## Genitourinary Tuberculosis

Dhruva Chaudhry<sup>1</sup>, Ashutosh N Aggarwal<sup>2</sup>, Anil Kumar Jain<sup>3</sup>, Ashwani Khanna<sup>4</sup>, Camilla Rodrigues<sup>5</sup>, Jai Bhagwan Sharma<sup>6</sup>, Jyotirmay Biswas<sup>7</sup>, Kusum Sharma<sup>8</sup>, Mandira Varma-Basil<sup>9</sup>, Manish Modi<sup>10</sup>, Manjula Datta<sup>11</sup>, Narayan Jana<sup>12</sup>, Nitish Naik<sup>13</sup>, Priscilla Rupali<sup>14</sup>, Rajesh Malhotra<sup>15</sup>, Ramprasad Dey<sup>16</sup>, Ritesh Aggarwal<sup>17</sup>, Rohit Bhatia<sup>18</sup>, Roy Thankachen<sup>19</sup>, Sambit N Bhattacharya<sup>20</sup>, Thangakunam Balamugesh<sup>21</sup>, Uday Pratap Singh<sup>22</sup>, V Ramesh<sup>23</sup>, Vineet Ahuja<sup>24</sup>, Vishal Sharma<sup>25</sup>, Vishali Gupta<sup>26</sup>

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

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## Standard Treatment Workflow (STW) for the Management of GENITOURINARY TUBERCULOSIS ICD-A18.10

**SYSTEMIC SYMPTOMS**

- +/-
- +
-

### WHEN TO SUSPECT?

- Fever
- Weight loss
- Night sweats

### PRESENTING SYMPTOMS

#### Urinary Tuberculosis

- LUTS (frequency, urgency and nocturia) with dysuria and/or haematuria for at least 2 weeks
- Not responding to a 3-7 day course of antibiotics

#### Male Genital Tuberculosis (MGTB)

- Scrotal pain or swelling for 2 weeks or more
- Not responding to a 7-14 day course of antibiotics, or
- Discharging sinuses in the scrotum
- Rarely infertility

### INVESTIGATION

#### Essential

- CBC
- KFT\*
- LFT
- ESR
- Chest X ray
- Urine R/M and Culture
- Urine for AFB x 3-5 days (early morning, first void)
- Urine Culture for MTB x 3-5 days (early morning, first void)
- NAAT assay (GeneXpert MTB/RIF)
- USG KUB\*\*
- USG Scrotum (for MGTB only)

#### \*Deranged renal function

#### \*\*HDN/HDUN

#### Refer to higher centre/Urologist

#### Specific Investigations

- If normal renal function
  - IVP/CT urography
- If deranged Renal Function
  - MR Urogram
  - Retrograde Pyelography
  - Nephrostogram

#### Optional ( If other tests are inconclusive with high suspicion of GUTB)

- FNAC/ Biopsy- from accessible mass lesions or fluid collections
- Cystoscopic biopsy of Genitourinary tract

### TREATMENT

TYPE OF TB	TYPE OF REGIMEN	DRUGS	EXTENSION CRITERIA
DRUG SUSCEPTIBLE TB	DS-TB REGIMEN	2 MONTHS H,R,E,Z 4 MONTHS H,R,E	Extension packets of infection, concurrent smear positive cavitory pulmonary disease, CNS involvement, Delay in positive cultures converting to negative Duration can be increased up to 9 to 12 months
MDR/RR OR XDR-TB	TREATMENT AS PER NTEP GUIDELINES		

### FOLLOW UP

**At 8 weeks :** Resolution of systemic symptoms, improved urinary symptoms, repeat culture if baseline culture positive

**After completion of ATT:** Repeat culture if baseline culture positive

**Repeat imaging:** If partial or impending ureteric stricture

**Watch for the following complications at each Follow-up visit:**

- Severe LUTS suggestive of small capacity bladder
- Deteriorating renal function

### ABBREVIATIONS

<b>ATT:</b> Anti-tubercular treatment	<b>ESR:</b> Erythrocyte Sedimentation Rate	<b>MDR:</b> Multi Drug Resistant	<b>RR:</b> Rifampicin Resistant
<b>CT:</b> Computed Tomography	<b>H:</b> Isoniazid	<b>MTB:</b> Mycobacterium Tuberculosis	<b>USG KUB:</b> Ultrasonography Kidney, Ureter and Bladder
<b>CBC:</b> Complete Blood Count	<b>HDN:</b> Hydronephrosis	<b>MR:</b> Magnetic Resonance	<b>URINE AFB:</b> Urine for Acid-fast Bacillus
<b>CXR:</b> Chest X-Ray	<b>HDUN:</b> Hydroureteronephrosis	<b>NAAT:</b> Nucleic Acid Amplification Test	<b>XDR:</b> Extensively Drug Resistant
<b>DJS:</b> Double J Stent	<b>IVP:</b> Intravenous Pyelogram	<b>NTEP:</b> National Tuberculosis Elimination Programme	<b>Z:</b> Pyrazinamide
<b>DS-TB:</b> Drug Susceptible Tuberculosis	<b>LFT:</b> Liver Function Test	<b>RF:</b> Renal Function Test	
<b>E:</b> Ethambutol	<b>LUTS:</b> Lower Urinary Tract Symptoms	<b>R:</b> Rifampicin	

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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](http://stw.icmr.org.in)) for more information.  
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