

10. Anhang

Anhang

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I. Groups of Adults and Methods for Their Clinical Examination

Adults who are subject to registration in Prophylactic Center shall be classified in the following way:

Group

- 0 persons who suffer tuberculosis of respiratory organs with uncertain activity
- I patients with active tuberculosis of respiratory organs
- II patients with abating active tuberculosis of respiratory organs
- III persons with clinically healed tuberculosis of respiratory organs
- IV persons who are in contact with tuberculosis bacilli-carriers or with sick livestock, including personnel of Tuberculosis Prophylactic Centers
- V patients with extrapulmonary tuberculosis and persons who were healed of it completely
- VII* persons with residual changes after healed tuberculosis of respiratory organs, and with high risk of reactivation
- VIII patients with pulmonary sarcoidosis

* Group VI shall not be applied for adults

Table 1

Group	Description of patients	Frequency of visits	Period of observation	Measures	Criteria of effectiveness for outpatient observation
"0" (zero) Tuberculosis of respiratory organs with uncertain activity	2 Persons with tuberculosis changes in lungs of uncertain activity. They are not registered in other groups of Prophylactic Center	3 Depends on methods of outpatient treatment	4 Up to 6 months	5 Trial chemotherapy under outpatient program If there are indications, chemotherapy is undertaken in hospital (up to 2-3 months)	6 Transfer to Group I-A, VII-B or taking off record
I Active tuberculosis of respiratory organs	2 Patients with active tuberculosis. Bacilli-carriers shall be marked in each subgroup. Subgroup "A". Patients with primary tuberculosis, exacerbation or relapse. Subgroup "B". Patients who were subjected to ineffective treatment (either antibacterial or surgical), they have been observed in subgroup I-A for minimum 2 years and they have developed chronic tuberculosis process that is either progressing or having no tendency to recovery: - patients with bacilli elimination without destruction cavems (lymphatic tuberculosis, cirrhotic tuberculosis, silicotuberculosis, etc.) - patients with permanent cavems and bacilli elimination; - patients who do not eliminate <i>Mycobacterium</i> (with encysted empyema, destructive tuberculosis)	3 Minimum once a month	4 Patients from subgroup "A" shall be transferred to Group II, if they have no exacerbation. At the same time they are taken off record, but not earlier than 12 months after cavem was closed and bacilli elimination was stopped Patients from subgroup "A" may be taken off record and transferred to group II not earlier than 2-3 years after bacilli elimination was stopped and destructive cavem disappeared If there is a permanent sanitated or filled cavem resulting in cyrthosis – it may be possible to take such patients off record not earlier than 3 years after bacteria disappeared and the process became steady. Patients from subgroup "B" who are not registered as Eliminators of Bacteria may be transferred to group II not earlier than one year after destructive cavem and empyema are closed**	5 Comprehensive chemotherapy (basic treatment for subgroup A), surgery or collapsotherapy according to indications; measures for social and labor rehabilitation, rational employment, sanitary and preventive measures in pestholes of TB infection	6 1. Transfer to group II and III. 2. Transfer to subgroup I-B in some cases 3. Level of temporary and permanent disability is reduced Transfer to group II and III. Level of permanent disability is reduced, disablement group is cancelled or changed

* Indications for keeping patients from both subgroups on record above the specified time may be found below ("Eliminators of Bacteria"). Patients from subgroup "A" with small residual changes shall be transferred directly to subgroup III-B omitting group II, if these changes dissolve completely and if there is no exacerbation.

** Indications for taking off record – see "Eliminators of Bacteria"

Table continued

1	2	3	4	5	6
II Abating active tuberculosis of respiratory organs	Patients transferred from group I	Minimum once in 3 months. According to seasonal courses of chemotherapy	Patients with small residual changes and exacerbation shall be observed in group II within a year; with large residual changes – 2 years. Patients with large tuberculomas (above 4 cm in diameter), silicotuberculosis and encysted pleuritis shall stay in group II for long-term observation*	2 or 3-month seasonal courses of chemotherapy taken twice a year under ambulatory or sanatorium conditions. Rational employment	1. No exacerbation of tuberculosis 2. transfer to group II
III Clinically healed tuberculosis of respiratory organs	Persons transferred from group I and II. Subgroup A – with large residual changes, as well as with small changes and availability of aggravation factors. Subgroup B – with small residual changes without aggravation factors	Once in 6 months for persons from both subgroups. According to anti-relapse methods of treatment	A – 3 years, after that patients shall be transferred to subgroup VII-A. Persons disabled due to tuberculosis are not transferred to group VII and stay in group III. B – 1 year, after that they are taken off record and observed in outpatients' clinic.	2 or 3-month anti-relapse courses of chemotherapy once or twice a year under ambulatory (or sanatorium) conditions subject to any factors that reduce immunity. Rational employment	No relapse of tuberculosis
IV Contacts	Persons who stay in contact with eliminators of bacteria or with sick livestock. Personnel of Tuberculosis Prophylactic Centers**	Minimum semiannually. During chemotherapy laxis it shall be defined by its methods	During the entire period of contact with eliminators of bacteria, as well as 1 year after the eliminator of bacteria was taken off record, died or moved away. Persons who stay in contact with sick livestock shall be observed till the entire facility is healed.	Measures are taken to sanitize the pesthole of tuberculosis infection and to increase immunity of persons in contact: chemoprophylaxis, BCG revaccination for non-infected persons, sanitation measures in sanatoriums or rest homes	No new cases of tuberculosis

* Observation period for group II may be reduced by the time, during which the patient was kept in group I owing to epidemiological and other reasons.

** Clinical examination of personnel shall be performed by Physician responsible for such examination in the Prophylactic Center or by District Phthisiologist domiciliary.

Table continued

1	2	3	4	5	6
<p>V Extrapulmonary tuberculosis*</p>	<p>Subgroup "0" – persons with extrapulmonary tuberculosis of uncertain activity Subgroup "A" – patients with active extrapulmonary tuberculosis (primary patients, with exacerbation and relapse and chronic forms), patients who eliminate <i>Mycobacterium</i> shall be registered as Eliminators of Bacteria Subgroup "B" – patients with abating active extrapulmonary tuberculosis who were transferred from subgroup "A". Subgroup "B" – persons with inactive extrapulmonary tuberculosis who were transferred from subgroup "B" Subgroup "I" – persons who were healed of extrapulmonary tuberculosis with explicit residual changes. Persons who were transferred from subgroup "B", who were taken off record, primary patients (healed spontaneously), with explicit residual changes.</p>	<p>Dates for examination by appropriate specialists shall be determined by the state of tuberculosis process. If extrapulmonary tuberculosis goes with pulmonary tuberculosis, such patient must visit District Phthisiologist according to the progress of pulmonary process. Minimum semiannually if there is no pulmonary process</p>	<p>Observation periods for each subgroup in group V shall be defined by appropriate specialists according to the progress of tuberculosis process as well as according to treatment and preventive measures. Bacillar patients shall be taken off record not earlier than 12 months after disappearing of <i>Mycobacterium</i>, after stabilization of process confirmed by X-ray and clinical examination or after surgical intervention.</p>	<p>Patients with active extrapulmonary tuberculosis (subgroup A) are subjected to social and preventive measures for their clinical healing, restoration of capabilities and for sanitation of tuberculosis infection pesthole. Other persons registered in group V are subjected to measures aimed at their medical, social and labor rehabilitation, reactivation of the process must be prevented. Extrapulmonary tuberculosis is cured by appropriate specialists or by District Phthisiologist under supervision of these specialists. All patients with extrapulmonary tuberculosis and clinically healed persons shall be subjected to clinical and X-ray examination by District Phthisiologist minimum semiannually.</p>	<p>Transfer to active subgroup A. Transfer to subgroup B, reduction of disability and disablement level. Transfer to subgroup B. Lack of exacerbation, reduction of temporary disability level, withdrawal or disablement level. Taking off record, transfer to subgroup I, no relapse, reduction of temporary disability level or disablement level. No relapse, withdrawal or reduction of disablement level.</p>

* In case of both pulmonary and extrapulmonary tuberculosis, the patients are registered according to the location of the most active symptoms.

Table continued

1	2	3	4	5	6
VII Persons with residual changes after healed tuberculosis of respiratory organs (including spontaneous healing) and high risk of its reactivation	Subgroup "A" – with high risk of relapse: persons transferred from group III, from group "0" or those who were taken off record earlier. Subgroup "B" – with high risk of disease; persons transferred from group "0" or those who were included in subgroup "B" directly from the group of persons who were not registered earlier in any groups of active tuberculosis. Each subgroup shall include the following persons: with large residual changes in the form of foci, tuberculomas, cyrrhosis, hard extensive fibrosis, massive pleural impositions, large or multiple calcification in lymph nodes of mediastinum, conditions after extensive surgical intervention. Persons with any residual changes are also included if there are aggravation factors.	At least annually. If chemoprophylaxis is undertaken, frequency of visits is defined by its methods*	Lifelong observation in group VII is required for persons with large changes in the form of encysted foci and cyrrhosis, as well as for all persons with existing aggravation factors irrespective of size and type of residual changes. Others stay under observation for 10 years since the moment of their registration in this group, after that they are taken off record.	General sanitation measures aimed at higher resistance to tuberculosis. Chemoprophylaxis in case of exacerbation in concomitant chronic diseases or occurrence of factors that reduce immunity of organism. Rational employment. Treatment in sanatorium if indicated.	No relapse. No cases of tuberculosis
VIII Sarcoidosis	Subgroup A – primary patients with active forms of sarcoidosis in any location Subgroup B – patients with exacerbation and relapse. Subgroup B – persons with clinically healed sarcoidosis (inactive sarcoidosis)	1 st year – observation every 3 months. 2 nd year – semiannually. Frequency of observation is the same as for subgroup A: 1 st year – semiannually, 2 nd year – annually	2 years in case of favorable development. Transfer to group B in 2 years. 3 years and more in case of relapse It is not recommended to take off record because of wavy character of sarcoidosis	Treatment in hospital, ambulatory or sanatorium - « - under sanatorium conditions If there is exacerbation or relapse, transfer to subgroup "B"	** Inactivation of sarcoidosis with minimum pneumosclerosis and minimum disturbances in "ФБЛ". Recovery of capabilities. **No relapse

* Frequency of visits for persons from group VII suffering chronic diseases of internal organs is defined according to therapeutic and prophylactic measures that are required for healing of such persons.

** Inactivation may be characterized by: 1) normalization of health; 2) blood analysis; 3) biochemical parameters; 4) reduction of "ЛФ" number in "БАЛ"; 5) dissolving of interstitial and granulomatous changes in lungs, lymph nodes and other organs; 6) improvement of "ФБЛ" parameters.

Table 2

**Description of Residual Changes after Tuberculosis in Respiratory Organs
(Including Spontaneously Healed Tuberculosis)**

Size of changes	Description of changes				
	Primary Complex	Focuses in lungs	Fibrotic and cyrhotic changes in lungs	Changes in Pleura**	Changes after surgical interventions
Small*	2 Single (maximum 5) components of primary complex (Gohn's focus and calcified lymph nodes) less than 1 cm in size	3 Single (below 5) intensive and clear focuses less than 1 cm in size	4 Limited fibrosis within one segment	5 Sealed sinuses, interlobar adhesions, pleurodiaphragmal and pleuromediastinal adhesions, pleuroapical and pleurocostal layers up to 1 cm wide (with calcification of pleura or without it) – one-sided and double-sided	6 Changes after resection of pulmonic segment or lobe, with little post-surgical change in pulmonic tissue and in pleura
Large	1. Multiple (above 5) components of primary complex (Gohn's focus and calcified lymph nodes) less than 1 cm 2. Single and multiple components of primary complex (Gohn's focus and calcified lymph nodes) 1 cm in size and larger	1. Multiple (above 5) intensive clear focuses less than 1 cm 2. Single and multiple intensive and clear focuses 1 cm in size and larger	1. Extensive fibrosis (more than 1 segment) 2. Cyrrotic changes of any length	Multiple pleural layers above 1 cm wide (with pleura calcification and without it)	1. Changes after resection of pulmonic segment or lobe, little post-surgical change in pulmonic tissue and pleura. 2. Changes after pneumectomy, thoracoplasty, pleurectomy, cavernotomy, extrapleural pneumolysis, etc.

** Persons with residual pleural and fibrotic changes may be included in group VII-B if they have no indications (in Medical History or other) to previous non-specific pulmonary diseases (pneumonia, abscesses, pleuritis, etc.).

* Combination of two and more symptoms typical for small residual changes should be considered as large residual changes if their size is close to the limits of large changes

Program of X-Ray and Laboratory Examination for Adults Registered in Prophylactic Center

Group	X-ray examination	Examination for bacilli elimination
Zero	X-ray pictures (fluorograms) and tomograms are made before registration and once in 2 months afterwards	Bacterioscopy and inoculation before registration; afterwards these tests are made once in 2-3 months
I-A	X-ray pictures (fluorograms) and tomograms are made before registration in this group and once in 2 months afterwards till elimination of bacteria is stopped, infiltration is resolved and cavern is closed. Afterwards it is repeated once in 3-4 months till the patient is transferred to group II	Same as for zero group, but if <i>Mycobacteria</i> are found – once a month till they disappear; afterwards – once in 2-3 months
I-B	X-ray pictures (fluorograms) during treatment procedures once in 2 months, in case of remission once in 3-6 months. Tomograms are made if there are indications	During treatment at least once in 2-3 months, in case of remission – bacterioscopy and inoculation once in 6 months
II	X-ray pictures (fluorograms) and tomograms are made once in 3 months	Bacterioscopy and inoculation at least once in 3 months
III	X-ray pictures (fluorograms) once in 6 months, tomograms if there are indications	Bacterioscopy and inoculation at least once in 6 months
IV	Fluorograms at least semiannually. Tomograms at the moment of registration in this group and afterwards if there are indications	In case of suspected tuberculosis
V	Same as for group IV	Same as for group IV
VII	Before registration in the group – fluorogram (X-ray picture: tomogram – if indicated); afterwards X-ray pictures (fluorograms) at least annually; tomograms if indicated	Bacterioscopy and inoculation before registration in this group and afterwards at least annually
VIII A, B	X-ray pictures and tomograms at the moment of registration in the group; one month after beginning of treatment, after 3, 6, 12 months during the first year; semiannually during the second and the third years (if there is no exacerbation)	Three analyses of sputum (fluorescent microscopy and inoculation) at the moment of registration and in case of exacerbation (or relapse)
B	X-ray pictures and, if indicated, tomograms: during the first year of observation semiannually, afterwards – annually	Three analyses of sputum (fluorescent microscopy and inoculation) if there are progressive changes found by X-ray

Notes: 1. Tuberculine tests are made annually for persons in contact and before registration for persons from group VIII.

2. Immunity of *Mycobacterium Tuberculosis* to drugs is tested before treatment, and once in 3 months if elimination of bacteria continues.

3. Blood tests, urine analyses and other examinations are made if there are indications, but for groups I and) they are taken every month during treatment; for group II – once in 3 months; for groups III and IV – semiannually; and for group VII – annually. Patients of group V are subjected to examination if recommended by appropriate specialists.

4. Before hospitalization tuberculosis patients must be consulted by a specialist in extrapulmonary tuberculosis, and patients from group VIII – by ophthalmologist and dermatologist.

5. All persons suffering pyuria, hematuria, albuminuria are subjected to three-time analysis of urine for *Mycobacterium Tuberculosis*.

Definitions and Some Tactical Issues for Outpatient Activities

1. Tuberculosis Activity

- a) Tuberculosis of uncertain activity. This term is used for specific changes in lungs of those persons who are not registered in Tuberculosis Prophylactic Center. It is used when after primary clinical and X-ray examination the Physician in charge does not have enough data for assessment of local changes and the final decision may be taken during dynamic observation after trial chemotherapy and multiple attempts to discover *Mycobacterium* using bacterioscopy and inoculation.

"Zero" group (adults) shall include only those persons who are not registered in Prophylactic Center. When there are any doubts about activity of changes for persons registered in groups III-IV and VII, they should not be transferred to the "zero" group. Any extra examinations aimed at more accurate definition of the process shall be made within the above mentioned groups.

Tuberculosis changes of uncertain activity include clear focuses of homogenous structure and medium intensity (except large tuberculomas)*. Besides, it includes similar focuses of any size if their structure is not homogenous due to insignificant calcification, if there are no clinical symptoms of activity and if no bacteria are found during fluorescent bacterioscopy and inoculation.

Persons with cyrrhotic changes of uncertain activity in lungs shall not be registered in the "zero" group and shall not be subjected to trial chemotherapy, because the key factor in verification of their diagnosis is discovering *Mycobacteria Tuberculosis*.

- b) Active tuberculosis. This diagnosis is given to patients with process activity, which must be confirmed either by bacteriological or histological examination, besides, some specific symptoms must be available (intoxication, availability of fibrosis and focuses with perifocal reaction; infiltration changes either with destruction or without it, either with elimination of bacteria or without it, changes in blood formula, etc.). This diagnosis requires treatment, preventive measures, rehabilitation and some social procedures. Activity of tuberculosis process may be also confirmed by bronchologic, cytologic, biochemical and immunologic examinations. Prior to definition of tuberculosis activity, it is necessary to undertake differential diagnostics for other diseases of respiratory organs in order to confirm specific etiology of these changes.

Just revealed patients (including those with relapse) with any form of active tuberculosis shall be included only in group I-A. It is not allowed to include them directly to group I-B or group II.

If a patient from groups II, III, V, VII was subjected to surgical intervention and active tuberculosis changes were discovered during operation, such patient must be transferred to group I or V-A for the period as required for his treatment. If active tuberculosis was not found during operation, it shall not be required to transfer such patient to group I, however he should be subjected to a course of chemotherapy in order to prevent relapse.

Destruction process in tuberculoma (even without elimination of bacteria) shall be enough to transfer him to group I. Patients with decomposed tuberculomas, even if no bacteria are found (subject to their earlier occurrence) shall be kept on epidemiological record till liquidation of destruction cavern.

- c) Abating active tuberculosis is diagnosed for patients in case of their favorable condition that must be confirmed by clinical and X-ray observation – disappearance of intoxication symptoms, termination of bacteria elimination, healing of cavern and resolution of infiltration.
- d) Clinical healing – steady healing of tuberculosis process that is confirmed by varied periods of observation. These periods (see the table above) shall be based on two

* Persons with large tuberculomas shall be included directly to group I-A.

parameters: a) size of residual changes, b) availability of serious concomitant diseases (see item 8).

Group of clinically healed persons includes individuals who enjoy stabilization of tuberculosis process (see “stabilization” below).

2. Eliminators of Bacteria

Patients with just revealed tuberculosis or registered patients who eliminate bacteria shall be taken on record as Eliminators of Bacteria:

- a) bacteria that were detected by any method of examination, even if performed only once, when there are clinical and X-ray data confirming active tuberculosis process. That shall include patients with abating active tuberculosis or tuberculosis of uncertain activity;
- b) bacteria that were detected twice by any method even if there were no clear tuberculosis changes in lungs confirmed by X-ray or if there are clinical and X-ray indications to inactive tuberculosis process. In these cases, bacteria elimination may be caused by endobronchitis, outburst of caseous lymph node into bronchus lumen or decomposition of small focus that is difficult to detect by X-ray.

If bacteria are detected only once during checkup of patients from groups III and VII and there are no symptoms confirmed by clinical observation and X-ray, it is required to undertake detailed clinical, X-ray, laboratory and instrument examination in a hospital in order to detect the source of bacteria elimination and availability of active tuberculosis process. * (single-time elimination of bacteria). In case of unfavorable epidemiological conditions in pesthole (availability of children and teenagers), or in case of new infection or disease events among persons in contact, or if patients may create epidemiological danger at their workplaces (in child and teenager institutions, catering and social facilities), such persons shall be registered as Eliminators of Bacteria regardless the results of their extra examination.

In order to detect elimination of bacteria, every patient must be subjected to comprehensive checkup: sputum analysis (lavage water from bronchi, trachea, stomach) that is performed at least twice by the method bacterioscopy; three sessions of inoculation prior to treatment for primary patients, in case of exacerbation or relapse, and during chemotherapy after two-day interval in taking of tuberculostatic medicines. Checkup shall be repeated every month during treatment 1) till bacteria disappear, and it must be confirmed by at least two consequent examinations with negative results that shall be separated by 2-3 months interval and 2) till healing of destruction caverns that is confirmed by tomogram. Than the mentioned checkups shall be undertaken once in 2-3 months till the end of the basic course of chemotherapy. It is allowed to take Eliminators of Bacteria off record only when process becomes quiet due to effective chemotherapy or after successful surgery, but minimum 12 months after elimination of bacteria has stopped.

In the following cases it is recommended to keep the Eliminators of Bacteria on record 6-12 months above the specified periods even after disappearance of *Mycobacterium Tuberculosis*:

- a) improper treatment;
- b) availability of aggravation factors;
- c) successful results of chronic destructive processes with formation of solid focuses, scars (including those that appeared after collapsosurgical intervention).

* Single-time elimination of bacteria: a) for persons not registered in TB Prophylactic Center when *Mycobacterium Tuberculosis* is detected for the first time in one of 3-4 examinations by bacterioscopy and inoculation methods that were undertaken consequently within 3-4 days; b) for persons registered in groups III and VII when *Mycobacterium* is detected after multiple negative examinations during the previous years and if repeated (3-4) examinations after detection of *Mycobacterium Tuberculosis* proved to be negative.

Patients suffering fibrocavernous tuberculosis must be registered only in group of Eliminators of Bacteria. After favorable outcome of fibrocavernous tuberculosis the diagnosis shall be changed (for cyrhotic, disseminated, focal, etc.), patient shall be transferred to group II and (at the same time) taken off the epidemiological record.

When chronic destructive tuberculosis outcomes to cyrhotic, and filled or sanitized cavities are formed (including those formed after thoracoplasty and cavernotomy), such patients shall be taken off epidemiological record in 3 years after bacteria disappeared and in case of process stabilization. If it is impossible to prove that patients with residual caverns became abacillar on the basis of bacteriological examination, such patients shall not be taken off record as Eliminators of bacteria.

The period, during which Eliminator of bacteria is kept on epidemiological record, shall be taken into account while calculating his period of observation in group II of outpatient registration.

Patients with extrapulmonary tuberculosis shall be registered as Eliminators of bacteria if the bacteria are detected in discharge of fistulas, in urine or in menstrual blood.

If *Mycobacterium Tuberculosis* were not found before and after surgery, but inoculation of resection material gave growth of bacteria, such patients shall not be registered as Eliminators of Bacteria. This provision shall be also applied to the patients with bacteria that are detected only by inoculation of material obtained by puncture of encysted empyema, lymph nodes, etc. Persons shall be registered or unregistered as Eliminators of Bacteria by District Phthisiologist jointly with Head of Department or Head Physician (or his Deputy in charge of treatment) of TB Prophylactic Center. Patients with extrapulmonary tuberculosis shall be taken off epidemiological record after consultation by appropriate specialists subject to abating of tuberculosis process and to disappearance of bacteria.

If a patient lives away from the place of his permanent registration, he must be taken on record at the Prophylactic Center where he actually lives. Persons who are in contact with him shall be registered in group IV and appropriate sanitation measures must be undertaken (including the final disinfection).

3. Stabilization of process – means healing of specific process. It has the same symptoms as abating disease, but there is no further positive development of residual changes and it is confirmed by comparison of X-ray and tomographic data at least every 3-6 months.

4. Residual changes – solid and calcified focuses of different size, fibro-scary and cyrhotic changes (including residual sanitized caverns), pleural layers, post-surgical changes in lungs and pleura.

5. Exacerbation – outbreak of tuberculosis process that occurs after successful treatment prior to clinical healing.

6. Relapse – outbreak of tuberculosis for persons who were earlier sick with tuberculosis and were healed of it: a) early relapse – for persons registered in groups III and V-B; b) late relapse – for persons registered in groups VII-A and V-Г (except those healed spontaneously) or persons taken off record.

Reactivation of process for persons registered in groups VII-Б and V-Г or unregistered shall be considered as just revealed disease.

7. Basic Chemotherapy Course – long, continuous, comprehensive treatment of tuberculosis patients with antibacterial medicines aimed at healing of the process. The basic course may be completed minimum 6 months after abating of the process if residual changes are large, and minimum 3 months – if residual changes are small. Minimum period of the basic course shall

be minimum 12 months for destructive and bacillar forms of tuberculosis and minimum 9 months if there are no *Mycobacterium Tuberculosis* and no destruction.

8. Aggravation factors shall include unfavorable living conditions, serious concomitant diseases (alcohol and drugs abuse, mental diseases, diabetes mellitus – medium and serious forms, gastric and duodenal ulcer, acute and chronic inflammatory diseases in lungs), cytostatic, radial and long-term steroid therapy, as well as physiological conditions that reduce organism immunity (pregnancy, postnatal period), extensive surgical intervention, serious physical and mental traumas.

9. Patients suffering sarcoidosis in any location shall be observed in TB Prophylactic Centers as individual category in group VIII.

10. Some diagnosis statements for registration groups.

When a patient with "sanitized" caverns is transferred to group II, the specified diagnosis shall characterize the changes in lungs (focal, disseminated tuberculosis in the phase of resolution and consolidation, cyrrhotic tuberculosis with sanitized caverns).

Persons registered in group VII shall be given the following diagnosis: "Clinical healing after the stated form of tuberculosis (mention the most serious diagnosis for the whole period of disease) with outcome to focuses, fibrosis, cyrrhosis, etc.

Persons registered in group VII shall be given the following diagnosis: "Large (small) residual changes: focuses, fibrosis, cyrrhosis, tuberculoma, etc.". For group VII-A (which includes only persons who suffered active tuberculosis earlier) it shall be required to mention the process that became the reason for such residual changes (if diagnosis is known).

11. For the program of X-ray and bacteriological examination see Tables 2 and 3.

**Children and Teenagers Groups Observed by
Tuberculosis Prophylactic Centers**

This classification is the same for younger children, senior children and teenagers. Children and teenagers who are subject to registration shall be distributed between the following 8 groups:

Group

- 0 persons who are sent to Prophylactic Centers for specification of tuberculin sensitivity type, for diagnostics and determination of tuberculosis activity.
- I patients with active tuberculosis of respiratory organs
- II patients with abating active tuberculosis of respiratory organs
- III persons with clinically healed (inactive) tuberculosis of respiratory organs
- IV children and teenagers who are in contact with patients suffering active tuberculosis (either eliminating or not eliminating bacteria) or with sick livestock
- V patients with extrapulmonary tuberculosis and persons who were healed of it
- VI children and teenagers with high risk of tuberculosis disease who were selected for being observed as a result of tuberculine diagnostics
- VIII children and teenagers who are ill with sarcoidosis.

Children and teenagers with large residual changes shall be observed in group III until they reach the age of 18, after that they shall be transferred to group VII-A for adults.

Table 1

Group	Description of patients	Frequency of visits	Period of observation	Measures	Criteria of effectiveness for outpatient observation
1					
"0" (zero) diagnostic groups	<p>2 Children and teenagers who require specification of the following parameters: type of tuberculin sensitivity (postvaccinal and infectious); etiology of intoxication; type of changes in pulmonic and intrathoracic lymph nodes when clinical symptoms are similar to tuberculosis, when non-specific ineffective therapy was undertaken, when there are high-risk factors for development of tuberculosis; etiology of lymphadenitis, mesadenitis, affection of bones and joints, affection of urogenital system and other organs when clinical symptoms are similar to tuberculosis etiology; activity of process in all post-tuberculosis changes that have been just revealed (calcification in intrathoracic lymph nodes and pulmonic tissue, pneumosclerosis, pleural layers)</p>	3 As indicated	4 Up to 6 months - for specification of tuberculin sensitivity Maximum 3 months - for specification of process activity, etiology of intoxication and local changes	5 <p>Checkup (outpatient or in hospital) and observation for specification of tuberculin sensitivity and determination of intoxication etiology (selection of individual checkup program on the basis of concomitant pathology; tuberculinodiagnosics, clinical and X-ray examination, checkup of adults in contact, sanitation of chronic focuses of infection) Checkup and test-therapy in hospital for all cases that require differential diagnostics with tuberculosis if there are changes in lungs, intrathoracic lymph nodes and other organs. The same for persons with just revealed post-tuberculosis changes</p>	6 Transfer to group I, III-A, V, VI or discharge from group VIII

Table continued

I	2	3	4	5	6
Active tuberculosis of respiratory organs	Children and teenagers: with just revealed active tuberculosis of respiratory organs (intrathoracic lymph nodes, lungs, bronchi, pleura); with tuberculosis intoxication; with just revealed tuberculosis changes in lungs or intrathoracic lymph nodes at the phase of incomplete resolution or incomplete calcification. Bacillar patients and those with destruction of pulmonic tissue shall be marked out	It shall be determined by the period of treatment in hospital, At least 3 times a month for outpatient treatment	6-9-12 and more months. Minimum 6 months for persons with tuberculosis intoxication, 9 months for persons with limited local processes without elimination of bacilli and destruction of pulmonic tissue. For extensive processes and complications - treatment during 12 and more months - till clinical observation and X-ray examination prove that the patient is safe from epidemiological point of view (no elimination of bacilli, closing and sanitation of caverns, considerable resolution of infiltration)	Basic course of chemotherapy must be taken only in hospital. Patient may be transferred to a sanatorium to complete the basic course subject to stabilization of the process and epidemiological safety of the patient (no bacilli elimination) and minimum 3 months after beginning of chemotherapy. Surgery shall be undertaken if there are indications for it	Transfer to group II. Transfer to group III for persons with intoxication and limited processes (minor forms of tuberculosis in intrathoracic lymph nodes, including just revealed processes at the phase of calcification). When children and teenagers are in group I, they must not visit any children or teenagers facilities.
II Abating active tuberculosis of respiratory organs	Children and teenagers transferred from group I after effective course of treatment (including surgery) for extensive and complicated processes	At least once in 3 months	1 year In case of aggravation factors the period shall be increased by 1-2 years (till clinical recovery)	3-month seasonal courses of chemotherapy based on two medicines, preferably in sanatorium. Children and teenagers facilities may be visited by schoolchildren and teenagers; as regards pre-school children – after healing of tuberculosis intoxication, minor forms of tuberculosis in intrathoracic lymph nodes, closed forms of tuberculosis in peripheral lymph nodes.	Transfer to group III-B - no exacerbation

Table continued

1	2	3	4	5	6
III Clinically healed tuberculosis of respiratory organs	<p data-bbox="264 1375 384 1910"><u>Subgroup "A"</u> Just revealed children and teenagers with residual post-tuberculosis changes, those transferred from group "0" after active process was excluded</p> <p data-bbox="475 1447 536 1910"><u>Subgroup "B"</u> Persons transferred from groups I, II, III-A</p>	<p data-bbox="264 1196 320 1305">Once in 6 months</p> <p data-bbox="475 1196 536 1305">Once in 6 months</p>	<p data-bbox="264 1043 288 1117">1 year</p> <p data-bbox="475 725 624 1117">2-3 years Children and teenagers with marked residual changes shall stay under observation till they reach the age of 18</p>	<p data-bbox="264 371 411 703">Comprehensive chemotherapy in sanatoriums, in case of aggravation in medical and social factors the period is extended to 3-6 months</p>	<p data-bbox="264 192 443 322">No reactivation of tuberculosis Transfer to group III-B</p> <p data-bbox="475 174 536 322">No relapse of tuberculosis</p>
IV Contacts	<p data-bbox="635 1335 815 1910"><u>Subgroup "A"</u> Healthy children of all ages and teenagers contacting bacillar patients in families or neighborhood, as well as contacting eliminators of bacteria who were revealed in children and teenager facilities, residents of Tuberculosis Treatment facilities</p> <p data-bbox="815 1335 1031 1910"><u>Subgroup "B"</u> Children of earlier ages contacting active tuberculosis patients without elimination of bacteria Children from families who work at livestock breeding farms that are not safe in tuberculosis, as well as from families whose livestock is ill with tuberculosis</p>	<p data-bbox="635 1151 906 1305">Minimum twice a year. Minimum 3 times a months when undertaking controlled outpatient chemotherapy</p>	<p data-bbox="635 736 879 1117">During the entire period of contact and 1 more year after it (2 years if the territory is not safe from epidemiological point of view If the end of observation falls to prepubertal period (12-13 years of age), the period of observation shall be extended till the age of 15</p>	<p data-bbox="635 371 1302 703">Main measures: isolation in children's sanatoriums, chemoprophylaxis, BCG vaccination and revaccination for uninfected; general sanitation measures; sanitation of chronic disease pestholes. Checkup of infected people during registration and chemoprophylaxis for them shall be performed in a hospital or sanatorium, especially when there is risk of tuberculosis development. Repetition factor of 3-month chemoprophylaxis (once or twice a year) shall be determined on the basis of risk aggravation factors and epidemiological conditions. The same factors shall be used to select the number of prescribed drugs (1 or 2).</p>	<p data-bbox="635 192 810 322">No disease among contacts. Prevention of primary infection</p>

Table continued

I V Extrapulmonary tuberculosis	2 3 subgroups shall be defined according to process activity: "A" - patients with active tuberculosis "B" - patients with abating active tuberculosis "B" - persons with inactive extrapulmonary tuberculosis forms	3 According to undertaken chemotherapy and treatment in hospital - at least twice a month	4 Observation periods for subgroups shall be determined by appropriate specialists according to development of tuberculosis process and indicated treatment and preventive measures. Bacillar patients shall be taken off epidemiological record minimum 12 months after bacteria disappeared, if there is stabilization of process confirmed by X-ray and clinical examinations or after effective surgical intervention. Children and teenagers who recovered from tuberculous meningitis shall stay under observation till the age of 18 inclusive	5 According to activity of tuberculosis process, patients shall be included to one of subgroups of this group and treated till steady clinical healing under periodical consultations by specialists. Chemotherapy in hospital or under outpatient conditions. 3-month seasonal courses twice a year in subgroup "B". As regards patients from subgroup "B", they shall be subjected to chemotherapy in compliance with individual indications.	6 Similar to groups I, II, III
VI Increased risk of tuberculosis disease	2 <u>Subgroup "A"</u> Children and teenagers at the early stage of primary tuberculous infection (change in tubercule reactions) without symptoms of tuberculosis intoxication and local changes, including those transferred from group "0" <u>Subgroup "B"</u> Children and teenagers who were earlier infected, with hyperergic reaction to tuberculine <u>Subgroup "B"</u> Children and teenagers with increasing tuberculine sensitivity (increase of papule by 6mm or more) <u>Subgroup "I"</u> Children and teenagers with post-vaccination complications (according to the manual for BCG vaccine)	3 Twice a year. 3 times a month during chemoprophylaxis Twice a year. 3 times a month during chemoprophylaxis Maximum 1 year At least once in 6 months	4 1 year in TB Prophylactic Center. 2 years if there are medical and social risk factors, or if they come from death focuses 1 year in TB Prophylactic Center. 2 years if there are medical and social risk factors, or if they come from death focuses Minimum 1 year in case of post-vaccination complication	5 One 3-month course of controlled chemoprophylaxis at the moment of registration. Afterwards - according to individual indications 3-month course of chemoprophylaxis. If hyperergy remains, the second course of chemoprophylaxis shall be prescribed for 3 months by two drugs and checkup in hospital shall be undertaken. Observation for 2 years. Single course of chemoprophylaxis during 3 months. Chemotherapy with isoniazid in case of post-vaccination lymphadenitis; surgery, if indicated, with chemotherapy during 3 months. Treatment of complications as recommended.	6 No cases of tuberculosis No cases of tuberculosis

Table continued

1	2	3	4	5	6
VIII Sarcoidosis Form G30-04	Subgroup "A" Children and teenagers with just revealed forms of sarcoidosis in any location, including exacerbation and relapse of sarcoidosis Subgroup "B" Children and teenagers with abating sarcoidosis Subgroup "B" Children and teenagers with clinically healed sarcoidosis, transferred from subgroup VIII-B (inactive sarcoidosis)	Every 3 months for the 1 st year of observation Every 6 months for the 2 nd year Same as for subgroup "A" Once in 6 months for the 1 st year of observation Once in 12 months for the 2 nd year	2 years under favorable conditions, transfer to group B in 2 years 3 years and more in case of relapse Taking off record if there is no relapse	Treatment in hospital, outpatient treatment Treatment in sanatorium, transfer to subgroup "A" in case of exacerbation Transfer to subgroup "A" in case of relapse	No sarcoidosis activity with minimum pleurosclerosis and minimum disturbance in «ФВД» No sarcoidosis activity Loss of activity and the following symptoms: 1) normal state of health; 2) normal blood content; 3) normal biochemical parameters; 4) resolution of interstitial and granulomatous changes in lungs, lymph nodes and other organs; 5) better «ФВД» parameters

Notes: 1. In case of combination of intrathoric and extrapulmonary tuberculosis, patients shall be registered on the basis of the most active location; in case of tuberculous meningitis, tuberculosis of central nervous system shall be the main one.

2. If it is found that children or teenagers have active tuberculosis, or if there is change in tuberculine reaction and hypergy, it is required that all family members should be examined within 2 weeks.

3. Medical and social risk factors: children under 3 years of age, explicit tuberculine sensitivity, concomitant pathology, availability of steady bacteria strain in the source of infection, vulnerable families with many children, migrants and refugees; unfavorable areas sense of epidemiological situation.

4. Description of residual changes:

insignificant - single calcification in lymph nodes and lungs, fibrosis inside one segment;

moderately marked - small calcification in several groups of lymph nodes, group of solid or calcified focuses in lungs, fibrosis inside lobe or 1-2 segments of both lungs;

marked - massive calcification in several groups of intrathoric lymph nodes, focuses in lungs, pneumosclerosis in 2-3 lobes or in one lobe with bronchiectasis available.

Checkup Program for Children and Teenagers Registered in TB Prophylactic Center

METHODS OF EXAMINATION					
Groups	X-ray examination	Blood and urine analysis	Tuberculine tests	Examination of sputum, lavage waters from stomach, bronchi and biopsy materials for availability of bacteria	
0	X-ray pictures, tomograms at the moment of registration, taking off record or transfer to other groups	Once in 3 months or more frequent according to indications	At the moment of registration and taking off record; every 1-3 months for differential diagnostics of post-vaccinal and infectious allergy	At the moment of registration for diagnostics of intrathoracic tuberculosis, lymphadenitis	
I	X-ray pictures, tomograms minimum once in 3 months for local forms and twice a year for tuberculosis intoxication	Minimum once a month	At the beginning and end of treatment	Three times at the moment of registration prior to treatment and once a month till bacteria disappear, and afterwards once in 2-3 months, after transfer to group II - once a year	
II	X-ray pictures, tomograms minimum semiannually	Once in 3 months; during chemoprophylaxis - every month	Twice a year prior to chemoprophylaxis	-	
III	X-ray picture once a year and when taken off record	Semiannually; During anti-relapse chemotherapy - every month	Once a year and when taken off record	For large residual changes and healed ulcerous tuberculosis of bronchi - once a year	
IV	X-ray picture once a year for uninfected and twice a year for infected (for children above 3 years of age - once a year)	Once in 3-6 months, during chemoprophylaxis every month	For uninfected and infected children - once in 6 months. For younger children - 3 times a year	-	
V	X-ray picture twice a year	According to the minimum that is specified for main groups	-	-	
VI	X-ray picture, tomogram at the moment of registration and taking off record	Semiannually; during chemoprophylaxis every month	At the moment of registration and taking off record	-	
VIII	X-ray picture, tomograms through the root of the lung at the moment of registration and semiannually, when taken off record and as indicated	At the moment of registration and at the end of treatment	At the moment of registration	At the moment of registration and taking off record	

Notes: 1. For children above 10 and teenagers X-ray examination may be replaced with fluorography if wide-frame fluorography is available in TB Prophylactic Center.

2. In case of urine pathology it is required to perform 3-time inoculation of urine for discovery of bacteria.