

## Instructions for collection and submission of specimens for Mycobacterial Examination

### I. Collection kit

- A. Unit 12 (IATA Category B)
- B. 50 ml, screw cap, polypropylene tube

### II. Sample collection- MDHHS will process any volume of specimen received. Respiratory specimens with volumes less than 3 ml may compromise recovery of acid-fast organisms.

#### A. Sputum

- 1. Collect a series of 3 sputum specimens, 8-24 hours apart, with at least 1 early morning specimen (specimens should be thick and contain mucoid or mucopurulent material).
- 2. Collect specimens in the morning after the patient has brushed their teeth (removed dentures) and rinsed the mouth.
- 3. Minimum volume is 3 ml, desired volume is 3-7 ml (pooled sputum specimens are unacceptable).

#### B. Bronchial specimens and Tracheal aspirates

- 1. Bronchial specimens and tracheal aspirates are collected aseptically by physician or appropriately trained medical personnel.
- 2. Minimum volume is 3 ml, desired volume is 3-5 ml.

#### C. Gastric Lavage

- 1. Gastric lavages are collected aseptically by physician or appropriately trained medical personnel. Fasting, early morning specimens are recommended.
- 2. Within 4 hours, specimens must be neutralized to a pH 6.0-8.0 using sodium bicarbonate. Specimens must be received in the laboratory within 72 hours.
- 3. Specimens not received within 72 hours or specimens that have not been neutralized are unacceptable and will not be tested.
- 4. Minimum volume is 3 ml, desired volume is 5-10 ml.

#### D. Urine

- 1. Collect an early morning clean-catch, midstream or catheterized specimen.
- 2. Do not fill the container more than half full of specimen.
- 3. Minimum volume is 10-15 ml, desired volume is 40 ml.

#### E. Stool

- 1. Collect stool specimens only for testing on immunocompromised patients. Stool specimens are not acceptable for screening for respiratory disease due to *M. tuberculosis*.
- 2. Minimum volume is 1 gram (approximately 1 ml)

#### F. Body Fluids (Pleural, Thoracentesis, Pericardial, Peritoneal, Synovial, CSF etc.)

- 1. Body fluids are collected by physician or appropriately trained medical personnel under aseptic conditions.
- 2. Use a sterile syringe and transfer specimen to a sterile, leak proof container.

3. Avoid using swabs. If a swab is necessary, it should be moistened with sterile water prior to collecting the specimen. Swabs are NOT recommended for isolation of Mycobacteria and should only be used if a specimen cannot be obtained by any other means.
4. Minimum volume is 5 ml, desired volume is 10-15 ml.

**NOTE:** CSF minimum volume is 2 ml. the third tube collected is usually submitted for culture.

#### G. Tissue

1. Tissue samples are collected by physician or appropriately trained medical personnel, using aseptic technique. Avoid contamination with normal skin flora when collecting biopsies.
2. Place specimen directly into a sterile container with a few drops of sterile water or saline to prevent the tissue from drying.
3. Any size of tissue sample received is acceptable.
4. Formalin fixed paraffin embedded tissues will **NOT** be accepted.

#### H. Blood

1. Collection of blood (10 ml) using the Isolator Lysis Centrifugation System is ideal for blood cultures. Pediatric Isolator tubes (3.5 ml) should only be used when necessary (difficult draws, babies).
2. Lysed sediment from Isolator as a clinical specimen is acceptable.
3. Blood collected in SPS (yellow top), or heparin (green top) are also acceptable.
4. EDTA (lavender top) and Sodium citrate (blue top) are **NOT** acceptable.
5. Store blood specimens at room temperature, do **NOT** refrigerate.
6. Minimum volume for adults is 5 ml and 1 ml for children, desired volume for adults is 10 ml, and 3.5 for children.

#### I. Bone Marrow

1. Bone marrow is collected by a physician or trained medical personal, using aseptic technique, and transferred to a sterile leak-proof container.
2. SPS (yellow top) or heparin (green top) anticoagulant tubes may be used.
3. The pediatric isolator blood culture system can be used for collection of bone marrow specimens.
4. Bone marrow specimens must be sent to the laboratory immediately after collection. If delays are anticipated, store specimen at room temperature, do **NOT** refrigerate.
5. Any volume of bone marrow is acceptable.

### III. Labeling

- A. Label the specimen container with the complete patient's name and at least 1 unique identifier (specimen number, medical record number, etc.).
- B. Enter the required information on the test requisition form (DCH-0583). The patient's name and unique identifier on the form must be entered the same as the information on the tube.
- C. If there are multiple specimens from the same patient, please label each specimen tube with the correct specimen number. A separate test requisition is needed for each specimen.

### IV. Package and shipping

- A. Specimen should be delivered to MDHHS within 24 hours of collection. Refrigerate all specimens except Blood, and Bone Marrow if delays in transportation are anticipated.
- B. Screw cap on the tube tightly and evenly to prevent leaking. Para-film® or tape the cap to secure.

- C. Insert the specimen and absorbent pad into the small plastic bag provided. Make sure it is sealed. Cushion the tube with paper toweling to prevent breaking and place in the large plastic bag with the biohazard symbol (Bio-Bag)
  - D. Place the completed MDHHS test requisition in the outside pocket of the Bio-Bag. Seal the bag.
  - E. Insert the Bio-Bag diagonally into the box provided so it is suspended in the middle. If necessary, add extra cushioning.
  - F. Close the box and secure with sealing tape on both sides of the flap.
  - G. Attach completed address label and large UN3373 label.
  - H. Send to the Lansing laboratory as soon as possible (e.g., courier, 1<sup>st</sup> class mail (USPS), United Parcel Service (UPS), etc.).
  - I. Instructions are also available by visiting, [http://www.Michigan.gov/mdhhs/1,4570,7-253\\_2787\\_2788\\_2789\\_2790\\_2791\\_2792\\_2793\\_2794\\_2795\\_2796\\_2797\\_2798\\_2799\\_2800\\_2801\\_2802\\_2803\\_2804\\_2805\\_2806\\_2807\\_2808\\_2809\\_2810\\_2811\\_2812\\_2813\\_2814\\_2815\\_2816\\_2817\\_2818\\_2819\\_2820\\_2821\\_2822\\_2823\\_2824\\_2825\\_2826\\_2827\\_2828\\_2829\\_2830\\_2831\\_2832\\_2833\\_2834\\_2835\\_2836\\_2837\\_2838\\_2839\\_2840\\_2841\\_2842\\_2843\\_2844\\_2845\\_2846\\_2847\\_2848\\_2849\\_2850\\_2851\\_2852\\_2853\\_2854\\_2855\\_2856\\_2857\\_2858\\_2859\\_2860\\_2861\\_2862\\_2863\\_2864\\_2865\\_2866\\_2867\\_2868\\_2869\\_2870\\_2871\\_2872\\_2873\\_2874\\_2875\\_2876\\_2877\\_2878\\_2879\\_2880\\_2881\\_2882\\_2883\\_2884\\_2885\\_2886\\_2887\\_2888\\_2889\\_2890\\_2891\\_2892\\_2893\\_2894\\_2895\\_2896\\_2897\\_2898\\_2899\\_2900\\_2901\\_2902\\_2903\\_2904\\_2905\\_2906\\_2907\\_2908\\_2909\\_2910\\_2911\\_2912\\_2913\\_2914\\_2915\\_2916\\_2917\\_2918\\_2919\\_2920\\_2921\\_2922\\_2923\\_2924\\_2925\\_2926\\_2927\\_2928\\_2929\\_2930\\_2931\\_2932\\_2933\\_2934\\_2935\\_2936\\_2937\\_2938\\_2939\\_2940\\_2941\\_2942\\_2943\\_2944\\_2945\\_2946\\_2947\\_2948\\_2949\\_2950\\_2951\\_2952\\_2953\\_2954\\_2955\\_2956\\_2957\\_2958\\_2959\\_2960\\_2961\\_2962\\_2963\\_2964\\_2965\\_2966\\_2967\\_2968\\_2969\\_2970\\_2971\\_2972\\_2973\\_2974\\_2975\\_2976\\_2977\\_2978\\_2979\\_2980\\_2981\\_2982\\_2983\\_2984\\_2985\\_2986\\_2987\\_2988\\_2989\\_2990\\_2991\\_2992\\_2993\\_2994\\_2995\\_2996\\_2997\\_2998\\_2999\\_3000](http://www.Michigan.gov/mdhhs/1,4570,7-253_2787_2788_2790_2791_2792_2793_2794_2795_2796_2797_2798_2799_2800_2801_2802_2803_2804_2805_2806_2807_2808_2809_2810_2811_2812_2813_2814_2815_2816_2817_2818_2819_2820_2821_2822_2823_2824_2825_2826_2827_2828_2829_2830_2831_2832_2833_2834_2835_2836_2837_2838_2839_2840_2841_2842_2843_2844_2845_2846_2847_2848_2849_2850_2851_2852_2853_2854_2855_2856_2857_2858_2859_2860_2861_2862_2863_2864_2865_2866_2867_2868_2869_2870_2871_2872_2873_2874_2875_2876_2877_2878_2879_2880_2881_2882_2883_2884_2885_2886_2887_2888_2889_2890_2891_2892_2893_2894_2895_2896_2897_2898_2899_2900_2901_2902_2903_2904_2905_2906_2907_2908_2909_2910_2911_2912_2913_2914_2915_2916_2917_2918_2919_2920_2921_2922_2923_2924_2925_2926_2927_2928_2929_2930_2931_2932_2933_2934_2935_2936_2937_2938_2939_2940_2941_2942_2943_2944_2945_2946_2947_2948_2949_2950_2951_2952_2953_2954_2955_2956_2957_2958_2959_2960_2961_2962_2963_2964_2965_2966_2967_2968_2969_2970_2971_2972_2973_2974_2975_2976_2977_2978_2979_2980_2981_2982_2983_2984_2985_2986_2987_2988_2989_2990_2991_2992_2993_2994_2995_2996_2997_2998_2999_3000)
  - J. The specimen will not be tested if:
    - 1. The specimen container is received leaking.
    - 2. The specimen is not properly labeled, or the test requisition not completed.
    - 3. The specimen label does not match the test requisition.
- V. Packaging and shipping are the responsibility of the shipper. Please be sure it follows shipping regulations.**



Unit 12-Mycobacterial Collection kit