



Republic of the Philippines  
Department of Health  
**OFFICE OF THE SECRETARY**

May 29, 2017

**DEPARTMENT MEMORANDUM**

No. 2017 - 0233

**FOR :** SECRETARY OF HEALTH OF AUTONOMOUS REGION IN MUSLIM MINDANAO AND ALL DOH REGIONAL DIRECTORS

**SUBJECT:** Guidelines on the Use of Digital X-ray Machine provided by the Global Fund through the Philippine Business for Social Progress (PBSP) in Support of the Objective of the National TB Program (NTP) of Finding All Missing TB Cases

One of the major thrusts of the 2017-2022 Philippine Strategic Tuberculosis Elimination Plan Phase 1 (PhilSTEP1) is to find all missing TB cases through expansion of diagnostic facilities, use and scale-up of rapid diagnostic tools, and conduct of systematic screening among the high risk groups and vulnerable populations.

In support to this activity, the Disease Prevention and Control Bureau, in collaboration with the Philippine Business for Social Progress (PBSP), procured digital X-ray machines to improve access to TB diagnostics and to lessen out-of-pocket expenses of patients to be diagnosed of TB.

The procured digital x-ray machines shall be used primarily for the following:

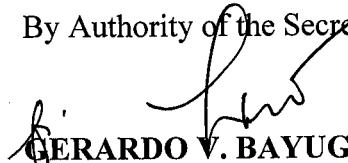
- a. Systematic screening of active TB among high risk groups and vulnerable populations;
- b. Support to the diagnosis of childhood TB in accordance to NTP policies and guidelines;
- c. Screening/triaging on who shall be tested with Xpert MTB/RIF to reduce the number of cases tested and the associated cost, as well as improve the pre-test probability for TB and thus the predictive value of Xpert MTB/RIF;
- d. Assist in the diagnosis of TB among People Living with HIV and;
- e. Rule-out active TB before treating latent TB infection.

In this regard, all regions of the country shall be provided with at least one digital x-ray machine through the DOH-Regional Offices and the DOH-Regional offices shall in turn determine the recipient of the machine.

Attached herewith is the Guidelines in the Use of the Digital X-ray Machine (see Annex) for your reference.

For information.

By Authority of the Secretary of Health:

  
**GERARDO V. BAYUGO, MD, MPH, CESO III**  
Undersecretary of Health  
Office for Technical Services

## **ANNEX**

### **Guidelines on the Use of Digital X-ray Provided by the Global Fund through the Philippine Business for Social Progress in Support of the Objective of the National TB Program of Finding All missing TB cases**

#### **I. GENERAL GUIDELINES**

1. The digital chest X-ray machines shall be distributed to all DOH – Regional Offices. The DOH ROs, will determine the recipients of the said xray machines.
2. The digital x-ray machines will be used to find all missing TB cases primarily through the conduct of systematic screening among the high risk groups and vulnerable population such as but not limited to People living with HIV (PLHIV) with any of the following: cough of any duration, fever, night sweats or weight loss; children; elderly; inmates.
3. Screening and diagnostic procedures shall follow the diagnostic algorithm of NTP in the management of TB cases.
4. The legal owner of the Xray machine is the Philippine Business for Social Progress (PBSP). As such, a Memorandum of Agreement will be executed between PBSP and DOH-Regional Office. The DOH Regional Office may enter into a separate MOA with their designated recipient facility. At the end of the Project, the DOH Regional office will determine the final owner of the machine as discussed with the National TB Control Program.
5. Necessary support systems such as human resource, facility and equipment maintenance, capacity building, referral system, monitoring and financing shall be in place to sustain operations of the mobile digital x-ray machines.
6. Recording and reporting system shall follow standard NTP and NASPCP protocols and procedures. Additional report may be requested to monitor proper use of the digital x-ray machines.
7. The Regional Offices shall ensure correct utilization and proper management of the mobile digital x-ray machines.

## II. SPECIFIC GUIDELINES

### 1. Distribution of the X-ray machine

The following facilities are the recipients of the digital x-ray machine:

- Region I – Ilocos Training and Regional Medical Center, Region 1 Medical Center
- Region II – Cagayan Valley Medical Center Treatment Hub
- Region III – Angeles City Health Office, Talavera RHU II, Bataan (recipient to be identified)
- Region IV-A – Batangas Medical Center, General Emilio Aguinaldo Memorial Hospital, Rizal Provincial Health System (Angono Annex)
- Region MIMAROPA – Oriental Mindoro Provincial Hospital
- Region V – Bicol Diagnostic and Reference Laboratory
- Region VI – Western Visayas Medical Center
- Region VII – DOH Regional Office VII, Don Emilio Del Valle Memorial Hospital
- Region VIII – Schistosomiasis Hospital and Research Center
- Region IX – Zamboanga City Medical Center, Sulu Sanitarium
- Region X – Northern Mindanao Medical Center, Misamis Occidental Provincial Hospital and Amai Pakpak Medical Center
- Region XI – Davao Chest Center TB DOTS Clinic
- Region XII – DOH Regional Office
- Region XIII – DOH Regional Office, Caraga Regional Hospital
- CAR – DOH Regional Office
- NCR – Manila Health Department
- ARMM – DOH Regional Office

The recipients of the machine shall obtain the License to Operate (LTO) from the Food and Drug Administration – Center for Device Regulation, Radiation, Health and Research (FDA-CDRRHR). Application forms and application requirements may be downloaded from [www.fda.gov.ph](http://www.fda.gov.ph).

### 2. The digital x-ray machines shall be used primarily for the following:

- a. Systematic screening for active TB among high risk groups and vulnerable populations;
- b. Support the diagnosis of childhood TB in accordance to NTP policies and guidelines;
- c. Screening/triaging on who shall be tested with Xpert MTB/RIF to reduce the number of cases tested and the associated cost, as well as improve the pre-test probability for TB and thus the predictive value of Xpert MTB/RIF;
- d. Assist in the diagnosis of TB among People Living with HIV and;
- e. Rule-out active TB before treating latent TB infection.

Any facility involved in the diagnosis and management of TB and/or HIV such as treatment hubs, DOH retained hospitals, provincial/city hospitals, DOTS/PMDT facility, jails/prisons, etc. can have access to the machine as long as it will be used to find the missed TB cases.

### 3. Screening and Diagnostic Procedures

All patients with CXR findings suggestive of TB shall be referred to Xpert sites for testing. For those without access to Xpert, Direct Sputum Smear Microscopy (DSSM) will be requested.

Treatment of patients shall follow the policies and guidelines stipulated in the NTP Manual of Procedures (MOP), 5<sup>th</sup> edition.

### 4. Ownership

4.1. The DOH-RO shall be the registered owner of the Xray machine or its designated facility and as such has the primary discretion on who can use or who can borrow the machine as long as its use is consistent with the provision of this Guidelines. By the same token, the DOH-RO will be jointly accountable in addressing the damage or loss of the units, either directly or indirectly incurred, as a result of loaning;

4.2. While the DOH-RO, by all intents and purposes, is the technical owner of the unit, PBSP, being the rightful legal owner until officially donated to the Government of the Philippines (GOP), reserves the right to withdraw the machine if any irregularity or anomalous act is observed and proven.

### 5. Maintenance and Support Systems

#### 5.1. Human Resource

The DOH-RO, as the registered owner, shall designate duly licensed Radiologist and Radiologic Technologist/s, hired or affiliate, to operate the machine and shall ensure that needed human resources are available through the NTP Sub-allotment or through coordination with the hospital or recipient facility.

#### 5.2. Facility and Equipment Maintenance

5.2.1. The DOH-RO shall ensure that the machine is set-up in an appropriate space (as prescribed by FDA standards) and kept in a secure place at all times.

5.2.2. Maintenance shall be the joint responsibility of DOH-RO and PBSP to ensure that the machine is in optimum working condition at all times.

5.2.3. Maintenance cost shall be covered by PBSP for the duration of the project. However, for the long term, the DOH-RO shall plan for equipment maintenance using their budget allocation from the National TB Control Program.

5.2.4. Only the authorized local service provider contracted by MinXray/PBSP shall execute troubleshooting procedures and necessary repairs. Requests for repairs shall be made to the local service provider through DOH-RO and PBSP.

#### 5.3. Capacity Building

The DOH-RO shall ensure that the operators of the unit are duly qualified and adequately trained. PBSP shall provide the initial formal training for the operators.

#### 5.4. Referral System

The DOH-RO shall ensure that a functional referral system is in place so that identified presumptive TB and TB cases are managed based on the MOP.

5.4.1. All patients with CXR finding suggestive of TB shall be referred to Xpert sites for testing. DSSM will be done for those without access to Xpert;

5.4.2. The standard NTP referral form (Form 7. NTP Referral Form) shall be utilized;

5.4.3. The receiving DOTS facility shall provide feedback to the referring facility;

5.4.4. Both the referring and receiving facility shall ensure that the referred patient is not lost during the referral process;

#### 5.5. Monitoring

The utilization of the machine shall be monitored by NTP, PBSP, DOH-RO, PHO/CHO either jointly or separately.

#### 5.6. Financing

The DOH-RO shall allocate budget annually for the operations of the equipment including maintenance, repair, and manpower.

6. In support to the initiative of NTP to find the missed TB cases, a list of clients that have CXR results suggestive of TB shall be submitted quarterly by the recipient facility to the DOH-RO. Please see attached form for recording and reporting.
7. The DOH-RO being the oversight body in the utilization and management of the digital x-ray machine shall:
  - 7.1. Ensure appropriate use, transport and storage of the machine;
  - 7.2. Ensure availability of manpower;
  - 7.3. Allocate budget for equipment maintenance and repair once DOH-RO assumes ownership
  - 7.4. Submit to all major stakeholders especially NTP and PBSP, a letter of request if the machine will be utilized other than specified by the Program and this shall be subject for approval of NTP.

Current Quarter \_\_\_\_\_

<b>Recipient Facility</b>	<b># of Diagnostic CXR Done</b>	<b># Suggestive of TB</b>	<b># Seen at DOTS Facility</b>	<b># Registered</b>

Previous Quarter \_\_\_\_\_

<b>Recipient Facility</b>	<b>Number Not (Yet) Registered from Previous Quarter</b>	<b>#Registered Late</b>