**Chest X-ray checklist**

In many countries, the TB diagnostic algorithm for pulmonary and extrapulmonary TB often includes the use of chest X-ray (CXR) as a diagnostic or screening test. For example, CXR has been used as a screening tool to increase the sensitivity of a more specific diagnostic test such as the Xpert MTB/RIF test.  The purpose of this checklist is to assess how CXR is used to support diagnosis of TB and response to treatment. Both national and sub-national program and clinical staff will be asked questions. When possible, consultants may visit facilities that offer CXR to inquire on their links to the NTP. The purpose is not to ascertain detailed information on the technical aspects of radiography but rather to understand if CXR is accessible within the diagnostic network to support the national TB diagnostic algorithm.

**National level**

|  |  |
| --- | --- |
| Name of program being assessed |  |
| Location of site (City/town, District, State) |  |
| **Names of persons interviewed** | **Position** |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Question** | **Answer** |
| Does the NSP define the objective(s) for using CXR within the NTP? |  |
| Do national guidelines specify when or where CXR is to be used for the diagnosis of TB including pulmonary, extrapulmonary, children or other risk groups? |  |
| Do national guidelines identify the role of CXR for monitoring response to treatment each of the forms of TB (e.g., pulmonary, extrapulmonary, drug susceptible, drug resistant, pediatric, etc.)? |  |
| Does NTP monitor the use of CXR according to guidelines? |  |
| Are there national specifications for CXR machines? If yes, what are they? |  |
| Are there SOPs on the use of CXR for assisting in the diagnosis of TB? |  |
| Are there plans to introduce digital CXR or teleradiograph to aid in the diagnosis of TB? |  |
| Do you have a national supervision tool for CXR facilities? |  |

**Intermediate or peripheral level**

|  |  |
| --- | --- |
| Name of site or program being assessed |  |
| Location of site (City/town, District, State) |  |
| TB tests performed at the site |  |
| **Names of persons interviewed** | **Position** |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Question** | **Answer** |
| Are the national diagnostic algorithms followed for CXR? |  |
| Where in the health system is CXR placed, i.e. primary healthcare level, referral level, in hospitals, etc.? |  |
| Approximately what proportion of presumptive TB patients have CXR results that are used to aid in the diagnosis of TB?   * Adult pulmonary * Adult extrapulmonary * Children * Other (define) |  |
| What is the mechanism that presumptive TB patients receive a CXR? What proportion of presumptive TB patients who have CXR results get their results by each mechanism?   * They arrive to the RNTCP facility with CXR in hand * The NTP facility refers the presumptive patient to a CXR facility * Other (define) |  |
| Approximately what proportion of clinically diagnosed TB patients have CXR results?   * Adult pulmonary * Adult extrapulmonary * Children * Other (define) |  |
| Are CXRs used to monitor response to treatment?   * Drug susceptible pulmonary TB patients * Drug susceptible extrapulmonary TB patients * Drug resistant pulmonary or extrapulmonary TB patients * Children |  |
| What is the general quality of CXRs used to aid in TB diagnosis? |  |
| Who is responsible for assuring the quality of CXR services? |  |
| Is there a supply mechanism for X ray consumable to avoid shortage or stock-out? |  |
| Are CXRs free of direct costs for all presumptive TB patients? |  |

**CXR facility**

|  |  |
| --- | --- |
| Name of site being assessed |  |
| Location of site (City/town, District, State) |  |
| TB tests performed at the site |  |
| **Names of persons interviewed** | **Position** |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Question** | **Answer** |
| Does the facility keep a log list of persons who obtained a CXR? If yes, do they track presumptive TB? |  |
| Does the facility require a referral slip from a provider in order to obtain a CXR? If yes, does the referral slip identify presumptive TB? |  |
| Does the facility keep a log list of abnormal CXR results by patient name? |  |
| Is there a system in place to link a patient with an abnormal CXR result to a facility for microbiological testing? If yes, check registers to see if system is functional. Is there a link between the CXR facility and NTP for active case finding? |  |
| Does the facility monitor the percent of patients with an abnormal CXR who are referred for microbiological testing? |  |
| What training is available for performing and interpreting CXR? Are all CXR technicians trained? |  |
| Does training include quality and is the training standardized? |  |
| Are there national specifications for CXR instrument procurement, and are they followed? |  |
| Does the facility have a safety measure for staffs and clients regarding X-ray? |  |
| Have you had X-ray consumable stock-out the past 12 months? |  |