Intensified case-finding (ICF) of Multi-Drugs Resistant Tuberculosis (MDR-TB) cases in Cambodia

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Background: Globally, in 2011, only 19% of MDR-TB patients were diagnosed. Cambodia diagnosed MDR-TB just around 6-10% of the estimated cases from 2007 to 2011. The National Tuberculosis Program (NTP) of Cambodia launched ICF activities for MDR-TB in 2012 which aiming to increase the number of presumptive MDR-TB patients eligible tested for MDR-TB.

Results: There were 1,989 eligible patients among notified TB cases in 2012. Of those, 79% (n=1,578) were tested, which is almost a two-fold increase compared to 874 in 2011. Of the 1,578 who were tested, nearly 50% (n=674) were referred for testing through ICF using mobile teams.

Methods: In Cambodia, presumptive MDR-TB patients eligible for testing include (1) previously treated pulmonary TB cases (2) new smear positive patients who remain positive at month 3 of treatment (3) symptomatic contacts of known MDR-TB cases (4) and smear positive patient living with Human Immunodeficiency Virus. Until 2011, the eligible patients were referred routinely by the peripheral health systems to the nearest culture laboratories.

In 2012, the NTP launched ICF activities to supplement the existing referral system. It was done using two methods;

(1)-ICF during routine supervision: Supervisory teams reviewed operational district (OD) TB registers proactively to identify the eligible patients. After identifying these patients and confirming that they were not yet tested, the team traced them to collect 3 sputum samples from their nearest health facilities (HF) or their homes and transported them to the nearest culture centers (CC) and

(2)-ICF using mobile team: The quarterly TB reports were reviewed at the national level to identify the eligible patients. The patients’ names were listed from the carbonized papers of OD TB register attached and cross-checked with culture lab registers and OD TB supervisors to identify the eligible who were not yet tested. Then, the team traced them to collect 3 sputum samples at their nearest HF or their homes and transport to the national reference laboratory for testing. After all the processes, infection control and cold chain were strictly applied.

As a result, 110 MDR-TB patients were initiated on treatment, which was double compared to the 56 cases diagnosed in 2011.

Conclusion: Intensified case finding is the best strategy for increasing the number of cases detected in conditions where the referral system is not reliable and the number of culture and DST centers is limited. The approach also strengthens the routine referral of MDR-TB suspects from the peripheral level because the central team works together with local TB supervisors, coaching them on how to identify and refer MDR-TB suspects.

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Figure 1. Number of MDR-TB suspects tested

Figure 2. Number of patients enrolled on second-line drugs (SLD) by year

* DR-TB = drug resistant TB, includes mono, poly-, and extreme drug resistant tuberculosis.