**Abstract Group:** 10.2. Tuberculosis  
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**Title:** Implementation of rapid drug-susceptibility testing for patients at high risk of multidrug-resistant tuberculosis in Cambodia

Natalie 33649 Lorent nlorent@itg.be MD 1,2, Chanda 33650 Kong chandakong99@yahoo.com MD 2, Reaksmey 33651 Pe reaksmeype@sihosp.org MD 2, Tharin 33652 Kim tblab@sihosp.org 2, Sophalek 33653 Sok sopheaksok@sihosp.org 2, Sophalek 33656 Thai sopheakthai@sihosp.org MD 2, Rigouts 33654 Leen irigouts@itg.be MD 1 and Lynen 33655 Llynen@itg.be MD 1, 1 Clinical Sciences, Institute of Tropical Medicine, Antwerp, Belgium and 2 Infectious Diseases, Sihanouk Hospital Center of HOPE, Phnom Penh, Cambodia.

**Body:** Introduction: WHO recommends rapid DST for all patients at increased risk of MDR TB, which has substantial logistical, financial and operational implications for low-income, high TB burden countries. Aim: To evaluate yield and feasibility of implementing rapid DST in a referral TB clinic in Phnom Penh, Cambodia. Methods: Prospective cohort study. All consecutive patients seen between 1/2/12-1/2/13 fulfilling any criterion for DST (i.e. prior TB treatment, exposure to MDR TB, new TB with smear-positivity at end of intensive phase, HIV-infection) underwent Xpert® MTB/RIF, conventional culture/DST, and MTBDRPlus® line probe assay (LPA) if Xpert RIF-resistant. Results: 132/343 patients with active TB disease were eligible for rapid DST (median age 42 years (IQR 32-52), 71 male (54%)): 61 (46%) HIV-infected patients, 44 (42%) patients with previous TB (34 completed treatment, 9 interrupted, 2 relapsed), 25 (20%) non-converters at end of intensive phase; 1 MDR TB contact. Xpert RIF-resistance was detected in 12/132 cases (number needed to test: 11). LPA confirmed 5 as MDR TB, conventional culture/DST 9 (1 rifampicin mono-resistance, 2 pending). 11 patients were referred for second line treatment within 8 days (1-19) of providing sputum (one refused), with 10 effectively started within 17 days (14-30) (one died). Treatment delays were due to pending confirmatory DST and limited treatment capacity. Conclusion: Xpert rapidly and adequately identified TB patients eligible for second line drugs. Our data support the recent recommendation that confirmatory LPA-testing is not required in patients at high risk for MDR TB identified by Xpert as RIF-resistant.