

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 5056

**Publication Number:** P510

**Abstract Group:** 10.2. Tuberculosis

**Keyword 1:** Tuberculosis - diagnosis **Keyword 2:** Bronchoscopy **Keyword 3:** Tuberculosis - management

**Title:** Yield of routine culture of bronchoalveolar lavage fluid for tuberculosis in a low prevalence setting

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**Body:** Background: Routine culture of bronchoalveolar lavage (BAL) fluid for tuberculosis has been recommended for countries with medium to high tuberculosis prevalence. The value of this practice is less clear in the setting of low prevalence and in populations with a significant proportion of immunosuppression. Therefore, we aimed to evaluate the yield of routine BAL cultures for mycobacteria. Methods: This was an observational retrospective study in a tertiary care hospital. Currently it is standard of care to collect BAL fluid for tuberculosis culture if any microbiological testing is ordered during bronchoscopy even if tuberculosis is not strongly suspected. We retrieved clinical, serological and radiological data from all patients from our hospital information system who underwent bronchoscopy with BAL and had their BAL fluid tested for tuberculosis culture. Results: A total of 1004 BAL samples were collected from 588 males and 327 females (mean age 58±15 years) and cultured for mycobacteria. 41% were considered to be immunosuppressed. Mycobacteria were detected in BAL samples of 25 cases (2,5%): 17 patients with mycobacterium tuberculosis (1,7%) and 8 with nontuberculous mycobacteria (0,8%). The interferon-gamma-release assay was positive in 11 of 12 tested patients with Tbc-positive BAL cultures. Presence of cough and origin or recent residency in an endemic area were prognostic characteristics for Tbc-positive BAL cultures. Conclusion: Routine culture for tuberculosis appear to be inappropriate in a low prevalence setting even in a population with a high proportion of immunosuppressed patients. IGRA may help clinicians in the decision to perform BAL culture for mycobacteria.