

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 5148

**Publication Number:** P2730

**Abstract Group:** 10.1. Respiratory Infections

**Keyword 1:** Bronchoalveolar lavage **Keyword 2:** Bronchoscopy **Keyword 3:** Infections

**Title:** Utility and cost of routine bronchoalveolar lavage in diagnosing pulmonary fungal infections

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**Body:** INTRODUCTION: Bronchial washings(BW) for microbiological examination is a useful investigation for detecting microorganism causing respiratory tract infections. Considering low prevalence of fungal pneumonia in the community, routine practice of sending BW for fungal smear and C/S increases the cost considerably. The cost of fungal C/S is approximately Rs 1600 (17 US\$) in Pakistan. OBJECTIVE: To evaluate the yield and cost of routine fungal smear and culture/sensitivity on BW. METHODS: Clinical records of all cases undergoing bronchoscopy with BW were reviewed for fungal smear and culture during the period of 2011-2012. RESULTS: 273 cases underwent bronchoscopy during the study period .Of these 205 samples were sent for fungal C/S. The 3 most common indications of bronchoscopy were hemoptysis, non-resolving pneumonia or suspicion of malignancy. Out of 205 samples 31 patients were positive on smear and/or culture (15.1%). 16 cases (7.8%) were both smear and C/S positive. Only 5 (2.4%) were clinically significant and required treatment. Aspergillus fumigatus was most common fungus on culture (2 out of 5), followed by Aspergillus niger, A.terreus and A. flavus. Most of the C/S were positive in patients who had received chemotherapy. Only 5 (2.4%) cases was clinically significant (at a cost of Rs 8000 as against a total cost of Rs. 3,20,000) CONCLUSION: We report that huge amount of money is unnecessarily spent on requesting routine fungal smear and C/S on BW. These test should only be sent in high risk patients so that burden on the patient/health care systems can be minimized.