

# Success in obtaining sputum samples in TB suspect patients with no sputum

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## Background

Alternative method of obtaining sputum specimens e.g. bronchoscopy is frequently needed in patients with suspected TB who report no sputum. In our TB service in Bradford Royal Infirmary, UK, we provided 3 sputum pots to this group of patients to encourage them to produce sputum before proceeding to Bronchoscopy.

The aim of the study is to evaluate the success in obtaining sputum sample in this group of patients before proceeding to an invasive approach for diagnosis pulmonary TB (PTB).

## Method

A retrospective case review was carried out on patients with confirmed PTB on our TB registry from January 2016 to December 2016. Medical records, radiology reports, sputum and bronchoscopy results were reviewed electronically.

## Results

44 patients were diagnosed with PTB during this period. Of those, 10 (22.7%) patients reported dry cough or no cough, among these 9 (90%) patients (median age 48 {23-73}, all male, 7 South Asian and 2 Eastern European were able to produce sputum when offered 3 sputum pots. Sputum smear and culture were positive for AAFB in 7 and all 9 patients respectively. Only 2 of patients underwent bronchoscopy; one for clinical urgency and the other one for smear negative (later culture positive). In 7 patients diagnosis was made without bronchoscopy.

## Conclusions

We avoided bronchoscopy in 7 patients who reported no sputum by offering them sputum pots .

This study highlights the importance of attempting to obtain sputum samples in suspected PTB patients who report no sputum before proceeding to invasive sampling.

Further studies are needed to determine why some patients are not declaring sputum production in spite of its presence as to whether it is due to communication issues due to language barrier or stigma in declaring presence of sputum.