

**Newly diagnosed pulmonary tuberculosis patients
(72 sputum specimens)**

***BLEACH STERILIZATION
ASSESSMENT
(31 sputum specimens)***

***BLEACH-SEDIMENTATION
ASSESSMENT
(41 sputum specimens)***

**Sputum sodium
hydroxide
decontamination**

**Pilot experiments to
select optimal bleach-
sedimentation technique
(16 sputum specimens)**

**Quantitative evaluation of
selected bleach-
sedimentation technique
(25 sputum specimens)**

**Sputum treated with 4
bleach concentrations
& 4 exposure times**

**Triplicate
conventional
sputum
conventional
-smears**

**Triplicate
smears of
bleach-
sedimented
sputum**

**Culture to assess *M.
tuberculosis* sterilization**

**Quantification of acid-fast
bacilli, slide reading time &
inter-observer agreement**