A considerable proportion of tuberculosis (TB) patients start treatment solely based on a clinical diagnosis, with or without a supportive radiographic examination. This is at least partially related to the imperfection of the laboratory techniques and the quality, quantity, freshness and method of specimen collection.1,3

The report by Aslam et al. in this issue of Public Health Action provides useful insight into and interesting diagnostic findings with gastric aspirate (GA) specimens from adult patients unable to expectorate sputum. The setting is a hospital in Pakistan under routine practice from 2012 to 2015. It highlights the comparative efficiency of smear microscopy, culture and Xpert® MTB/RIF test results in detecting Mycobacterium tuberculosis (MTB).4

Laboratory tests on GA specimens collected from 900 examined patients identified 313 definite and 14 probable presumptive TB cases. However, there is not just the potential of GA to contribute, the potential shortcomings of culture must also be taken into account to judge the role of different diagnostic techniques more accurately. To optimize the yield of culture for GA specimens, several considerations are in place, foremost the approach to facilitate neutralizing the acid.5,6 Finally, the process may also require the addition of an antibiotic mixture to the liquid culture medium (such as PANTA in the MGIT system) to maximize the prevention of contamination, if not currently in use.

M. tuberculosis detection from GA specimens of new pulmonary tuberculosis patients unable to expectorate sputum

References