## QUALITY CONTROL OF SPUTUM FOR AFB EXAMINATION IN BIG HOSPITALS AND PRIVATE LABORATORIES

The 22<sup>nd</sup> IUATLD Eastern Region Conference is going to be held in Kathmandu from 22<sup>nd</sup>–25<sup>th</sup> September, 2003. In this conference, tuberculosis would be the major issue. Tuberculosis is one of the foremost public health problems in Nepal, causing an enormous burden of suffering and death.<sup>1</sup> Recent estimates suggest that about 60% of the adult population is infected with the tubercle bacillus and each year about 50,000 people develop tuberculosis, over 20,000 of whom have infectious sputum smear positive disease.<sup>2</sup> It is estimated that about 15,000 people die from tuberculosis each year.<sup>3</sup> Among the diseases requiring admission in medical units in Bir Hospital, the central hospital of Nepal, tuberculosis was found to be the third and fourth commonest cause in the years 2053 and 2055 respectively.<sup>4,5</sup>

Nepal has come a long way in reaching the Global Targets for Tuberculosis Control. The data from National Tuberculosis Center show that from a situation in 1995 when the National Tuberculosis Program piloted DOTS in four districts with total population coverage of 1.7% it now has 315 DOTS centers and 1050 Treatment Sub-Centers in every one of the 75 districts in Nepal with 91% total population coverage. National Tuberculosis Center really deserves a compliment for its tremendous efforts. But it should not lead to complacency. This is particularly so in urban areas where the need of Private Public Partnership is increasingly felt in the field of tuberculosis control. The rapid increase of HIV/AIDS in the country and cross border tuberculosis spread and management are other difficult areas.

There is high concentration of population, including tuberculosis patients, in urban areas. Sputum for AFB examination is the most important tool for the early diagnosis and proper management of tuberculosis patients, especially from the point of view of tuberculosis control. Quality control of sputum AFB examination, where all the positive and 10% of negative slides in each laboratory are reexamined, is vital not only for clinical management but also for control of tuberculosis. Under the National Tuberculosis Control Program, there are 299 peripheral laboratories in the 5 regions carrying out sputum AFB examination, with 5 reference laboratories carrying out the Quality Assurance. It is satisfying to know the NTC report of 98% overall agreement of the sputum AFB examination in the year 2002. Quality control of sputum AFB examination is similarly required in big hospitals and private laboratories in urban areas. Currently it is not surprising that sputum AFB examination done freely in a health post may be more reliable than expensive sputum examination done in private laboratories or big hospitals in urban areas!

Pulmonary tuberculosis in adults, i.e. the post-primary TB, classically originates in the apices of the lung. Atypical presentation of tuberculsos is quite well known with patients with diabetes or HIV and the elderly.<sup>6,7</sup> In immunocompromised patients, there may also be less inflammation and cavitation; even cough and hemoptysis may become less common.<sup>7</sup> Patients with diabetes or HIV and the elderly may exhibit atypical clinical or radiological findings. Lower lobe infiltrates were reported to occur in 20% of diabetic patients with reactivation TB.<sup>8</sup> In the elderly, pure apical lesions were seen in only 7% while 48% had middle field or basal lesions and 46% had a mixed pattern.<sup>8</sup> But atypical radiographic presentations are not necessarily encountered only in the elderly and have been found equally in the elderly and younger adults.8 With increasing diabetes, longevity and HIV/AIDS in the population, any opacity, not only the classical ones, can be tuberculosis until proved otherwise. The role of sputum AFB examination has increased much now. Delay in the diagnosis of tuberculosis due to the improper sputum AFB examinations done in places, where quality control is not done, could allow transmission of the disease to others, including the clinicians. Thus, National Tuberculosis Center and other tuberculosis control organizations should give due priority to the quality control of sputum AFB examination not only in the peripheral health posts but also in big hospitals and private laboratories in urban areas. Management of hospitals and private laboratories should also give full attention to the quality control of sputum AFB examination.

	Editorial . Quality control of sputum for AFB exa	minati	on in big hospitals and private laboratories	
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