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**LABORATORY IDENTIFICATION OF *Pneumocystis jiroveci* IN
PATIENTS CLINICALLY SUSPECTED TO HAVE
PNEUMOCYSTIS PNEUMONIA**

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Pneumocystis pneumonia (PCP) due to *Pneumocystis jiroveci* is a leading acquired immune deficiency syndrome (AIDS) defining opportunistic infection and a major cause of mortality among other immunocompromised persons. We carried out a pilot study to identify *P. jiroveci* in patients who are clinically suspected to have Pneumocystis pneumonia.

Twenty oropharyngeal wash (OW) samples collected from HIV positive patients admitted to the Infectious Diseases Hospital, Angoda and twenty other respiratory samples (mainly bronchial washings and endotracheal secretions) taken from patients clinically suspected to have pneumocystosis admitted to the Teaching Hospitals, Kandy and Peradeniya were included in the study. All samples were collected with informed consent. Ethical clearance was obtained from the Faculty of Medicine, University of Peradeniya. All the samples were smear negative with Toluidine Blue O (TBO) and Giemsa stains. The Qiagen DNA extraction procedure proved successful while Chelex extraction was unsuccessful. The polymerase chain reaction (PCR) carried out with pAZ102E and pAZ102H primer pairs to amplify the large subunit of mitochondrial ribosomal RNA (mtLSU rRNA) gene of *Pneumocystis* was successful in one out of six samples. DNA fragment size was 346 bp. This was an OW sample from a HIV positive patient taken prior to starting cotrimoxazole therapy. Pre and post PCR steps were carried out in separate rooms to prevent false positives due to contamination.

In this study we have validated a single step PCR protocol for laboratory identification of *P. jiroveci* in oral wash samples. This is significant as OW is non-invasive and therefore especially useful for the diagnosis of pneumocystosis in HIV positive patients.

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