Audit on Samples Tested for *Pneumocystis jirovecii* at Department of Parasitology, Faculty of Medicine, University of Peradeniya

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Pneumocystis jirovecii is an opportunistic fungus which causes severe pneumonia in immunocompromised patients, such as post kidney transplant (KT) recipients receiving immunosuppressive drugs. The objective was to carry out an audit to evaluate the demographic, clinical, and laboratory parameters of patients whose respiratory samples were sent to test for *P. jirovecii* to the molecular diagnostic unit of the Department of Parasitology, Faculty of Medicine, University of Peradeniya from January 2013 to December 2019. Referring physicians were contacted when necessary. Specimens included sputum, endotracheal secretions, and bronchoalveolar lavage fluid from 168 patients. Specimens were tested using Toluidine blue staining and polymerase chain reaction (PCR) with pAZ102E and pAZ102H primer pair. Of them, 22 tested positive for *P. jirovecii* by PCR. Stained smears were negative in all. Among the patients who tested positive by PCR, the ratio of females to males was 1:1.44, and the age range was from 10 months to 69 years (mean 40 years). Among them, 14 were post KT recipients and the rest were admitted to intensive care units (ICUs) with different co-morbidities. Among the positive samples, two were from infants and one was from a diabetic patient. Post KT recipients had been treated with immunosuppressive drugs for 2.5 to 12 years. Positive samples were received from the Nephrology and Transplant Unit Kandy, Respiratory wards of the National Hospital Kandy (NHK) and Intensive Care Units of NHK and Teaching Hospital, Peradeniya. We also had *P. jirovecii positive patients referred from District General Hospitals in Kegalle (n=1), Trincomalee (n=1), and Nuwara Eliya (n=1).* Majority of the positive patients were post KT recipients.

Keywords: *Pneumocystis jirovecii Pneumonia, Polymerase chain reaction,* Immunocompromised, Post kidney transplant, Sri Lanka