

## Estimation of the burden of serious mycoses in Indonesia

Retno Wahyuningsih<sup>1</sup>, Joedo Prihartono<sup>1</sup>, Robiatul Adawiyah<sup>1</sup>, Ridhawati Syam<sup>1</sup>, Endah A. T. Wulandari<sup>2</sup>, anna rozaliyani<sup>1</sup>, Darma Imran<sup>1</sup>, Forman Erwin Siagian<sup>3</sup>, Mulyati tugiran<sup>1</sup>, David W. Denning<sup>4</sup>

1. *University of Indonesia, Jakarta, DKI JAKARTA, Indonesia*

2. *Dentistry, Cipto mangunkusumo hospital, jakarta, DKI Jakarta, Indonesia*

3. *Parasitology, Christian University of Indonesia, jakarta, DKI Jakarta, Indonesia*

4. *National Aspergillosis Center, University Hospital of South Manchester, Southmoor Road, Manchester, England*

We estimated the fungal burden in Indonesia based on laboratory data, publications and the health profile 2013. The number of AIDS patients is 52348. Prevalence of cryptococcosis during 2003-2014, based on positive culture and microscopy of spinal fluid ranges from 16-26.8% in Jakarta to 29.8% in Bandung. Cryptococcal serum antigen (CrAg) among ambulatory patient in Jakarta is 6.4%, and Bandung is 7.1%. The highest cryptococcosis prevalence in HIV infected patients with cerebral involvement ranges between 16-30%, while the lowest is 5%. *Pneumocystis jirovecii* prevalence among 55 AIDS patients with pneumonia (PJP) is 14.5%. Five-year prevalence data on the examination of induced sputum and broncho-alveolar lavage is 28%. Prevention of PJP among HIV infected patients starts immediately after diagnosis which makes determining prevalence of PCP difficult. The prevalence of candidemia is 63%, 12.33% and 8% in neonates, adult, and leukemia children with fever, respectively. Candidemia prevalence in adults, children and neonates in our laboratory for 5 years is 12%. Estimation of the candidemia prevalence in Indonesia ranges between 8 -12.3%, and 63% specifically for neonates. Prevalence of oral candidiasis among HIV infected patient in Cipto Mangunkusumo hospital was 50% in 2004 and 57% in 2014. Regarding tuberculosis, UN estimates that in Indonesia the 1-year-post-treatment survivors is 1,297047 of which 26,935 develop chronic pulmonary aspergillosis. On the other hand the prevalence of invasive pulmonary aspergillosis in Jakarta is 7.65%. In the last 10 years, cutaneous and disseminated forms of histoplasmosis have been diagnosed in AIDS and non HIV suggesting Indonesia as an endemic area. Getting insight into Indonesia's fungal burden, will help policy makers and clinicians making decisions in the absence of data.