

## Profil spesies jamur udara di lingkungan luar beberapa rumah sakit di Jakarta = Profile of airborne fungal species in the outdoor environment of several hospitals in Jakarta

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### Abstrak

Infeksi jamur nosokomial di rumah sakit terhadap pasien dengan kondisi imun yang rendah dapat memberikan dampak yang mengancam nyawa. Beberapa penelitian melaporkan kecenderungan infeksi jamur nosokomial oleh jamur udara semakin meningkat. Keterbatasan data profil jamur udara di lingkungan rumah sakit dapat menghambat pencegahan dan penatalaksanaan infeksi jamur nosokomial karena sumber infeksi tidak teridentifikasi. Penelitian ini menyelidiki keberadaan dan profil jamur udara di lingkungan luar empat rumah sakit di Jakarta, serta merupakan bagian dari penelitian multisenter aspergilosis invasif di ICU rumah sakit di Jakarta. Pengambilan sampel dilakukan menggunakan cawan petri berisi agar saboraaud yang dibiarkan terpajan udara selama 15 menit. Proses identifikasi dilakukan setelah masa inkubasi untuk melihat profil jamur yang diisolasi: *Aspergillus* sp, *Candida* sp, *Penicillium* sp, *Rhodotorula* sp, *Scedosporium* sp, *Paecilomyces* sp, *Fusarium* sp, *Dematiaceae* sp, *Mycelia sterilia*, *Cylindrocarpon* sp, dan *Curvularia* sp. Profil jamur yang diisolasi pada dua cawan medium atau lebih di Rumah Sakit Persahabatan: *Dematiaceae* dan *Aspergillus fumigatus*; Rumah Sakit Cipto Mangunkusumo: *Dematiaceae*, *Aspergillus niger*, *A. fumigatus*, dan *Penicillium*; Rumah Sakit UKI: *Dematiaceae*, *Penicillium*, *Mycelia sterilia*, *Rhodotorula*, *Aspergillus flavus* dan *Candida tropicalis*; sedangkan di Rumah Sakit Sulianti Saroso: *Aspergillus niger*, *Dematiaceae*, *Mycelia sterilia*, *Aspergillus fumigatus*, *Cylindrocarpon*, dan *Aspergillus flavus*.

.....Nosocomial fungal infections in immunocompromised patients may pose a serious threat in mortality. Evidence suggests that the trend of nosocomial fungal outbreak in hospitals were increasing with almost all nosocomial fungal outbreak was caused by airborne fungi. However, the limited knowledge regarding airborne fungi profile rendering hospitals unable to identify the source of infections and hindering hospitals to provide optimal prevention and management towards nosocomial fungal infections. This study explored the presence and profile of airborne fungi in the outdoor environment of four hospitals in Jakarta and is a part of multicenter study on invasive aspergillosis in ICU patients at several hospitals in Jakarta. In each hospital, air samples were collected via saboraaud agar in petri dish opened for 15 minutes. Identification process was carried in Mycology laboratory after incubation period to identify the isolated airborne fungal profiles which are *Aspergillus* sp, *Candida* sp, *Penicillium* sp, *Rhodotorula* sp, *Scedosporium* sp, *Paecilomyces* sp, *Fusarium* sp, *Dematiaceae* sp, *Mycelia sterilia*, *Cylindrocarpon* sp. and *Curvularia* sp. The profile of airborne fungal species isolated on two or more media plates at Persahabatan Hospital were *Dematiaceae* and *Aspergillus fumigatus* Cipto Mangunkusumo Hospital were *Dematiaceae*, *Aspergillus niger*, *Aspergillus fumigatus*, and *Penicillium* UKI Hospital were *Dematiaceae*, *Penicillium*, *Mycelia sterilia*, *Rhodotorula*, *Aspergillus flavus* and *Candida tropicalis* while at Soelianto Saroso Hospital were *Aspergillus niger*, *Dematiaceae*, *Mycelia sterilia*, *Aspergillus fumigatus*, *Cylindrocarpon*, and *Aspergillus flavus*.