Studi kualitas udara mikrobiologis dengan parameter jamur pada ruangan pasien rumah sakit : studi kasus ruang rawat inap gedung A Rumah Sakit Umum Pusat Nasional Dr. Ciptomangunkusumo

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Abstrak

ABSTRAK
Kualitas udara di ruang rawat inap perlu diperhatikan karena kerentanan pasien akan penyakit dan menghindari terjadinya kontaminasi silang. Salah satu indikator pencemar udara dalam ruang adalah jamur. Pengambilan sampel jamur di udara dengan menggunakan alat EMS E6 serta media kultur MEA. Sampel kemudian diinkubasi pada suhu 27oC selama ±72 jam. Penelitian ini bertujuan untuk mengetahui perbedaan konsentrasi jamur antara jam berkunjung dengan bukan jam berkunjung dan konsentrasi jamur pada ruangan dengan kapasitas bed yang berbeda. Hasil menunjukkan bahwa ruangan dengan kapasitas 5-6 bed per kamar lebih terkontaminasi oleh jamur dibandingkan dengan kapasitas 1-4 bed per kamar (p=0,000 Kolmogorov-Smirnov) dengan tingkat signifikansi (α) 0,05. Selain itu, tidak ada pengaruh antara jam berkunjung dan bukan jam berkunjung terhadap konsentrasi jamur di udara (p=0,400 Mann-Whitney U). Suhu, kelembaban dan jumlah orang di dalam ruangan memiliki hubungan dengan konsentrasi jamur dengan nilai koefisien korelasi Spearman sebesar 0,179; 0,346; 0,287. Kelembaban ruangan memiliki pengaruh yang lebih besar terhadap konsentrasi jamur, diikuti jumlah orang dan suhu. Sehingga untuk menjaga paparan jamur di udara pada ruang rawat inap adalah disarankan dengan menjaga kelembaban pada 45-60% dan memperhatikan kepadatan orang di dalam ruangan.
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ABSTRACT
Air quality in the patient room need to be considered as susceptibility to disease and avoid cross-contamination. One indicator of indoor air pollutants is fungi. Using a EMS E6 and MEA as a media culture fungi, air samples were taken from Gedung A RSCM then incubated for three days. In this study, the concentrations of fungi were analyzed based on time of visit and also based on the number of beds in the room. The results showed that the room with the capacity of 5-6 beds per room is more contaminated by fungi compared to the capacity of 1-4 beds per room (p=0.000 Kolmogorov-Smirnov) with level of significant (α) 0,05. There is no diference between time of visit with not the time to visit with the concentration of fungi in the air (p=0.400 Mann-Whitney U). Temperature, humidity and number of people in the room have a relationship with the concentration of fungi with the Spearman correlation coefficient of 0.179; 0.346; and 0.287. Humidity of the room has a higher influence to the concentration of fungi, followed by the number of people and temperature. Maintaining the moisture between 45-60% and considering the density of people in the room are some efforts to reduce level of fungi in the air.;Air quality in the patient room need to be considered as susceptibility to disease and avoid cross-contamination. One indicator of indoor air pollutants is fungi. Using a EMS E6 and MEA as a media culture fungi, air samples were taken from Gedung A RSCM then incubated for three days. In this study, the concentrations of fungi were analyzed based on time of visit and also based on the number of beds in the room. The results showed that the room with the capacity of 5-6 beds per room is more contaminated by fungi compared to the capacity of

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