

ABSTRAK

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HUBUNGAN INDEKS KUALITAS UDARA TERHADAP TINGKAT PENGENDALIAN ASMA DENGAN ASTHMA CONTROL TEST DI RUMAH SAKT UMUM SILOAM LIPPO VILLAGE

(xv + 53 halaman: 3 bagan; 17 tabel; 2 lampiran)

Latar Belakang: Prevalensi asma mengalami kenaikan yang signifikan terutama di negara berkembang. Faktor utama kenaikan prevalensi asma disebabkan oleh peningkatan polusi udara. *Air Quality Life Index* menyatakan bahwa kendaraan bermotor menyumbang 31,5% sumber PM_{2,5} dan 70% sumber PM₁₀ terutama di wilayah Jakarta. Menurut EGEA, eksposur jangka panjang oleh polusi udara spesifik memiliki korelasi dengan tingkat kontrol asma. Penelitian di *Canada* juga menyatakan terjadi peningkatan sekitar 5,6% kunjungan pasien asma rawat jalan dalam satu hari akibat peningkatan IKU. Belum ditemukan penelitian di Indonesia mengenai peningkatan indeks kualitas udara terhadap tingkat pengendalian asma.

Tujuan Penelitian: Mengetahui hubungan yang bermakna antara peningkatan nilai Indeks Kualitas Udara terhadap tingkat pengendalian asma menggunakan *Asthma Control Test* pada pasien penyakit asma di Rumah Sakit Umum Siloam Lippo Village.

Metode Penelitian: Penelitian ini menggunakan desain studi potong lintang dengan 37 subjek pasien asma di Rumah Sakit Umum Siloam Lippo Village yang memenuhi kriteria inklusi dan eksklusi. Pengambilan data dilakukan pada bulan Februari 2020 hingga Maret 2020. Kemudian data akan diolah menggunakan program *Statistical Package for the Social Sciences* (SPSS) versi 25 dengan Uji Korelasi.

Hasil Analisis Data: Persentase tingkat pengendalian asma dari keseluruhan 37 subjek adalah 10 (27,0%) terkontrol, 22 (59,5%) terkontrol sebagian, dan 5 (13,5%) tidak terkontrol. Hasil rata-rata IKU yang didapat adalah termasuk dalam kategori sedang dan baik. Dari uji korelasi *Spearman* didapatkan bahwa tidak terdapat hubungan yang signifikan dengan nilai $p\ value = 0,88$ dan didapatkan hubungan korelasi negatif yang lemah dengan nilai $r = -0,284$. Walaupun terdapat hubungan yang tidak signifikan, dari hasil interpretasi korelasi r negatif lemah memiliki nilai yang hampir mengarah signifikan di mana tingkat IKU sedang dan baik didapatkan tingkat pengendalian asma yang dominan terkontrol sebagian dan terkontrol.

Simpulan: Tidak terdapat hubungan yang signifikan tingkat indeks kualitas udara terhadap tingkat pengendalian asma dari uji statistik karena nilai $p\ value > 0,05$. Namun dari korelasi r didapatkan korelasi negatif meskipun lemah sehingga hasil hampir mengarah signifikan apabila jumlah sampel lebih besar atau variasi polusi lebih ekstrem.

Kata Kunci: Indeks Kualitas Udara, Asma, *Asthma Control Test*

Referensi: 36 (2006-2019)

ABSTRACT

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THE RELATIONSHIP BETWEEN AIR QUALITY INDEX TO ASTHMA CONTROL LEVEL USING ASTHMA CONTROL TEST IN SILOAM LIPPO VILLAGE GENERAL HOSPITAL

(xv + 53 pages; 3 charts; 17 tables; 2 attachments

Background: Asthma prevalence has increased substantially, especially in developing countries. The main factor of increasing asthma prevalence caused by increased air pollution. The Air Quality Life Index states that motor vehicles account for 31.5% of PM2.5 sources and 70% of PM10 sources mainly in the Jakarta area. According to EGEA, long-term exposure of specific air pollution correlates with the level of asthma control. Research in Canada also states an increase of about 5.6% in outpatient asthma patient visits in one day due to an increase in AQI. No research has been found in Indonesia about increasing air quality index to the level of asthma control.

Aim: To determine the relationship between the increasing Air Quality Index to asthma control level using Asthma Control Test for asthma patients in Siloam Lippo Village General Hospital.

Method: This study used a cross-sectional study design with 37 subjects with asthma patients at Siloam Lippo Village General Hospital who met the inclusion and exclusion criteria. Data is collected from February 2020 to March 2020. Then the data will be processed using the Statistical Package for the Social Sciences (SPSS) version 25 programs with the Correlation Test.

Result: The percentage of asthma control levels of all 37 subjects were 10 (27.0%) controlled, 22 (59.5%) partially controlled, and 5 (13.5%) uncontrolled. The average AQI results obtained are included in the medium and good categories. From the Spearman correlation test it was found that there was no significant relationship with the p value = 0.88 and obtained a weak negative correlation with $r = -0.284$. Although there is no significant relationship, from the results of the interpretation of the weak negative r correlation has a value that almost leads to a significant level where AQI is moderate and good levels of asthma control are dominantly partially controlled and controlled.

Conclusion: There is no significant relationship between the level of air quality index to the level of asthma control from statistical tests because the value of p value > 0.05 . However, the correlation r obtained negative correlation, although weak, so the results almost lead to significant if the sample size is greater or the variation of pollution is more extreme.

Keywords: Air Quality Index, Asthma, Asthma Control Test

References: 36 (2006-2019)