KORELASI NILAI CUT OF INDEX (COI) AUTOMATED ANTIGEN DETECTION COVID-19 HASIL POSITIF DENGAN HASIL POLYMERASE CHAIN REACTION (PCR) COVID-19 di RSPAU dr.S.HARDJOLUKITO TAHUN 2021

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ABSTRAK

Latar Belakang: Rumah Sakit Pusat Angkatan Udara (RSPAU) dr.S.Hardjolukito yang terletak di Banguntapan, Bantul, Daerah Istimewa Yogyakarta merupakan salah satu rumah sakit rujukan covid-19 sesuai dengan intruksi dari Gubernur Daerah Istimewa Yogyakarta. Di rumah sakit ini juga mendukung pemeriksaan laboratorium penunjang covid-19 diantaranya automated antigen detection (AAD) dan Real Time Reverse Transcription- Polymerase Chain Reaction (rtRT-PCR). Skrining pasien terduga covid-19 di RSPAU dr.S.Hardjolukito dilakukan pemeriksaaan tes AAD, selanjutnya jika ditemukan hasil positif dengan nilai cut of index (COI) berapapun, akan dilanjutkan untuk pemeriksaan rtRT-PCR. Beberapa hasil pasien terduga covid-19 yang diperiksa menggunakan AAD di RSPAU dr.S.Hardjolukito dan didapatkan hasil positif antigen menunjukkan hasil negatif untuk pemeriksaan lanjutan rtRT-PCR. Pemeriksaan lanjutan setelah ditemukan hasil positif AAD adalah dengan dilakukan pemeriksaan rtRT-PCR dan masih membutuhkan waktu 1x24 jam untuk mengetahui hasil rtRT-PCR. Hal ini menyebabkan waktu tunggu pasien terduga covid cukup lama untuk mendapatkan diagnosis penyakitnya, sedangkan pasien harus segera dilakukan tindakan medis lanjutan untuk pengobatan.

Tujuan: Penelitian ini bertujuan untuk mengetahui korelasi nilai cut of index (COI) automated antigen detection hasil positif dengan hasil polymerase chain reaction Covid-19 di RSPAU dr.S.Hardjolukito.

Metode: Penelitian ini merupakan penelitian observasional analitik dengan pendekatan *cross sectional*.

Hasil: Penelitian dilakukan dengan menggunakan 201 sampel terkonfirmasi positif AAD. Setelah dilakukan pengolahan didapatkan hasil *correlation coefficient* antara hasil AAD positif dengan hasil PCR sebesar 0,716.

Kesimpulan : Ada korelasi antara nilai *Cut of Index* (COI) *Automated Antigen Detection* hasil positif dengan hasil *Polymerase Chain Reaction* Covid-19 di Rumah Sakit Pusat Angkatan Udara dr. Suhardi Hardjolukito Tahun 2021 dengan kekuatan hubungan kuat yaitu dengan nilai 0,716.

Kata Kunci : *AAD,PCR, COVID-19*

CORRELATION CUT OF INDEX (COI) VALUE AUTOMATED ANTIGEN DETECTION COVID-19 POSITIVE RESULTS WITH POLYMERASE CHAIN REACTION (PCR) RESULTS COVID-19 at RSPAU dr.S.HARDJOLUKITO, 2021

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ABSTRACT

Background: The Central Air Force Hospital (RSPAU) dr.S. Hardjolukito which is located in Banguntapan, Bantul, Special Region of Yogyakarta is one of the Covid-19 referral hospitals according to instructions from the Governor of the Special Region of Yogyakarta. This hospital also supports laboratory tests to support Covid-19 including automated antigen detection (AAD) and Real Time Reverse Transcription - Polymerase Chain Reaction (rtRT-PCR). Screening of suspected Covid-19 patients at RSPAU Dr. S. Hardjolukito is carried out by examining the AAD test, then if a positive result is found with any cut of index (COI) value, it will be continued for an rtRT-PCR examination. Some of the results of suspected Covid-19 patients who were examined using AAD at RSPAU dr.S. Hardjolukito and obtained positive antigen results showed negative results for further rtRT-PCR examinations. Follow-up examination after a positive AAD result is found is an rtRT-PCR examination and it still takes 1x24 hours to find out the rtRT-PCR results. This causes the waiting time for patients suspected of having Covid to be long enough to get a diagnosis of their disease, while patients must immediately take further medical action for treatment.

Purpose: This study aims to determine the correlation between the cut of index (COI) value of positive automated antigen detection and the results of the Covid-19 polymerase chain reaction at RSPAU dr.S. Hardjolukito.

Methods: This research is an analytic observational study with a cross sectional.

Results: The study was conducted using 201 samples confirmed positive for AAD. After processing, the results of the correlation coefficient between positive AAD results and PCR results were 0.716.

Conclusion: There is a correlation between values Cut of Index (COI) Automated Antigen Detection positive results with Polymerase Chain Reaction Covid-19 results at dr. Suhardi Hardjolukito in 2021 with a strong relationship with a value of 0.716.

Keywords : *AAD, PCR, COVID-19*