Efektivitas uji saring antigen dan antibodi HCV untuk meningkatkan keamanan darah donor = The effectiveness of the screening of HCV antigen and antibodies to improve security blood donors

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Abstrak

[ABSTRAK
Latar belakang. Uji saring darah donor dapat menurunkan risiko tertularnya infeksi HCV. Di Indonesia telah dilakukan uji saring terhadap antibodi HCV
dan RNA HCV. Uji saring terhadap Antigen-Antibodi belum dilakukan di
Indonesia. Antigen HCV biasanya ditemukan pada 0 sampai 20 hari setelah RNA HCV pertama muncul. Anti-HCV dapat terdeteksi antara 10-40 hari
setelah antigen HCV terdeteksi. Atas dasar pemikiran bahwa antigen HCV
muncul didalam darah lebih dahulu daripada anti-HCV, maka penelitian yang
dilakukan ingin melihat apakah penggunaan reagensia serologi antigen-antibodi HCV dapat meningkatkan keamanan darah dan apakah sensitivitas serta spesifisitasnya sudah memenuhi standard yang dikeluarkan oleh Kementerian Kesehatan bila dibandingkan terhadap metoda NAT, yaitu sensitivitas 99,8% dan spesifisitas 95%.
Metodologi. Pada penelitian ini dilakukan pemeriksaan pada 135 sampel darah donor yang terdiri dari 35 sampel positif dengan NAT HCV dan 100 sampel Positif dengan NAT HCV juga non reaktif terhadap HIV, HBsAg dan Sifilis dengan uji saring anti-HCV dengan metode CMIA, Ab-Ag HCV dengan metode ELISA dan bila ada perbedaan hasil pada pemeriksaan NAT HCV,
CMIA HCV dan ELISA Ag-Ab HCV dilakukan pemeriksaan dengan menggunakan imunoblot HCV.
Hasil. Dari 135 sampel, pada pemeriksaan ELISA Ag-Ab HCV terhadap 35 sampel positif RNA HCV menunjukkan hasil positif pada 35 sampel tersebut,
tetapi pada 100 sampel negatif RNA HCV terdapat 3 sampel reaktif dan 97 non
reaktif. Sedangkan pada 35 sampel positif RNA HCV dengan pemeriksaan
CMIA anti-HCV menunjukkan hasil reaktif pada 35 sampel dan pada 100 sampel negatif RNA HCV terdapat 11 sampel reaktif dan 89 sampel non reaktif.
Sensitivitas dari perbandingan hasil pemeriksaan metoda NAT HCV dengan CMIA Ab-HCV adalah 100%, spesifisitasnya adalah 89%. Sensitivitas dari perbandingan hasil pemeriksaan metoda NAT HCV dengan ELISA Ag-Ab
HCV adalah 100%, spesifisitasnya adalah 97%.
Simpulan. Pemeriksaan Antigen-Antibodi HCV ELISA memenuhi kriteria
standar untuk digunakan sebagai uji saring darah donor. Pemeriksaan Antibodi
HCV CMIA tidak memenuhi kriteria standar untuk digunakan sebagai uji saring
darah donor.
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ABSTRACT
Background. Screening of donor blood may reduce the risk of transmission of HCV infection . In Indonesia

has be screened for HCV antibodies and HCV
RNA . Screened against the antigen - antibody has not been done in Indonesia .
HCV antigens commonly found in 0 to 20 days after HCV RNA first appears .
Anti - HCV can be detected between 10-40 days after HCV antigen was
detected . On the basis of the notion that HCV antigens appear in the blood earlier than the anti - HCV , the research done to see if the use of antigen - antibody reagents HCV serology can improve blood safety and whether the
sensitivity and specificity already meet the standards issued by the Ministry of Health when compared to NAT method , the sensitivity 99.8 % and specificity of 95 % . Methodology. In this study conducted checks on 135 blood samples from 35 donors comprising the NAT HCV positive samples and 100 samples positive by HCV NAT is also non- reactive to HIV , HBsAg and syphilis with anti - HCV
screening of the CMIA method, HCV Ab-Ag ELISA method and the
examination confirmed using immunoblot HCV HCV . Results. Of the 135 samples, the Ag-Ab ELISA against HCV 35 HCV RNA positive samples showed positive results in 35 samples, but at 100 HCV RNA negative samples contained 3 samples reactive and non- reactive 97. While the
35 HCV RNA positive samples with anti-HCV CMIA examination showed
reactive results on 35 samples and in 100 HCV RNA negative samples contained 11 samples 89 samples reactive and non reactive. Sensitivity of the
results of the comparison method with CMIA HCV NAT-HCV Ab was 100%,
specificity was 89%. Sensitivity of the results of the comparison method of NAT HCV Ag-Ab ELISA with HCV was 100%, specificity was 97%. Conclusion. Examination of HCV Antigen-Antibody ELISA meet the standard criteria for use as a screening of donor blood. Examination of HCV antibodies
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