

## Seroproteksi hepatitis B pada anak usia 10-15 tahun setelah imunisasi dasar hepatitis B lengkap = Hepatitis B seroprotection in children age 10-15 years old after completed basic hepatitis B immunization

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### Abstrak

[Latar belakang. Infeksi virus hepatitis B (VHB) di Indonesia masih tinggi dengan rerata prevalensi 9,4%. Tingginya prevalensi HB ini terkait dengan terjadinya infeksi VHB pada masa dini kehidupan, terutama melalui transmisi vertikal. Di Indonesia proporsi transmisi vertikal 45,9% dan 5,2% ibu hamil HBsAgnya positif. Cara paling efektif mengontrol infeksi VHB adalah dengan imunisasi, namun terdapat perbedaan seroproteksi titer anti-HBs pada usia lebih dari 10 tahun di berbagai tempat. Selain itu terdapat faktor-faktor yang dapat memengaruhi titer anti-HBs, namun penelitian ini masih jarang dan belum pernah dilakukan di Manado.

Tujuan. Mengetahui seroproteksi titer anti-HBs dan faktor-faktor yang dapat memengaruhi titer anti-HBs tersebut.

Metode. Penelitian analitik observational dengan desain potong lintang. Penelitian dilakukan dengan stratified random sampling pada usia 10-15 tahun di Kecamatan Tuminting, Kota Manado sejak Oktober sampai November 2014. Data dianalisis dengan SPSS 22.

Hasil. Dari 48 sekolah terpilih 10 sekolah dengan 105 anak sebagai subyek penelitian, namun hanya 23 anak yang mempunyai seroprotektif (21,9%). Sebanyak 76 (72,4%) subyek adalah perempuan, 78 (74,3%) subyek berstatus gizi baik dan 98 (93,3%) subyek memiliki berat badan lahir 2.500 gram. Dari buku imunisasi didapatkan 26 (24,8%) subyek dengan vaksinasi HB-1 7 hari dan 45 (42,9%) subyek dengan jarak HB-2 dan HB-3 2 bulan. Didapatkan 86 (81,9%) ibu subyek berusia 20-35 tahun, 64 (60,9%) ibu subyek berpendidikan SMA dan 79 (75,2%) orangtua subyek berpenghasilan 2 juta per bulan. Analisis multivariat didapatkan faktor pemberian HB-1 < 7 hari atau 7 hari ( $p=0,02$ ) dan jarak pemberian HB-2 dengan HB-3 < 2 bulan atau 2 bulan ( $p<0,001$ ) berperan terhadap seroproteksi HB pada anak.

Simpulan. Penelitian ini mendapatkan angka seroproteksi HB yang rendah (21,9%) serta faktor pemberian HB-1 7 hari atau > 7 hari dan jarak pemberian HB-2 dengan HB-3 < 2 bulan atau 2 bulan berperan terhadap seroproteksi HB pada anak usia 10-15 tahun.;Background. Hepatitis B viral (HBV) infection in Indonesia is still high with average prevalence of 9.4%. The high prevalence of hepatitis B (HB) is related to the occurrence of HBV infection during the early life, especially through vertical transmission. In Indonesia proportion of vertical transmission 45.9% and 5.2% pregnant women have HBsAg positive. The most effective way to control HBV infection is with immunization HB, but there is differential in anti-HBs seroprotection titer at the age more than ten years in many locations. In addition there are factors that can affect anti-HBs titer, but these studies are rare and have ever been done in Manado.

Objective. Knowing anti-HBs seroprotection titer and factors that can affect the anti-HBs titer.

Method. Analitic observational study with cross sectional design. Research was done with stratified random sampling in children age 10-15 years old at Tuminting district, Manado city since October until November 2014. Analise data with SPSS 22.

Results. From 48 schools, selected 10 schools with 105 children as subject of research, but only 23 (21.9%)

children who were having seroprotective (21,9%). A total of 76 (72.4%) subjects were female, 78 (74.3%) subjects with good nutrition status and 98 (93.3%) subjects had 2,500 grams birth weight. From the immunization record book 26 (24.8%) subjects were obtained with HB-1 vaccination done at 7 days of age and 45 (42.9%) subjects with the distance between HB-2 and HB-3 were 2 months. Mother's age was found 86 (81.9%) were 20-35 years old, 64 (60.9%) mothers's education were high school graduated and 79 (75.2%) parents subjects had income 2 million per month. From multivariate analysis obtained that administration of HB-1 7 days or >7 days ( $p=0.02$ ) and distance between administration of HB-2 and HB-3 <2 months or 2 months ( $p<0.001$ ) had important role in HB seroprotection in children.

Conclusion. This study obtained a number of low HB seroprotection (21.9%) as well as administration of HB-1 7 days or >7 days and distance between administration of HB-2 and HB-3 <2 months or 2 months had important role in HB seroprotection in children age 10-15 years old., Background. Hepatitis B viral (HBV) infection in Indonesia is still high with average prevalence of 9.4%. The high prevalence of hepatitis B (HB) is related to the occurrence of HBV infection during the early life, especially through vertical transmission. In Indonesia proportion of vertical transmission 45.9% and 5.2% pregnant women have HBsAg positive. The most effective way to control HBV infection is with immunization HB, but there is differential in anti-HBs seroprotection titer at the age more than ten years in many locations. In addition there are factors that can affect anti-HBs titer, but these studies are rare and have ever been done in Manado.

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