

## ABSTRAK

### FAKTOR – FAKTOR YANG BERKORELASI DENGAN KADAR ANTIBODI ANTITETANUS PADA IBU HAMIL

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Kadar antibodi antitetanus pada ibu hamil dipengaruhi berbagai faktor, diantaranya: umur ibu, interval vaksinasi Tetanus toksoid (TT)-1 – TT-2, TT-1-waktu pemeriksaan, TT-2 – waktu pemeriksaan dan kadar Hb. Penelitian ini bertujuan untuk mengetahui faktor – faktor yang berkorelasi dengan kadar antibodi antitetanus pada ibu hamil.

Disain penelitian *cross sectional*, observasional terhadap 67 ibu hamil di wilayah kerja puskesmas Lubuk Buaya, Nanggalo dan Ambacang Kuranji kota Padang, bulan Juni - Desember 2015, teknik *consecutive sampling*. Kadar antibodi diukur menggunakan metode *Indirect ELISA* di Laboratorium Biomedik Universitas Andalas. Uji normalitas data dengan *Kolmogorov-Smirnov*, *Spearman* untuk korelasi antara umur, interval: TT-1 – TT-2, TT-1, TT-2 – waktu pemeriksaan, kadar Hb dengan kadar antibodi dan uji *Kruskal Wallis* untuk menilai perbedaan kadar antibodi berdasar interval TT-1 – waktu pemeriksaan serta uji regresi linier untuk menentukan faktor determinan yang berkorelasi dengan kadar antibodi.

Hasil penelitian menunjukkan median: kadar antibodi 0,388 (0,27–0,95), mean umur 29,09 tahun SD= 4,562, median: interval TT-1 – TT-2 45 (24-92) hari, TT1, TT-2 – waktu pemeriksaan 67 (41-140) hari, 28 (11-71) hari, kadar Hb 10,60 (8,4 – 14,6 gr%). Terdapat korelasi negatif yang sangat lemah, tidak signifikan antara umur dengan kadar antibodi ( $r=-0,076$   $p=0,540$ ), terdapat korelasi positif lemah dan signifikan antara: interval TT-1 – TT-2 ( $r= 0,353$ ,  $p = 0,003$ ), korelasi positif kuat dan signifikan antara TT-1, TT-2 waktu pemeriksaan ( $r=0,696$   $p = 0,000$  dan  $r= 0,726$   $p= 0,000$ ) dengan kadar antibodi. Terdapat perbedaan kadar antibodi pada kelompok interval TT-1 – waktu pemeriksaan. Terdapat korelasi positif sangat lemah antara kadar Hb dengan kadar antibodi ( $r=0,200$   $p=0,104$ ). Kesimpulan penelitian, faktor determinan yang berkorelasi dengan kadar antibodi antitetanus adalah: interval TT-1 – TT-2 dan TT-2 – waktu pemeriksaan.

Kata Kunci: Umur interval TT1 – TT2, interval TT1 – waktu pemeriksaan, interval TT2 – waktu pemeriksaan, kadar Hb, Kadar antibodi, ibu hamil

## ABSTRACT

# FACTORS THAT CORRELATE WITH ANTITETANUS ANTIBODY LEVELS OF PREGNANT WOMEN

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Tetanus antibody levels in pregnant women is influenced by many factors, including: the mother's age, vaccination interval Tetanus toxoid (TT) -1 - TT - 2, TT -1 – checking time, TT - 2 - checking time and hemoglobin level. The objective of this research was to determine the factors that correlate with tetanus antibody levels in pregnant women.

The research design was cross-sectional, observational to 67 pregnant women in the working area of Puskesmas Lubuk Buaya, Nanggalo and Ambacang Kuranji Padang, from June to December 2015 with consecutive sampling technique. Tetanus antibody level was assayed by Indirect ELISA method in Biomedical Laboratory University of Andalas. Normality data was tested by using Kolmogorov - Smirnov, Spearman test for correlation between: maternal's age, interval: TT1 - TT2, TT1 – checking time, TT2 – checking time, hemoglobin level with antitetanus antibody level for pregnant women and linear regression to determine determinant factors that correlate with antitetanus antibody level in pregnant women.

The results show the median of antitetanus antibody level : 0.388 ( 0.27 to 0.95 ). The median of maternal's age 29,09 years, SD= 4,562, median: interval of TT-1 - TT-2 was 45 ( 24-92 ) days, TT-1, TT-2 – checking time was 67(41-140) days, 28 (11-71) days, Hb 10.60 (8,4-14,6) gr%. There is a very weak negative and not significant correlation between maternal's age and antitetanus antibody level (  $r = -0.076$   $p = 0.540$  ), there is a weak positive and significant correlation between interval TT1 - TT2 (  $r = 0.353$ ,  $p = 0.003$  ), strong positive and significant correlation between TT-1, TT-2 - checking time (  $r = 0.696$ ,  $p = 0.000$  ) and (  $r = 0.726$   $p = 0.000$  ) with antitetanus antibody level. There was difference antibody level of interval TT-1 - checking time group. There was very weak positive and not significant correlation between Hb and antibody level (  $r = 0.200$ ,  $p = 0.104$  ). Determinant factors that correlated with antitetanus antibody level were : interval TT1 - TT2 and TT2 – checking time (  $p = 0.001$  and  $p = 0.000$  ).

The conclusion of this study was determinant factors that correlate with tetanus antibody level were : interval TT1 - TT2 and TT2 – checking time.

Keywords : maternal age, interval of: TT1 - TT2, TT1 – checking time, TT2 – checking time, Hb level, antitetanus antibody level, pregnant women