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KEY WORD : HBV INFECTION / RISK ASSESSMENT / HOSPITAL PERSONNEL.

PRANEE WATAGULSIN : RISK ASSESSMENT OF HEPATITIS B VIRUS INFECTION IN LERDSIN HOSPITAL PERSONNEL. THESIS ADVISOR : PIPAT LUKSAMIJARULKUL, M.Sc., JAIVAN TANAMAI, M.D., DUSIT SUJIRARAT, M.Sc. 108 p. ISBN 974 - 661 - 725 -7.

A cross - sectional analytic study of 380 health personnel in Lerdsin Hospital was conducted between July and December 1997 in order to assess seroprevalence and the risk of HBV infection. None of the subjects had ever received HBV vaccine. Subjects were interviewed by using questionnaire and blood samples were collected for determining HBsAg, Anti - HBs and Anti - HBc by ELISA techniques. The results revealed that the prevalence of HBV seromarkers was 48.68 %. Carrier rate (HBsAg + Anti - HBc) was 3.42 %, and protective rate (Anti - HBs + Anti - HBc) was 43.16 %. The risk factors of HBV infection in Lerdsin Hospital personnel as determined by univariate analysis were (a) age > 30 years (OR = 3.15, 95 % CI = 2.04 - 4.87), (b) married status (OR = 2.26, 95 % CI = 1.48 - 3.45), (c) working in at risk wards (OR = 3.05, 95 % CI = 1.24 - 7.54), (d) duration of employment > 5 years (OR = 2.81, 95% CI = 1.83 - 4.29), (e) a history of accident with sharp instruments at work (OR = 1.58, 95 % CI = 1.05 - 2.28), and (f) involvement in accident with needles (OR = 1.72, 95 % CI = 1.12 - 2.64). After controlling the confounders, the risk factors were (a) age > 30 years, (b) male, (c) working in at risk wards and (d) involvement in accident with needles. The result from Multiple Logistic Regression was used to formulate the risk scale model by applying the Receiver Operating Characteristic Curve (ROC) statistic. The risk scale had the appropriate cut - off point at score of 5 or greater with the sensitivity of 49.19 % and specificity of 80 %. The risk assessment form was developed by using this criteria. This form may be used as a screening tool, together with the result of serology, to indicate which health personnel are at risk of HBV infection before vaccination.