Model Determinan Sepsis Awitan Dini Pada Neonatus Cukup Bulan Asimtomatik Lahir Dari Ibu Ketuban Pecah Dini Lebih Dari 12 Jam = Determinant Model of Asymptomatic Early Onset Neonatal Sepsis of Term Infants Born to Mothers with Premature Rupture of the Membranes For More than 12 Hours

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Abstrak

Latar belakang: Rekomendasi Centers for Disease Control and Prevention (CDC) 2010 (revisi 2002) tidak spesifik memberi panduan dalam pencegahan sekunder sepsis awitan dini (SAD) pada neonatus cukup bulan (NCB), asimtomatik lahir dari ibu yang mengalami KPD < 18 jam.
Tujuan: Didapatnya model determinan SAD pada NCB sesuai masa kehamilan (SMK), asimtomatik lahir dari ibu yang mengalami KPD lebih dari 12 jam.
Metodologi: penelitian observasional potong lintang untuk mendapatkan model determinan sepsis neonatorum awitan dini (SNAD) yang dilakukan dari Februari 2013 sampai bulan Mei 2014 di RSAB Harapan Kita, RSUD Tarakan, RSIA Budi Kemuliaan. Determinan yang diteliti adalah jenis persalinan, petanda infeksi saluran kemih (ISK) pada ibu, petanda infeksi intra amnion (IIA) seperti demam intrapartum, ibu takikardia, janin takikardia, adanya perubahan warna dan bau cairan ketuban, leukosit darah ibu, dan petanda infeksi darah tali pusat (peningkatan jumlah total leukosit, neutrofil, peningkatan rasio I/T, hs-CRP dan IL-6). Diagnosis sepsis ditegakkan berdasarkan catatan medis bayi yang dipastikan berdasarkan hasil positif biakan darah tali pusat. Model determinan SNAD yang dihasilkan adalah suatu persamaan regresi logistik yang digunakan untuk menentukan probabilitas terjadinya SNAD sebagai acuan terapi antibiotik.
Hasil: model determinan SAD pada NCB SMK, asimtomatik lahir dari ibu KPD > 12 jam berupa kalkulator dan sistem skor yang dibentuk dari determinan persalinan per vaginam, perubahan warna dan bau cairan ketuban, leukosit darah ibu, leukosit darah tali pusat, kadar hs-CRP darah tali pusat dan kadar IL-6 darah tali pusat. Model determinan SNAD memiliki dua varian, varian lengkap digunakan untuk fasilitas pelayanan neonatus subspesialistik dan varian alternatif digunakan untuk fasilitas pelayanan spesialistik. Titik potong ideal penentuan probabilitas terjadinya SNAD memiliki sensitivitas di antara 24,2 – 40,3 % dan spesifisitas 87,1 - 94,5 %. Nilai diskriminasi dengan nilai AUC berkisar di antara 0,743 – 0,816 dengan kalibrasi baik berdasarkan uji Hosmer-Lemeshow.
Simpulan: Hasil penelitian ini adalah model determinan SAD pada NCB SMK asimtomatik lahir dari ibu yang mengalami KPD > 12 jam, berbentuk kalkulator dan sistem skor yang memiliki varian lengkap dan alternatif untuk menentukan probabilitas terjadinya SNAD sebagai dasar pemberian terapi antibiotik empiris secara rasional.
.....Background: Centers for Disease Control and Prevention (CDC) 2010 (revised 2002) recommendations does not specifically provide guidance in secondary prevention of asymptomatic early-onset sepsis (EOS) on term infant born to mother experiencing PROM < 18 hours.
Objective: to develop early-onset neonatal sepsis (EONS) determinant model as a rational basis for determining the empirical antibiotic therapy in asymptomatic, term infant born to mother with PROM > 12

hours.
Method: A cross-sectional observational study to obtain an EONS determinant model which was conducted from February 2013 to May 2014 in RSAB Harapan Kita, Tarakan Hospital, RSIA Budi Kemuliaan. The determinant factor is the type of delivery, marker of maternal urinary tract infection (UTI), intra-amniotic infection markers (intrapartum fever, maternal tachycardia, fetal tachycardia, change in the color and odor of amniotic fluid, maternal blood leukocytes), and umbilical cord blood infection marker (increased the total number of leukocytes, neutrophils, an increase in the ratio of I / T, hs-CRP and IL-6). Early-onset neonatal sepsis was diagnosed base on infant medical record on 72 hours afeter birth and confirmed by the positive results of umbilical cord blood cultures. The resulting of EONS determinants model is a logistic regression equation used to determine the probability of the occurrence of EONS as reference rational basis empirical antibiotic therapy.
Results: The EOS determinants model on asymptomatic term infant born to mothers with PROM> 12 hours is a calculator and scoring system that is formed from the determinant of vaginal delivery, change the color and odor of amniotic fluid, maternal blood leukocytes, cord blood leukocytes, the levels of hs-CRP and IL-6 umbilical cord blood level. Early-onset neonatal sepsis determinant model has two variants, the full variant used for subspecialty neonatal care facilities and alternative variant is used for specialty neonatal care facilities. Ideal cutoff point probability of occurrence SNAD has sensitivity range of 24.2 to 40.3% and specificity of 87.1 to 94.5%. The model performe is good based on Hosmer-Lemeshow test anda discrimination value AUC in in range of 0.743 to 0.816.
Conclusion: The EOS determinant model of asymptomatic term infant born to mothers with PROM > 12 hours is a calculator and scoring system that is used to determine the probability of EONS occurrence as the basis of determining the rational empirical antibiotic therapy.