Faktor Risiko Terjadinya Bakterimia MDR Gram Negatif pada Pasien Rawat Inap = Risk Factors Of MDR Gram Negative Bacteremia among Hospitalized Patients

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Abstrak

[Latar Belakang: Dalam dekade terakhir terjadi peningkatan bakterimia Multi-Drug Resistant (MDR) Gram negatif. Bakterimia MDR Gram negatif tidak hanya meningkatkan angka kematian, tetapi juga dapat dikaitkan dengan peningkatan morbiditas pasien, lama perawatan dan biaya perawatan rumah sakit. Faktor-faktor risiko terjadinya bakterimia MDR Gram negatif di ruang rawat inap penting untuk diketahui sehingga dapat dilakukan upaya pencegahan dan pengendalian terhadap faktor-faktor risiko tersebut dan menurunkan kejadian bakterimia MDR Gram negatif pada pasien rawat inap.
Tujuan: Mengetahui faktor-faktor risiko yang berhubungan dengan terjadinya bakterimia MDR Gram negatif pada pasien rawat inap
Metode: Faktor risiko diidentifikasi menggunakan studi kasus kontrol. Data dikumpulkan dari catatan rekam medis pasien rawat inap RSCM yang memiliki kultur darah positif tumbuh bakteri patogen Gram negatif. Kelompok kasus adalah subjek dengan bakterimia MDR Gram negatif, kelompok kontrol adalah subjek dengan bakterimia non-MDR Gram negatif. Kedua kelompok kasus dan kontrol diambil secara konsekutif dikarenakan kurangnya sampel. Analisis bivariat dilakukan pada variabel bebas yaitu riwayat antibiotik sebelumnya, pemberian antibiotik kombinasi, fokus infeksi, riwayat hospitalisasi, lama perawatan, Charlson index >2, pemberian kemoterapi, kortikosteroid, keganasan, kolonisasi, absolute neutrophile count (ANC) <500, perawatan di ICU/HCU, prosedur medis invasif, hipoalbuminemia. Semua variabel yang mempunyai nilai p <0,25 pada analisis bivariat dimasukkan ke dalam analisis multivariat dengan regresi logistik.
Hasil: Selama periode penelitian didapatkan 131 pasien yang memenuhi kriteria, 42 pasien dengan bakterimia MDR Gram negatif (kasus), dan 89 pasien dengan bakterimia non-MDR Gram negatif (kontrol). Berdasarkan hasil analisis bivariat didapatkan 2 variabel yang memiliki kemaknaan secara statistik yaitu riwayat ICU/HCU (p= 0.003) dan riwayat ventilator (p=0.030). Pada analisa multivariat lebih lanjut terdapat satu varibel bermakna secara statistik, yaitu riwayat ICU/HCU (OR: 3.118; IK 95% : 1.443 – 6.736; p=0,004),
Simpulan: Riwayat ICU/HCU merupakan faktor risiko terjadinya bakterimia MDR Gram negatif pada pasien rawat inap.
.....Background: Over the past decade, the numbers of bloodstream infections caused by multidrug-resistant (MDR) Gram-negative bacteria have risen sharply. MDR Gramnegative bacteremia increases not only mortality, but may also be associated with

increased patient morbidity, length of treatment and hospitalization costs. It is important to identify risk factors of MDR Gram-negative bacteremia among hospitalized patients in order to prevent and to control these risk factors and thus to lower the incidence of MDR Gram-negative infections among hospitalized patients.
Aim: To identify the risk factors associated with the occurrence of MDR Gramnegative bacteremia among hospitalized patients
Method: Risk factors were identified by a case-control study. Data was collected from inpatients medical record that had positive blood cultures of Gram negative bacterial pathogens. Both case and control samples were collected consecutively due to lack of samples available. The case group was subjects who had MDR Gram-negative bacteremia, and the control group was subjects who had non-MDR Gram negative bacteremia. Bivariate analysis was performed on several independent variables, which were previous antibiotic history, antibiotic combination, source of infection, history of hospitalization, duration of hospitalization, Charlson index> 2, administration of chemotherapy, use of corticosteroid, malignancy, colonization, ANC <500, history of treatment in ICU / HCU, invasive medical procedures and hypoalbuminemia. All variables that had a value of p <0.25 on bivariate analysis were included in multivariate analysis using logistic regression.
Result: During the study period, there were 131 patients fulfilled the criteria, which consisted of 42 patients who had MDR Gram-negative pathogen bacteremia (case) and 89 patients who had non-MDR Gram-negative pathogen bacteremia patients (control group). Based on the bivariate analysis, there were two variables statistically significance, which were history of treatment in ICU / HCU (p=0.003) and history of ventilator (p=0.030). Further multivariate analysis showed that there was one variable statistically significance, which was history of treatment in ICU / HCU (OR: 3.118; CI 95% : 1.443 – 6.736; p=0,004).
Conclusion: History of treatment in ICU / HCU was risk factor of MDR Gram negative bacteremia among hospitalized patients.;Background: Over the past decade, the numbers of bloodstream infections caused by
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