

ABSTRACT

ANALYSIS OF BACTERIAL PATTERNS AND RISK FACTORS FOR BAKTEREMIA IN ADULT INTENSIVE CARE RSUP DR SOERADJI TIRTONEGORO, KLATEN

Qonita Imma Irfani, Abu Tholib Aman, Tri Wibawa
Departement of Microbiology Clinic, UGM

Background: BSI is an infection in the bloodstream that has a risk of being life-threatening, especially in intensive care patients. One study that examined bacteremia in intensive care units in Malaysia 10.7% had BSI. Studies in Indonesia that experienced bacteremia as much as 8.9%. Until now there have been no studies that describe adult intensive care room patients (HCU, ICU and ICCU) in RSST. The purpose of this study was to describe and analyze the pattern of blood culture bacteria, antibiotic sensitivity patterns, and risk factors for bacteremia in patients in the adult intensive care unit of RSST.

Methods: This study is an analytic descriptive study with a cross sectional approach. The research subjects were all RSST adult intensive care patients who underwent blood culture examinations with positive results during the treatment period 1 October 2019 to 31 August 2022. Analysis of risk factors used the Fisher's exact test.

Results: 52 data was selected for analysis, consisting of 21 female, 31 male. The risk factors for bacteremia in the study were the installation of HD-cath, WSD, ventilator, history of diabetes, and surgery. Several samples were found to have more than one risk factor. Based on the results of blood tests, the results of Gram-negative bacteria were 30, Gram-positive bacteria were 22. Examination of antibiotic sensitivity found 2 cases of MR CoNS and no ESBL, MRSA, and Carbapenemase were found. There is a significant association between three or more risk factors for bacteremia in patients with a germ pattern.

Conclusion: The analysis found a significant association between three or more risk factors for bacteremia in patients with a bacterial pattern.

Keywords: blood stream infection, bacteremia, intensive care unit, bacterial pattern, antibiotic susceptibility pattern

ABSTRAK

ANALISIS POLA KUMAN DAN FAKTOR RISIKO BAKTEREMIA DI RUANG PERAWATAN INTENSIF DEWASA RSUP DR SOERADJI TIRTONEGORO KLATEN

Qonita Imma Irfani, Abu Tholib Aman, Tri Wibawa
Departemen Mikrobiologi Klinik, UGM

Latar belakang: BSI adalah infeksi pada aliran darah yang berisiko mengancam jiwa terutama pasien ruang perawatan intensif. Salah satu studi yang mengkaji tentang bakteremia di unit perawatan intensif di Malaysia 10,7% mengalami BSI. Studi di Indonesia yang mengalami bakteremia sebanyak 8,9%. Sampai saat ini belum ada penelitian yang mendeskripsikan pasien ruang perawatan intensif dewasa (HCU, ICU dan ICCU) di RSST. Tujuan penelitian ini adalah untuk menggambarkan dan menganalisis pola kuman kultur darah, pola kepekaan antibiotik, dan faktor risiko bakteremia pada pasien di ruang perawatan intensif dewasa RSST.

Metode: Penelitian ini merupakan penelitian deskriptif analitik dengan pendekatan *cross sectional*. Subyek penelitian adalah seluruh pasien ruang perawatan intensif dewasa RSST yang dilakukan pemeriksaan kultur darah dengan hasil positif pada periode perawatan 1 Oktober 2019 sampai dengan 31 Agustus 2022. Analisis faktor risiko dengan menggunakan *fisher's exact test*.

Hasil: 52 data terpilih untuk analisis, terdiri dari 21 perempuan, 31 laki-laki. Faktor risiko bakteremia pada penelitian ialah pemasangan HD-cath, WSD, ventilator, riwayat diabetes, dan tindakan pembedahan. Beberapa sampel didapatkan mengalami faktor risiko bakteremia lebih dari satu. Berdasarkan hasil pemeriksaan darah didapatkan hasil bakteri Gram negatif 30, bakteri Gram positif 22. Pemeriksaan kepekaan antibiotik didapatkan 2 kasus MR CoNS dan tidak ditemukan ESBL, MRSA, dan Carbapenemase. Terdapat hubungan signifikan antara tiga atau lebih faktor risiko bakteremia pada pasien dengan pola kuman.

Kata kunci: *blood stream infection*, bakteremia, unit perawatan intensif, pola kuman, pola kepekaan antibiotik