

Gambaran MIC (Minimum Inhibitory Concentration) kuman panresisten di RSUPNKM dengan metode difusi gradient-MIC strip test = MIC (Minimum Inhibitory Concentration) pattern of panresisten bacteria in RSUPNKM with diffusi gradient-MIC strip test

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Abstrak

[Penyakit infeksi merupakan salah satu masalah utama di negara berkembang saat ini. Keadaan ini memicu peningkatan frekuensi pemakaian anti mikroba sehingga resiko panresisten semakin besar. Tujuan penelitian ini adalah untuk melihat gambaran MIC mikroba panresisten terhadap anti mikroba yang paling sering digunakan di lingkungan RSUPNKM. Mikroba yang diuji merupakan mikroba panresisten yang terbanyak berdasarkan peta kuman yang disusun oleh Loho dkk pada bulan juli - desember 2012.

Penelitian potong lintang ini terdiri dari 90 mikroba panresisten yaitu Acinetobacter spp, Pseudomonas spp dan Klebsiella spp. Data karakteristik sampel pemeriksaan dicatat dan dilakukan uji resistensi. Uji resistensi menggunakan metode difusi cakram dan metode MIC strip test kemudian dicari 'interpretative error' kedua metode.

Pada ketiga mikroba yang panresisten dengan metode difusi cakram diketahui bahwa masih terdapat nilai intermediate dan sensitif dengan metode MIC strip test. Pada Acinetobacter spp nilai sensitif paling tinggi didapat pada anti mikroba CS sebesar 55 isolat (100%) dan diikuti dengan anti mikroba AK sebanyak 7 isolat (12,7%) dan oleh CAS 1 isolat (1,8%). Nilai intermediate tertinggi terdapat pada AK yaitu 6 isolat (10,9%) yang diikuti oleh CAS 1 isolat (1,8%). Pada Pseudomonas spp yang diperoleh nilai sensitif terbesar pada anti mikroba CS 17 isolat (89,5%) diikuti dengan AK yaitu sebesar 3 isolat (15,7%), Nilai intermediate tertinggi terdapat pada AK yaitu 6 isolat (31,5%) yang diikuti oleh CAS 4 isolat (21,1%) dan CS 2 isolat (10,5%). Klebsiella spp dengan jumlah 16 isolat didapatkan nilai sensitif tertinggi pada CS 16 isolat (100%) diikuti DOR dengan 2 isolat (12,5%) dan kemudian oleh AK dan CAS dengan masing masing 1 isolat (6,25%). Nilai intermediate terdapat pada DOR dan AK dengan masing masing 1 isolat (6,25%).

Hasil nilai "interpretative error" menunjukkan tidak ditemukan VME. Nilai MJE dan MNE Acinetobacter spp yang melebihi kriteria FDA adalah AK yaitu 12,7% dan 10,9%. Pada Pseudomonas spp nilai MJE yang melebihi kriteria FDA adalah AK, CAS dan DOR yaitu 15,7%, 10,5% dan 5,2%. Nilai MNE yang melebihi kriteria FDA adalah AK, CAS dan CS yaitu 31,5%, 21,1% dan 10,5%. Pada Klebsiella spp nilai MJE pada DOR, AK dan CAS yaitu 12,5%, 6,25% dan 6,25%. Nilai MNE pada AK dan DOR yaitu 6,25% dan 6,25%.

Kami menyimpulkan bahwa untuk mikroba yang panresisten dengan metode difusi cakram dapat digunakan MIC test.; Infectious diseases are one of the major problems in developing countries today. This condition triggers an increase in frequency of anti-microbial used that leads increase panresistance. The purpose of this study was to descriptive of the MIC microbes resistant to

anti-microbial is most often used in RSUPNCM. Microbes tested is the most resistant microbes germs based map compiled by Loho et al in July - December 2012.

This cross-sectional who study consisted of 90 microbes resistant ie. *Acinetobacter* spp, *Pseudomonas* spp and *Klebsiella* spp. The characteristics of the data sample are recorded and performed resistance test. Resistance test its done using the disc diffusion and MIC test strip method and then analized 'interpretative error' for both methods.

On the third microbial panresisten with disc diffusion method is known that there are intermediate values and sensitive with MIC method. In *Acinetobacter* spp sensitive highest value whose obtained on the anti- microbial CS by 55 isolates (100 %) followed by antimicrobial and AK were 7 isolates (12.7 %) and by CAS 1 isolates (1.8 %). The highest intermediate value ie there exist at AK 6 isolates (10.9 %) , followed by CAS 1 isolates (1.8 %). In *Pseudomonas* spp were most sensitive to the values whose obtained anti- microbial CS 17 isolates (89.5 %) followed by the AK is equal to 3 isolates (15.7 %) , the highest intermediate value that is contained in AK 6 isolates (31.5 %) , followed by CAS 4 isolates (21.1 %) and CS 2 isolates (10.5 %) . *Klebsiella* spp isolates whose obtained with the number 16, the highest score on the CS 16 sensitive isolates (100 %) followed DOR with 2 isolates (12.5 %) and then by AK and CAS with each 1 isolates (6,25 %). Intermediate values contained in DOR and AK with each 1 isolates (6,25 %) .

Results of 'interpretative error" is not found in Very major error. Minor error and Major error *Acinetobacter* spp that exceeds the FDA criteria are AK is 12.7% and 10.9%. In *Pseudomonas* spp Major error value that exceeds the FDA criteria are AK, CAS and DOR with 5.7%, 10.5% and 5.2%. The Minor error value that exceeds the FDA criteria are AK, CAS and CS are 31.5%, 21.1% and 10.5%. In *Klebsiella* spp, Major error on DOR, AK and CAS with 12.5%, 6:25% and 6:25%. The Minor error value on AK and DOR is 6:25% and 6:25%.

We conclude that MIC test can be used for microbial panresisten with the disc diffusion., Infectious diseases are one of the major problems in developing countries today. This condition triggers an increase in frequency of anti-microbial used that leads increase panresistance. The purpose of this study was to descriptive of the MIC microbes resistant to anti-microbial is most often used in RSUPNCM. Microbes tested is the most resistant microbes germs based map compiled by Loho et al in July - December 2012.

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