A663 - The positive impact of meropenem stewardship intervention at a brazilian intensive care unit

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Introduction:
This study aimed to evolutionary analyze the decrease of the Meropenem Defined Daily Doses (DDD), at a Brazilian Intensity Care Unity (ICU) before and after six months of the antimicrobial stewardship intervention.

Methods:
From June to November 2017, the meropenem use to treat inpatients at the Hospital Casa de Portugal ICU, Rio de Janeiro, Brazil, was reduced to seven days and Meropenem DDD, CRE ID, consumption of saline 100 mL for dilution, equipment for infusion of antibiotics, and global mortality values and BSI deaths were noted. Same data were retrospectively collected from December 2016 to May 2017. Results of both periods were analyzed by Student’s T Test

Results:
Meropenem DDD values ranged from 143.01 to 187.70 and 22.87 to 160.76, from December 2016 to May 2017 and June to November 2017, respectively, with average of 174.7 and 101.6 in this order, with T(10) of 3.60 (p = 0.005). CRE ID also decreased, with values ranging from 9.6 to 34.9 (December 2016 to May 2017) and 1 to 18.1 (June to November 2017), with average of 16.2 and 7.2, respectively. A decrease in the use of saline for dilution by 1000 patients-day with values from 2930 to 4436 and 2619 to 2980 from December 2016 to May 2017 and from June to November 2017 respectively, with 3310 and 2868 (average) in this order was detected. We have observed concomitant decrease in equipment for infusion by 1000 patients-day with values from 995 to 2116 and from 918 to 1054, from December 2016 to May 2017 and from June to November 2017, respectively, with average values of 1236 and 967, in this order. The global mortality values varied of 17.41 to 22.96 (December 2016 to May 2017) and 11.61 to 17.9 (June to November 2017), with average of 19.5 and 14.5 respectively, with T(10) of 3.78 (p = 0.004). A drop in the mean number of BSI deaths from December 2016 to May 2017 and June to November 2017 of 2.6 to < 1, in this order, was also observed

Conclusion:
Meropenem stewardship intervention had a positive impact in the Intensive Care Unity evaluated