

**P1152**

**Paper Poster Session**  
**Endocarditis**

**Microbiological, epidemiological and clinical characteristics of 60 cases of infective endocarditis in the last 6 years in a teaching hospital, Rio de Janeiro, Brazil**

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**Background:** Infective endocarditis (IE) is relatively uncommon, however, it has received considerable attention by international scientist community. Despite the improvements in medical and surgical therapies, the mortality rate of IE has remained unacceptably high. The aim of this observational, prospective cohort study was to report the microbiological, epidemiological and clinical characteristics of 60 patients diagnosed at a University Hospital located in Rio de Janeiro, Brazil, during the period from June, 2009 to November, 2015.

**Material/methods:** The diagnosis of IE was based on the modified Duke criteria, which was incorporated with medical history, physical examination and echocardiographic data. Patients were classified into two groups: community-associated infective endocarditis (CAIE) and healthcare-associated infective endocarditis (HAIE). All statistical analysis were performed by using Stata® program (version 9.2 StataCorp®). Written informed consent was obtained from all patients, as required by the institutional committee.

**Results:** The mean age was 47.4 years and 38 (63.3%) patients were male. Of the 60 cases, 27.2% and 73.3% were classified as CAIE and HAIE, respectively. The mean time between the onset of symptoms and the diagnosis of IE was 22.4 days. The most frequent microorganisms were

*Staphylococcus aureus* (35.8%), *Enterococcus* spp. (30.2%), Coagulase-Negative staphylococci (13.2%) and Gram-negative bacilli (13.2%). Seven methicillin-resistant *Staphylococcus aureus* (*mecA* gene) identified six different ST (1, 5, 25, 105, 188 and 398). Two isolated belonged to know epidemic lineages (USA400 and USA800). *Streptococcus* spp. (37.5%) was the most predominant microorganism in CAIE, whereas in the HAIE group, *Staphylococcus aureus* (39.5%) was the most prevalent. The majority of IE occurred in native valves (83%) and the most involved was the mitral valve (58.6%). Mean vegetation size was 13.8 mm, 14.1 mm in the CAIE group and 13.7 mm in the HAIE group. The overall mortality was 50.8%, being more frequent in patients with HAIE than CAIE (60.5% vs 25% respectively). In the multivariate analysis, we found *Enterococcus* spp. (OR= 12.4; 95% IC= 2.5 – 61.9,  $p= 0.002$ ) and sepsis (OR=18.7; 95% IC=3.1 – 112.4;  $p=0.001$ ) independently associated with mortality.

**Conclusions:** We observed a change in IE etiology in Rio de Janeiro, Brazil. Now, HAIE is a new emerging infectious disease and *Enterococcus* spp. is the principal agent of mortality in our cohort of IE patients.