

**P2453 Clinical features and outcome of MDR infections in a high-intensity medical care ward**

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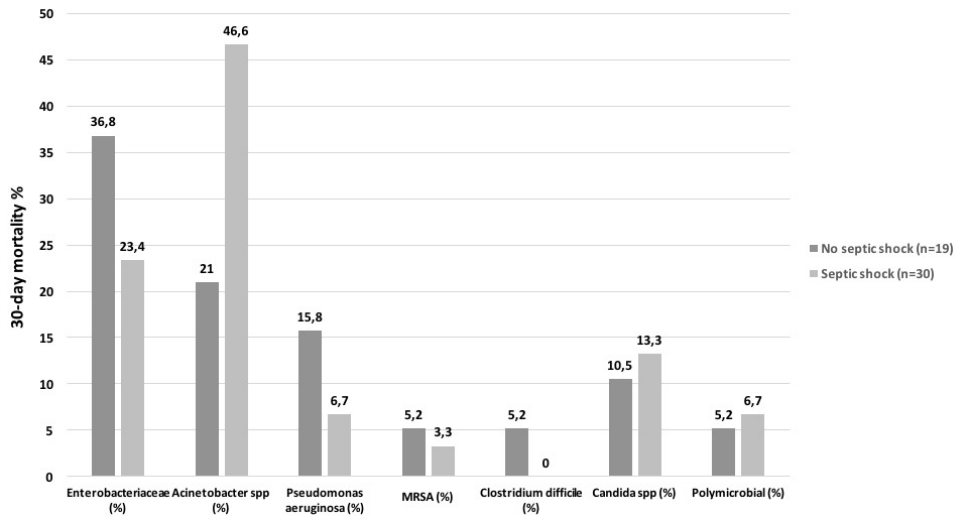
**Background:** in last years infections caused by multidrug-resistant (MDR) pathogens, traditionally considered a prerogative of intensive care unit patients, are increasingly observed also in medical wards. The spread of MDR infections is caused by several factors, including old age, comorbidities, broad antibiotic use, re-admission in hospital.

**Materials/methods:** aim of the study was analysis of etiology, clinical features, therapy and outcome of patients with MDR infections during hospitalization in a high-intensity medical care ward of a 300-beds tertiary-care hospital in Italy. Patients admitted from May 2017 to October 2018 were prospectively enrolled. Primary endpoint was evaluation of factors associated with 30-day outcome and development of septic shock.

**Results:** overall, during study period were hospitalized in internal medicine ward 2160 patients; out of these, 142 (6.6%) infections were caused by pathogens classified as MDR. The most frequent etiology of infection were enterobacteriaceae (36%), followed by *Acinetobacter* spp (17%), *Pseudomonas aeruginosa* (11.2%), methicillin-resistant *Staphylococcus aureus* (11.2%), *Clostridium difficile* (7.7%), and *Candida* spp (7%). Polymicrobial MDR infection was reported in 15 (10.5%) cases. The mean age was 75.2 years, with a Charlson Comorbidity Index of 3.7, Pitt bacteremia score of 2.4, and a SOFA score of 6.2 at time of infection. The most frequent source of infection was primary bacteremia (31%) followed by pneumonia (27%), and urinary-tract (18%) infection. Finally, 75 (52.8%) patients developed septic shock and 49 (34.5%) died at 30 days. At multivariate analysis, invasive candidiasis, pneumonia, re-admission in hospital were associated with development of septic shock. At COX regression analysis, septic shock, *Acinetobacter* etiology, inadequate source control of infection, and time to definitive therapy >5 days were associated with 30-day mortality, while empirical antimicrobial combination therapy with survival.

**Conclusions:** MDR infections in internal medicine wards are dramatically increasing and associated with high rates of septic shock, re-hospitalization and 30-day mortality. *Acinetobacter* spp etiology is associated with very high mortality rates and invasive candidiasis is the most frequent complication during antibiotic therapy. This analysis might help physicians in choosing appropriate empirical antimicrobial therapy in this setting of patients.

**30-day mortality according with etiology of infection in patients with or without septic shock**



29<sup>TH</sup> ECCMID  
 13-16 APRIL 2019 AMSTERDAM, NETHERLANDS  
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