Introduction:
Bacterial resistance is an important issue in Intensive Care Units. Screening patients admitted into ICU for multidrug-resistant bacteria (MDR) nasal and fecal carriage, has become a rule in Romania. Our objective was to weekly monitorize colonization with MDR bacteria and the persistence of carriage of such pathogens, among patients admitted to our hospital ICU and also, to determine the incidence for nosocomial infections associated with this colonizations, considering that colonization precedes infection.

Methods:
Prospective observational study: from 01/10/2017 to 15/08/2018 - we have included all adult patients admitted directly to ICU (first admittance only) or with previous general wards admittance for less than 48 hours. We performed nasal and rectal swap screening for MDR bacteria: Meticillin Resistant Staphilococcus Aureus (MRSA), ESBL producing Enterobacteriaceae (ESBL-EN), Carbapenemases Producing Gram negative Bacteria (CBP-GNB), Vancomycin resistant Enterococcus (VRE), during hospitalisation, on day 0, 7 and 14.

Results:
We have included 75 patients, 34 women, average age 62.9 yrs with average length of hospitalisation of 15 days. Upon admission: 35 patients were colonized with MDR bacteria, in day 7 65 colonized patients and 39 in day 14. Upon admission we had 5 MRSA, 25 ESBL, 6 CBP and 18 VRE strains. 13 patients had more than one strain colonization.

Conclusion:
MDR bacterial colonization is frequent in patients admitted to ICU. Colonization with MDR bacteria during hospitalisation in ICU increased with the length of stay. Colonization could represent a risk factor for increased rates of infection, especially with CBP-GNB and VRE. Active surveillance program for identification of MDR bacteria colonized patients is necessary and useful.