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**Objectives:** Single rooms reduce the risk of transmission of infection from the source patient to others by reducing direct or indirect contact transmission. Therefore they reduce nosocomial infection rates. The aim of this study was to compare nosocomial infection rates and infectious organisms before and after the transfer of the multibed anesthesia and reanimation intensive care unit (AR-ICU) into a new ICU with single rooms.

**Methods:** This study was carried out in our AR- ICU which was transferred to a new place in July 2013. Our previous AR-ICU had 12-bed, the novel has 10 single rooms and one isolation room. We compared the microorganisms and nosocomial infection rates of the 3-months period after the transfer of AR-ICU with the same 3-months period of the previous year (first and second periods).

**Results:** In the first period 155 and in the second, 99 patients were followed in the AR-ICU. Hospital infection and device associated infection rates in two periods were shown in Table 1. The hospital infection rate seems to be high in the first period, but we think that it's due to high number of patients followed in the ICU in the first period. As the patient day was similar in the two periods, infection densities were similar, too. All the device associated infection rates were lower in the second period than the first period. The mostly isolated microorganisms were *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Klebsiella pneumoniae* in every period. Infections due to *Staphylococcus aureus*, *A. baumannii*, *Escherichia coli* and *Candida albicans* were decreased in the second period. In the first period the rate of MRSA was 66.7%. There was only one infection with *S. aureus* in the second period but it was methicillin resistant. VRE, ESBL and carbapenem resistance were also decreased in the second period.

**Conclusion:** In our study we have detected that device associated infection rates and infections due to *A. baumannii*, *E. coli*, *S. aureus* and *C. albicans* were decreased after the transfer into the single rooms. VRE, ESBL and carbapenem resistance were also decreased. We think that single rooms may contribute to the infection control in the ICUs.

**Table 1:** Hospital infection and device associated infection rates of AR-ICU in first and second periods

	2012 August-October	2013 August-October
Number of patients	155	99
Number of patient days	977	989
Number of infections	29	27
Number of microorganisms	33	28
Hospital infection rate	%18,7	%27,3
Hospital infection density	29,7	27,3
Ventilator use rate	0,56	0,57
VAP rate	16,5	15,9
Urinary catheter use rate	0,97	1,0
CA-UTI rate	10,6	9,1
Central line use rate	0,74	0,5
CLA-BSI rate	9,7	8,1

VAP: Ventilator associated pneumonia

CA-UTI: Catheter associated urinary tract infection

CLA-BSI: Central line associated bloodstream infection