P2054
Abstract (poster session)
Risk factors for Acinetobacter baumannii colonisation and infection among patients admitted to intensive care units

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Objectives: To identify risk factors for Acinetobacter baumanii (AB) colonization upon intensive care unit (ICU) admission. Predictors for AB infection were also investigated. Methods: Ongoing multicenter prospective study of all patients admitted for > 48 hours to 6 ICUs, in Rome, since May 2012. Surveillance cultures (SCs) included rectal swab (RS) and pharyngeal swab (PS) or tracheal aspirate (TA) in patients on mechanical ventilation. SCs were taken on ICU admission and once weekly until discharge from ICU. Clinical and laboratory data were recorded. AB strains were sent to a reference laboratory for further identification and susceptibility confirmation and for molecular study. Results: From May to Sept 2012, 847 patients were admitted to the 6 ICUs; 261 remained for > 48 hours and 201 were screened. SCs were performed until the 1st, 2nd, 3th and 4th week of ICU admission in 100, 54, 20 and 27 patients, respectively. Overall, 359 RS, 270 TA and 264 PS were taken and AB was isolated in 5.6%, 8.1% and 1.1% of them, respectively, with a total of 53 AB isolates. All the strains were resistant to carbapenems. Of the 201 screened patients, 59.2% were male, the median age was 65 years (IQR 50-75), median Charlson and APACHE II scores were 5 (IQR 3-6) and 13 (IQR 9-17), respectively. The commonest causes for ICU admission were respiratory failure (32.3%) and post surgery (30.2%). Fourteen patients (7%) were found to be AB colonized at ICU admission, whereas 9 (4.5%) became colonized during ICU stay within a median of 7 days (IQR 6-10) after ICU admission. Significant differences between AB colonized and non-colonized patients at ICU admission were found for septic shock (21.4% vs. 4.3%) and prior antibiotic therapy (78.6% vs. 43.3%). Overall, AB infection was diagnosed in 5 patients (2 at admission, 3 during stay), 2 had surgical site infections, 1 post-surgical meningitis, 1 bacteraemia and 1 complicated urinary tract infection. Demographic data, underlying conditions, severity of illness, antibiotic exposure and colonization status were compared between AB infected and non-AB infected patients finding significant differences only for AB colonization at ICU admission (60% vs. 5.6%) and acquisition of AB colonization during ICU stay (40% vs. 3.6%). Conclusion: Our preliminary analysis showed that prior antibiotic therapy and septic shock were significantly associated with AB colonization at ICU admission. AB colonization was the only predictor for AB infection.