Intestinal colonization of residents of long-term care facilities and nursing homes in Braga area with Multidrug-resistant Gram-negatives

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Aim: The aim of our work was the detection of Enterobacteriaceae isolates producing extended-spectrum beta lactamases (ESBL) and with reduced susceptibility to carbapenem, in the intestinal flora of institutionalized-residents in extra-hospital-health-care facilities in Braga region.

Introduction: Care of aging population has been a growing challenge to public-health and health-care providers. Due to the disabilities of older people, there is a growing need for long-term care facilities (LTCF) and nursing homes (NH). This brings a new paradigm for the spread of bacteria showing multidrug-resistance (MDR) to antibiotics.

Methods: Fecal samples of 27 residents of these institutions were collected (September-to-December, 2016). One gram of each sample was suspended in 10 mL of saline and 100 mL of the suspension was spread on MacConkey agar with ampicillin (100 mg/L)/cefotaxime (2 mg/L)/meropenem (1 mg/L). Susceptibility to antibiotics was determined by disk-diffusion methods, according to CLSI. ESBL-producers were detected by the double-disk-synergy-test and/or clavulanic-acid addition and PCR was performed for detection of blaTEM, blaOXA, blaSHV, blaCTX-M-group-1, blaCTX-M-group-2, blaCTX-M-group-8, blaCTX-M-group-9, blaCTX-M-group-25, tetA, tetB, aac(3)-II, sul1, aac(6)-Ib and qnrB genes.

Results: The study revealed 6 ESBL-producing Enterobacteriaceae colonizing 2 residents in LTCF (2-Escherichia coli/1-Klebsiella, Enterobacter, Serratia and Citrobacter (KESCgroup)) and 3 residents in NH (2-Escherichia coli/1-KESCgroup). Isolates showed positive for blaCTX-M-group-1, blaCTX-M-group-9, blaTEM, blaSHV, blaOXA, tetA, tetB, aac(3)-II, sul1 and aac(6)-Ib. These isolates showed resistance to non-beta-lactam antibiotics, namely to tetracycline, ciprofloxacin, trimethoprim-sulfamethoxazole, gentamicin and amikacin. We detected 6 MDR-bacteria isolates and 1 isolate with reduced susceptibility to carbapenems.

Conclusion: Our results show the dissemination of ESBL-producing-Enterobacteriaceae in intestinal colonization of LTCF/NH patients, who may act as vehicles of MDR-bacteria within the health-care-facilities and community.

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Social desirability in medical school admission: Differences between students from regular contingent and graduate admission

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Aim: Our work targeted the degree of social desirable answers among two different contingents with the objective of providing useful statistically insight about how this variable may be responsible for the differences among both groups. With the new evidence found in this study we hope to provide useful insight to help improving the selection process of the applicants.

Introduction: The relation between social desirability and medical school applicants may be of interest when analyzing the results of questionnaires in medical school admission. Our study analyzes the difference in social desirability between graduates admitted to a medical school, and students enrolling in the school by the regular admission process.

Methods: We used a resumed version of the Marlow-Crowne Desirability Scale to compare the social desirability between students from the regular and graduate admission. After collecting 181 questionnaires between 2005 and 2006, all the data was analyzed using R software. The sample was described by performing t-test between regular and graduate admission in the following variables: gender, marital status, childbearing, working status, previous residence and age.

Results: Statistically significant differences were found in marital and working status as well as within. The main outcome – social desirability – was also statistically different among both groups, indicating that students with graduate admission had given more desirable answers. A analysis of subgroups according to martial and working status was made, being the results also significant.

Conclusion: Our study suggests that graduate admission students have more social desirability than regular students. However, more research is needed in order to find in what way other factors, as age or working status, for example, might have influenced these results.

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Headache among medical students in Bukovina Region of Ukraine

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Aim: To study the prevalence of headache among medical students in Bukovina region of Ukraine.