

Key words: Health professionals. Latent tuberculosis. Non-protected exposure. Contact surveillance. Compliance with follow-up.

CO 024. SMOKING PREVALENCE IN PREGNANCY

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Introduction: Smoking in pregnancy is associated with abortion, low birth weight, prematurity, stillbirth, sudden death syndrome, placental abruption, an increase in the number of nicotine receptors and future nicotine dependence in the newborn, as well as respiratory problems. There is evidence that smoking cessation during pregnancy improves maternal and fetal health. A smoking prevalence of 22.9% was found in a recent Portuguese study, based on a sample of 5,420 pregnant women in Porto.

Objectives: To determine the prevalence of smoking habits in first trimester pregnant women within the scope of the Prenatal Care Protocol of the Aveiro Maternal Health Coordinator Functional Unit. To characterize smoking habits of the smoking pregnant women identified.

Methods: Descriptive transversal study based on a self-administered questionnaire, which was proposed to every pregnant women that underwent the first trimester ultrasound in the Obstetrics Department of Hospital Infante D. Pedro (Aveiro) between April 2015 and April 2016. The studied variables include sociodemographic data, smoking habits, nicotine dependence, motivation for smoking cessation and partner's smoking habits. The statistical analysis was performed in SPSS®.

Results: In this period, 1,331 pregnant women undertook their first-trimester ultrasound, 1,085 of which accepted to participate in this study (81.5%). Their age varied from 13 to 43 years old (average 29.72 ± 5.63), most of them (66.1%) were married or living together with their partner and 30.1% were single; 72.1% were employed and 24.1% were unemployed; 29.9% had studied 9 years or less, 37% had studied 12 years and 31.4% had completed a university course. We found 164 smokers (15.1%). They smoked 1 to 20 cigarettes per day (average 5.26 ± 3.60), mostly (98.7%) with low nicotine dependence, measured by the Heaviness of Smoking Index (< 4). In this sample, 42.2% had smoked in previous pregnancies, 78% had a partner who was also a smoker, 44.6% had tried to quit smoking in the previous year and 66% considered to quit smoking within 1 month.

Discussion: The results point to a smoking prevalence in pregnancy in Aveiro district of 15.1% in 2015/16, lower than the one recently found in Oporto. The majority of smoking pregnant women live with a partner who is also a smoker, which highlights the importance of a family approach in this matter. The results also show that most pregnant women have a low nicotine dependence and consider quitting within 1 month, confirming the relevance of the health professionals' intervention in this family life-cycle moment.

Key words: Smoking. Pregnancy. Prevalence. Smoking cessation.

CO 025. IMPORTANCE AND EFFECTIVENESS OF A TRAINING SEMINAR IN SMOKING CESSATION

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Introduction: Smoking is one of the leading causes of preventable death worldwide. Healthcare professionals' major role in promoting

smoking cessation has driven to enhanced learning programmes at undergraduate and postgraduate education on this subject in recent years. Nevertheless, a number of studies have found that many healthcare professionals lack knowledge and skills in available strategies and medication for smoking cessation which hinders their role in tobacco control. These gaps were also identified in a previous study carried out by the same authors among healthcare professionals of a central hospital but most subjects recognized the importance of smoking cessation and were interested in enrolling learning sessions.

Objectives: To evaluate primary care and hospital physicians' knowledge, experience, behaviour and attitudes towards smoking cessation and effectiveness of a training seminar in this subject.

Methods: We performed a one-day training seminar on smoking cessation aimed to physicians interested in this subject. A cross-sectional study was carried out among the attending physicians, using data collected from a voluntary self-reporting questionnaire. Physicians' behaviour and attitudes towards smoking cessation, previous training in this subject, knowledge after the seminar and its usefulness were evaluated. Descriptive statistical analysis was conducted to evaluate the sample.

Results: 69 physicians attended the seminar (mean age 32.3y; 84.1% females; 84.1% never smoked), 66.7% of which were Primary Care Physicians (PCP). Among hospital physicians (HP), 86.9% were pulmonologists. The majority of physicians from both groups were residents (58.7% of PCP and 87% of HP). Most subjects (97.1%) frequently asked patients about their smoking status considering them to be of great importance (94.2% of total participants). The majority (68.1%) had previous training in smoking cessation and 59.4% had experience in motivational interviewing on smoking cessation but few had experience in prescribing medication (31.9% of total participants). Only 53.6% had a specialized smoking cessation consultation available in their working place, which was mainly available in the hospital setting (86.9% of HP and 36.9% of PCP). The majority of physicians (85.5%) didn't practice specialized smoking cessation counselling but intended to start after the seminar (81.4%). They all found this seminar useful for their clinical practice and would recommend it to their fellows. Mean score in the post-seminar test evaluating knowledge in smoking cessation was 92.2%.

Conclusions: Regardless of smoking cessation awareness, up to one-third of physicians never had previous training in this subject, reinforcing the need for educational meetings. High scores in the post-seminar test and quality evaluation survey suggest effectiveness of this seminar. Most of specialized smoking cessation consultations were restricted to the hospital setting. PCP are corner stones in smoking cessation and are willing to take part in tobacco control, so it is crucial to enhance smoking cessation programs in primary care centres.

Key words: Smoking cessation. Training seminar. Physicians. Knowledge. Attitudes.

CO 026. AIRWAY MICROBIOTA DIVERSITY AND COMPOSITION CORRELATES WITH THE SEVERITY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Introduction: Chronic Obstructive Pulmonary Disease (COPD) occurrence and severity are mediated through complex interactions between the host immune system, environmental factors and microbial dysbiosis. Recent evidence suggested that the airway microbiota (the ecological community of commensal, symbiotic and pathogenic mi-

croorganisms) plays an important role in COPD severity but the clinical implications of this finding are still unclear and validated biomarkers are scarce. The airway microbiota might be however, manipulated through the use of antibiotics (e.g., azithromycin) or other strategies providing an additional prognostic and personalised therapeutic approach to COPD. Therefore, we aimed at exploring the dysbiosis of the airway microbiota in patients with COPD.

Methods: 40 patients with stable COPD (68 ± 9 years old, 6 female; FEV₁pp = 32.5 ± 7.4 ; FVCpp = 65.1 ± 14 ; GOLD III-26, GOLD IV-14, 6A, 13B, 6C, 15D; Body Mass Index = 28.8 ± 7.6 Kg/m²) were recruited from primary health care centers and hospitals. Sociodemographic, anthropometric and general clinical data (comorbidities, medication, number of exacerbations, hospitalisations in the last year, or long term oxygen dependence) were collected with a structured questionnaire. Peripheral oxygen saturation was assessed with a pulse oximeter and lung function with spirometry. Airway microbiota was collected from saliva samples and characterized by 16S rRNA sequencing.

Results: Significant differences were observed in the airway microbiota diversity and composition of patients according to the severity level of the disease and their symptoms. Specifically, a significant clustering effect by number of exacerbations and hospitalisations in the previous year was observed. Furthermore, the levels of airway obstruction (FEV₁pp) and the peripheral oxygen saturation were also associated with a different microbiota composition. Consistent with increased dysbiosis, the diversity of the bacterial species present in patient's saliva, was lower in more severe patients. Ageing was also associated with loss of diversity. Though age is not directly related with the disease, older patients have taken a cumulative higher number of antibiotic courses through their lives, which should have contributed to their dysbiotic microbiotas.

Conclusions: The association between microbiota composition/diversity with disease symptoms or severity level supports a role for this trait in COPD trajectory, offering a window of opportunity for disease management. In fact, the long term goal of these studies is to guide the microbiota remodeling of patients towards healthier ensembles which is expected to have a significant positive impact on patient's clinical decline. In sum, the airway microbiota warrants further study, since it might provide a conceptual basis for novel therapeutic strategies to counteract a dysbiotic microbial community in COPD. This finding might open potential avenues for new biomarkers and personalised interventions in COPD.

Key words: Airway microbiota. Dysbiosis. Chronic obstructive pulmonary disease. Personalized medicine. Remodelling of the microbiota.

CO 027. THE ABCD ASSESSMENT TOOL - RELATIONSHIP WITH THE CLINICAL OUTCOMES OF PATIENTS WITH COPD

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The ABCD assessment tool for patients with chronic obstructive pulmonary disease (COPD) has recently been revised. Few studies have evaluated patients' clinical characteristics based on this classification, although it may be important to adjust interventions to patients' specific needs. This study explored the distribution of the most used clinical outcomes in patients with COPD across ABCD groups. A cross sectional study was conducted. Patients with COPD were recruited from routine pulmonology appointments and primary care centres in Portugal. Assessments included a spirometric test, quadriceps muscle strength (QMS) with handheld dynamometer, inspiratory muscle strength with the maximal inspiratory pressure (MIP), functional performance with the 1-minute sit-to-stand test (1-min STS) and health-related quality of life with the Saint George Respiratory Questionnaire (SGRQ). Patients were classified into ABCD groups based on the modified British Medical Research Council dyspnoea questionnaire and history of exacerbations in the previous year. One-way ANOVA and Bonferroni corrections for multiple comparisons were used to explore differences between groups. Three hundred and twenty-nine patients with COPD (253 (77%) male, 67 ± 10 years old, forced expiratory volume in one second $60 \pm 25\%$ of predicted, forced vital capacity $81 \pm 23\%$ of predicted, body mass index 28 ± 16 kg/m²; 73 (22%) GOLD I, 133 (40%) GOLD II, 90 (27%) GOLD III, 33 (10%) GOLD IV) participated. Group A was the most prevalent (131; 40%), followed by groups B (95; 29%), D (70; 21%) and C (33; 10%). Patients from groups B and D, which are the most symptomatic, presented the worst results for all outcomes (Fig.). Patients from ABCD groups present different clinical characteristics. The ABCD classification appears to be important to discriminate patients with worst outcomes, hence it may be useful to

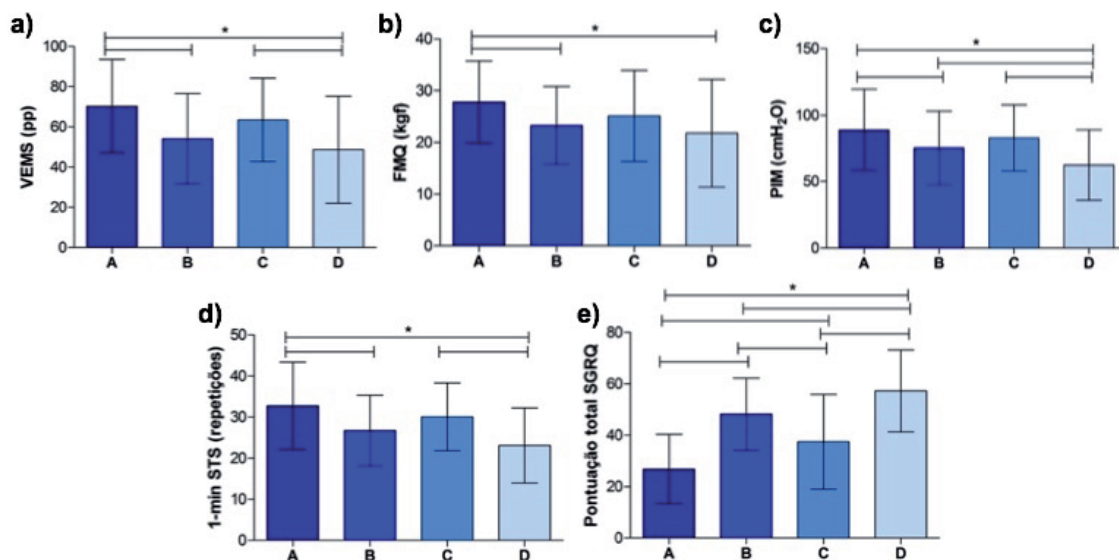


Figure CO 027. Mean and standard deviation in each group in a) Forced expiratory volume in 1 second (FEV₁ -% of predicted, pp); b) Quadriceps muscle strength (QMS - kgf); c) Maximal inspiratory pressure (MIP - cmH₂O); d) Number of repetitions at 1-minute sit-to-stand test (1-min STS); e) St. George Respiratory Questionnaire (SGRQ) total score.