P1966 Nicotine yield and roll your own (RYO) cigarette usage in a large municipal hospital smoking cessation center
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Background: The data on the prevalence of tobacco smoking and environmental tobacco smoke (ETS) exposure in Portugal is scarce, especially after the 2008 smoking bans.

Aims: We aimed to: 1) estimate the prevalence of exposure to ETS at home and of tobacco smoking in Portugal; 2) identify variables associated with smoking or exposure to ETS.

Methods: Nationwide, cross-sectional, population-based telephone survey; 6003 individuals participated. ETS exposure at home was defined as exposure to at least one current smoker (CS) at home. A smoker was someone with ≥15 years smoking at least 1 cigarette per day during a year; a CS smoked in the last month.

Results: Exposure to ETS at home was reported by 26.6% (95%CI 25.5-27.7). Age <18 years old (OR=1.57; 95%CI 1.72-1.21), current asthma (OR=1.69; 95%CI 1.6-2.46), living in households with ≥3 persons (OR=34.31; 95%CI 1.45-264.57) and presence of at least one men in the household (OR=6.71; 95%CI 4.33-10.40) were positively associated with ETS exposure. Nineteen percent (95%CI 18.0-20.0) of the Portuguese population is CS and 17.2% (95%CI 16.2-18.2) are ex-smokers; CS prevalence is higher in males than females (26.5% vs. 12.2%, p<0.001). The odds of being an adult CS was higher for males (OR=8.93; 95%CI 6.54-12.09), the more educated (OR=6.41; 95%CI 3.97-10.77), those living in households with ≥3 persons (OR=2.21; 95%CI 5.0-3.27) and those exposed to ETS at home (14.3% (10.14-20.41)).

Conclusion: Exposure to ETS at home in Portugal was higher than previously reported. Children/adolescents and asthma patients had a higher risk of exposure. The prevalence of tobacco smoking was slightly lower than in previous reports.

P1969 Efficacy of smoking cessation assistance in Tunisian women

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Introduction: Smoking is the most preventable cause of death. Although, woman started smoking in greater numbers later than man, she seems to have more difficulties in quitting cigarette than him.

Aim: Evaluate the smoking intoxication rate in Tunisian woman and the effectiveness of smoking cessation intervention.

Patients and methods: It's a prospective study, including 100 women smokers treated for smoking cessation during the period from 2007 to 2010. We extracted data on smoking history, degree of nicotine dependency, strategies of smoking cessation and the most successful intervention after 3 and 6 months.

Results: Mean age of women smokers was 43.6±13.3 years. The mean age of onset of tobacco use was 19.7±6.4 years. The mean duration of exposition was 23.2±12 years, with a mean of cigarettes consumption of 22.2±11 cigarettes/day. Tobacco dependence level was important in 65% of women. A half of them had a low level of education attained, and most of them (71.4%) had unfavourable socioeconomic status. According to HAD test, 20% were anxious and 45 patients were depressive. The principal reason of quitting cigarette smoking was health problems associated with cigarette (83.2%). Nicotine replacement treatment was the most strategy prescribed (98%). After the first counselling, 40% were lost of sight. Con-
tenuous cessation rate at 3 months was 65%. Only 15% stopped definitely smoking at 6 months. Relapses were especially due to greater withdrawal symptoms.

**Conclusion:** This study illustrates the importance of tobacco dependence in patients with PAD. The more non-randomized, prospective and open clinical trial evaluated 172 smokers in a SCP based on cognitive behavioral treatment associated or not with medication therapy. Individuals were followed up for 12 months. Quantitative and qualitative (gender, education level, lived with others smokers, medication therapy, nicotine dependence, socioeconomic, anxiety and depression level) were used t2-test. The influence of epidemiologic characteristics on smoking cessation (SC) in univariate and multivariate analyses was tested, calculating Relative Risks (RR) with confidence intervals of 95% (CI). Variables resulting in p<0.15 for univariate analysis were selected to enter into logistic regression model. Differences were considered significant at P<0.05.

**Results:** 172 individuals were included, 126 (73%) started treatment, of which 61 individuals were physician's felt 'very confident' about their knowledge to treat nicotine dependence-15.9%. PRW vs. 64.6% (POW); they felt 'very confident' in discussing the smoking cessation issues with their patients-52.2% (PRW) vs. 80.9% (POW); their knowledge regarding pharmacotherapy improved-9.7% (PRW) vs. 49.1% (POW). The 5As approach was answered correctly by 17.7% (PRW) vs. 69.9% (POW). Appropriate prescribing of Nicotine Replacement Therapy improved -38.9% (PRW) vs. 61.1% (POW). Awareness of possible adverse effects of medications enhanced -46.9% (PRW) vs. 71.1% (POW).

**Conclusions:** After attending a one-full day smoking cessation skills building workshop, physician’s felt more confident in discussing anti-smoking issues with their patients and their smoking cessation knowledge improved significantly.

Sm score of patients with PAD is higher (8,8 points) than motivation of asymptomatic smokers (8,6 points) whereas the stage of addiction is lower (5,2) in contrast to the control group (5,7)-difference not significant. There is a significantly higher score of Sm and physician's felt to have amputation versus patient without (p<0.01). The correlation between the pack-years smoked with FT was observed (p=0,02; R=0,54). Distinctive is the progress of lower limbs ischemia in order to the second-hand smoke exposition (p<0,01). There was a tendency to the correlation between the motivation level and the FT results.

Patients with PAD represent a very specific group which is required to provide an effective way of addiction recovery. The higher is the level of disability correlated with amputation episodes, ischemia and IHD, the more significant is the score of Sm. The participation of the second-hand smoke is the agent which affects the PAD course.

**P1973**

**Patients attitudes towards inhaler use**

**Hannah George, Dilip Nazareth, Martin Walsh. Department of Respiratory Medicine, Royal Liverpool University Hospital, Liverpool, United Kingdom**

**Introduction:** Inhaled therapies can only be effective if the patient uses the delivery device correctly and complies with treatment, which in turn may be influenced by their attitude towards their disease and its treatment. Patient education is fundamental to optimizing this, as is their perceived effectiveness of medication. This study explores patients’ attitudes towards inhaled therapy with a view to provide targeted education.

**Methods:** Forty eight respiratory clinic patients (60% male) completed a self-administered structured questionnaire evaluating attitudes towards their current inhaled therapy.

**Results:** All respondents considered Inhaler therapy important, and 61% had a good understanding of their lung condition. Although 70% had been given advice regarding inhaler use, 67% did not use these as prescribed (see table). Moreover, 63% had not discussed their concerns with a doctor or nurse but 80% would like more training (73% preferred pharmacists to do this).

**Reasons (%) for not using inhaled therapy as prescribed**

<table>
<thead>
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<th>Reason</th>
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<td>Side effects</td>
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<tr>
<td>Difficult regime</td>
<td>34</td>
</tr>
<tr>
<td>Feel well enough</td>
<td>23</td>
</tr>
<tr>
<td>Anger about condition</td>
<td>0</td>
</tr>
<tr>
<td>Pharmacy/GP far away</td>
<td>7</td>
</tr>
<tr>
<td>Social stigma</td>
<td>6</td>
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</tbody>
</table>

**Conclusions:** This study has identified a need to further address education. A significant proportion of patients do not use their inhaler as prescribed and have some concerns about inhaled therapy, emphasizing the importance of providing patients with adequate information about their disease and treatment at every opportunity to enhance compliance. To aid this, targeted education and training sessions delivered by Pharmacists are being developed.

**P1974**

**Pregnancy and smoking: cessation advice and health consequences of CO fetal exposure: An exploratory study**

**Joanna Silva, Sofia Belo Ravara1, Rui Carrapato2, José Manuel Calheiros1. Health Sciences Research Centre (CICS), Faculty of Health Sciences (FCS), University of Beira Interior (UBI), Covilhã, Portugal; 2 Gynecology and Obstetrics, São Sebastião Hospital, Santa Maria da Feira, Portugal**

**Introduction:** Fetal exposure to second-hand smoke (SHS) is the most important avoidable cause of fetal morbidity and mortality. Health professionals (HPs) cessation advice is crucial, since women may be more prone to change.

**Study aims:** To evaluate – HPs’ cessation advice, - Fetus exposure to CO and association with anthropometric parameters of the newborn.

**Methods:** Prospective cohort study. Face-to-face structured interviews were applied to 94 pregnant, followed up at São Sebastião Hospital, mean age 31 years. Newborn parameters were collected from clinical files. We performed “baby CO”. We used chi squared, Mann-whitney, Kruskal Wallis tests, and Pearson’s correlation.

**Results:** Of the participants were smokers (average 6 cigarettes/day). 54% had a smoker partner. 80% reported SHS exposure. 57% were questioned about smoking. 93% of the smokers wanted to change their consumption, but only 7.4% did quit (cold turkey, on their own). The observed decrease in consumption was significantly associated with HP counseling (p<0,05), while cessation counseling was not associated with quitting. Neonates of the smokers were born, on average, 231,30g lighter and with less 0.76 cm of cephalic perimeter (p<0.05).

**Conclusions:** The majority of pregnant women was advised to change tobacco consumption and was exposed to SHS. Most of the smokers wanted to reduce smoking, but did not want to quit. Cessation counseling was not effective. Nevertheless the low consumption, smoking and CO levels were negatively associated with newborn parameters. There is a need to train HPs in cessation counseling, including SHS exposure and partners’ smoking.
P1975 Characteristics of mentally ill smokers participating in a smoking cessation program
Chiharu Nishio, Hiroshi Tomioka, Reina Sekiya, Shuji Yamashita, Toshikiko Kaneda, Yoko Kida, Masahiro Kaneko, Hiroshi Fujii, Kyojuke Ishihara. Respiratory Medicine, Kobe City Medical Center West Hospital, Kobe, Hyogo, Japan

Rationale: An appreciation of the high rate of tobacco use by those with mental illness is important. Although the practice guidelines suggest that interventions useful with the general population should be used, it remains unclear whether mentally ill smokers could benefit from smoking cessation programs. The study aims were to determine the abstinence rate among people with or without mental illness, and to identify the factors influencing on it.

Methods: An observational study was conducted on all smokers who participated in the three-month smoking cessation program in our clinic between August 2007 and March 2011. Clinical and tobacco-related variables were assessed.

Results: Of the 370 participants, 105 (28.4%) had mental disorders (mean age: median 52.7±13.8, male/woman=52:53). 49 (46.7%) mentally ill patients accomplished the program. The program rate at 12 weeks was 49.6% in those with mental illness and 70.4% in those without mental illness (P<0.01), respectively. Among those with psychiatric conditions, quitters are older (57.7±11.3 and 51.0±10.1, P=0.035), showed lower exhaled carbon monoxide level (11.8±8.9 and 18.3±11.7, P=0.037), and lower 9FEVI (70.1±22.3 and 83.6±15.9, P=0.020), compared with smokers.

Conclusions: The quit rate in mentally ill people was lower than in general population. Further studies are needed to modify the cessation interventions that address mental illness.

P1976 A pharmacological intervention with varenicline among a lung cancer LDCT screening trial: The MILD experience
Paolo Perrozzi, 1 Elena Munarriz, 2 Roberto Botti, Ugo Pastoreno, 1 Tobacco Control Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy, 2 Thoracic Surgery Department, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy

Introduction: Low dose CT screening (LDCT) for lung cancer may be a teachable moment for smoking cessation (SC), but no pharmacological intervention has been performed in LDCT trails.

Aim: A three-month Varenicline course in a group of patients (Pts) enrolled in the Milan Lung Detection Trial, with biochemical verification of the smoking status. Mattherras and Methods: 187 Pts received Varenicline 45% and 32% of them were former smokers vs. 22% LDCT while 25% received minimal SC advice and LDCT (Ctrl). Lung function testings (PFTs), exhaled carbon monoxide (CO) and side effects were longitudinally recorded. Pts with a CO ≤ 5 ppm were considered abstinent. Descriptive statistic as well as parametric and non-parametric tests were performed.

Results: Pts were 61±5.2 years old, with a mean CO of 16.3±7.9 ppm, smoking history of 22.2±21.9 pack-years, a Fagerstrom test of 7.5±2.2 points and a slight decline of 59.8±14.2. Global quit rates were 51.7%, 50.7% and 41.8% on month 1,3,6 respectively; quit rates were equal in LDCT subgroups but those who had acutely coronary syndrome, the mean expenses for each person with each admission were P=217,160.04±226,791.09 for those who survived and were discharged and P=57,096.00±48,085.23 for those who died. Therefore, smoking is still prevalent among patients who had acute coronary syndrome and with each admission, each patient expect a sumptuous amount of money for the health resources.

P1977 Influence of smoking among residents doctors in a tertiary teaching hospital and their attitude of giving smoking cessation advice
Wassim Zakaria, Abdalla Khoury, Internal Medicine, Aleppo University Hospital, Aleppo, Syrian Arab Republic

Introduction: Smoking among resident doctors would be an obstacle to effective Smoking prevention, in particular the practice of minimal advice.

Objectives: To assess the Smoking habits of resident doctors in a tertiary teaching Hospital and to study the link between their Smoking status and their practice of minimal Smoking cessation advice in 2011 in a legislative context unfavorable to smokers.

Methods: From a total 477 resident doctors in Aleppo University Hospital, 466 doctors answered a survey response rate 97.6% and investigating their own Smoking habits and how they approach patients who smoke.

Results: The Prevalence of active Smoking among responders was 24% (35% were Male, and 4% Female), 4% were former smokers and 72% never smoked. Regular smokers (58%) smoked an average 15 cigarettes a day and [43% were nicotine dependant (5%) strongly], 66% of smokers doctors wish to stop Smoking an more than 50% of them wish to consult Anti-Smoking clinic. When consulting doctors systematically addressed smoking habits(62%) said that they gave minimal smoking cessation advice, in contrast with (87%) of non smokers doctors. The incidence of Smoking in the family’s smoker resident doctors was(64)% in contrast with non smokers (41%).

Conclusions: Resident doctors who smoked were less prone to ask their patients if they smoke (38% versus 13% of non-smokers: P=0.003) and they believed that their smoking does not influence their practice of giving minimal smoking advice.

P1978 Burden of smoking in acute coronary syndrome
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The purpose of this study was to evaluate the burden of smoking among patients who had acute coronary syndrome seen at Philippine Heart Center in terms of its outcomes and expenditures.

199 patients (138 males and 61 females) participated in the study. Smoking habits were recorded including their co-morbidities, GRACE and TIMI scores. Financial data were gathered, tabulated and evaluated. Outcomes of ACS were tabulated in relation to patients’ smoking history and were evaluated.

In this study, it shows that among those patients who have acute coronary syndromes, predominantly were smokers, both direct and passive smokers comprising 72% of the patients. In a developing country like ours, the mean amount expended for each person admitted for acute coronary syndrome who smokes (direct and passive) was two hundred forty-seven thousand and two hundred sixty pesos (Php 247, 260.00±276.428.00 excluding physician’s professional fee) which is already a sumptuous that drains one’s finances. And of these, for every smoker patients who had acute coronary syndrome, the mean expenses for each person with each admission were Php 217,160.04±226,791.09 for those who survived and were discharged and Php 57,096.00±48,085.23 for those who died. Therefore, smoking is still prevalent among patients who have acute coronary syndrome and with each admission, each patient expect a sumptuous amount of money for the health resources.

P1979 Smoking tendencies in physicians and surgeons from Andalusia
Maria Jose Ruíz, 1 Pilar Mesa, 1 Marcus Garcia, 2 Francisca Rius, 1 Manuel Garcia de la Vega, 3 Amparo Lupiáñez, 4 Comprehensive Tobacco Action Plan for Andalusia, Andalusian Public Health System, Seville, Spain, 2 HRU Carlos Haya, Andalusian Public Health System, Malaga, Spain, 3 Department of Preventive Medicine and Public Health, University of Malaga (UMA), Spain, 4 Juan Ramón Jimenez, Andalusian Public Health System, Huelva, Spain, 5 Andalusian School of Public Health, Regional Ministry of Health of Andalusia, Granada, Spain

Aim: To obtain relevant information regarding smoking habits, intention of quitting and consumption in the workplace.

Material and method: General survey on smoking was performed in 15 andalusian hospitals in the last quarter of 2010, a questionnaire (written and anonymous) for each person admitted for acute coronary syndrome who smokes (direct and passive) was used. Descriptive study was made using the statistical package SPSS for windows. Study population: medical.

Results: n=1098 (55% men, 45% women). Mean Age 42 years (range 20-66). Smoking Status: Current smoker (14%), occasional smoker (5%), non-smoker (59%), former smoker (22%). Mean Cigarettes 15 per day (1-50). 21% will try to quit in the next 6 months and 22% want to quit right now. 33% of smokers smoked during working hours.

Conclusions: Physicians and Surgeons show low prevalence of smoking, favorably disposed to quit and only one third of them smoke in the workplace.

P1980 How France has hijacked tobacco price increase, an effective tool of tobacco control, to increase the financial profits
Bertrand Dautzenberg, Joseph Osman, Marie-Dominique Dautzenberg, Association, OXF (Office Français de Prévention du Tabagisme), Paris, France

Increasing the tobacco products price is a tool to reduce tobacco consumption. The PCTC announces a 4% decrease of tobacco consumption for a 10% price increase.

The last 6 decade France has experiences two opposite periods with two opposite effects.

Method: We have compared tobacco price increase to sales of cigarettes in France during the presidency of J.Chirac 2002-2007 and the presidency of N.Sarkozy 2007-2012.

Results: In 2003 President Chirac implements the first cancer plan and, among 20 measures against tobaccos, a 39% increase in tobacco taxes produce price of cigarettes within 18 months, just after a 12% increase in 2002 (total = 51% increase). The price of Marlboro 20 cigarettes pack has increased of 1.4€/CT. The price of Marlboro 20 cigarettes pack has increased of 1.4€/CT, Tobacco Free Health Care Services (ENSF) was used. Descriptive study was made using the statistical package SPSS for windows. Study population: medical.

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Conclusions: Physicians and Surgeons show low prevalence of smoking, favorably disposed to quit and only one third of them smoke in the workplace.

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and cigarettes prices have increased 4 times of 6% and a new increase of 7, 5% is anticipated in 2012. These 32% increase of prices has been managed by the tobacco industry. As a result, the sales of cigarettes remain 54 billion a year; nevertheless at the end of 2012 we will have a total increase of cigarettes pack of 1.6 €.

**Conclusion:** The elasticity of the increase of price on consumption has been very high (0.67) when increase of price is driven by taxes and supported by a strong engagement. The price elasticity is 0.0 when the increase of price is drive by tobacco industry and when tobacco lobbyists may be active anywhere. Article 5 of FCTC on interaction between tobacco industries on politicians may prevent in France failure of tobacco control.

### P1981

**Is calprotectin a marker of tobacco smoke related inflammation? A pilot study in children**

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**Objectives:** Environmental tobacco smoke (ETS) related inflammation has an anorexicogenic effect through affecting the release of appetite-modulating mediators, leptin and ghrelin. Elevated serum calprotectin levels are found in a variety of inflammatory conditions. We studied the relation between ETS and body mass index (BMI), as well as serum levels of leptin, ghrelin and calprotectin.

**Material and methods:** A cross-sectional study was performed by searching the smoking status of parents. After filling in the questionnaires, parents were phoned and children were invited to supply fasting blood samples in order to measure serum levels of leptin, ghrelin and calprotectin, and to calculate their BMIs. Participant children were divided into Group 1, those who are exposed to and Group 2, not-exposed to indoor ETS.

**Results:** There were no statistical difference between BMI and serum levels of leptin and ghrelin in two groups (p values are 0.85, 0.87 and 0.42 respectively), but serum calprotectin levels were statistically higher in Group 1 (p=0.003).

**Conclusions:** In this study serum levels of calprotectin were found to be higher in children with indoor ETS exposure where no relation was detected with BMI and serum levels of leptin and ghrelin. Increased serum levels of calprotectin might be an indicator of inflammation related to ETS exposure.

### P1982

**Smoking and metabolic syndrome**

Lizia Fontes1, Hanns Moshammer2, Birgith Elmadfa1, 1Institut für Ernährungswissenschaften, University of Vienna, Austria; 2Inst. Environmental Health, Medical University of Vienna, Austria

**Background:** Smoking causes inflammation and chronic systemic inflammation predisposes to a range of metabolic disorders usually described as metabolic syndrome. This might likely be one pathway leading to cardiovascular disease. Nicotine reduces appetite. Therefore exact control of caloric uptake (and physical activity) is necessary when studying the association between smoking and metabolic syndrome.

**Methods:** We used data collected during preventive check-ups among 987 employees of a large bank. Health data including routine laboratory parameters were enhanced by a detailed nutritional recall protocol and a standardised physical activity questionnaire. Physical activity and calories uptake were indeed significantly correlated with smoking status. Smoking also lead to an increase in white blood cell counts indicating an inflammatory response.

**Results:** Smoking causes inflammation and chronic systemic inflammation predisposes to a range of metabolic disorders usually described as metabolic syndrome. This might likely be one pathway leading to cardiovascular disease. Nicotine reduces appetite. Therefore exact control of caloric uptake (and physical activity) is necessary when studying the association between smoking and metabolic syndrome.

**Conclusions:** Current smoking (number of cigarettes currently smoked) showed a non-linear association with most outcomes including waist circumference, high density lipids, fasting glucose, and triglycerides. While moderate smoking did not differ significantly from non-smoking the daily consumption of more than 20 cigarettes lead to significantly adverse effects on all these parameters. Adverse effects were more pronounced and roughly linear when cumulative smoking (pack years) was considered. Smoking also lead to an increase in white blood cell counts indicating an inflammatory response.

### P1983

**The association of smoking and blood viscosity**

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Despite the efforts towards controlling all well known risk factors, pulmonary and cardiovascular diseases are still the most common causes of death. This obvious fact stimulates the investigators to look for new risk factors. We aimed to investigate the relationship between smoking and blood viscosity from this point of view. One hundred people were invited and three groups were formed: group 1 composed of exsmokers, group 2 composed of individuals who had been smoking, group 3 composed of the individuals who never smoked. Measurements of blood viscosity were performed at three different shear rates. Since the hematocrit levels can significantly effect viscosity, in order to avoid this, hematocrit levels were fixed at 40.

<table>
<thead>
<tr>
<th>Group</th>
<th>BV1</th>
<th>BV2</th>
<th>BV3</th>
</tr>
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<tr>
<td>Group 1</td>
<td>42.58±3.99</td>
<td>9.10±1.20</td>
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<td>Group 2</td>
<td>44.17±8.52</td>
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<td>Group 3</td>
<td>39.07±5.98</td>
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*p<0.05, **p<0.01, ***p<0.001.

We think that corrective measures for increased blood viscosity may be important for preventing and/or treatment of related diseases mainly cardiovascular ones.