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POSTER

Impact of the New Smoke-free Law in Serbia

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Background: In Serbia, the new *Law on Protection from Environmental Tobacco Smoke* has entered into force in November 2010, banning smoking in indoor public places (health, education, child care, sports, culture, governmental institutions) and workplaces, and with moderate restrictions in pubs and restaurants.

Objectives: In order to monitor and evaluate implementation and effects of the new smoke-free law, the National Committee for Tobacco Prevention of the Ministry of Health has organized the follow-up of public support, compliance, smoking cessation services activities and health benefits related to the new legislation. Data will be obtained by public surveys, from smoking cessation services, inspections and hospitals (admissions due to acute myocardial infarction).

Materials and Methods: Survey of the representative sample of the Serbian population (over 1100 participants) has been carried out before the implementation and after 3 months of the implementation of the Law; it will be carried out after 6 and 12 months as well.

Both rounds of survey were carried out by using the same methodology, on representative random samples of Serbian adult population (over 1000 participants each).

Results: The survey revealed that the public support for the new smoke-free law has increased, from 77% in the baseline study to 80% after 3 months of implementation.

The majority of participants (around 90%) agreed that smoking was the significant cause of cancer, heart diseases and stroke, that ETS was harmful to nonsmokers and that smokers should take care not to expose others to tobacco smoke.

In comparison with the baseline survey, the percentage of population exposed to tobacco smoke in workplaces and at schools has decreased significantly (from 45 to 35% in workplaces and from 44 to 23% at schools). The exposure to tobacco smoke in bars and restaurants haven't changed – the Law provided only minor restrictions. More than 20% of the population thinks that smoking should be completely allowed in restaurants, pubs and night clubs.

The number of homes where smoking was allowed everywhere has decreased from 48% to 42%.

The new law had effects on smokers as well – one quarter of smokers reduced the number of daily cigarettes and one fifth begun considering quitting smoking because of it. Among those that quit smoking, 38% said that they were motivated by this Law.

More than half of the population (53%) thought that the Law was mostly or completely respected.

Conclusions: Evaluation results indicate that there is a strong support for the new smoke-free law in Serbia and that, after 3 months, it is already showing positive effects. Regular follow up will enable evaluation of the Law and its impact and enable plan measures for the improvement.

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Primary Cancers Before and After Prostate Cancer Diagnosis

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Background: Few studies have investigated the risk of second primary cancers after a diagnosis of prostate cancer (PCa) and none has focused on cancers diagnosed prior to PCa. To assess the risk of PCa in cancer survivors and of second primary cancers following PCa, we evaluated the prevalence of cancers before and after PCa diagnosis in a cohort of 72,613 PCa patients.

Material and Methods: PCBaSe Sweden is based on the National Prostate Cancer Register (NPCR) which covers >96% of PCa cases in Sweden. To compare other primary incident cancers between men with and without PCa, we created a comparison cohort with three men randomly

selected from the same county and of the same age that were free of PCa for each man with PCa.

Graphical representation of the prevalence of different groups of cancer sites before and after PCa diagnosis, for men in PCBaSe and in the comparison cohort, was used to assess the association between PCa and other cancers. We stratified the analyses by PCa treatment (surveillance, curative treatment, and endocrine treatment) and PCa stage (distant metastases, regionally metastatic or high risk, and intermediate or low risk).

Results: In the whole cohort, 6,967 were diagnosed with another primary cancer before PCa diagnosis and 5,230 after PCa diagnosis. Cancer of the bladder or colon and non-melanoma of the skin were the three most frequently observed cancers before and after PCa diagnosis (e.g. 20% (n=1407) of all neoplasms before and 12% (n=639) of all neoplasms after PCa diagnosis were bladder cancers). One year prior to PCa diagnosis, the estimated absolute difference in proportion of men with other primary cancer (PCa men versus their comparison cohort) was minor, but at time of PCa diagnosis the absolute difference was 1.0% (95% CI: 0.01%-2.3%) and one year after PCa diagnosis the absolute difference was 1.6% (1.3%-1.8%). When comparing prevalence patterns of other cancers before and after PCa diagnosis by treatment status, we observed that the prevalence for other cancers was highest among PCa patients on endocrine treatment or surveillance. Moreover, PCa patients on curative treatment had a lower prevalence of other cancers than the men in their comparison cohort.

Conclusion: About 17% of all PCa occurred in combination with another primary cancer (before or after PCa diagnosis). Detection bias is likely to explain part of this observation, but further investigations are required to assess possible underlying mechanisms.

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Serum Levels of Vitamin D of Patients in First Visit in a Clinical Oncology Department

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Background: Vitamin D is important in a number of physiologic processes, including calcium absorption, innate and adaptive immunity, and homeostasis of a number of organs. Vitamin D3 or cholecalciferol is not a real vitamin, since both the one synthesized in skin by the action of ultraviolet light exposure, 90% of present in our organism, and vitamin D from intake of food, are not biologically active, they must first be converted to the prohormone 25(OH)D in the liver and then to the active hormone 1,25(OH)2D by tissues containing the 1-hydroxylase enzyme. The active form acts like a pleiotropic hormone and previous studies have shown it can inhibit proliferation, promotes differentiation of tumour cells and can have anti-invasiveness and anti-angiogenic actions. Observational studies have shown that vitamin D deficiency may be related to high risk and recurrence of cancer, above all colon, breast and prostate cancer. Preclinical studies indicate a complex anti-tumour effect at different ways (Wnt/ β -catenin, E-Cadherin, snail, EMT).

Material and Methods: We analyzed serum levels of the prohormone 25-OH-Vitamin D in all the patients coming to first visit in our Clinical Oncology Department between 4th of February-2011 and 31st of July-2011. Vitamin D sufficiency is defined in terms of the serum level of the prohormone 25(OH)D required for bone health, which is 30–32 ng/ml. In our laboratory we have established the following ranges:

- severe vitamin D deficiency: <12 ng/ml,
- moderate deficiency: 12–29 ng/ml,
- recommended levels: 30–80 ng/ml,
- toxic level: >150 ng/ml.

Level of Vitamin D	No. of patients (%)	Sex: No (%)	Age: range (years): No (%)	Location of tumour: No. (%) (3 most frequent)
Severe deficiency (<12 ng/ml)	60 (47.6%)	M: 32 (53.3%) F: 28 (46.6%)	30–50: 11 (18.3%) 51–70: 22 (36.6%) >70: 27 (45%)	Lung: 8 (13.3%) Breast: 16 (26.6%) Colorectal: 16 (26.6%) Others: 20 (33.3%)
Moderate deficiency (12–29 ng/ml)	61 (48.4%)	M: 30 (49.1%) F: 31 (50.8%)	30–50: 13 (21.3%) 51–70: 33 (54%) >70: 15 (24.5%)	Lung: 10 (16.4%) Breast: 19 (31.1%) Colorectal: 13 (21.3%) Others: 19 (31.1%)
Recommended level (30–80 ng/ml)	5 (3.9%)	M: 1 (20%) F: 4 (80%)	30–50: 0 (0%) 51–70: 3 (60%) >70: 2 (40%)	Lung: 1 (20%) Breast: 2 (40%) Colorectal: 1 (20%) Others: 1 (20%)
Toxic level (>150 ng/ml)no	0 (0%)	–	–	–

Results: We present results until 5th of April-2011, the final results will be presented at the meeting. We have analyzed 126 patients: 47 in February, 70 in March and 10 in April. All the patients are from Ciudad Real, a