The odds of NAT1*14A allele clustering was 16.83 times higher in cases than controls. Allele genotype interaction with occupational exposure to fumes/vapors was found, however, not statistically significant.
Conclusion: This is the first case-control study on bladder cancer in the Middle East. It suggests a potential of gene-environment interaction. The observed results should be taken into consideration when setting national priorities to improve the prevention and management of this condition in Lebanon.

3532 POSTER

Uptake of Prophylactic Mastectomy And/or Salpingo-ophorectomy Among Spanish BRCA Mutation Carriers

M. Coma[1], N. Bosch[1], N. Gadea[1], O. Díez[2], M. Masas[3], A. Gil[1], I. Rubio[1], J. Cortés[1], B. Graña[4], J. Balmaña[1]. *[1]University Hospital Vall d'Hebron, Unit of Mamarian Pathology, Barcelona, Spain; [2]University Hospital Vall d'Hebron, Oncogenetics Laboratory, Barcelona, Spain; [3]Vall d'Hebron Institute of Research, Oncogenetics Laboratory, Barcelona, Spain; [4]Vall d'Hebron Institute of Oncology, Unit of Mamarian Pathology, Barcelona, Spain*

Background: The aim of the study is to evaluate the uptake of prophylactic mastectomy (PM) and/or prophylactic salpingo-oophorectomy (PSO) in *BRCA1* and *BRCA2* female carriers. A secondary objective is to determine the clinical predictors associated with any type of prophylactic surgery.
Material and Methods: One hundred and forty six women between 20 and 75 years old with an identified BRCA1 or BRCA2 mutation were included. These women did not have a previous cancer history, except for breast cancer. Medical and demographical data were collected in our high risk clinics between July 2005 and March 2011. This information was registered in our clinical database. Prophylactic surgery uptake was analyzed from time of genetic testing to current date. One hundred and thirty seven were eligible for analysis of PM and 111 were eligible for PSO. Univariate analysis was performed to evaluate the association between clinical and demographic characteristics and prophylactic surgery with SPSS v15.0.
Results: Median age was 44 years (20−74), 98 women (67%) had children and 61 (42%) were postmenopausal. Half of women were BRCA1 carriers and half were BRCA2. Ninety two women (63%) had a personal history of breast cancer, and 138 (94.5%) had a familial breast or ovarian cancer history. Out of 146 individuals, 98 (67%) opted for any prophylactic surgery. PM was chosen by 25/137 (18%) women at a median age of 39 (26−61) with a median time from genetic testing until PM of 7 months (1−66). PSO was chosen by 73/111 (66%) at a median age of 48 (33−71), and median time from genetic testing until PSO was 5 months (1−76). Among 102 women eligible for both surgeries 14 elected them.
No differences in PM were observed between BRCA1 and BRCA2 mutation carriers. The only clinical characteristic associated with PM was being affected by a previous unilateral breast cancer (RR = 7.5; p = 0.0001). Within the group of healthy women only 2 (4%) opted for a bilateral PM. Being parous (RR = 1.6; p = 0.015), postmenopausal (RR = 1.6; p = 0.001), older than 50 years (RR = 1.4; p = 0.009), and having been tested for BRCA after age 50 (RR = 1.5; p = 0.014) were all significantly associated with PSO. Multivariate analysis will be presented at ESMO.
Conclusions: While PSO is highly accepted among BRCA mutation carriers in our setting, only a minority of female carriers opt for PM. The reasons for the low uptake of PM warrant further study.

3533 POSTER

The Incidence and Outcome of Febrile Neutropenia in Different Chemotherapy Regimens for Cancer Patients in Belgium

P. Chevalier[1], M. Lamotte[1], M. Malfait[2], A. Marciniak[3]. *[1]IMS Health, Health Economics and Outcome Research, Vilvoorde, Belgium; [2]Amgen Belux, Market Access, Brussels, Belgium; [3]Amgen Ltd, Health Economics, Uxbridge, United Kingdom*

Background: The incidence of febrile neutropenia (FN) varies according the chemotherapy regimen and cancer type. In Belgium reimbursement of granulocyte-colony stimulating factors (G-CSF) in primary prophylaxis of FN is limited to 4 indications. This study aimed to provide real life information on the incidence and impact of FN in chemotherapy-cancer combinations excluded from G-CSF primary prophylaxis reimbursement.
Material and Methods: Based on ICD-9 code and drug name all chemotherapy-cancer combinations with at least one patient having an ICD-9 code corresponding to neutropenia (288.0) and/or fever (780.6) and where G-CSF primary prophylaxis was not reimbursed, were retrieved from the IMS Hospital Disease database for the period 2005–2008. This database includes longitudinal (per calendar year) information on diagnoses and drugs prescribed in about 34% of all Belgian hospital beds. Incidence of FN (cases of FN with chemo-cancer combination divided by total number of patients with this chemo-cancer combination), mortality in patients with and without FN and impact of FN on subsequent chemotherapy treatment decisions were assessed.
Results: Among the 25,544 patients at risk studied, 3,191 (12.5%) had at least one FN episode. Table 1 shows the chemo-cancer combinations with the highest incidence of FN and the mortality rates in patients with and without FN (only combinations with more than 100 patients included). Of the FN episodes 50.3% occurred during the first chemotherapy cycle. Of the patients with FN 11.4% died, 24.0% switched to another chemo regimen and 21.7% stopped treatment during the cycle with FN. A subsequent FN occurred in 26.8% of the 1,367 patients continuing the same chemo regimen.

Table 1: Chemo-Cancer combinations with the highest FN-incidence rates

Cancer	Chemo regimen	N	FN incidence, n (%)	Mortality, n (%)	
				FN	No FN
Head and neck	Cisplatin	172	43 (25)	2 (5)	6 (5)
	Cisplatin + 5-FU	115	28 (24)	1 (4)	6 (7)
Stomach	Cisplatin + 5-FU	110	24 (22)	6 (25)	7 (8)*
Oesophagus	Cisplatin + 5-FU	202	36 (18)	7 (19)	14 (8)*
Multiple myeloma	Doxorubicin + vincristin	152	26(17)	2 (8)	2 (2)
Lung	PE (cisplatin, etoposide)	292	52 (18)	11 (21)	18 (8)*
	CE (carboplatin, etoposide)	659	102 (16)	36 (35)	66 (12)*
	Etoposide	327	48 (15)	11 (23)	24 (9)*
	Cisplatin + docetaxel	132	19 (15)	4 (21)	9 (8)*

5-FU, 5-fluorouracil.
*p-value <0.05.

Conclusions: This study indicates the negative impact of FN on the course of the disease, especially in terms of mortality and treatment disruption, in indications where G-CSF primary prophylaxis was not reimbursed.

3534 POSTER

Results of the First Round of Breast Cancer and Cervical Cancer Screening Progammes in Latvia

J. Eglitis[1], M. Timofejevs[1], A. Hegmane[2], L. Engele[3], I. Viberga[4], I. Liepniece-Karele[5], M. Leja[6]. *[1]Riga East University Hospital University of Latvia, Surgery, Riga, Latvia; [2]Riga East University Hospital University of Latvia, Medical Oncology, Riga, Latvia; [3]Riga East University Hospital University of Latvia, Laboratory, Riga, Latvia; [4]University of Latvia, Gynecology, Riga, Latvia; [5]Riga East University Hospital University of Latvia, Pathology, Riga, Latvia; [6]Riga East University Hospital University of Latvia, Science, Riga, Latvia*

Background: The incidence of cervical cancer stays unchainged in Latvia during the last decade, while breast cancer incidence is increasing as well as the mortality. The main reason is the high number of advanced stage disease at the time of diagnosis. The breast cancer screening programme, using mammography, as well as cervical cancer screening using cytological analysis was initiated to diagnose the cancers earlier to raise treatment results in this field.
Methods: Population-based programmes of cervical cancer and mammography screening in Latvia were initiated in January 2009. The programmes offer cytological testing of cervical canal secretions in women aged from 25 to 70 once in 3 years, and a biennial mammography to women aged between 50 and 69. Screening is decentralised, 6 laboratories and 25 radiology units are involved in that screening. Double reading of the obtained results is mandatory according to the national policy.

BiRADS category	No. of examinations	%	C category	No. of examinations	%
R1	13658	30.16	C0	934	1.58
R2	23277	51.40	C1	29820	50.53
R3	7793	17.20	C2	26845	45.48
R4	503	1.11	C3	1190	2.02
R5	54	0.12	C4	219	0.37
			C5	8	0.013
			C6	4	0.007

Results: Selection of the target population for the screening was based on population register of Latvia. 433016 women were invited to take part in the cervical cancer screening from Jan 2009 to Dec 2010. 286785 women were invited to have screening MG from Jan 2009 to Dec 2010. 59020 (13.6%) screening cytological testings were performed, 57340 (20%) screening MG had been done. Participation varied from 12.3% to 17.4% in cervical cancer and 17.3% to 22.7% in breast cancer screening programme in different

regions of Latvia; however the mean participation rate was low. The results (C and BIRADS categories) are shown in the table. BIRADS 3 as a final result was assigned in 9850 (17.18%) cases, it varied among the radiology units (6−62%).
Conclusions: It is necessary to improve participation rate by public awareness on the screening benefits. Quality control of Cytological analysis and mammography system should be established, the second reading of the mammograms must be done by radiologists in a central breast unit to reduce the rate of BIRADS 3 category as a final result. Lack of the quality assurance and monitoring system, no exchange of the data with the Cancer Registry are limitations for effective implementation of the screening programmes in Latvia.
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3535 POSTER

Differential Factors Clinical and Genetic of Multiple Primary Cancers in Groups of Familial and Sporadic Breast Cancer

V.D. Petrova[1], I.A. Selezneva[1], S.A. Terekhova[1], T.V. Sinkina[1], A.F. Lazarev[1], U.A. Boyarskikh[2], N.A. Ermolenko[2], M.L. Filipenko[2]. *[1]Altai Oncological Centre, Division of Epidemiology & Prevention, Barnaul, Russian Federation; [2]Institute of Chemical Biology and Basic Medicine Siberian Division of the Russian Academy of Medical Sciences, Division of Medical Genetics, Novosibirsk, Russian Federation*

Background: Multiple Primary Cancers **(**MPC) represents the interest for their prognosis and more effective treatment.
The objectives of our research was to investigate clinical and genetic characteristics of MPC among women with familial and sporadic Breast Cancer (BC).
Material and Methods: The research is based on data of 1407 Caucasian women with BC aged 20−79 years (555-familial BC and 852 − sporadic BC). Control group consisted of 1006 women without a history of cancer. In all groups were analyzed more than 200 phenomic and genotypic factors. BRCA and other mutations (PGR, FGFR2, CYP) were performed to all patients. Processing of the results was performed using modern methods of biomedical statistics; the definition of relative risk (RR). Statistically significant differences taken at $p < 0.05$. Genotyping was carried out by real-time PCR using competitive Taq-Man probes or with allele-specific PCR using SYBR Green intercalating dye.
Results: Specific weight of MPC in group of familial BC [18.0(14.74–21.26] was higher than in group of sporadic BC [2.0(1.04–2.96)].
Among women with familial BC with MPC premenopause status met more rapidly [10.1(4.06–16.14)] than in the group of sporadic BC with MPC [5.0 (1.26–8.74)].
Specific weight of BRCA-negative cases were higher in familial group with MPC than in the group of sporadic BC with MPC [68.7(59.38–78.02) against 40.0(18.10–61.90)]. Specific weight of cases with FGFR-mutations were higher too in familial group with MPC than in the group of sporadic BC [35.0(13.66–56.34) against 3.0(0.42–6.42)].
Patients with triple negative BC met more frequently in familial group with MPC than in the group of sporadic BC [10.0(8.9–11.0) against 4.0(2.9−5.1)].
Reproductive factors such as obesity, aborts and others also had significance.
Conclusions. Clinical and genetic characteristics of MPC in group of familial BC have different characters as against as group of sporadic BC.

3536 POSTER

Relatives of Oncological Patients and the Medical Act: Some Different Views

L. Onganía[1], M.P. Bramajo[1], L. De Llelis[1], G. Streich[2], M. Blanco Villalba[2], R. Meiss[3], S. Guasti[1], P. Luque[1]. *[1]Centro Médico Austral, Psychooncology Unit, Buenos Aires, Argentina; [2]Centro Médico Austral, Oncology Unit, Buenos Aires, Argentina; [3]Academia Nacional de Medicina, Instituto de Investigaciones Oncohematológicas, Buenos Aires, Argentina*

Background: This investigation is the continuance of a previous work that showed the importance of assessing the relationship between the patients, their families and the medical team.
We no longer discuss the importance of family in patient's evolution. Working in multidisciplinary teams seams to be the best alternative in this scenario.
The objectives of this investigation is to evaluate the influence of the family in the medical act, particularly in:
a. the communication with the patient,
b. making therapeutic decisions,
c. professional's emotions.

Material and Methods: *Instruments*: Specifically designed questionnaire. *Sample*: 50 physicians, 26 relatives.
Results: The 72% of professionals believe that they always have to give real information to the patient. On the other hand only the 41% consider that giving this information to the family is always important. 73% of the relatives think that they have to receive that information, and only 50% of them believe that they really have this information always.
It's highly frequent for physicians (95% of the cases) to be asked by relatives to hide information of an adverse diagnosis or prognosis to the patient; only 34% of the sample rejected this demand. The 39% of professionals with over 11 years of graduate refused to do so, while the less experienced declined by 22%.
Relatives admitted that they ask the physician to hide information only in a 31% of the cases. Of this percentage, 50% of them declare that the professional accepted to do this.
The 50% of the sample recognize at least one negative feeling toward the family; women emphasize anguish (47%) while men put stress on anger (38%).
Conclusions: The relationship between the professional and the family influences on the communication with the patient and on therapeutic decision making. A high percentage of negative emotions toward the family were found. These results are consistent with those found in previous researches.
It seems to be a difference between the perception of physicians and relatives regarding participation in the diagnosis and decision making.
The medical act may be interfered by the influence of the family. Also, relatives may feel that that they are not taken into account and this can adversely affect the patient.
The authors consider that these results must be considered in order to avoid possible conflicts in their medical practice, specifically in the relationship with their patients.

3537 POSTER

"More Health for You − Better Care for Your Family" Campaign for Cancer Awareness and Prevention Targeted at Immigrant Women in the Province of Alessandria, Northwest Italy

P. Betta[1], R. Cuttica[1], C. Angelini[2], M. Brusa[2]. *[1]Section of Alessandria, Italian League Against Cancer, Alessandria, Italy; [2]Health Promotion and Education, ASL Al Piedmont Region, Casale M.to, Italy*

Background: There is a general assumption that poor health care is provided to immigrants because of the absence of "cultural" understanding. On these grounds, the Italian League against Cancer section of Alessandria (LILT Al) and the Local Health Authority (ASL Al) of Piedmont Region planned to bridge the perception gap between native and immigrant women (the latter mostly from Eastern Europe, the Maghreb and West Africa, and China) concerning the value and benefits of breast and cervical cancer prevention, as a health advantage for themselves and for their households.
Methods: Firstly, interpreter/cultural mediators coordinated by the local Institute for Development Cooperation (ICS) and selected LILT-Al volunteers were specifically trained to provide preventive health education. Subsequently, a communication project on cancer prevention was developed based on informational and educational interventions on the part of trained cultural mediators and LILT-Al volunteers at the primary schools where immigrant women take their children, at the Permanent Territorial Centres where these women attend courses of adult literacy, and at sites of volunteer associations for migrants. The project applied Knowles's andragogical model of adult learning, Kolb's "Experiential Learning Model" and peer-to-peer communication strategy in regards to targeting at best immigrant women. Leaflets and posters were produced in six languages adequate to the task: Arabic, Albanian, Romanian, Chinese, Spanish and English.
Results: Reciprocal knowledge, objective sharing, common language and networking have been developed among associations, public institutions and territorial agencies engaged in the promotion of health education, and particularly for immigrant women. The prevention-oriented communication skills of cultural mediators and volunteers, even if not professional health operators, have been improved so that they now play an effective role of "multipliers of preventive effect". The level of attention and interest on the part of immigrant women in the local territory has been increased with respect to health prevention and protection. Immigrant women have been encouraged, to a greater or lesser extent, to adopt a lifestyle oriented to cancer risk prevention.
Conclusions: This campaign started in January 2010, and is now involving the whole province of Alessandria promoting the spread of awareness among immigrant women concerning the concept of equal access to prevention programme for early detection of breast and cervical cancer, with a view at eliminating immigrant status as a barrier to good health.
The project was funded by the Volunteer Service Centre of Alessandria through the call "Ex Comunicazione Turco".