first evaluated: a logistic regression allowed to determine if dose, volume or type of preparation influenced the rate of non-conformity. Then, a single sampling plan by attributes was chosen with an acceptance quality level (AQL) of 2.2%, which is our baseline quality requirement. AQL is defined by the sample size (n) and the number of allowed non-conformities (a).
Results: The logistic regression analysis first evidenced that 6 cytotoxics had a higher rate of non-conformity while a sampling plan was developed for 6 others (5-FU, IFM, CPM, CDDP, 4-EPI, DXR). A tighter inspection and the setting of corrective actions in 2004 allowed to improve quality level and include 2 more drugs (ARA-C and DFDC) in this sampling plan. Among the 26 drugs, 12, representing 10% of the number of batches, were not sampled as their production flow is low. Now, 66% of the number of batches, corresponding of 8 cytotoxics, are included in the sampling plan and 24% are expected to be sampled soon.
Conclusions: This statistical analysis allowed to determine the optimal sample size to analyse. The sampling plan can not be applied to only 10% of the number of batches, while 66% are included. In 2004, 50% of the manufactured batches could have been analysed with minimal loss in quality level precision. Quality levels are now calculated and analysed every three months, which allow a tighter follow up of the production than previous years and to set up correctives actions.

590 POSTER

Primary brain tumours occurrence: is it related to socioeconomic factors?

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Background: Little is known about the role of social factors in the brain tumours epidemiology. We speculated that demographic factors and differences in health care may affect brain tumours incidence. The socio-economical cataclysms in Georgia, former Soviet republic, can be viewed as a natural model for testing this hypothesis. With this aim a hospital-based study was conducted to evaluate the frequency of distribution of brain neoplasms by histology.
Material and methods: We retrospectively reanalyzed all biopsy tissue specimens taken from operated patients, who underwent surgery at the Institute of Neurology & Neurosurgery from 1984 to 1988 (n = 243) and from 1996 to 2000 (n = 543), i.e. before and after Soviet empire destroying respectively. Histological verification was done according 1993 WHO classification of tumours of the nervous system.
Results: The following frequency of intracranial tumours has been observed within cohorts: glioblastoma & anaplastic astrocytoma 30 and 29%, astrocytoma 6 and 9%, meningioma 27 and 30%, neurinoma 4.5 and 7%, medulloblastoma 2 and 2% (cohorts I and II respectively). Astrocytic tumours were the most common neoplasms among gliomas (78 and 82%), oligodendroglial accounted for 19 and 10% and ependymal comprised 3 and 8% respectively. Distribution by sex was the same in cohorts: nearly equal in gliomas, but meningiomas were about twice more common in women.
Conclusions: No significant difference was found between tumours distribution in cohorts. The results seem do not support a hypothesis of possible association between socioeconomic factors and brain tumour developing. Observed increase in operated patients' number in recent 5 years may be accounted for by improvement of the diagnostic and treatment modalities.

591 POSTER

The use of hospital discharge diagnoses for epidemiologic evaluation in breast cancer in Italy

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Background: The aim of our study is to evaluate the utility of the hospital discharge diagnoses (HDDs) as a source of cancer epidemiological information regarding resource utilisation and patterns of care and to compare the data among different Italian regions.
Methods: The diagnoses and procedures of all hospital discharges were coded according with the ICD-9-CM. We analysed all HDDs with the main or secondary medical diagnosis of invasive breast cancer (code 174) relative to the population resident in Abruzzo (Centre, 1,262,379 inhabitants by 1st Jan '02), Puglia (South, 4,019,500 inhabitants by 1st Jan '02) and Veneto (North, 4,529,823 inhabitants by 1st Jan '02) during the three-year period 2000–2002.
Results: We identified 8,065 HDDs in Abruzzo, 20,742 in Puglia and 39,634 in Veneto. The main characteristics are reported in the table. We did not perform comparisons when some data were missing and for the LOS. The table shows statistical significant differences in almost all the comparisons. The difference in terms of number of HDDs could be explained by the higher incidence of breast cancer in the North of Italy. These data demonstrate the geographic variability in terms of use of resources for breast cancer.

	Abruzzo	Puglia	Veneto	P value
HDDs on total HDDs (%)	1.3	1.3	2.7	< 0.0001
Day Hospital (%)	45	29	50	< 0.0001
Age < 50 yrs (%)	21	26	23	< 0.0001
Primary diagnosis (%)	55	55	51	< 0.0001
Passive migration (%)	11	6	5	< 0.0001
Private hospital (%)	3.6	9		
Dept (%)				
Surgery	39	38		
Oncology	39	23		
Medicine	8	29		
Radiotherapy	9	3		
LOS (mean) (days)	7.7	6.4	7.2	
Ordinary	7.7	6.8	8.6	
DH	7.6	5.4	5.8	
Surgery	30	32	31	n.s.
LOS (days)	7.1	8.4	6.5	
Conservative (%)	64	57	56	< 0.0001
Chemotherapy	32	38	32	< 0.0001
Primary (%)	59	61		
LOS (days)	9	4.1		
Advanced (%)	41	39		
LOS (days)	11	5.1		

Conclusion: Our study shows that HDDs can provide useful information for clinical-epidemiologic evaluations. Hospital discharge data can represent an important source for estimating the burden of health conditions on the health system.

592 POSTER

A comparison of cancer epidemiologic data from Central Asia and the Caspian Region

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Background: Cancer is a major global health concern. Significant resources are mobilized towards cancer research for early detection, prevention, drug discovery and clinical trials. Central Asian countries, particularly those neighboring the Caspian Sea, are faced with major environmental health problems. The effects of these factors on cancer have not yet been fully investigated in this region. For initiating any cancer prevention program, it is important to identify environmental and other risk factors specific to a given region. This requires the establishment of reliable and complete databases for the entire region. The main purpose of this study is to identify major differences in the incidence of various types of cancer reported from three countries of Central Asia and the Caspian Region, Kyrgyzstan, Tajikistan and Azerbaijan.
Materials and methods: The data for this study was obtained form the IARC online database (GLOBOCAN 2002). Although the populations of different countries are those estimated for the middle of 2002, the disease rates are generally 2–5 years earlier. The numbers of cases, deaths and cancer survivors are computed by multiplying the estimated rates by the year 2002 population estimates for each country. Cancer data published in the annual reports of the ministries of health of these three countries were also reviewed. Due to mass migration of male residents of Tajikistan in the past decade, our research focus is on cancer among females.
Results: Age-standardized incidence rate of breast cancer per 100,000 population is 23 in Kyrgyzstan, 13.2 in Tajikistan and 31.5 in Azerbaijan. The rate for lung cancer among females is 5.5 in Kyrgyzstan, 3.7 in Tajikistan and 6.1 in Azerbaijan. The rate for stomach cancer is 17.9 in Kyrgyzstan, 15.3 in Tajikistan and 15.6 in Azerbaijan. The rate for esophageal cancer is 3.5 in Kyrgyzstan, 6.1 in Tajikistan and 7.0 in Azerbaijan. The rate for cervical cancer is 21.6 in Kyrgyzstan, 9.9 in Tajikistan and 8.2 in Azerbaijan. The rate for non-Hodgkin lymphoma is 3.3 in Kyrgyzstan, 3.1 in Tajikistan and 5.4 in Azerbaijan. The rate for leukemia is 3.2 in Kyrgyzstan, 3.1 in Tajikistan, and 4.1 in Azerbaijan.

Conclusions: Significant differences in the incidence of cancer reported from countries of Central Asia and the Caspian Region necessitate conducting a series of epidemiologic investigations in the region to identify factors associated with these differences for various types of cancers.

Publication
Epidemiology, prevention and public health

593 PUBLICATION

Cadmium concentration in men' urine base to smoking

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226 urine samples of 6–74 years old men, smoking and non-smoking from Tehran gathered. To determinte the concentration of cadmium in participants' body, all samples standardized to microgramme of creatinine in urine. samples were analysed with GFAAS. The amount of concentrations in smoking and non-smoking men's urine were compared with T-test and logistic regression method was used to determine the relation between cadmium concentration in urine, smoking habit and age. In this investigation found that the smoking men had more concentrations of cadmium in their urine (OR = 0.01, 95%CI: 0.35) than non-smoking men (OR = 0.01, 95%CI: 0.29) and the cadmium concentration in urine, in both smoking and non-smoking men increase with age. The group of 51–60 of smoking men had the highest concentration of cadmium in urine. Findings demonstrate an independent relation between smoking habit and age in cadmium concentration.

594 PUBLICATION

Cancer literacy in Iran: knowledge, attitudes and perceived causes of cancer

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Background: Knowledge, attitudes and perceptions towards cancer and its treatment vary dramatically based on an individual's cultural backgrounds. Those in resources poor countries such as Iran often view a cancer diagnosis as guaranteed suffering and death.
Material and methods: This cross sectional study examines cancer literacy among the general population in Tehran, Iran. Five hundred and six (n = 506) adults age 15 and over participated in the study and were surveyed using a 16-item questionnaire. Five of the questions were related to demographics, five to knowledge, five to attitudes, and one to perceived causes of cancer.
Results: The mean age of respondents was 27.7 years (SD = 9.1). Most were male (68%), never married (59%), employed (63%) with a secondary education (60%). It appeared that the respondents were fairly knowledgeable about cancer based on their correct answers ranging from 39% to 81%. Eighty-nine percent of the respondents either agreed or strongly agreed with the statement that cancer patients and their family should receive special support. Only 40% either agreed or strongly agreed that patients should be told about their cancer diagnosis. Seventy-nine percent either disagreed or strongly disagreed with the statement that cancer cannot be cured. Fifty-two percent indicated the diagnosis and treatment process related to cancer in developing countries was inferior to that of developed nations. Finally, 195 respondents admitted they were uncertain about cancer causes while the remaining 311 indicated that they perceived causes to be related to: diet (19%), genetics (16%), environmental factors (14%), stress (13%), smoking (11%), and new life styles (10%). Those with lower education were more likely to be uncertain about cancer causes (P = 0.001).
Conclusions: Study results suggest that cancer literacy in Iran is fairly good. The findings are encouraging and may contribute to the future efforts to create highly effective cancer prevention and treatment educational materials in Iran and other similar developing countries.

595 PUBLICATION

The role of genetic factors for detection of ovary cancer risk persons

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Background. The early diagnosis of ovary cancer usually is rather difficult because of lack of clear symptoms. Very often it is recognized as a locally widespread disease in it's III or IV stage, when the successful treatment is doubtful.
The death rate from ovarian cancer in Latvia takes the high third place. Some progress promises the information about risk groups. One of these groups could be the BRCA1 mutation carriers, as well as patients with positive family or personal oncological anamnesis. In this study we tried to analyse: 1) The occurrence of BRCA1 mutations between the patients of ovary cancer. 2) The importance of oncological anamnesis of patients and/or families
Material and methods: At the beginning of our research (1996–2001) we clarified BRCA1 mutation spectrum for the patients with breast and ovary cancer. We established, that in 90% cases three prevalent mutations (300T > A in exon 5, 4154delA in exon 11 and 5382insC in exon 20) were detected in our patients. 115 voluntary ovary cancer patients were included in the study (2002–2004), three prevalent BRCA1 mutations were detected to each participant followed by a questionnaire and the genealogical tree analysis.
Results: We clarified that patients without BRCA1 mutations in 39.1% cases had no family history of cancer, but in the cases of positive mutations only 4.4% of patients had not cancer in their families. The first and second stage of disease were recognized for 34% of BRCA1 negative patients and 17.4% for the mutations carrier, but the third stage of disease for 45.7% BRCA1 negative patients and 70% BRCA1 positive patients.

	BRCA1 negative	*BRCA1* positive
Number of patients	92	23
Middle age of affection	48 (24–72)	47 (34–57)
Family history of cancer		
1 breast or ovary	15	9
2 breast or/and ovary	10	5
3 breast or/and ovary		2
4 breast or/and ovary	1	
Other oncological disease	30	6
Without cancer history	36	1
Patient history of cancer		
Bilateral breast cancer	1	
Breast cancer	8	6
Colorectal cancer	2	
Hodgkin disease	1	
Renal cancer	1	

Conclusion: The most important role to discover the ovary (and breast) cancer risk persons has the family (and personal as well) breast and/or ovary cancer history, particularly the cancer cases at the early age. The determination of BRCA1 3 prevalent mutations in Latvia is suggested for all the ovary cancer patients in the reproductive age, it would help to locate the potential ovary (or breast) cancer patient risk group between the relatives. Patients with negative family oncological anamnesis were quite reserved regarding the genetic examination and usually refused from it, therefore 68% of the study participants had positive family history.

596 PUBLICATION

Technologies Augmenting Clinical InsighT: transforming TACIT knowledge into explicit knowledge in the domain of cancer care

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Healthcare, and especially cancer care relies on knowledge. Indeed, one of the challenges today is the effective management of clinical knowledge, or more specifically, expertise. Efforts to share it have so far focused on explicit knowledge, mainly data, while tacit knowledge remains in the mind of the expert, only to be accessed by training or practice.
The paper presents the TACIT (Technologies Augmenting Clinical InsighT) project [1], which vision is to unlock the tacit knowledge of Europe's senior clinicians both by linguistically analysed multimedia recording, and by expert location and communications. TACIT aims at developing a software solution that combines these elements with explicit knowledge from heterogeneous information sources (such as clinical systems, Publication onlyns, or research reports) into a user friendly Clinical Expertise Browser. The TACIT project focuses on the clinician needs and on breast cancer care processes. The user requirements analysis revealed that the TACIT solution should be a knowledge-based system to support the clinician's decision making process in the diagnosis, prognosis and treatment of patients affected by breast cancer. The clinician will inquire the system to monitor and better assess a given patient's pattern, or to define the next steps in the patient's clinical pathway.
Therefore, the TACIT system will be able to: