groups, for each sex and calendar years of study period. Counted crude, age-standardised rates per 100,000. The classification scheme used by ICD-10.
Results: Age-standardised (ASR) annual total cancer incidence was in males 201.2 and females 137.9 (total 169.55 per 100,000). The most frequent diagnostic groups in males were tumours of the stomach (44.65), lung (41.0), skin (27.8); in females – skin (23.5), breast (19.1), stomach (16.2). There were 301 registered with leukaemia (84 – acute myeloid, 66 – chronic myeloid, 48 – non differentiated, 42 – chronic lymphoid, 23 – acute lymphoid, 10 – erythraemia, 15 – other myeloid leukaemia, and 13 with myeloid dysplastic syndrome. Both acute and chronic leukaemia ASR in the Kyrgyz republic was 1.22 per 100,000.
Leukaemia incidence was slightly higher in urban (1.62) than rural (1.18) regions. High incidence rate in leukaemia was registered in North area; Bishkek (2.99) and Chuy (2.22). Lower incidence was registered in South region (Osh, Batken, Djalal-Abad) with ASR from 0.2 to 0.3 per 100 000.
Leukaemia incidence was significantly higher in the Slavic ethnic groups (Russians, with an ASR of 3.21 cases per 100,000, Ukrainians 3.03) compared with 1.09 for Kyrgyzs, 0.54 for Kazakhs and 0.27 for Uzbeks people.
Conclusion: Leukaemia incidence in Kyrgyzstan is low and similar to those reported from some Asian developing countries. The data could be use for a wide range of epidemiological and other studies. These include analyses of geographical variations in incidence, trends in survival, health of long-term survivors.

561 POSTER

Ethnic disparities in cancer incidence, mortality, stage at diagnosis and survival, in Aotearoa/New Zealand

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Background: The recently established New Zealand Cancer Control Strategy aims to reduce inequalities throughout the cancer care continuum – yet little information is available on baseline ethnic disparities in cancer outcomes. This study examined disparities in cancer incidence, mortality, stage at diagnosis and survival between Maori, (the indigenous people of Aotearoa/New Zealand), and the colonial settler population.
Methods: New cancer registrations from the New Zealand Cancer Registry during 1996 to 2001were linked to national mortality data. For 25 cancers, age-standardised incidence and mortality rates and ratios were calculated. Poisson regression was used to calculate Maori: non-Maori odds ratios for stage at diagnosis, adjusted for age and sex at diagnosis. Cox's regression was used to estimate relative risks of cancer-specific death after diagnosis (hazard ratios), adjusted for sex, age and stage at diagnosis, and within each stage-group (localised, regional, distant, unknown). Survival curves were calculated using Kaplan-Meier estimates.
Results: Leading cancer types differed for Maori and non-Maori. Incidence was higher among Maori for lung, stomach, cervix, testis, liver, and higher among non-Maori for colorectal, melanoma, prostate, bladder, brain cancers.
Maori were 18% more likely to be diagnosed with cancer than non-Maori (RR 1.18; 95%CI: 1.15–1.21) but nearly twice as likely to die from cancer (RR 1.93; 95%CI: 1.87–1.99). Mortality/incidence ratios were higher among Mäori than non-Mäori for most cancers. Maori had lower survival than non-Maori for cancers of the breast, cervix, prostate, colorectum, lung, uterus, kidney, leukaemia, NHL.
Unknown stage at diagnosis was more common among Maori than non-Maori for most common cancers. Maori were more likely than non-Maori to be diagnosed at a later stage with cancers of the breast, lung, colon and rectum, cervix, prostate, testis, kidney, oral cancers, and melanoma. Stage at diagnosis accounted for only part of the survival disparity between Maori and non-Maori for lung (18%), breast (30%), cervix (20%), colorectal (49%), prostate (47%) cancers.
Conclusions: These findings indicate the existence of disparities between Maori and non-Maori in timely access to definitive diagnostic procedures, staging procedures, and optimal treatment or management of cancer. Ethnic disparities in pathways through care must be investigated and addressed.

562 POSTER

Diagnostic and therapeutic delay after mammography screening in the Hungarian nation wide organized breast cancer screening programme

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Background and Aim: After the evaluation of pilot projects, the Hungarian nation wide breast cancer programme was launched in January 2002. Women between the age of 45–65 are invited by a personal letter for mammography screening and a 2 years screening interval is applied. The aim of the study is to analyse diagnostic and therapeutic delay after mammography screening in the Hungarian organized breast cancer screening programme.
Methods: The data derive from the database of the National Health Insurance Fund Administration containing routinely collected financial data. The study includes all the patients having mammography screening in the year of 2002. The starting point (T_0) was defined as the time of the mammography screening. T_1 denotes the time of the first diagnostic procedure after the mammography screening. T_2 denotes the time of the first therapeutic procedure after mammography screening and diagnosis. We calculated the average delay between the time of mammography screening (time = T_0), further diagnostic (time = T_1) and therapeutic (time = T_2) procedures. For the calculation of the average period spent from the time of mammography screening we used the median value instead of arithmetic mean.
Results: Altogether N = 314.395 women were included into the study. The average diagnostic delay between T_0 and T_1 time was 20 days measured by the time of ultrasound examination in axilla and 26 days measured by the time of ultrasound examination in breast. The average therapeutic (surgical) delay between T_0 and T_2 time was 43–47 days, 50–53 days and 57 days measured by the time of subtotal mastectomy, total mastectomy or breast operations because of non-malignant causes respectively. The average chemo or radio therapeutic delay between T_0 and T_2 time was 83 days and 136 days measured by the time of chemotherapy or radiotherapy respectively. The average delay between the time of diagnosis (T_1) and the first therapeutic event (T_2) was 26 days with a 16 days shortest and 38 days longest delay in the different Hungarian counties.
Conclusion: The diagnostic and therapeutic delay in the Hungarian breast cancer screening programme is similar to the value reported by other national programmes. We realized significant regional differences, which result in large discrepancies in the equity. We can assume that these differences can be reduced by better organization and the more consistent application of professional guidelines.

563 POSTER

The network on rare tumours in Italy

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Background: Rare tumours (RT) pose huge difficulties in terms of quality of care, access to health resources and clinical research. The Network on Rare Tumors (Rete Tumori Rari – RTR) is a collaborative effort in Italy aimed at improving quality of care, making institutions share patients, define clinical practice guidelines on RT and rationalize access to health facilities. It promotes collaborative clinical research by encouraging patient accrual into trials.
Methods: RTR includes 70 institutions across Italy. Internet access is the only requirement to join. Clinical cases are shared and messages exchanged through a secure Web resource, and all data, images and transactions are stored in a data base. Patients may be i) "logically" shared, ie the case is dealt with following clinical practice guidelines previously agreed upon; ii) "virtually" shared, ie the case is discussed over the network; iii) "physically" shared, ie the patient moves from a center to another to receive appropriate care as needed. A network moderator "switches on" the institutions to involve in each case sharing, inasmuch

as they can provide expertise or are located close to the patient, and coordinates the process of consensus underlying shared criteria for patient care. Stored data feed a National Register of Rare Diseases instituted within a separate governmental project.
Results: Since 2003, a prototype has been available on the Web and has entered a testing phase on field. About 800 cases diagnosed with rare tumours (mainly sarcomas) have been registered. 230 patients have been virtually shared so far. 150 patients have moved physically across the network. Patient records have been used to automatically generate data-entry forms for selected clinical studies (this is currently implemented for some studies by the *Italian Sarcoma Group*). 524 patients diagnosed with GIST have entered an observational study on Gastrointestinal Stromal Tumours (GIST), aimed at increasing our understanding and improving quality of care in regard to this rare disease, recently revolutionized by molecular-targeted therapy. RTR has now been funded by governmental bodies to upgrade its technological core.
Conclusions: Cooperation among institutions is vital in the field of rare tumours, as well as, more generally, rare diseases. The Internet can support effective cooperation through dedicated Web resources.

564 POSTER

Towards comprehensiveness and excellency: the accreditation project of the Organisation of European Cancer Institutes (OECI)

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Background: There are important gaps in the health status of citizens across Europe, as measured by life expectancy, mortality or morbidity data (Report for the European Commission on the health status of the European Union, 2003). Among the main determinants of the major causes of mortality and morbidity, stated in this report, stands recurrently access to quality healthcare. There is a fundamental need to define quality indicators and set minimal levels of performance quality criteria for healthcare. There is a need to integrate research into healthcare and to provide equity of access of patients to such high quality care.
Materials and methods: Oncology is a speciality particularly suited to experimenting a first application of accreditation at European level. The Organisation of European Cancer Institutes is a growing network of 89 cancer Centres in 29 countries in Europe. The focus of the OECI is to work with professionals and organisations with regard to prevention, care, research, development, patient's role and education.
In order to fulfil its mission, the OECI initiated in 2002 an accreditation project with three objectives:
- To develop a comprehensive accreditation system for oncology care, taking into account prevention, care, research, education and networking.
- To set an updated database of cancer centers in Europe, with exhaustive information on their resources and activities (in care, research, education and management)
- To develop a global benchmarking tool dedicated to cancer centers in Europe, comparing both care and management activities.

Results: An accreditation manual has been established, defining standards and criteria for prevention, care, research, education and follow-up activities. A database of cancer centres is developed, with 2 versions of a questionnaire circulated among all OECI cancer centres, that give an overall view of the oncological landscape in OECI cancer centres in Europe. Data on infrastructures, resources and activities have been collected. The benchmarking project was initiated in 3 cancer centres and will be presented elsewhere.
Discussion: Quality assessment and improvement is a critical need in Europe and is addressed by the OECI for cancer care in Europe. Accreditation is a well accepted process and is feasible. Standards and criteria as well as an accreditation tool can be developed. The OECI questionnaire gives an accurate vision of cancer institutions throughout Europe, helping assessing the needs and providing standards.

565 POSTER

Screening chest radiography prescription in primary care: systematic review of literature and meta-regression analysis

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Objective: To assess whether the use of chest radiography for screening changes over time.
Design: Systematic review.
Data sources: Medline, ISI, Cochrane Central Register of Controlled trials, and hand searching of selected journals.
Review methods: We evaluated whether the proportion of primary care physicians using chest radiography to screen for:
a. malignancy in the general asymptomatic population
b. malignancy in a "high risk" population subgroup (like smokers)
c. any disease in the general population
d. any disease in "high risk" subgroups changed over time, employing random effects meta-regressions.

Adjustments for the availability of national guidelines were also performed.
Results: Despite screening chest radiography is being studied from the sixties and onwards, only 18 studies were eligible, and all but 4 reports were from the USA and Canada. Overall, between 10 and 90% of primary care physicians reported using chest X-ray for screening. In unadjusted analyses the proportion of physicians employing chest radiography for cancer screening in the general population tended to change by 0.9% per year, (95% confidence interval, CI: −2.4, 4.1%; 8 studies, n = 4,313). The corresponding annual change was −2.9% (95%CI: −4.5, 0.5; 8 studies, n = 2,784) for cancer screening in "high risk" subgroups, and −0.4% (95%CI: −3.1, 1.5; 7 studies, n = 2,627) regarding screening for any disease in the population. No meta-regressions were run for outcome (d) (only one study). In the adjusted analyses there was always a decreasing non-significant trend for all outcomes. High chest radiography prescription rates may be explained by the absence of national guidelines. Judging from Hellenic and French studies, it seems that the European Code Against Cancer do not have any impact on prescription practices, when specific national guidelines do not exist. The role of language barrier in such cases is debatable. Ignorance of the formal recommendations on the issue might be an explanation, especially in countries without a strong tradition in primary care medicine.
Conclusions: Despite the formal recommendations many physicians still use chest X-ray for screening. Their number seems to decrease slowly over time. This practice may be harmful, since the positive predictive value of chest radiography is low, and further evaluation of false positive findings might be associated with increased cost and risk from additional diagnostic and/or therapeutic interventions.

566 POSTER

Understanding the relationship between ethnic disparities and deprivation: a review of lung cancer in Maori and non-Maori in New Zealand

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In Aotearoa/New Zealand, there are significant and persistent disparities in health experiences and outcomes between Maori (the indigenous population) and non-Mäori, including stark disparities in cancer risk, incidence and outcomes. Lung cancer is one of the most common cancers in Aotearoa/New Zealand. Lung cancer incidence in Maori is 3.3 times higher than that of non-Maori, while the mortality rate is 3.7 times higher. The differential distribution of socioeconomic deprivation by ethnicity is one explanation that has been suggested for these disparities. In Aotearoa/New Zealand, deprivation and other measures of socioeconomic position such as income and wealth, are strongly associated with ethnicity. This paper presents findings from a case study investigating the relationship between lung cancer, deprivation and ethnicity for Maori and non-Maori that was part of a larger study of disparities and deprivation.
The aim of the case study was to develop a better understanding of the extent to which the differential distribution of deprivation between Maori and non-Maori contributes to ethnic disparities in lung cancer outcomes, whether or not ethnic disparities in lung cancer exist at each level of deprivation, and whether or not the strength of the relationship between lung cancer and deprivation may be different for Mâori compared to non-Mâori (i.e. a gradient gap may exist).
Data from the New Zealand Cancer Registry on lung cancer registrations from 1995–1999 and lung cancer deaths from 1996–1999 were analysed by age, sex, ethnicity and deprivation using the NZ Deprivation Index (NZDep96). Poisson regression was used to examine disparities between Mâori and non-Mâori adjusted for age and deprivation.
The study found that adjusting for age and deprivation reduced the relative risk of both lung cancer incidence and mortality, but significant disparities remained between Maori and non-Maori. The results provide impetus for addressing disparities in lung cancer incidence and outcomes between Maori and non-Maori, including differential exposure to risk and protective factors, as well as inequitable access to timely and effective cancer care.