2009;69[suppl]:66s. Abstract 13). It has been reported that women with new joint symptoms at 3 months after initiating an AI have a significantly lower risk for recurrence compared with women not reporting these symptoms (Cuzick J et al. *Lancet Oncol*. 2008;9:1143–1148).

Methods: Data from the Henry Ford Health System (1995–2005) were used to identify postmenopausal HR+ early BC patients who received at least 1 year of AI therapy after surgery. Total health care costs of managing A/M associated with hormone therapy as well as BC recurrences were estimated from charges incurred during health care encounters for these conditions.

Results: Of 834 eligible patients, the incidence of treated A/M was 21%, and the total health care cost was ~$429 per symptomatic patient/yr. The average annual cost of any BC recurrence was previously reported at ~$131,000/yr, with the greatest cost seen with DM at ~$265,783/yr (Wiederkehr D et al. *J Clin Oncol*. 2008;26[15s]:76s. Abstract 1141).

Conclusions: The economic costs of treating A/M are nominal, particularly in light of the superior efficacy of AIs and the economic burden of BC recurrences. DM is the most costly recurrence, and in BIG 1−98, reducing early DM appeared to impact OS. Discontinuing AIs or switching to less effective therapies in an effort to manage A/M should be weighed against the benefit of AI therapy in reducing BC recurrences, particularly DM, as well as the high costs associated the managing these recurrences.

3610 POSTER

Healthcare utilization and treatment patterns among cutaneous T-cell lymphoma (CTCL) patients in the United Kingdom and Brazilb

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Background: CTCL is a burdensome condition potentially associated with high healthcare utilization (HCU). Our objective was to quantify HCU and treatment patterns among a CTCL cohort requiring systemic therapy in the United Kingdom (UK) and Brazil.

Material and Methods: A retrospective chart review study of CTCL patients treated with ⩾1 systemic therapy at hospitals in the UK and Brazil. Patients were followed from initiation of systemic therapy (index date) for up to 1 year in Brazil or until death in the UK. Patients were required to have ⩾1 year follow-up, an index date on or after January 1, 2002 and have reached disease stage ⩾ IIB at index date or some point in the observation period for inclusion. CTCL-related treatments (systemic, skin-directed [SD], ancillary), clinical outcomes and HCU were abstracted from charts. HCU was evaluated as number per patient per year (PPY). The UK included only deceased patients.

Results: A total of 32 (UK) and 15 (Brazil) CTCL patients were included. Mean study follow-up duration and patient age were 2.0/1.0 yrs and 58/49 years for UK/Brazil, respectively. Disease stage at index date for UK/Brazil were ⩽IIA (43.8%/0%), IIB (15.6%/46.7%), III (21.9%/40.0%), IVA (15.6%/13.3%), IVB (3.1%/0). A total of 82 (1.26 PPY) and 20 (1.33 PPY) systemic therapies were observed in UK and Brazil. Patients received 1 (37.5%/66.7%) 2 (18.8%/33.3%) and 3−7 systemic therapies (43.8%/0%) in UK/Brazil. Interferon-alpha (IFN-α) and methotrexate were widely used systemic therapies in the first 4 therapy lines and baxarotene in subsequent lines in UK, while IFN-α was the predominant systemic therapy in Brazil. A total of 161 (5.03 PPY) and 15 (1.00 PPY) distinct concomitant SD therapies were used in 100%/73.3% patients in UK and Brazil. PUVA/Fucibet/dermovate/aqueous cream (UK) and PUVA/betamethasone cream (BRA) were widely used. Observed units of HCU are shown in the table.

HCU Type	UK		Brazil	
	# Units	Units PPY	# Units	Units PPY
Hospitalization episodes	27	0.41	5	0.33
Hospital days	1031	15.79	20	1.33
ER visits	0	0.00	1	0.07
Bone marrow transplantations	3	0.05	0	0.00
Blood transfusions	0	0.00	1	0.07
Lab tests	497	7.61	205	13.67
Outpatient visits	212	3.25	200	13.33

Conclusions: CTCL treatment is multi-faceted requiring significant HCU in studied UK and Brazilian institutions. These results quantify the burden of CTCL and may help evaluate the impact of new systemic CTCL therapies on overall healthcare use.

3611 POSTER

Establishing a concept of cancer literacy – a delphi study among Swiss oncology experts

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Background: Two types of studies have been conducted around the concept of health literacy, which in the last years has gained widespread acceptance in the field of Communication and Medicine: on the one side, empirical research on the different aspects of health literacy and their relationship with health outcomes (DeWalt et al. 2004; Paasche-Orlow et al. 2006; Sudore et al. 2006), and on the other side studies aimed at discussing and implementing new and existing theoretical definitions of the concept (Nutbeam 2008; Schulz & Nakamoto 2005). The present study is a tentative endeavour to contribute to the conceptual work around health literacy, i.e. to specify the concept with regard to the limited area of cancer. The main idea is that of elaborating and operationally defining a concept of cancer literacy. A key issue in this endeavor is the question of what to include in the concept, and what to omit.

Material and Methods: It is hard to know which features of laity communication competence are important to operationally define health literacy in general and cancer literacy in particular, without taking the knowledge and experience of health care providers into account. To achieve an operational definition of cancer literacy in the general population, building upon the professional experience of health care providers (oncologists, GPs, nurses from oncology wards, social workers, public health professionals), a Delphi study among cancer experts (N = 50) from the three linguistic regions of Switzerland has been conducted.

Results: The paper presents the main results of the three waves of the Delphi study that was the first to operationally define the concept of cancer literacy, highlighting its main aspects, their relative importance and the degree of agreement among the participants.

Conclusions: The study is the first step of a larger research project funded by Oncosuisse and carried out by a Swiss university, which foresees other studies in this area, such as a content analysis of the Swiss newspaper coverage of the aspects that have emerged as crucial constituents of cancer literacy, and the development of a measuring instrument that will help define the most health illiterate and cancer illiterate segments of the population and produce information on which aspects of health and cancer literacy are most in need of improvement. This will help designing information campaigns and public policies that are targeted to where the deficiencies are.

3612 POSTER

Improving chemotherapy capacity by switching from intravenous to oral vinorelbine: TAMINO, an international time and motion audit

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Background: Efficiency, safety and patient-centred care are key criteria for a world-class chemotherapy service. This paper describes a time and motion audit of patient pathways in eight European Union (EU) centres. A previous audit (Taylor et al) showed that patients treated with oral vinorelbine (NVBo) spent 1 h 30' less in hospital and required 33% less pharmacy time than patients treated with intravenous vinorelbine (NVBiv). The objective of TAMINO (Time And Motion International study with NAVELBINE® Oral) was to explore whether switching from NVBiv to NVBo as a single agent for patients treated at the hospital for advanced non-small cell lung cancer (NSCLC) or advanced breast cancer (ABC) would result in a similar conclusion for patients, doctors and pharmacists across the EU.

Material and Methods: Eight centres in four EU countries were selected to reflect the diversity of chemotherapy administration processes. Process and waiting times for 123 patients were measured: 72 NVBo (59%) and 51 NVBiv (41%), 81 (66%) NSCLC and 42 (34%) ABC. Treatment pathways were identified in each centre. Process and waiting times were measured for an average of 15.4 patients [8−20] at each centre and for each process the average and range calculated.

Results: Patients treated with NVBo spent on average 2 h. 31' in hospital vs. 3 h. 56' with NVBiv (a 36% reduction). Duration of consultation was similar for NVBo and NVBiv (10' vs. 12' respectively). Time for preparation and dispensing was 33' vs. 1 h. 8' respectively (51% reduction). Patients waited in the clinic after administration for 13' with NVBo vs. 43' with NVBiv (70% reduction). The results were heterogeneous among the eight centres, with a clear advantage for NVBo in six, a modest advantage in one and a disadvantage in one. This reflects the diversity of patient pathways. The six centres that clearly favoured NVBo allowed a more individualised patient pathway.

Conclusion: NVBo reduces the time spent by patients and pharmacists in chemotherapy service delivery. Care pathways differed across the EU centres studied. This raises the question as to which is the optimal model in terms of efficiency, safety and patient-centred care, including the possibility of home delivery. We propose to further investigate differences in care pathways that may be due to variables such as financial incentives, competency frameworks and safety issues. This methodology may be applicable to the introduction of other oral products.

3613 POSTER

Determinants of health service satisfaction among cancer patients and their care givers in oncology services: a survey study from two teaching hospitals in Turkey

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Background: To look into the associates of health service satisfaction among cancer patients and their primary care givers treated in the oncology services of two teaching hospitals in Turkey.

We specifically wanted to evaluate whether any specific patient, disease, or treatment related factors predicted health service satisfaction in cancer patients.

Materials and Methods: Consecutive cancer patients treated by the oncology departments of two teaching hospitals, as well as their primary caregivers were interviewed. The impact of various demographic, social, financial, educational factors and religious motive, anxiety and depression scores (calculated according to the Hospital Anxiety and Depression Scale; HADS), disease or treatment related factors, on Health Service Satisfaction (HSS; assessed by a visual analogue scale) was evaluated both for patients and caregivers. In addition, for patients, scores from global quality of life domain of EORTC QLQ C-30 questionnaire were also recorded. General Linear Models were constructed to investigate the individual association of the factors above with HSS.

Results: A total of 417 patients (245 patients, 172 caregivers) were recruited into this study. Overall, the median HSS was high for both the patients (9, Min: 1, Max: 10), and their caregivers (9, min: 0, max: 10). The only determinant of HSS for cancer patients was the specific hospital that participated in this study ($F = 4.11$, $P = 0.044$). The predictors of HSS for the caregivers were social security status and education level of the caregiver ($F = 2.76$, $P = 0.020$, and $F = 5.28$, $P = 0.023$, respectively). In particular, HSS declined with higher educational level and better social security status.

Conclusions: HSS for patients appear to be directly linked with the type or quality of the service received in a particular hospital, whereas, caregivers are influenced by health services with respect to their social and cultural background. Notably, HSS does not seem to be associated with disease, treatment, quality of life, and psychological factors. This study shows the importance of social and cultural background, in addition to the hospital itself, to optimize HSS in cancer patients and their caregivers.

3614 POSTER

Understanding, voluntariness and informed consent in daily clinical trials practice: perceptions of oncology nurses

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Background: Bioethics places great value on disclosure, understanding and voluntariness as the basis of informed consent but these requirements have not been subjected to investigation during the daily conduct of cancer clinical trials that is independent of researchers and participants. Oncology nurses frequently care for patients involved in cancer clinical trials and therefore can provide a potentially independent insight into the ethical conduct of these trials.

Methods: A random sample of 446 members of the Cancer Nurses Society of Australia was invited to participate in a survey that evaluated their understanding and perceptions of ethical issues relevant to clinical trials. Following the development of a general survey instrument, multi-item scales were constructed to assess patient understanding, willingness to participate and informed consent (6, 4 and 6 statements respectively; Cronbach's alpha 0.75, 0.76 and 0.74 respectively).

Results: Of 192 respondents, 75% were actively involved in the care of trial patients. The majority (75% or more) perceived that patients at least some of the time had unrealistic expectations of trial treatments and would participate in anything that offered hope. More than 80% perceived that patients were willing to have toxic treatments, to consent quickly, and to participate knowingly in trials of limited efficacy, at least some of the time. Furthermore, more than 50% perceived that patients did not understand the nature and risk of trial participation at least some of the time. The majority perceived that patients consented freely and knew how to withdraw from a trial most of the time, but insufficient time to decide about trial participation and coercion were perceived at least some of the time by 29% and 19% of respondents respectively.

Conclusions: Oncology nurses perceived that patient understanding, willingness to participate and informed consent were appropriate in most cases but fell short of the ethical ideals of clinical trial conduct. The multi-item scales developed in this study warrant further evaluation across different cultures in order to assess their reliability and validity as measures of the ethical conduct of cancer clinical trials.

3615 POSTER

The patient university: innovative tool for patient participation and empowerment

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Background: Each year in Peru of the 40 000 new cancer cases only 40 percent have access to treatments and care, In order to make cancer a national health priority and fill the existing gap created by the lack of support, information and training available to cancer patients the NGO Esperantra initiated the Patient University – a program aimed at patient empowerment and advocacy.

Material and Methods: The Patient University is an innovative strategy anchored in civil society which seeks to find new ways of creating awareness among patients and policy makers on the urgency of prioritizing Cancer control and prevention. Through specialized courses and workshops covering themes such as up to date information on cancer in general, innovative treatments and care, rights and responsibilities, leadership, strategic planning of patient organizations, self advocacy and political incidence, the patients are informed, trained and empowered. By attending the Patient University, patients, survivors, and their relatives become protagonists capable of advocating and defending the equality of access to quality treatments and medical services.

Results: The patients are being empowered and have organized themselves in Patient Organizations. During the 1st National Cancer Patient Forum organized by Esperantra, in 2007 The Peruvian Cancer Patient Coalition was created bringing together more 10 Cancer Patient Organizations from Peru. The Patient University gives the patients the opportunity to get organized, strengthen their self help networks, to debate common interests and make law proposals to improve the quality of the treatments, becoming main actors in the management of the information and knowledge on the necessities and possibilities of Cancer control and prevention, participating in law development and proposal processes.

Conclusions: The Patient University proves to stimulate patient engagement in processes such as the development of new tools and perspectives on Cancer control and prevention, improving the access to quality treatments and the quality of life of cancer patients in Peru. This experience could be easily replicated and adapted in other emerging countries where the state and health institutions do not cover the necessities of the patients and have not yet identified cancer control and care as a national health priority.

3616 POSTER

Impact of the income-based health service types on survival in patients with metastatic gastric cancer

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Background: Subscription to National Health Insurance (NHI) is a national obligation for South Korean people. For low-income citizens (about lower 3% of population), Medicaid is applied. Many recipients of Medicaid are vulnerable people such as old age singles, the homeless or the