handicapped. These populations are suspected to have worse prognosis. According to one report, on the other hand, patients with Medicaid were more likely to receive chemotherapy than patients with NHI despite the uniform health insurance coverage within the two types of health cost financing. Owing to these conflicting findings, we investigated the relationship between health insurance type and prognosis.
Materials and Methods: Patients are stage IV advanced gastric cancer patients who received palliative chemotherapy. Medical records were reviewed from January 2006 to November 2008 in Seoul Medical Center (municipal teaching hospital).
Results: Total 37 patients were found. Median age was 61 years (range 31−85) and male constituted 75.7%. Platinum (cisplatin or oxaliplatin) combined with 5-FU was the most frequently used regimen (78.4%). Twelve patients (32.4%) were recipients of Medicaid. Median PFS and OS of NHI group were 6.9 (95% CI, 1.7−12.0) and 7.8 (95% CI, 3.4−12.1). And that of Medicaid were 5.6 (95% CI, 2.6−8.6) and 7.8 (95% CI, 3.4−12.2) months. The difference from two groups were not statistically different ($p = 0.739$ for PFS and 0.466 for OS). When patients were divided into longer or shorter survivors according to mean OS (14.1±2.6 months), NHI recipients had more probability for survival (odds ratio 0.72, 95% CI 0.56−0.92).
Conclusions: The question is raised whether recipients of Medicaid have poorer prognosis than patients with NHI in metastatic gastric cancer in South Korea. Although it seems that NHI recipients has better prognosis, still we cannot sure. It should be cleared in large scale cohort study whether this is related to low socio-economic status or other uncontrolled confounder.

3617 POSTER

Significance of postoperative follow-up for colorectal cancer from economic viewpoint

N. Koinuma[1]. [1]*Tohoku University, Graduate School of Medicine, Sendai, Japan*

Background: Recently importance of the long-term follow-up adds to the cancer therapy as well as initial treatment. The aim of the study is to verify the postoperative follow-up for colorectal cancer from the viewpoint of cancer economics.
Material and Methods: According to a Markov model, we developed systems model to compare medical cost of the postoperative follow-up of colorectal cancer and incremental benefit (gain of the economic productivity after recovery). We used data registered in two study groups (Sugihara K, et al.) following the patients for more than 5 years in Japan for the systems model and performed a cost-benefit analysis.
Results: Registered cases of colon and rectal cancer are 5,599 in group A and 5,230 in group B. Recurrence rates in colon and rectum cancer are 2.5% and 7.3% respectively in Stage ? of group A. Those are 13.4% and 22.8% in Stage II, and 25.0% and 39.6% in Stage III. The cost-benefit ratios in colon and rectum cancer in group A are 0.14 and 0.46 in Stage ?, 0.86 and 1.34 in Stage II, and 1.27 and 2.15 in Stage III respectively. With respect of group B, those are 0.20 and 0.29 in Stage ?, 0.86 and 1.05 in Stage II, and 1.23 and 2.43 in Stage III respectively. Almost the same tendency is observed in two groups.
Conclusion: It can be said that postoperative follow-up has the definite economic effect in Stage II rectal cancer, and Stage III colon and rectal cancer. Meanwhile, postoperative follow-up has little economic effect in Stage ? colon and rectal cancer, and Stage II colon cancer, since the cumulative costs of follow-up exceed the incremental benefits.

3619 POSTER

Oral cancer treatments and adherence: medication event monitoring system assessment for capecitabine

L. Achtari Jeanneret[1], C. Pachinger[1], M. Montemurro[1], J. Bauer[1], E. Guignard Hefti[2], O. Bugnon[2], R. Naoux[3], F. Luthi[1]. [1]*Centre Coordonné d'Oncologie – CHUV, Oncology, Lausanne, Switzerland;* [2]*Policlinique Médicale Universitaire, Pharmacy, Lausanne, Switzerland;* [3]*Aardex Group, Market Development, Sion, Switzerland*

Background: Oncological treatments are traditionally administered via intravenous injection by qualified personnel. Oral formulas which are developing rapidly are preferred by patients and facilitate administration however they may increase non-adherence. In this study 4 common oral chemotherapeutics are given to 50 patients, who are still in the process of inclusion, divided into 4 groups. The aim is to evaluate adherence and offer these patients interdisciplinary support with the joint help of doctors and pharmacists. We present here the results for capecitabine.
Materials and Methods: The final goal is to evaluate adhesion in 50 patients split into 4 groups according to oral treatments (letrozole/exemestane, imatinib/sunitinib, capecitabine and temozolomide) using persistence and quality of execution as parameters. These parameters are evaluated using a medication event monitoring system (MEMS®) in addition to routine oncological visits and semi-structured interviews. Patients were monitored for the entire duration of treatment up to a maximum of 1 year. Patient satisfaction was assessed at the end of the monitoring period using a standardized questionary.
Results: Capecitabine group included 2 women and 8 men with a median age of 55 years (range: 36−77 years) monitored for an average duration of 100 days (range: 5–210 days). Persistence was 98% and quality of execution 95%. 5 patients underwent cyclic treatment (2 out of 3 weeks) and 5 patients continuous treatment. Toxicities higher than grade 1 were grade 2−3 hand-foot syndrome in 1 patient and grade 3 acute coronary syndrome in 1 patient both without impact on adherence. Patients were satisfied with the interviews undergone during the study (57% useful, 28% very useful, 15% useless) and successfully integrated the MEMS® in their daily lives (57% very easily, 43% easily) according to the results obtained by questionary at the end of the monitoring period.
Conclusion: Persistence and quality of execution observed in our Capecitabine group of patients were excellent and better than expected compared to previously published studies. The interdisciplinary approach allowed us to better identify and help patients with toxicities to maintain adherence. Overall patients were satisfied with the global interdisciplinary follow-up. With longer follow up better evaluation of our method and its impact will be possible. Interpretation of the results of patients in the other groups of this ongoing trial will provide us information for a more detailed analysis.

3620 POSTER

Of money and healthcare

P. Fava[1], T. Vuong[1]. [1]*McGill University Health Centre, Radiation Oncology, Montréal, Canada*

Introduction: Certain factors must be considered when a department needs to replace a treatment unit. With the escalating cost of healthcare and the need to manage a waiting list of patients, striking a balance between cost and efficiency of a treatment machine is of utmost importance. The choice is vast; linear accelerators, TomoTherapy® units, CyberKnife® System units, are all possibilities. This study investigates the impact a cyberknife would have on the workload of a radiotherapy department, when acquired as a replacement unit. We focused on prostate patients as they are the most numerous on our waiting list.
Methods: Ten centers in the United States and five in Europe with a cyberknife in operation for at least 1 year were contacted by phone. They were asked: Daily number of patients treated and patient selection on cyberknife and whether the cyberknife replaced an old accelerator or if it was an add on.
Results: The number of patients treated daily on cyberknife ranges from 4 to 8, for an average of 6. All centers treat primarily brain and lung tumors. The US centers treat few prostate patients as insurance companies won't cover costs. All confirmed the cyberknife was an addition, not a replacement unit.
On the outgoing accelerator we treat 32 prostate patients daily over an 8 week period (208 per year). Literature reveals phase II studies for prostate patients treated with cyberknife are presently using 5 fractions over 1 week. Assuming 2 of 6 slots on cyberknife are allocated to those patients willing to participate in a hypofractionation study, the number of prostate patients treated annually with the cyberknife would be approximately 104 or 50% of the present number. Although the patients treated on cyberknife would liberate a number of slots on the conventional accelerators, the feasibility of absorbing about an extra 100 patients could be problematic. Furthermore, treatment planning for the cyberknife is done by a physicist not a dosimetrist. This must be taken into consideration in the department planning budget. Presently the start up costs of a CyberKnife® System is about $4M (US).
Conclusion: We concluded that if the cyberknife is acquired as a replacement unit, the workload on the other accelerators must increase in order to maintain the present waiting list in check. Extending the working hours is an added cost to the department. Purchasing the cyberknife as a replacement unit would neither be an efficient nor financially savvy choice.

3621 POSTER

Development of patient centred lymphoedema services

M. Huit[1]. [1]*Guy's and St Thomas' Hospitals NHS Foundation Trust, Lymphoedema, London, United Kingdom*

Background: Lymphoedema is a chronic, progressive condition that requires timely and appropriate interventions, if patients' physical and psychological needs are to be met. Patients have reported that living with lymphoedema can have a negative impact on their quality of life, and