

**Materials and methods:** The hospital records of all the pediatric patients with solid tumors and those who have received palliative radiotherapy from January 1993 to December 2000 were retrospectively analyzed. There were total of 57 patients aged between 1 to 15 years (median 5year) with male to female ratio of approximately 1.9:1. Retinoblastoma was the most common malignancy constituting about 40%; ERM of head and neck region was next common tumor of about 23%. Other tumors, which diagnosed were neuroblastoma (5 patients), Ewing's sarcoma-3, Hodgkin's disease, NHL and neurofibrosarcoma-2 each, osteosarcoma, hepatoblastoma, esthesioneuroblastoma and malignant melanoma 1 each. The common indications for palliative radiotherapy are locally advanced disease presenting with bleeding, fungation, and ulceration and in some intracranial extension. This group constituted 65% of the cases. Five patients required radiotherapy for cord compression while another 12 patients received RT for bone metastasis, pathological fracture in long bones and brain metastasis in 1 patient.

Of the above patients, 65% have not received any form of treatment before palliative radiotherapy while 35% received some form of treatment, most commonly chemotherapy. The dose of palliative radiotherapy delivered varies from 4Gy, 5Gy and 8Gy in single fraction to 12Gy/3#, 15Gy/5#/1week and 20Gy/5#/1week. 28% of the patients received 20Gy/5#/1week for locally advanced tumor while 8Gy in single fraction was given for bone metastasis and pathological fracture. 4 and 5Gy single fraction treatment was given to control bleeding from primary tumor. While fractionated 12Gy and 15Gy radiotherapy given for spinal cord compression and locally advanced disease. Some patients who showed good response to palliative radiotherapy were further treated with other modality.

**Results:** Statistical analysis was done using SPSS version 10 for windows soft ware. At the end there were 50 evaluable patients for analysis while 7 patients did not return after palliative RT. The follow up ranged from 4 weeks to 285 weeks (calculated from the time of palliative radiotherapy to last visit). The median follow up was 20weeks. 8 patients (16%) had follow up of more than 1 year. Of these 50 patients 83% had a partial response (both objective and symptomatic) and 17% had not responded to RT (osteosarcoma, neurofibrosarcoma thigh and 2 patient with cord compression). 50% of patients who achieved partial response received further treatment mostly with combination chemotherapy (vincristin, carboplatin, adriamycin, prednisone, etoposide etc). The disease status at the last visit revealed 2 patients died of disease, 5 patients remained disease free (2patients with HD, 1 each of retinoblastoma, ERM, and hepatoblastoma all with follow up 1 to 5 years and all received further treatment). Rests were alive with symptomatically controlled disease when last seen. Survival analysis by Kaplan-Meier method was done and the survival at year was 22%. There were no major radiotherapy related toxicities. On multivariate analysis there was no significant difference for type of tumor, RT dose and treatment response.

**Conclusions:** In pediatric solid tumors where the disease is advanced, palliative radiotherapy has a documented role and should be judiciously used for symptom control. Although no single dose schedule is better than other, the dose of RT should be decided taking into account the indications for RT and age of the patient. The above dose schedule showed useful response in >80% of patients and helped about 10% to remain disease free.

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POSTER

### Cancer patients: patterns of internet use

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**Background:** The Internet becomes increasingly indispensable as a source of information for clinical questions, research, education and patients' interests.

**Aim:** To evaluate the Internet as a source of medical information for patients with colorectal cancer. The present survey examines the use and the influence of the Internet and other mass media on tumor patients.

**Methods:** From 07.02.2001 to 23.11.2001, 272 patients with prostate cancer which were referred to the Dept. of Radiotherapy were analyzed using a 36-item questionnaire developed in Freiburg.

**Results:** Mean age of all patients (n=272): 69 years (range: 35 - 83 years). Level of education (n=247): secondary school 57%(n=142), A-level or college / university: 42%(n=103), other or missing: 1%(n=2). Occupation (n=258): pensioner: 78%(n=201), employees: 10,5%(n=28), worker: 4%(n=10), self-employed: 5%(n=13), houseman: 0,5%(n=1), other or missing: 2%(n=5). Access to computer (n=255): yes: 16%(n=42), no: 69%(n=176), access to Internet: 15%(n=37). Frequency of Internet use

(n=30): weekly: 0%(n=0), monthly: 13%(n=4), occasionally: 37%(n=11), rare: 20%(n=6), never: 30%(n=9). Reasons of not having/using a computer or the Internet (n=161): fear of high tech: 17%(n=27), too time-consuming: 5%(n=9), too expensive: 25%(n=40), other reasons: 53%(n=85). Making use of other information sources than the doctor treating the patient (n=230): 46%(n=106). If the layman-system was used as an information source they used as an information source (n=96): Internet: 20%(n=20), other prostate cancer patients: 31%(n=31). Reliability of informations: ARD+ZDF(n=215): high: 54%(n=108), Internet(n=118): high: 22%(n=26), taxidriver(n=152): high: 11%(n=17).

**Conclusions:** The importance of the medium Internet as a source of information for tumor patients with prostate cancer in Freiburg is currently still low but likely to increase. The percentage of internetuser in the "normal population" over 50 years is only about 16%. Only 5% of our patients have visited the homepage of the department of radiotherapy at the University Clinic of Freiburg (<http://www.ukl.uni-freiburg.de/rad/strahlen/homede.html> or short cut: <http://go.to/radiotherapy>). The demographic structure and a further spread of Internet-access will lead to a gain of popularity of the Internet among prostate cancer patients.

The project is presented online: <http://www.krebsmedizin.info/index.php>.

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### Websolution for the prescription of antineoplastic drugs.

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**Background:** The Department of Oncology carried out a systematically survey concerning errors and near errors in the administration of drugs from September 2001 until June 2002.

14 errors and 16 near errors were reported. A total of 18 errors came from the administration of antineoplastic drugs.

The errors were divided in the following categories: • Incorrect drug • Incorrect dose • Incorrect timing • Incorrect preparation of the drugs • Other

**Aims:** The aim was to develop a web based solution which could minimize errors related to drug delivery and at the same time fulfil the following issues: • Easy to read requisitions • Easy to add and to update patient information • Automatic calculation of drug doses, drug reduction and escalation

**Technical Solution** The solution uses MS IIS, MS SMTP, MS Transaction server, MS SQL server and an ActiveX component developed by us. The generated documents are in Active Sever Pages and PDF formats.

**Software Solution:** The web solution is built on a MS SQL database, which contains information about users, treatments, standard doses and preparation of the drugs and patients data. The nurses are responsible for adding patient's data to the system based on the doctor's instructions and to update the patient data.

Prescriptions are automatically printed to the Pharmacy laboratory. As an extra precaution the prescriptions are also emailed as attached PDF documents. Through a number of pre-designed reports, the system will allow all the involved personnel to continuously monitor the drug prescriptions.

**Conclusion:** Changing from a manual system to electronic requisition has resulted in: • Development of precise standard operational procedures (SOP) • Easy access to all requisitions • Minimizing the number of errors and near errors. • Made it possibility to monitor the drug accumulation

Especially the Pharmacy has been satisfied by the ease in which they have access to all the requested antineoplastic. now in read and correct form. In the clinic there has been a clear indication that patients prior to the implementation of the system were given incorrectly doses of drugs, these errors have now been resolved by the system.

## Molecular targeted therapy

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POSTER

### Ectopic expression of the amino-terminal peptide of androgen receptor leads to androgen receptor dysfunction and inhibition of androgen receptor-mediated prostate cancer growth.

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**Background:** Androgen receptor (AR) is a ligand-activated transcription factor that requires androgen binding to initiate a series of molecular events leading to specific gene activation. AR has been suggested to