

## Psychosocial and economical aspects of cancer

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POSTER

### The development of a model of outpatient chemotherapy throughput - chemotherapy basic treatment equivalent (CBTE)

G. Delaney<sup>1,2</sup>, B. Jalaludin<sup>3</sup>, B. Gildea<sup>2</sup>, E. Moylan<sup>2</sup>, M. Barton<sup>1,2</sup>.

<sup>1</sup>Liverpool Hospital, Collaboration for Cancer Outcomes Research and Evaluation (CCORE), Sydney; <sup>2</sup>Liverpool Hospital, Department of Medical Oncology, Sydney; <sup>3</sup>South-western Sydney Area Health Service, Liverpool Hospital, Department of Epidemiology, Sydney, Australia

**Purpose:** 1. To study the patient-, tumour- and treatment-related factors that significantly impact on treatment episode duration for outpatient chemotherapy treatment delivery. 2. To develop a new measure of outpatient chemotherapy throughput that considers variations in complexity compared with the older measures of patients treated per day.

**Methods:** A pilot study in our institution randomly measured the duration of outpatient chemotherapy delivery. Patient, tumour and treatment factors were collected and assessed for their impact on treatment duration using multivariate analysis. A new model of outpatient chemotherapy was then developed using various modeling processes.

**Results:** Treatment times of 266 occasions of service on 134 patients were collected. Median treatment duration was 124 minutes. Significant factors that impacted on treatment duration were the chemotherapy regimen, the type of infusion, patient age and whether the patients required a community nurse to be organized. A complexity measure was developed (Chemotherapy Basic Treatment Equivalent or CBTE) and showed that although the numbers of patients that were treated in our department each day remained quite stable, there were wide fluctuations in workload when complexity was also considered. A new measure of chemotherapy workload has therefore been proposed.

**Conclusion:** It is better to measure outpatient chemotherapy throughput with a measure that considers complexity. Complexity of treatment has a significant effect on the productivity of a department. Our CBTE complexity model indicates that patient bookings for chemotherapy need to consider the complexity weighting of the treatment regimen to ensure an even workload distribution. A larger multi-institutional study is proposed that will provide more representative data of treatment times.

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### Evidence-based clinical research: integrating the best research evidence with clinical expertise provides alternative interpretations of the effects of immunotherapy in renal cell cancer

F. Porzolt<sup>1,2</sup>, J. Kumpf<sup>2</sup>, C. Sellenthin<sup>2</sup>, A. Thim<sup>2</sup>, C. Coppin<sup>3</sup>, A. Goldman<sup>3</sup>, E. Pöppel<sup>1</sup>. <sup>1</sup>Institute for Clinical Economics, Human Studies Center, Munich, Germany; <sup>2</sup>Clinical Economics Group, University Hospital, Ulm, Germany; <sup>3</sup>British Columbia Cancer Agency, Vancouver, Canada

**Purpose:** The purpose of this study is to critically appraise the available evidence supporting somatic effects (treatment with interferon alpha) or psychosocial effects ("knowledge framing") as causal principle which prolongs survival in patients with advanced renal cell cancer (RCC).

**Method:** Critical appraisal of the published results of our meta-analysis on immunotherapy of RCC which includes 98 randomized controlled trials (Cochrane review 3/2000) and concludes that interferon alpha causes a marginal (2.6 months) but significant extension of survival.

**Results:** A more detailed re-interpretation of data suggests that psychosocial rather than somatic effects may cause the observed result. 1. Significant differences in the remission rates and death rates were observed in RCC when immunotherapy (interferon alpha) was compared with a non-immunotherapy as control. 2. There was no relationship between dose and effect. 3. The comparison between interferon alpha and other immunotherapies demonstrated no significant differences. Higher remission rates were always achieved by immunotherapy (independent of the specificity) than by non-immunotherapies. 4. A placebo-controlled study did not demonstrate superiority of immunotherapy.

**Conclusions:** The most plausible explanation for the results discussed here is that a harmonious conversation between patient and doctor, the conveyance of trust and hope, and the development of a life perspective influence the results of clinical trials. We call this effect "knowledge framing"; to express that our implicit and explicit knowledge about the illness and potential effects of treatment is part of the physical and biochemical network. We assume that the effects of "knowledge framing" and of placebo are

identical but not the under-lying concepts. Differences in the concepts of placebo (P) and of "knowledge framing (K)": 1. The P effect is considered to be an "as if" effect or an illusion with a negative attribute. K is considered as a positive and desirable component of every intervention. 2. The P effect is an unspecific component of a specific pharmacological effect. K is a specific effect based on the information provided. 3. The P effect is conceptually below the threshold of relevant therapeutic effects, the K effect is not. 4. The application of the P effect is limited to clinical trials, the K effect is an essential part of patient care and is intuitively employed by experienced physicians.

## Economical aspects

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POSTER

### Psychological reactions among women with high risk of breast cancer considering prophylactic mastectomy

Y. Brandberg<sup>1</sup>, Brita Arver<sup>2</sup>, Annika Lindblom<sup>2</sup>, Kerstin Sandelin<sup>3</sup>, Marie Wickman<sup>4</sup>, Per Hall<sup>1</sup>. <sup>1</sup>Department of Oncology; <sup>2</sup>Department of Clinical Genetics; <sup>3</sup>Department of Surgery; <sup>4</sup>Department of Plastic and Reconstructive Surgery, Karolinska Hospital, Stockholm, Sweden

**Purpose:** To describe psychological reactions in a consecutive sample of women with hereditary risk for breast cancer considering prophylactic mastectomy (PM) and compare them with reference values from the Swedish population. Reasons for considering PM and expectations on the preventive procedure will also be presented.

**Patients:** Between March 1997 and February 2001, 52 consecutive women with hereditary risk for breast cancer of whom 13 had breast cancer.

**Methods:** Before deciding on PM, the women were interviewed by a psychologist and responded to questionnaires concerning reasons for considering PM, expectations on PM, anxiety and depressive symptoms (HAD) health related quality of life (SF-36), sexual activity and risk perception.

**Results:** 24 women expected their life to change positively and 4 negatively after PM. The main reasons for PM was to decrease the risk of breast cancer and early death, and to avoid cancer treatment and breast cancer worries. There were no statistically significant differences between the studied group and reference data from Swedish women on the HAD subscales or on SF-36, with two exceptions. Women with breast cancer scored lower on bodily pain, whereas women with risk but no cancer scored higher than the reference sample on physical functioning.

**Conclusion:** The studied sample was similar to women in the Swedish population with respect to levels of anxiety, depressive symptoms and HRQOL. Main reasons for PM was to avoid early death in breast cancer.

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### Cost-effectiveness analysis of irinotecan+5FU/FA versus oxaliplatin+5FU/FA first-line therapy in advanced colorectal cancer in the UK

A. Bearn, A. Burrell. Aventis Pharma, Health Economics, West Malling, UK

**Background:** In the UK irinotecan+5FU/FA and oxaliplatin+5FU/FA are licensed treatment regimens for the treatment of metastatic colorectal cancer in the first line setting. However, no studies to date have provided a head-to-head comparison of efficacy and cost effectiveness of these two treatments.

**Objective:** This study aims to estimate the cost-effectiveness of irinotecan+5FU/FA versus oxaliplatin+5FU/FA in the first line treatment of advanced metastatic colorectal cancer from the perspective of the UK National Health Service.

**Methods:** A decision tree model tracks patients through the course of their disease and estimates average survival and associated costs. A systematic review and meta analysis were undertaken for irinotecan and oxaliplatin to provide data on response rate, time to progression, survival rates (median survival 67.5 weeks versus 55 weeks), drop out from toxicities, and major adverse events. Given that there are no significant survival advantage shown in the trials for oxaliplatin it was assumed that the median survival for oxaliplatin would be equivalent to that observed for 5FU/FA in patient populations similar to those of the trials for irinotecan. Medication costs were based on the British National Formulary and allow for wastage. Resource utilization for routine treatment and monitoring, adverse event management and other clinical parameters was elicited from a survey of five UK oncologists with extensive experience with the therapies. Wherever