OBJECTIVE: Postal surveys only investigate HRQOL in those who return questionnaires and also complete enough information for analysis. Calculation of a single index of HRQOL (EQ-5D index) is impossible where data are missing. This study investigates completion of EQ-5D and the factors associated with non-completion.

METHOD: A postal questionnaire was sent to 10,471 adults registered to two general practices in Manchester. Non-responders received reminders after four and eight weeks. Demographic information for non-responders was obtained from general practitioner records. Indicators of social deprivation were obtained from the Regional Health Authority. EQ-5D rates 5 HRQOL domains on three levels with overall health state marked on a visual analogue scale (VAS) between 0 (worst) and 100 (best).

RESULTS: In total, 6838 (65.3%) questionnaires were returned; 5954 (56.9%) were complete. The self-care domain was missed most often (5.6% of responders) followed by anxiety/depression (4.4%), usual-activities (4.3%), pain/discomfort (4.1%), and mobility (3.9%). There was a significant difference in proportions between self-care and anxiety/depression (4.4% vs 5.6%, difference = −0.121, 95% CI of difference −0.195 to −0.0481). Four hundred thirty one people missed the VAS. Women were more likely to miss domain questions (10.2% vs 7.7%, chi² 12.67, p < .001) as were older respondents (mean age 47.6 vs 57.7 t = −12.16, p < .001). Missing data were less common in those with further education or a degree (10.3% vs 5.5% and 5.3% respectively, chi² 46.4, p < 0.001). Social deprivation was more common in those who missed a question but this was not statistically significant.

CONCLUSION: Low levels of non-completion were found, although respondents were significantly less willing to answer about self-care than about other domains, possibly not wishing to appear dependent on others. The importance of analyzing the degree of non-completion of a questionnaire and possible associated factors should be noted. Future work is needed to investigate HRQoL in those who do not respond to or complete questionnaires.

CANCER

BASELINE ANEMIA AND RISK OF POOR RESPONSE TO CHEMOTHERAPY IN INTERMEDIATE GRADE NON-HODGKIN’S LYMPHOMA (IGNHL) PATIENTS
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Anemia at diagnosis (baseline) is a potential adverse prognostic factor for no response to chemotherapy in addition to the standard risk factors.

OBJECTIVE: The purpose of this study was to identify factors associated with baseline anemia and to determine risk factors associated with no response to CHOP chemotherapy in IGNHL patients.

METHODS: A historical case series sample of 591 patients diagnosed between 1993 and 1999, and treated in 12 practice sites with CHOP chemotherapy was used. Baseline anemia was defined as a hemoglobin (Hb) value <12 g/dl at baseline. Multiple logistic regression was used to determine factors associated with baseline anemia and model its relationship with response [no response (NR) versus partial response (PR) and complete response (CR)].

RESULTS: Anemia was present in 193/546 (35.3%) patients. Baseline Hb values were not available for 45 patients. Multiple logistic regression showed that baseline anemia was significantly associated with elevated LDH (OR; 95%CI) (OR = 2.74; 1.66–4.50), presence of B symptoms (OR = 2.16; 1.22–3.83), stage III-IV (OR = 1.81: 1.10–2.93), male gender (0.42: 0.25–0.69), and large cell diffuse (OR = 2.05; 1.19–3.54) or immunoblast (3.99; 1.78–9.02) histologic types. No significant interactions existed between any of the variables included in this model. Multiple logistic regression (predicting NR versus CR/PR) showed that the presence of baseline anemia (OR = 2.29; 1.10–4.74) controlling for elevated LDH, advanced Stage III-IV, and age greater than or equal to 60, was a significant risk factor for NR to CHOP chemotherapy.

CONCLUSION: The results support previous findings of the high prevalence of, and risk factors associated with, baseline anemia prior to CHOP chemotherapy. Baseline anemia was a significant risk factor for NR to CHOP chemotherapy, even after controlling for age, stage, and LDH. We conclude that additional studies with a comprehensive set of known risk factors validating this relationship between baseline anemia and response to CHOP chemotherapy are warranted.

COST OF TREATMENT AND FOLLOW UP OF BREAST CANCER. A RETROSPECTIVE EVALUATION IN A COMPREHENSIVE CANCER CENTRE
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OBJECTIVE: Breast cancer is one of the major causes of premature death for women. The management of its cost is important for both the national health insurance and the individual health-care providers. The objective of this study was to assess the global medical cost of breast cancer, from diagnosis to follow up, in a French medical centre.

METHODS: Our evaluation was based on a retrospective cohort of 120 patients followed from January 1995 to February 2000 at Centre René Huguenin (Saint-Cloud). Comprehensive treatment schemes and clinical events were reported from patients’ medical files. Detailed medical consumptions and mean duration of staff occupation were obtained primarily from direct observa-
tion of the Centre’s activities, for each modality of patient follow-up and treatment (surgery, radiotherapy, chemotherapy, consultations). Unit costs were obtained from cost accounts of the Centre. Medical cost of breast cancer was computed from the cancer-centre perspective, by adding micro-costing and macro-costing components.

RESULTS: The mean medical cost per patient was €10,072 (95% CI 9,195; 10,948). Costs per patient ranged from €2,813 to €36,170. Median cost was of €8,860. The initial treatment phase represented the most expensive component, reaching €7,378 (7,040; 7,717) on average, which amounted to 73.3% of the global cost.

CONCLUSION: This study has provided an estimate of the global cost of managing patients with breast cancer in a French Comprehensive Cancer Centre (CLCC). Our estimates were consistent with those of the French national database of costs per DRG. However, our approach has the advantage of providing a cost per patient suitable for cost-of-illness evaluations, rather than a cost per hospital stay.

**Abstracts**

**PCN3**

**USING LEVEL OF EVIDENCE CRITERIA IN THE EVALUATION OF PHARMACOECONOMIC RESULTS**

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OBJECTIVE: To compare the pharmacoeconomic results of a breast cancer treatment model for Japan using several criteria, including level of evidence of the clinical data.

METHODS: The Japanese Breast Cancer Treatment Model (JBCTM) features treatment pathways for four breast cancer stages. The model includes resources, costs, and clinical outcomes for all treatments, and has the ability to estimate the cost-effectiveness of treatments in various settings with consideration given to the level of evidence. Guidelines from the American Society of Clinical Oncology (ASCO) were used to stratify the clinical data for drug treatments in the model. The ASCO levels of evidence criteria are ranked from Level I, evidence from studies showing the highest level of clinical results supporting treatment usage, to Level V, those yielding the weakest evidence for usage. For the JBCTM, the ASCO definitions of Levels I and II were directly followed and Levels III through V were combined into one level. The model contains over 450 level-of-evidence references for more than 60 drug treatments. An example of an evaluation using the JBCTM is a cost-effectiveness analysis comparing one chemotherapy combination, CAF, to two other regimens, CEF and CMF in advanced breast cancer.

RESULTS: Although the incremental cost-effectiveness ratio for CAF compared to CEF is negative, indicating CAF is a dominant strategy, the clinical evidence is only Level II. In contrast, the incremental cost-effectiveness ratio for CAF compared to CMF is positive, although relatively low at 14,087 Euro for each percentage increase in objective response, but the clinical evidence is Level I, the highest possible.

CONCLUSIONS: Although the cost-effectiveness ratios show that CAF is more cost-effective when compared to CEF than when compared to CMF, the evidence level for choosing CAF over CMF is higher. Decision-makers can be more informed by considering both levels of evidence and pharmacoeconomic data.

**PCN4**

**COST-EFFECTIVENESS OF URATE OXIDASE IN PREVENTION AND TREATMENT OF SEVERE HYPERURICEMIA AND TUMOUR LYSIS SYNDROME IN HAEMATOLOGIC MALIGNANCIES**

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OBJECTIVES: Hyperuricemia (HU) and tumour lysis syndrome (TLS) are important complications leading to morbidity and mortality in patients with haematologic malignancies. The objective was to assess the cost-effectiveness (CE), in terms of cost per life year saved (LYS), of preventing or treating HU and TLS with recombinant urate oxidase, rasburicase (FASTURTEC®).

METHODS: The current incidence and costs of HU and TLS were studied in a multi-country chart review including 788 adults and children treated for acute lymphoid or myeloid leukaemia (ALL or AML) or non-Hodgkin lymphoma (NHL). Costs, expressed in Euro, were calculated from the UK payer’s perspective. The average life expectancy at the time of diagnosis was based on cancer survival rates and age at diagnosis reported in the literature. Adult data were derived from the Eurocare study, childhood data from UK national statistics.

RESULTS: HU incidence was 18.9% and its average cost was 1,679 Euro (SE = 519). TLS incidence was 5% and its average cost was 11,202 Euro (SE = 2,147), and TLS-related mortality was 0.8%. With 90% reduction of HU and 100% reduction of TLS cases by rasburicase, the average CE of prevention in adults was 20,652 Euro/LYS for ALL, 83,824 Euro/LYS for AML and 31,667 Euro/LYS for NHL. The high CE ratio in AML is explained by its low life expectancy. In children the respective results were only 379 Euro/LYS, 668 Euro/LYS, and 388 Euro/LYS. Sensitivity analyses showed these results to be robust, especially in children. If applied only for treatment of established HU/TLS, rasburicase is associated with savings of 1,089 Euro in adults and 2,338 Euro in children, becoming cost-saving as of a 65% and only 24% reduction of TLS in adults and children respectively.

CONCLUSION: In prevention of HU/TLS, highly cost-effective results can be obtained in children, and reasonably cost-effective results in adults with ALL. Both in adults and children, treating HU with rasburicase would be a cost saving intervention.