using ABI Info, EconLit, PsychInfo, MEDLINE, CANCERLIT, AIDSLINE, HealthStar; databases were searched from 1990–2001. Articles identified comprised productivity measured by subjective (self-report questionnaires) and objective (computer-based tracking systems) techniques; subjective instruments included both generic and disease-specific measures. Identified instruments were evaluated on psychometric properties, generalizability to different populations, and administrator/respondent burden. **RESULTS:** Five generic subjective measures were identified—the Endicott Work Productivity Scale; Health and Labor Questionnaire; Health and Work Questionnaire; Work Limitations Questionnaire; and the Work Productivity and Activity Impairment Questionnaire (WPAI)—that could theoretically be used in any working population. All subjective instruments showed adequate to good reliability. However, these instruments were usually validated against other subjective measures (such as health-related quality of life), as a uniform measure of "productivity" does not exist. The WPAI was the most frequently used instrument and has also been modified to measure productivity reductions associated with specific diseases (e.g., allergic rhinitis, gastro-esophageal reflux disease). Objective assessments have been carried out to measure employee productivity for tasks where individual output could be quantified (e.g., claims processed, telephone inquiries handled). To avoid respondent bias, these studies utilized computer-based tracking systems to determine productivity reduction attributable to illness. **CONCLUSIONS:** Subjective and objective productivity assessments offer different benefits: while subjective instruments can be used in populations with different illnesses and/or jobs, objective measures minimize respondent bias but are associated with restricted generalizability and are burdensome to carry out in practice.

CANCER

CANCER—Economic Outcomes

PCN1

COST ANALYSIS OF HLA-IDENTICAL SIBLING AND VOLUNTARY UNRELATED ALLOGENEIC BONE MARROW AND PERIPHERAL BLOOD STEM CELL TRANSPLANTATION IN ADULTS WITH ACUTE MYELOCYTIC LEUKAEMIA OR ACUTE LYMPHOBLASTIC LEUKAEMIA

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OBJECTIVE: Allogeneic stem cell transplantations (SCT) for leukaemias are known to be one of the most expensive medical procedures. In the Netherlands, a few licensed hospitals perform allogeneic SCT. However, the budgets they receive are not sufficient (for instance due to the application of donor lymphocyte infusions). We calculated the direct medical costs of patients who underwent allogeneic SCT to support a budget revision. **METHODS:** Costs of HLA-identical sibling bone marrow transplantation (BMT), bone marrow transplantation from a Matched Unrelated Donor (MUD) and peripheral blood stem cell transplantation (PBSCT) were identified. Costs were determined by two complementary methods. First, medical consumption for these patients was determined and multiplied by the unit costs of each of the items. Second, a structural program for allogeneic transplantations brings along costs that are not expressed in the registration of the medical consumption of patients (e.g. HLA-typing and selection of the unrelated donor). The costs of these items were identified in cooperation with the financial departments of the hospitals, and by expert opinion. **RESULTS:** The average costs per transplanted patient were €98,334 (BMT), €151,754 (MUD), and €98,977 (PBSCT) for a follow-up period of 2 years. This includes the costs of hospitalizations, medical procedures, medication, donor identification and the costs of patients who were not transplanted after they had been planned to receive an allograft. The majority of costs were made prior to and during hospitalization for graft infusion. In MUD transplantation the costs of finding a suitable donor comprise nearly one third of total costs. **CONCLUSION:** This cost analysis gives a proper indication of the costs associated with performing different types of allogeneic SCTs and maintaining a structural transplantation program in the Netherlands. The results of this analysis will be used in determining a new budget for allogeneic SCTs in the Netherlands.

PCN2

COST-EFFECTIVENESS OF NEW CERVICAL CANCER SCREENING TECHNOLOGIES: A GERMAN HEALTH TECHNOLOGY ASSESSMENT AND DECISION-ANALYSIS

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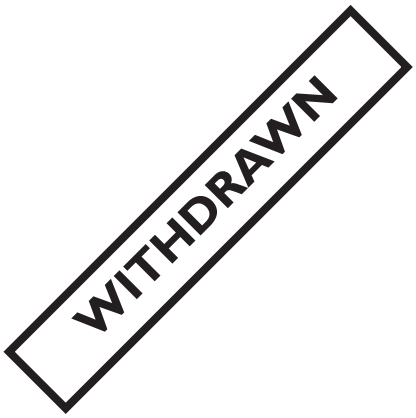
OBJECTIVES: The objective of this health technology assessment commissioned by the German Agency for Health Technology Assessment at DIMDI/German Federal Ministry of Health was to conduct a systematic review of the cost-effectiveness of new cervical cancer screening techniques, and to perform a decision-analysis in the context of the German health care system. **METHODS:** A systematic literature review and assessment on quality/transferability of data was performed using instruments developed by the German Scientific

Working Group Technology Assessment for Health Care. The German Cervical Cancer Model Group, an international and interdisciplinary network, was established to 1) assess German clinical practice patterns; 2) create a database of German epidemiological, clinical, and economic model parameters; 3) develop a German decision model based on previously published and validated international models, and 4) perform cost-effectiveness analyses. **RESULTS:** Based on international studies, the discounted incremental cost-effectiveness ratios (ICER) compared to conventional smears were US$10,000–37,000 per life year saved (LYS) for liquid based testing, 22,000–29,000 US$/LYS for automated primary screening, and 16,000–48,000 US$/LYS for automated re-screening technologies, assuming a 3-year screening interval, but was much less attractive for more frequent screening intervals. In comparison, for the German health care context screening with a combination of liquid-based preparation plus computer-assisted smear-analyses compared to conventional smears resulted in 31,000 €/LYS for a 3-year screening interval, 56,000 €/LYS for a 2 year screening interval, and 300,000 €/LYS for annual screening. Results were most sensitive to assumptions about the costs and performance of screening tests and population compliance. **CONCLUSIONS:** Technologies improving performance of cervical cancer screening are reasonably cost-effective at screening intervals of three years and greater. Based on the current clinical standard of annual cervical cancer screening in Germany, the introduction of new screening technologies would likely not be cost-effective without a reduction in screening frequency.

PCN3



PCN4

ONCE-PER-CYCLE FIXED-DOSE ADMINISTRATION OF PEGFILGRASTIM REDUCED RESOURCE UTILIZATION AND COSTS COMPARED WITH DAILY FILGRASTIM IN THE PREVENTION OF CHEMOTHERAPY-INDUCED NEUTROPENIA

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OBJECTIVES: A single 6 mg once-per-cycle injection of pegfilgrastim was compared with daily filgrastim (mean 10.5 days/cycle) in a double-blind, randomized, multinational, phase 3 study in patients (pts) receiving 4 cycles of myelosuppressive chemotherapy. The observed incidences of febrile neutropenia (13% v 20%), hospitalization (18% v 31%), and IV anti-infective use (17% v 21%) were lower across all cycles in the pegfilgrastim arm. Pegfilgrastim was safe and well tolerated. This economic analysis was conducted to determine if pegfilgrastim would lead to a reduction in resource utilization and cost. **METHODS:** Duration of all-cause hospitalization, IV anti-infective use, and transfusion in each cycle and across all cycles were compared. Unit costs were available for five participating countries: Germany, Italy, the Netherlands, Spain, and the US. Each set of country specific unit costs was applied to the entire study sample, and the total cost was calculated as the sum of costs of hospitalization, IV anti-infectives, and transfusion. All costs were converted into year 2000 Euros. **RESULTS:** Economic analysis was performed on 152 pts (77 in pegfilgrastim arm) evaluable for efficacy (97% of all randomized pts). The mean [sd] durations of all cause hospitalizations (1.18 [3.10] v 3.77 [8.72] days) and IV anti-infective use (0.70 [2.34] v 2.32 [6.09] days) were significantly lower