ECONOMIC EVALUATION OF TRABECTIDIN IN THE TREATMENT OF METASTATIC SOFT-TISSUE SARCOMA (MSTS) IN THE FINNISH SETTING
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OBJECTIVES: To compare the cost-effectiveness and cost-utility of a new orphan drug trabectedin, Yondelis, against various end-stage treatments (EST) following the failure with two chemotherapy agents (anthracycline and ifosfamide) that are approved for the first line treatment of MSTS in Finland. METHODS: An Excel-based Markov model with trabectedin and no trabectedin arms is used in the evaluation. Analyses are performed from a societal lifetime perspective (production loss and VAT excluded) using a probabilistic (second-order Monte Carlo) approach. The cost-effectiveness is evaluated on the basis of cost-effectiveness acceptability frontier, incremental cost per quality-adjusted life-year (QALY) gained. Included resources are drugs, mSTS treatments, adverse event treatments and traveling. In the base case analysis, 33% of patients are assumed to receive EST (67% etoposide, 33% dacarbazine). The effectiveness of the drugs is based on the indirect comparison of EORTC Soft Tissue and Bone Sarcoma Group (Nielsen 2000; van Oosterom 2002) and ET743-STS-201 trial results. Finnish resources and costs from year 2006 are taken, and both costs and outcomes are discounted with 5% per annum.

RESULTS: Trabectedin is associated with incremental 1.14 LYGs, €37,875 additional costs and €33,099 cost per LYG compared to EST. With the willingness to pay of €50,000 incremental QALYs, the ICER is €12,483, €87,734. At a willingness-to-pay of AUS$20,000 per QALY, genetic testing strategy needs to have a minimum 12-month quit rate of 12.4% or the quality of remaining life time is taken into account using assumptions, the incremental cost per QALY range from €38,801-€46,825. The results are robust according to multiple sensitivity analyses (including also comparisons against other ESTs: etoposide or dacarbazine monotherapy, doxorubicin, ifosfamide, mesna and dacarbazine (IMVP16), ifosfamide, mesna, etoposide and methotrexate (IMVP6)).

CONCLUSIONS: Trabectedin is a valuable addition for the treatment of mSTS. The cost-effectiveness of trabectedin is comparable or even superior to many other cancer drugs for non-orphan conditions.

EXPLORING THE COST-EFFECTIVENESS OF A SMOKING-CESSATION PROGRAM ENHANCED WITH INDIVIDUAL GENETIC FEEDBACK ON LUNG CANCER RISK
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OBJECTIVES: Several genetic characteristics are implicated in the onset of lung cancer and the smoking-gene interaction means that some smokers are at greater risk of developing lung cancer than others. The purpose of this study was to explore the potential cost-effectiveness of offering smokers a genetic test designed to provide feedback regarding their individual risk of developing lung cancer to motivate smoking cessation. METHODS: Two strategies were modelled; heavy-smoking individuals aged 50 years or older who scored above or equal to 6 on the Fagerstrom test-tobacco dependence and in the top quartile of being cost-effective. We assessed the quality of remaining life time taken into account using assumptions, the incremental cost per QALY range from €38,801-€46,825. The results are robust according to multiple sensitivity analyses (including also comparisons against other ESTs: etoposide or dacarbazine monotherapy, doxorubicin, ifosfamide, mesna and dacarbazine (IMVP16), ifosfamide, mesna, etoposide and methotrexate (IMVP6)).

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COST-EFFECTIVENESS OF RITUXIMAB IN PREVIOUSLY UNTREATED PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA IN THE DUTCH SETTING
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OBJECTIVES: To determine the cost-effectiveness of rituximab (RTX) added to first line chemotherapy in patients with chronic lymphocytic leukemia (CLL) in the Netherlands (NL). Results were used to identify parameters to explore in a local economic model. METHODS: A three health state Markov model was constructed using evidence from published randomized controlled trials and meta-analyses for estimates on 12-month quit rates and long-term relapse rates. Recent epidemiological data were used for estimates on the risk of developing lung cancer stratified by time since quitting and heavy/light smoking patterns. Scenario analyses, one-way and probabilistic sensitivity analyses were used to explore uncertainty. RESULTS: The discounted incremental costs for the genetic testing strategy were €US$299 and corresponding quality-adjusted life years (QALYs) were 0.0109 producing an incremental cost per QALY of AUS$34,687 (95% CI $12,483, $87,734). At a willingness-to-pay of AU$20,000 per QALY, genetic testing strategy needs to have a minimum 12-month quit rate of 12.4% or the quality of remaining life time is taken into account using assumptions, the incremental cost per QALY range from €38,801-€46,825. The results are robust according to multiple sensitivity analyses (including also comparisons against other ESTs: etoposide or dacarbazine monotherapy, doxorubicin, ifosfamide, mesna and dacarbazine (IMVP16), ifosfamide, mesna, etoposide and methotrexate (IMVP6)).

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COST-EFFECTIVENESS OF HPV VACCINATION—AN OVERVIEW ON INTERNATIONAL STUDY RESULTS
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OBJECTIVES: In multiple clinical trials the efficacy of HPV vaccination against virus-specific pre-stages of cervical cancer was verified. Because decision-makers are increasingly interested in information on the cost-value ratios of new interventions we conducted a systematic review to summarize current international evidence concerning the long-term cost-effectiveness of HPV vaccination. METHODS: To ascertain studies published in the peer-reviewed medical and health-economic literature a MEDLINE-based literature search was conducted in June 2009. Furthermore the web presences of international HTA organisations were screened for relevant publications. Language was limited to English and German. Finally 29 health-economic publications which refer to 26 modelling studies were included in the review. RESULTS: Within the study results there is significant variation due to the heterogeneity of methodological backgrounds and input parameters. Base case results (including direct cost for vaccination of female adolescents + screening vs. solely screening) can range from $3,000 to $400 per QALY. Even from $5,000 to $10,000 per QALY. Due to the consideration of herd immunity the application of transmission models frequently resulted in lower cost-effectiveness ratios than static cohort models. Assumptions about the duration of protection can be considered as the major influencing factor within all studies. CONCLUSIONS: Regarding the long-term cost-effectiveness of HPV vaccination, international studies suggest that HPV vaccination is cost-effective when assuming a lifelong protection. Because modelling results significantly depend on the duration of immunization which is associated with a high degree of uncertainty it is not possible to draw a final conclusion regarding the cost-effectiveness of HPV vaccination based on the current health-economic evidence. Hence, risk-sharing-agreements between third-party payers and manufacturers would pose an option to balance the consequences of uncertainty towards the duration of protection on cost-effectiveness.

COST-EFFECTIVENESS OF RITUXIMAB IN PREVIOUSLY UNTREATED PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA IN THE DUTCH SETTING
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CONCLUSIONS: Trabectedin is a valuable addition for the treatment of mSTS. The cost-effectiveness of trabectedin is comparable or even superior to many other cancer drugs for non-orphan conditions.