

2012. Supplementary material was identified by a manual examination of literature. Studies published between 1998 and 2011 were selected using predefined criteria. Quality of the articles was rated by two independent investigators. Available data related to resource utilization and costs were extracted and cost units calculated for Germany. **RESULTS:** A total of 66 articles were identified. After the first abstract screening 24 full-text articles were identified as relevant. Finally, after full-text screening, 10 articles could be included. The majority of studies focused on the societal economic burden of both impairments. Indirect costs were highest amongst all cost categories due to productivity loss. Only two identified articles reported data for Germany. Out of these, one European study transferred survey data from abroad to the German system and another article reported costs for specific ophthalmological diseases. **CONCLUSIONS:** There is a dearth of literature assessing the economic impact of visual impairment and blindness in Germany indicating a need for research to fill this gap. Therefore, in a second step, we will conduct a cost-of-illness study using a bottom-up approach to explore cost units in detail, as well as their determinants and intangible effects for Germany.

## PSS11

## ECONOMIC EVALUATION OF BIOLOGIC TREATMENTS FOR MODERATE TO SEVERE PSORIASIS IN ITALY

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**OBJECTIVES:** Psoriasis is a chronic disease that impacts significantly on patients' quality of life (QoL). Biological drugs interfere in the immunologic process that triggers and supports psoriasis and, therefore, prove effective in its treatment. The aim of this study was to perform a cost-utility analysis (CUA) comparing biologic treatments (adalimumab, etanercept, infliximab, and ustekinumab) in Italy. **METHODS:** A decision tree model previously applied to the UK was adapted for Italy using resource and cost data from the Italian Ministry of Health (Ministero della Salute). Clinical efficacy in the treatment of moderate to severe psoriasis was determined by the Psoriasis Area Criteria and Severity Index (PASI). Relative efficacy of biologic treatments was based on a network meta-analysis of clinical trials. A different level of utility is associated with each level of PASI response. Costs included hospitalization, drug acquisition, administration, and monitoring over a 10-year time horizon. Incremental cost-effectiveness ratios (ICERs) compared with supportive care (no systemic therapy) were expressed as euros/quality-adjusted life year (QALY). One-way sensitivity analyses, where key parameters were changed to alternative plausible values, explored uncertainty in the results. **RESULTS:** In the base case, adalimumab was found to be the most cost effective compared to supportive care (ICER: €52,583), followed by ustekinumab 90 mg (ICER: €52,846), ustekinumab 45 mg (ICER: €54,997), infliximab (ICER: €56,141), etanercept 50 mg BIW (ICER: €77,611), and etanercept 25 mg BIW (ICER: €78,194). The ICER for ustekinumab 90 mg, ustekinumab 45 mg, and infliximab compared to adalimumab were €57,052, €140,445, and €86,794, respectively. Adalimumab remained the most cost-effective over the vast majority of the one-way sensitivity analyses. **CONCLUSIONS:** The analysis demonstrated that adalimumab is the most cost-effective biologic for the treatment of patients affected by moderate to severe psoriasis.

## PSS12

## NEPAFENAC FOR THE REDUCTION IN RISK OF POST-OPERATIVE MACULAR OEDEMA ASSOCIATED WITH CATARACT SURGERY IN DIABETIC PATIENTS: A COST-EFFECTIVENESS ESTIMATION FOR SCOTLAND

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**OBJECTIVES:** Treatment strategies for the prevention of macular oedema (MO) in diabetic patients include the postoperative use of steroids with and without antibiotics. However, measured with optical coherence tomography (OCT), between 14% and 22% of diabetic patients still experience postoperative MO, with 3.05% developing clinically significant MO (CSMO). Nepafenac has recently been granted approval in Scotland for the licensed indication of reduction in risk of postoperative MO associated with cataract surgery in diabetic patients. The primary objective was to therefore estimate the incremental cost-effectiveness ratio (ICER) of Nepafenac compared to the identified standard practice of Prednisolone Acetate Ophthalmic Suspension (PAOS). **METHODS:** An Excel-based cost-utility model was developed with a 90-day time horizon (base-case). An appropriate comparator was established via consultation with an expert advisory-board comprised of 3 ophthalmologists currently practising in Scotland. Effectiveness data were derived from the pivotal study, C-07-43, whereby the primary outcome demonstrated that a significantly smaller percentage of patients in the Nepafenac group developed MO relative to patients in the vehicle group (3.2% vs 16.7%;  $p < 0.001$ ). The difference at 90 days was converted to a RR of MO = 0.19. Costs comprised drug acquisition and outpatient costs, the latter including physician visits and OCT, derived from ISD Scotland and the BNF 63. Importantly, costs were only associated with those patients with clinically diagnosed MO. In terms of utilities, an algorithm associating logMAR visual acuity (VA) with health-related utility estimated with TTO was used to populate the model. **RESULTS:** Nepafenac had an ICER of £6,552 per QALY compared to PAOS in the base-case scenario. **CONCLUSIONS:** Nepafenac is highly cost-effective compared to Prednisolone Acetate, and with a concomitant low budget impact (estimated annual maximum of £110,500), should be considered as the primary treatment for reduction in risk of postoperative MO associated with cataract surgery in diabetic patients.

## PSS13

## COST-EFFECTIVENESS OF SPECIALIZED TREATMENT BASED ON COGNITIVE BEHAVIOURAL THERAPY VERSUS USUAL CARE FOR TINNITUS

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**OBJECTIVES:** Up to 21% of adults will develop tinnitus, manifesting the perception of a noxious disabling internal sound. Many different treatments are offered, but evidence on their effectiveness and cost-effectiveness is scarce or absent. Recently, the effectiveness of a specialised treatment of tinnitus based on cognitive behavioural therapy was demonstrated (Cima et al., 2012). The present study evaluates the cost-effectiveness of this treatment compared to care as usual, in an audiological centre. **METHODS:** An economic evaluation was carried out alongside a randomized controlled clinical trial. The economic evaluation was conducted from a societal perspective, using a one-year time horizon. The incremental cost effectiveness ratio (ICER) was calculated by dividing the difference in costs by the difference in Quality Adjusted Life Years (QALYs) based on the HUI Mark III. Non-parametric bootstrapping and sensitivity analyses were used to assess the uncertainty in costs and effects. Sensitivity analysis included a complete cases analysis and analysis on data were missing values on the HUI mark III were imputed based on a mixed regression model from the clinical effectiveness analysis. **RESULTS:** Compared to patients receiving usual care, patients who received specialised care gained on average 0.015 QALYs (BCI: -0.028-0.055). The incremental costs from a societal perspective are €286 (BCI: -€828-€1427). The incremental cost per QALY from a societal perspective amounted to €19,688. The probability that SC is cost-effective from a societal perspective is 57% for a willingness to pay for a QALY of €35,000. **CONCLUSIONS:** Specialised multidisciplinary tinnitus based on cognitive behavioural therapy is cost-effective as compared to usual care. Although uncertainty surrounding the incremental costs and effects is considerable, sensitivity analysis indicated that cost-effectiveness results were robust.

## PSS14

## COST-EFFECTIVENESS OF BIOLOGIC THERAPIES FOR THE TREATMENT OF MODERATE TO SEVERE PSORIASIS IN GERMANY

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**OBJECTIVES:** Etanercept, infliximab, ustekinumab, and adalimumab have been granted marketing authorization for the treatment of moderate-to-severe psoriasis in Germany. The objective of this study is to evaluate cost-effectiveness of biologic treatments from the German Social Health Insurance (SHI) perspective. **METHODS:** A simple decision model was constructed to assess the cost-effectiveness of biologics compared to supportive care for the treatment of moderate-to-severe psoriasis over a one-year time horizon. Clinical efficacy was based on the relative probabilities of achieving PASI75, and PASI 90 response obtained via a network meta-analysis. Weight-based dosing was assumed for infliximab and ustekinumab. Costs were assessed in terms of 2012 euros, and included drug acquisition, administration, laboratory tests, clinic visits, and hospitalization costs. Cost-effectiveness from payer perspective was assessed as the cost-per-PASI75 response and cost-per-PASI90 response compared with supportive care (no systemic therapy) over a one-year time horizon. One-way sensitivity analyses, where key parameters were changed to alternative plausible values, explored uncertainty in the results. **RESULTS:** In the base case, adalimumab was found to be the most cost-effective compared to supportive care (€25,378 per PASI75 responder and €46,870 per PASI90 responder), followed by infliximab (€30,719 per PASI75 responder and €47,300 per PASI90 responder), ustekinumab (€31,953 per PASI75 responder, and €57,852 per PASI90 responder), etanercept 50mg BIW (€43,049 per PASI75 responder and €101,306 per PASI90 responder), and etanercept 25 mg BIW (€43,156 per PASI75 responder and €111,369 per PASI90 responder). The incremental cost per PASI 75 responder gained and the incremental cost per PASI 90 for infliximab compared to adalimumab were €51,812 and €48,112, and €87,942 and €106,911 respectively for ustekinumab. Adalimumab remained the most cost-effective over the vast majority of the one-way sensitivity analyses. **CONCLUSIONS:** This study found that adalimumab is the most cost-effective biologic treatment for moderate to severe psoriasis from the German SHI perspective.

## PSS15

## A NEW INSIGHT INTO COST-EFFECTIVENESS ANALYSES IN ATOPIC DERMATITIS: THE TACROLIMUS 0.1% OINTMENT VERSUS CICLOSPORIN COMPARISON

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**OBJECTIVES:** Atopic dermatitis (AD) affects more than 15% of the population carrying a heavy burden in developed countries and leading to significant losses in patients' quality of life, especially in children. Although no cure has yet been found for AD, novel drugs such as tacrolimus have been released in recent years. Therefore this study aimed to perform a cost-effectiveness analysis comparing tacrolimus 0.1% ointment with ciclosporin 100mg for the treatment of moderate to severe AD from the Portuguese societal perspective. **METHODS:** An individual simulation event process was designed to mimic the natural course and treatment of the disease, including relapse and maintenance phases. Time to remission and time to relapse were simulated according to data from a 6-week randomised trial between