

prevention. **RESULTS:** The expected number of avoided AD cases by selecting PHF-W over CMF was 2,787 cases in a birth cohort of 38,661 at risk infants. The base-case analyses generated expected ICERs of €1921, -€1102 (savings) and €785 from the MOH, family and SOC perspectives, respectively. Cost drivers were formula from the MOH perspectives and time loss from the family perspective, with formula and to a lesser extent time loss for the SOC perspective. PHF-W yielded approximately €10.7 million savings against EHF in the secondary analysis. One-way and probabilistic sensitivity analyses confirmed the robustness of the model. **CONCLUSIONS:** Under a range of assumptions, this analysis has established the cost-effectiveness of PHF-W in the prevention of AD among Spanish infants.

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#### **COST-EFFECTIVENESS OF AGE-RELATED MACULAR DEGENERATION: A MODEL**

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**OBJECTIVES:** Bevacizumab (Avastin) is a promising and low cost treatment of age-related macular degeneration. Effectiveness and cost-effectiveness might be related to the frequency of injections of bevacizumab in the treatment. The standard frequency is 4 weeks, while it is uncertain whether lower frequencies lead to different cost and effects. **METHODS:** 170 patients were randomized to 3 treatment frequencies; 4, 6, and 8 week intervals between injections. Follow up was 1 year. Vision was measured with the Snellen chart, which health states have been valued for QALY analysis. We developed a 6 states Markov model with a 12 weeks cycle and a 6-year time-horizon. The model included one death state, and five states defined by visual acuity (VA) in the better seeing eye: VA >20/40, ≤20/40 to >20/80, ≤20/80 to >20/200, ≤20/200 to >20/400 and ≤20/400. **RESULTS:** At time of the (interim) analyses, 72 patients had completed the full follow up. The '6 weeks' frequency compared with '4 weeks' shows a negative ICER of €6,406, with €1,024 less costs and 0.16 more QALY's. The '8 weeks' frequency compared to the 4 weeks frequency shows also a negative ICER of €28,032, with €1,543 less costs and 0,06 more QALY's. When looking at 6 and 8 weeks, the '8 weeks' has lower costs but is also less effective, with an ICER of €4,946. Most uncertainty related to utilities and transition probabilities, while cost contributes relatively less to the uncertainty of the outcomes. **CONCLUSIONS:** Compared with 4 weeks frequency, the 6 and 8 weeks frequency were dominant, whereas the 8 weeks frequency has an ICER in the south west quadrant.

PSS20

#### **COST-UTILITY ANALYSIS OF A PRN (AS NEEDED) TREATMENT SCHEDULE WITH RANIBIZUMAB (LUCENTIS®) IN WET AMD BASED ON CLINICAL EVIDENCE**

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**OBJECTIVES:** To assess whether evidence-based cost-utility of PRN-dosing with ranibizumab (Lucentis®, RBZ-PRN) in age-related macular degeneration (AMD) is comparable to RBZ-PRN cost-utility estimated previously based on clinical data from monthly and quarterly regimens. **METHODS:** A 10-year MS-Excel Markov model with 5 visual acuity (VA) levels and 1 death state predicts VA in patients treated with RBZ-PRN, RBZ quarterly (RBZ-Q), RBZ monthly (RBZ-M), Visudyne® photodynamic therapy (PDT) or best supportive care (BSC). Transition probabilities, adverse events and treatment frequencies were provided by newly available PRN-trials (SUSTAIN, MONT BLANC) + available trials covering other comparators (ANCHOR, MARINA, PIER, EXCITE, TAP). Comparability of populations and treatment effects (linear regressions) determined trial data pooling. Final analyses included pooled data sets (RBZ-PRN and RBZ-Q) or multiple single-trial data sets (other comparators). Secondary analysis included indirect comparison versus pegaptanib sodium (PGB). Two-year treatment duration was followed by BSC. Costs (2009, UK health care payer, 3.5% discount) were obtained from literature and expert opinion; utilities (3.5% discount) from a time-trade-off study. One-way and probabilistic sensitivity analyses (SA) covered variability in efficacy, costs, treatment frequency and utilities. **RESULTS:** Due to lower than predicted injection frequency, clinical trial-based cost-utility of RBZ-PRN was better than predicted cost-utility. Evidence-based cost-utility ranged from £4,414/QALY to £20,489/QALY versus BSC and from dominance to £2,383/QALY versus PDT. RBZ-PRN was dominant versus RBZ-Q and versus PGB (secondary indirect analysis). RBZ-M was slightly more effective but not cost-effective versus RBZ-PRN. The result was most sensitive to time horizon (2–10 y), cost of blindness and treatment duration (1–3 y) but conclusions remained throughout 1-way SA. Assuming a threshold of £30,000/QALY, the probability that RBZ-PRN is cost-effective ranged from 68% to 97% versus different comparators. **CONCLUSIONS:** RBZ-PRN using the SUSTAIN and MONT-BLANC re-treatment criteria is cost-effective compared to other therapies for wet-AMD and represents the most cost-effective use of RBZ.

#### **AN ECONOMIC ANALYSIS OF TACROLIMUS OINTMENT MAINTENANCE USE (TWICE WEEKLY) VERSUS STANDARD USE IN PATIENTS WITH MODERATE TO SEVERE ATOPIC DERMATITIS IN NORWAY AND FINLAND**

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**OBJECTIVES:** The objective of this study was to determine the cost-effectiveness of tacrolimus ointment used twice weekly as a maintenance treatment regimen compared to a standard treatment regimen using tacrolimus twice daily in both adults and children with moderate to severe atopic dermatitis (AD) in Norway and Finland. **METHODS:** A decision analytic approach was used to compare costs and outcomes of two alternative management strategies for AD over a 12 month treatment period for the UK, which was adapted for Norway and Finland. Efficacy data were used from two randomised controlled trials where maintenance use of tacrolimus ointment (0.1% in adults and 0.03% in children applied twice weekly) was applied to previously affected areas compared to standard use (twice daily application) to treat disease exacerbations. Utility data were derived from a published source and cost data were taken from public list prices and tariffs in the two countries, Norway and Finland to generate cost/QALY. Sensitivity analyses were performed to test the degree of uncertainty around the results. **RESULTS:** The twice weekly maintenance use of tacrolimus ointment resulted in fewer days in disease flare and improved quality of life versus standard treatment with tacrolimus ointment in both adults and children with moderate to severe AD. The twice weekly regimen was cost-saving compared with the standard regimen in both Norway and Finland. Sensitivity analyses demonstrated that results were largely insensitive to change. **CONCLUSIONS:** Twice weekly maintenance treatment of moderate and severe AD in both adults and children using tacrolimus ointment improves health outcomes at a lower cost when compared with the reactive treatment strategy using tacrolimus ointment.

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#### **INDIRECT COSTS OF INFORMAL CARE FOR ONE EPISODE OF ACUTE OTITIS MEDIA IN GERMANY**

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Indirect costs are not only generated by sick people themselves, but often occur due to sick children needing informal care by parents or other informal care givers. Informal care givers are relatives or friends, not being paid for their services and thereby experiencing work, leisure time and productivity loss. Indirect costs induced by informal care givers are rarely included in CEA, although being part of societal cost. **OBJECTIVES:** This study quantified the indirect costs of an informal care giver caused by a sick child suffering from an episode of acute otitis media (AOM) in Germany. **METHODS:** Using a German access panel questionnaires were sent out to households with children <5years. The following indirect costs referring to the most recent AOM episode of any child were covered: hours of work absence and related costs for mothers, fathers and grandparents; loss of leisure time; productivity loss caused by solicitation; work loss compensation by colleagues. **RESULTS:** A total of 68.3% of all parents experienced 7–29 hours of work loss (59.3/9.3% mothers/fathers) per episode, grandparents 14 hours (2%). While 40% of parents experienced paid and 28% unpaid work loss, grandparents being retired caused only unpaid productivity losses. Leisure time loss was experienced by all informal caregivers and an average was calculated across the total population accounting for €47.39. Indirect costs per AOM episode across the total population were in average €411.40 (Sum of: €152.51 paid, €161.89 unpaid work loss, €209.07 productivity, €47.39 leisure time loss; Subtraction of: €45.72 paid, €113.74 unpaid work compensation by a colleague). **CONCLUSIONS:** Indirect costs are mainly included in health economic (HE) analyses as paid work loss. For Germany paid work loss only accounted for 38% of total indirect costs referring to an AOM episode. Further detailed studies are needed to better understand the influence of different indirect cost categories across disease areas.

#### **SENSORY SYSTEMS DISORDERS – Patient-Reported Outcomes Studies**

PSS23

#### **THE USE AND MISUSE OF ANTIBIOTICS FOR UPPER RESPIRATORY TRACT INFECTION**

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**OBJECTIVES:** To measure the influence of introducing guidelines to doctors and educational leaflets to patients on reducing the level of prescribed antibiotics. To investigate the effect of factors such as socio-demographic characteristics, signs, symptoms and patient self management. **METHODS:** Research was conducted in two busy clinics, one in Dubai and one in Sharjah. a set of guidelines for the treatment of sore throat were extracted from the SIGN guidelines (Appendix 3). The set of guidelines was explained to the General Practitioners individually. The guidelines were accompanied by a covering paper which explained why and where the guidelines were produced. The researcher was based in the nursing room and approached patients suffering from a sore throat. These patients were given the educational leaflet and a brief explanation of what the leaflet included. The length of explanation depended on whether the patient could read or not. They were then asked a set of questions prior