health care system for methyl aminolevulinate (MAL) PDT compared with a set of current treatment options.

METHODS: A decision-analytic approach was adopted in which treatment pathways were defined for both MAL PDT and the current treatment options. The model follows patients presenting with basal cell carcinoma (BCC) or actinic keratosis (AK) through up to three lines of treatment, accounting for the associated health care costs. Epidemiological and GP referral/treatment parameters were determined from a survey of GPs. Treatment modality and reconstructive surgery parameters were determined from a survey of UK specialists familiar with the treatment of NMSC. Further model parameters were determined from an extensive literature review of the clinical data.

RESULTS: The surveys indicated that simple lesion excision is currently the favoured treatment modality for difficult-to-treat BCC. For patients with difficult-to-treat AK, 5-fluorouracil is currently the favoured treatment. In addition, the surveys showed that a large number of patients undergoing lesion excision require costly reconstructive surgery. The decision-analytic model found MAL PDT had higher initial costs, but had cost-offsets due to reduced requirement for reconstructive surgery.

CONCLUSIONS: Higher initial costs associated with MAL PDT are offset by savings from reduced reconstructive surgery. Improved cosmetic outcome and reduced need for surgery are also likely to impact on patients' treatment preferences and on quality of life.

INFORMAL CAREGIVERS COSTS IN THE ELDERLY US POPULATION: A MULTIVARIATE REGRESSION MODEL OF THE VISUALLY IMPAIRED VERSUS UNIMPAIRED
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Informal caregivers are individuals who provided uncompensated care for their families and/or friends.

OBJECTIVES: To examine the impacts of visual impairment (VI) on costs associated with informal caregivers in the U.S. elderly population.

METHODS: We used data from the “Helper” file in the Asset and Health Dynamics Among the Oldest Old (AHEAD) Wave 1, a biennial prospective panel data collected for noninstitutionalized persons aged 70 years old and over between 1993 and 1994. Time spent by the informal caregivers (e.g., frequency of care per week, hours spent per day) was combined with hourly wage rates to calculate costs associated with informal care. VI was approximated by those who reported poor eyesight or legally blind in a self-reported health condition question. Multivariate regression models were used to evaluate the impacts of VI on informal care-givers’ costs while accounting for confounding factors such as demographics and comorbidities.

RESULTS: Use of informal caregivers was found in 64.2% of the visually impaired group, almost three times that of the visually unimpaired group (22.88%). On average, the visually impaired group received 20.5 hours of care weekly from informal caregivers, compared with a weekly average of 5.3 hours in the visually unimpaired group. The estimated monthly cost associated with informal caregivers was $980 for the visually impaired and $253 for the visually unimpaired. Using the logarithm of monthly costs as the dependent variable, the
multivariate regression analysis showed that after controlling for demographics, geographic regions, and comorbidities, the average cost of informal caregivers for the visually impaired was almost four times as high as that of the visually unimpaired.

CONCLUSIONS: Our study indicated that the marginal effect of VI on costs of informal care was higher than many other health problems commonly seen in the elderly, such as diabetes, arthritis, urinary incontinence, etc.

**COST ANALYSIS OF ISOTRETINOIN FOR SEVERE RECALCITRANT NODULAR ACNE**

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OBJECTIVE: Retrospective analysis of administrative claims data was performed to evaluate impact of a single course of isotretinoin therapy on direct cost of medical treatment for severe recalcitrant nodular acne (SRNA).

RESULTS: Total acne-related expenses declined from $471 (median, $311) per year prior to isotretinoin therapy to $135 (median, $48) per year after treatment (p < .01). More than 25% of subjects had no acne-related expenditures for at least 12 months post-isotretinoin. Direct costs (isotretinoin, systemic/topical antibiotics, laboratory tests, and doctor office visits) were examined, relative to individual subject characteristics (gender, age, health plan). Applying a published methodology, projections of annual cost of conventional therapy were made by costing an algorithm for treatment, including antibiotic and topical therapies (Bergfeld et al., J Am Acad Dermatol 1995;32 (suppl):S52–S56).

RESULTS: On average, subjects received isotretinoin for 141 days at cost of $1,231. Mean total acne-related expenses declined from $471 (median, $311) per year prior to isotretinoin therapy to $135 (median, $48) per year after treatment (p < .01). More than 25% of subjects had no acne-related expenditures for at least 12 months post-isotretinoin. Using projections for annual cost of conventional therapies, average total therapy-related expenditure for isotretinoin course ($1,543, year 2000 dollars) would be recouped in 8 months for treatment of minocycline + topical tretinoin; with shorter time to recoup cost with branded medications. Projections for combination therapy of topical tretinoin + either oral erythromycin or tetracycline, indicated that isotretinoin expenditure would be recouped in 1.9 to 2.3 years.

CONCLUSION: Isotretinoin therapy substantially reduces total acne-related direct medical expenditures and may result in substantial cost savings. In addition, the comparison of expense for isotretinoin therapy with the estimated annual cost of long-term conventional treatment demonstrates an opportunity for substantial healthcare savings in the treatment of SRNA.

**COST EFFECTIVENESS OF PHOTODYNAMIC THERAPY (PDT) WITH VERTEPORFIN IN THE UK**

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OBJECTIVES: Age related macular degeneration (AMD) is the leading cause of blindness in the United Kingdom and the rest of the western world, occurring in 15% to 30% of those over 75 years of age. About 15% of these patients develop a more aggressive wet form of the disease that causes severe loss of vision.

METHODS: Costs considered are those for treatment and social care for people with low vision. The benefit estimates come from a 2-year clinical trial of 609 patients that compared PDT with verteporfin to placebo. A Markov model was used to extrapolate the results of the trial to a 5-year time horizon. Transition rates in the model were based on a time-to-event analysis using a Weibull parametric hazard, with the assumption that the treated eye is the better seeing eye. Two outcomes were measured, vision years gained and quality adjusted life years (QALYs) gained.

RESULTS: The cost per vision year gained estimates range from £13,000 to £15,000 over 2 years, while those modeled to 5 years range from £5,000 to £9,000. The cost per QALY gained within the trial time frame range from £58,000 to £66,000, and is estimated to range from £22,000 to £43,000 at 5 years. Earlier intervention has greater expected cost effectiveness in the long term, in spite of more treatments being given overall. For example, with a 5-year follow-up, starting a treatment cohort at 20/40 yields an expected cost per QALY of £22,000–£30,000, but starting a cohort at 20/100 yields an expected cost per QALY of £34,000–£43,000. The main driver in the costs for the treatment group is the cost of therapy, and these costs are estimated to occur mainly in the first 2 years.

CONCLUSION: Early intervention may yield acceptable cost-effectiveness levels. Consideration should be given to early detection and treatment of people with AMD.