

coverage  $\geq 6$  months before (baseline period) and  $\geq 12$  months post-index date were selected from the MarketScan Commercial and Medicare Claims database (2005-2009). The index date was defined as the last day of conventional systemic or biologic drug coverage. Discontinuation was defined as no systemic or no biologic treatment for  $\geq 12$  consecutive months from the last day of systemic or biologic prescription coverage. Patients were classified as having discontinued from a biologic if there was evidence of biologic drug use during the baseline period; otherwise they were defined as having discontinued from non-biologic systemic therapy. Twelve-month average costs following discontinuation were reported. **RESULTS:** A total of 4,720 psoriasis patients met the selection criteria; 67.4% discontinued from non-biologic systemic therapy and 32.6% from biologic therapy. Over the 12-month period following discontinuation, total costs were \$10,577 (SD: 19,910) and \$9,001 (SD: 16,401) for biologic and non-biologic discontinuers, respectively ( $p=0.004$ ). Outpatient and medication costs were significantly higher for the biologic discontinuers compared to the non-biologic discontinuers (\$5,283 vs. \$4,449,  $p=0.003$ , and \$2,738 vs. \$2,470,  $p=0.022$ , respectively). There was no statistically significant difference in hospital/ER costs (\$2,556 vs. \$2,083,  $p=0.214$ , respectively). Outpatient costs accounted for approximately 50% of total costs for both cohorts. **CONCLUSIONS:** This study suggests that outpatient costs account for a substantial proportion of health care costs in psoriasis patients who discontinued from systemic or biologic therapy. Patients who had discontinued from biologic therapy incurred significantly higher outpatient and medication costs compared to patients who had discontinued from conventional systemic therapy.

#### PSS19

##### AN INNOVATIVE METHOD: APPLICATION OF NEGATIVE PRESSURE WOUND THERAPY IN THE TREATMENT OF CHRONIC LEG ULCERS – MEDICAL AND HEALTH ECONOMICS ASPECTS

Kovács LA<sup>1</sup>, Kádár Z<sup>1</sup>, Várszegi D<sup>1</sup>, Sebestyén A<sup>2</sup>

<sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>National Health Insurance Fund Administration, Pécs, Hungary

**OBJECTIVES:** Chronic leg ulcers without healing tendency present a serious public health and socio-economic issue. Rationally combining causal and conservative treatments with innovative methods, it would be beneficial to improve the effectiveness of wound treatment, thus reducing its financial impacts. The aim of study was to investigate the cost of conservative treatment and an innovative Negative Pressure Wound Therapy (NPWT). **METHODS:** The authors present cases of dermatological patients with severe, chronic leg ulcers of various etiologies resistant to conservative therapy (Patients-1: fasciitis necroticans; Patients-2: ulcer associated with chronic venous insufficiency; Patients-3: pyoderma gangrenosum), thus comparing the costs of conservative treatment (social insurance subsidies on bandages) and NPWT (not financed by social insurance) in each patient. Furthermore, the authors compare costs of NPWT cases with other cases (Patient-4: fasciitis necroticans; Patient-5: ulcer associated with chronic venous insufficiency; Patient-6: ulcer associated with rheumatoid arthritis), in which no NPWT was applied thus far due to financial reasons. (1USD\$=225 HUF, Hungarian Forint). **RESULTS:** Social insurance subsidies on bandages/patient (USD) in treatment period: Patient-1.: \$1324; Patient-2.: \$15495; Patient-3.: \$412; Patient-4.: \$11376; Patient-5.: \$10557; Patient-6.: \$7306. Cost of NPWT/patient and proportion of social insurance subsidies on bandages/patient: Patient 1.: \$1405 (106%); Patient 2.: \$667 (4.3%), Patient 3.: \$778 (188.9%). The cost of NPWT is relatively high, however, NPWT-treated leg ulcers have healed compared to cases receiving conservative treatment, which can be attributed to NPWT stimulating wound healing. **CONCLUSIONS:** Treatment of the disease resulting leg ulcer – causal therapy combined with NPWT – is beneficial in wound healing, reducing high costs of wound treatment, shortening the time of wound healing, improving the patient's quality of life. Application of NPWT in specialized centers of wound treatment and financing by social insurance would be recommended for cases not responding to conservative treatment in Hungary.

#### PSS20

##### DIFFERENTIAL DIAGNOSIS OF LEG ULCERS – MEDICAL AND HEALTH ECONOMICS ASPECTS

Kovács LA<sup>1</sup>, Várszegi D<sup>1</sup>, Kálmán E<sup>1</sup>, Sebestyén A<sup>2</sup>

<sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>National Health Insurance Fund Administration, Pécs, Hungary

**OBJECTIVES:** Incidence of chronic leg ulcers without healing tendency exceeds 1% among adults and 3-5% among people over 65 years. The burden of diseases caused by wounds without healing tendencies can only be estimated. Complications of chronic wounds are severe, life-threatening. Total social insurance subsidies on bandages in Hungary is 22-26 million USD/year. Using case studies the authors emphasize the importance of (differential) diagnosis, mistakes of wound treatment affecting healing and increasing costs of treatment, in contrast to therapy costs. **METHODS:** The authors present leg ulcer cases of various etiologies referred to the dermatological clinic, seeking mistakes of wound treatment, examining social insurance subsidies on bandages, based on bandage prescriptions. Patients 1-4.: Ulcus cruris due to chronic venous insufficiency; Patient 5.: Leg ulcer caused by lymphoedema; Patients 6-8.: Ulcerous malignancies treated as leg ulcers; Patient 9.: Ulcus cruris+myeloproliferative disease; Patient 10.: Bilateral leg ulcers resulting from cardiac decompensation and diabetes mellitus. (1USD\$=225 HUF, Hungarian Forint). **RESULTS:** Social insurance subsidies (USD) on bandages per patients and mistakes in wound therapy: Patient 1.: \$1857; Patient 2.: \$1639; Patient 3.: \$1787; Patient 4.: \$53329, lack of compression therapy and lymphatic massage; Patient 5.: \$12,567, lack of lymphatic massage; Patient 6.: \$213; Patient 7.: \$294; Patient 8.: \$2143, lack of correct diagnosis; Patient 9.: \$2993, no treatment of concomitant hematologic disease; Patient 10.: insufficient therapy of co-morbidities: diabetes, obesity, cardiac decompensation. **CONCLUSIONS:** Modern treatment of leg ulcers mainly aims at determining primary causes, treating diseases causing wound healing disorders, namely causal therapy. Inefficient wound treatment is costly, application of modern bandages without principles, not treating co-morbidities and treating on inadequate levels cause financial problems to both the patient and the social insurance. Introducing professional guidelines for wound

treatment, shortening "patient paths" and establishing centers of wound treatment would be recommended in Hungary.

#### PSS21

##### THE COST-EFFECTIVENESS OF INTRAVITREAL AFLIBERCEPT (IVT-AFL) IN TREATING NEOVASCULAR AGE-RELATED MACULAR DEGENERATION IN AN ITALIAN SETTING

D'Ausilio A<sup>1</sup>, Midena E<sup>2</sup>, Pilotto E<sup>2</sup>, Calligaris N<sup>3</sup>, Bianchi C<sup>3</sup>, Witttrup-Jensen KJ<sup>4</sup>

<sup>1</sup>Creativ Ceutical, Luxembourg, Luxembourg, <sup>2</sup>University of Padova, Padova, Italy, <sup>3</sup>Bayer Pharma, Milano, Italy, <sup>4</sup>Bayer Pharma AG, Berlin, Germany

**OBJECTIVES:** In Italy, standard treatment care of patients with neovascular ("wet") age-related macular degeneration (wAMD) is currently performed with ranibizumab (RBZ) on as-needed basis (PRN). The objective of this study was to assess the cost-effectiveness of intravitreal aflibercept (IVT-AFL), administered every other month vs. RBZ PRN treatment, in the Italian treatment setting. **METHODS:** A Markov model was built to compare IVT-AFL compared to RBZ PRN in wAMD. Health states were based on visual acuity in the better-seeing eye. In the model, patients may remain in the same status (same visual acuity), progress to another status or die. A proportion of patients may also discontinue treatment monthly or upon becoming blind. Parameters were estimated from two randomized phase III studies VIEW 1/VIEW 2, published literature or expert opinions. Analyses were performed from the Italian Healthcare perspective, using a 20-year time horizon (starting age was 77 years). The simulation model calculated costs (drug, administration, monitoring, vision impairment and adverse events), quality-adjusted life-years (QALYs) and incremental cost-effectiveness ratios (ICERs), all discounted at 3% annually. Deterministic and probabilistic sensitivity analyses (SA) were performed to test the robustness of the results. **RESULTS:** IVT-AFL costs 30,852€ compared with 33,636€ for RBZ PRN; QALYs totaled 2.651 for IVT-AFL and 2.638 for RBZ-PRN respectively. IVT-AFL is associated with less cost and more QALYs gained than RBZ-PRN and hence dominates RBZ PRN. Deterministic SA showed that the results were most sensitive to changes in efficacy and time horizon, while probabilistic SA showed that 90% of the iterations fell within the cost-effectiveness threshold deemed acceptable for Italian Payers (for example €40,000). **CONCLUSIONS:** Results indicate that, within the Italian treatment setting, attainment of maximal visual gains via IVT-AFL is cost-saving that means less costly and more effective (more QALYs gained) compared to RBZ PRN.

#### PSS22

##### COST-EFFECTIVENESS OF RANIBIZUMAB FOR THE TREATMENT OF VISUAL IMPAIRMENT DUE TO CHOROIDDAL NEOVASCULARIZATION SECONDARY TO PATHOLOGIC MYOPIA IN THE UNITED KINGDOM

Leteneux C<sup>1</sup>, Claxton L<sup>2</sup>, Malcolm WA<sup>3</sup>, Taylor M<sup>2</sup>, Rathi H<sup>4</sup>

<sup>1</sup>Novartis Pharma AG, Basel, Switzerland, <sup>2</sup>York Health Economics Consortium, York, UK,

<sup>3</sup>Novartis UK, Frimley, UK, <sup>4</sup>Novartis Healthcare Pvt.Ltd., Hyderabad, India

**OBJECTIVES:** To evaluate the cost-effectiveness of ranibizumab compared with verteporfin photodynamic therapy (vPDT) for the treatment of patients with visual impairment due to chorooidal neovascularization (CNV) secondary to pathologic myopia (PM). **METHODS:** A Markov model with a 3-month cycle length and health states defined by best-corrected visual acuity (BCVA) was developed from the UK health care provider perspective. A lifetime time horizon was applied, and future costs and outcomes were discounted at 3.5%/year. Baseline characteristics were derived from the phase 3 RADIANCE study; year 1 health state transitions and treatment frequency were based on the RADIANCE study and a vPDT study (VIP). Treatment was given beyond year 2 only in cases of mCNV recurrence (6%/year). Existing literature was used to estimate BCVA transitions beyond 12 months. Health states were based on the visual acuity of the study eye, which could be each patient's better-seeing eye (BSE) or worse-seeing eye (WSE). BSE utility values came from a published source. **RESULTS:** The mean lifetime cost of ranibizumab treatment was slightly lower than the cost of vPDT. Ranibizumab was associated with higher lifetime quality-adjusted life-years (QALYs) than vPDT (relative gain of 0.43), reflecting higher utility values and reduced mortality with ranibizumab. Ranibizumab therefore dominated vPDT. Ranibizumab had a 100% probability of being cost-effective compared with vPDT at a willingness-to-pay threshold of £20 000 per QALY. The model was sensitive to the number of ranibizumab injections in year 1. Ranibizumab remained cost-effective even when the mean number of ranibizumab injections increased from 3.5 (base case) to 12 and the mean number of vPDT treatments remained constant (3.4) in year 1. **CONCLUSIONS:** Ranibizumab is less costly and is associated with a gain in QALYs relative to vPDT for the treatment of patients with visual impairment due to CNV secondary to PM in the UK.

#### PSS23

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

Betts KA<sup>1</sup>, Sundaram M<sup>2</sup>, Mughal F<sup>3</sup>, Yan SY<sup>1</sup>, Signorovitch J<sup>1</sup>, Wang K<sup>2</sup>, Wu EQ<sup>1</sup>

<sup>1</sup>Analysis Group, Inc., Boston, MA, USA, <sup>2</sup>AbbVie Inc., North Chicago, IL, USA, <sup>3</sup>AbbVie Ltd., Maidenhead, Berkshire, UK

**OBJECTIVES:** To evaluate the cost-effectiveness of biologic treatments for moderate to severe psoriasis in the UK. **METHODS:** A decision model similar to those utilized in NICE appraisals TA103, TA134, TA146, and TA180 was constructed consisting of 2 distinct periods, the trial and treatment periods. Clinical efficacy was estimated during the trial period based on the relative probabilities of achieving Psoriasis Area and Severity Index (PASI) response (50/75/90) obtained via a network meta-analysis of 15 randomized controlled trials of adalimumab, etanercept, infliximab, and ustekinumab. Weight-based dosing was calculated for infliximab and ustekinumab to reflect licensed use. Only patients who achieved PASI 75 response in the trial period continued into the treatment period. Treatment benefits were determined by the relationship between predicted PASI response and the EQ-5D health utility measure. Costs (2011 British pounds) were assessed from a UK National Health Services perspective and included drug acquisition, administration, monitoring and hospitalization