Keeping in mind the caveats associated with cross trial comparisons, the analysis suggested increased effectiveness of LEN over BCN in MM patients with refractory/relapsed MM. These findings, along with the current route of administration and established safety profile suggest that LEN should be the preferred agent for refractory/relapsed MM.

**PSYS COMPARING BRENTUXIMAB VEDOTIN OVERALL SURVIVAL DATA TO STANDARD OF CARE IN PATIENTS WITH RELAPSED/REFRACTORY HODGKIN LYMPHOMA (HL) POST-AUTOLOGOUS STEM CELL TRANSPLANT (ASCT)**


**OBJECTIVES:** Health care decision makers require estimates of the incremental health benefit of any new technology relative to existing treatments. For treatments targeting small patient subgroups, randomised controlled trial (RCT) data is often unavailable requiring alternative methods to estimate comparative efficacy. We illustrate two approaches, using the example of brentuximab vedotin.

**METHODS:** Brentuximab vedotin has been studied in HL patients relapsed following ASCT (SG035-008, Yones et al, JCO 2012). We compare 2-year survival data from the 0001 study to: (1) A systematic review in ASCT failures – carried out according to standard methods; no restrictions on study design/treatment. Percentages of patients alive at six-month intervals for up to five years were extracted. Comparative graphs were produced, with proportions of patients alive in each study versus time, each point sized to reflect number of patients/study (2) A large observational study, adjusted to reflect prognosis in 0003 – Martinez 2010, reported OS according to whether patients had 0, 1 or ≥2 risk factors. Results were reported for chemotherapy+/radiotherapy and allologeneic SCT. Survival curves for the comparison were re-weighted to reflect the proportion of patients with 0, 1 or ≥2 risk factors in the 0003 trial. **RESULTS:** Thirty-one studies reported retrievable OS for radiotherapy, chemotherapy, palliative care, or allologeneic SCT or ASCT. OS for brentuximab vedotin was higher than or very similar to all but five small (p < 0.05) studies. The adjusted Martinez 2010 comparison estimated 2 year OS of 49% and 48% for chemotherapy-/radiotherapy and ASCT. OS for brentuximab vedotin at 2 years is 65% compared favorably to Martinez 2010 conclusions. Both methods suggested a favorable OS profile for brentuximab vedotin when compared to other reported data sets. If available, access to individual patient data from the Martinez 2010 study would allow use of more advanced methods to adjust for potential confounders.

**SYSTEMIC DISORDERS/CONDITIONS - Cost Studies**

**PSY6 ECONOMIC EFFICIENCY OF FERRIC CARBOXYMALTOSE TO TREAT OR PREVENT IRON DEFICIENCY ANEMIA: VALUE TO THE PORTUGUESE HOSPITALS**

Ferreira D, Silva M, Vandewalle B, Félix J  

**OBJECTIVES:** Among the approved intravenous iron formulations, ferric carboxymaltose is the most efficacious in the treatment or prevention of iron deficiency anemia, it’s less burdensome to administer (easier and shorter time administration) and it reduces the need for expensive resource utilization like erythropoietin and blood transfusions. The objective was to develop a tool to assess the cost-effectiveness of ferric carboxymaltose compared to different intravenous iron formulations in the Portuguese hospitals.

**METHODS:** A fully parameterized Microsoft® Excel based tool was developed to compare the economic efficiency of intravenous iron formulations available to the Portuguese hospitals: ferric carboxymaltose (Ferinject®); ferric hydroxide saccharose (generic and Venoferr®); ferri hydroxide dextran (Cosmofer®). Economic efficiency was calculated as the balance between hospitals incurred costs relative to the number of patients to be treated, the dose and number of administrations of intravenous iron, and the need for erythropoietin and blood transfusions. The tool default values are from a literature review used to populate the model. The tool allows studying the cost and benefits of treating/preventing chronic kidney disease, inflammatory bowel disease, chemotherapy, and orthopedic surgery related anemia. **RESULTS:** Ferric hydroxide saccharose (generic) is the most used and lower price intravenous iron in Portugal. Relative to generic ferric hydroxide saccharose (FHS), ferric carboxymaltose (FC) is estimated to lower mean per patient annual costs in all four anemic profiles (FHS) for inflammatory bowel disease; 3,626.17 € (FHS) for radiotherapy, chemotherapy, palliative care, or allogeneic SCT or ASCT. OS for brentuximab vedotin is estimated to lower mean per patient annual costs in all four anemic profiles. OS for radiotherapy, chemotherapy, palliative care, or allogeneic SCT or ASCT. OS for brentuximab vedotin was higher than or very similar to all but five small (p < 0.05) studies. The adjusted Martinez 2010 comparison estimated 2 year OS of 49% and 48% for chemotherapy-/radiotherapy and ASCT. OS for brentuximab vedotin at 2 years is 65% compared favorably to Martinez 2010 conclusions. Both methods suggested a favorable OS profile for brentuximab vedotin when compared to other reported data sets. If available, access to individual patient data from the Martinez 2010 study would allow use of more advanced methods to adjust for potential confounders.

**PSY7 SOCIETAL BURDEN ASSOCIATED WITH NEUROPATHIC PAIN IN EUROPE**

Hatzikou M, Gengo T, Giganitsi S, Haralakis N  

**OBJECTIVES:** NNT is a useful approach to compare treatments in the absence of direct comparative clinical trials. imatinib, nilotinib and dasatinib are approved as first-line treatments for patients newly diagnosed with Philadelphia chromosome-positive chronic myeloid leukemia. A major objective of this analysis is to compare these treatments with regards to: (1) the NNT to achieve one MMR by 12 months (2) the cost of achieving one MMR and the annual cost treatment including of adverse events (AEs) from the perspective of the Greek National Health System (NHS). **METHODS:** MMR and AE rates were taken from the CML-CP frontline trials – DASISION (dasatinib 100mg QD vs imatinib 400mg QD) and ENESTnd (nilotinib 300mg BID vs imatinib 400mg QD). The NNT was calculated as the inverse of the MMR rate of 12 months (1/MMR). AEs management costs were estimated from a patient perspective, at Evangelismos Hospital and multiplied by the incidence reported in the trials. **RESULTS:** The nilotinib NNT was 51% lower than the imatinib NNT in ENESTnd (1.8 vs. 3.7) and the dasatinib NNT was 39% lower than the imatinib NNT in DASISION (2.2 vs. 3.6). Annual cost of nilotinib including cost of AEs is 39% lower at €34,349, dasatinib €35,904 and of imatinib €25,040. The cost of achieving 1 MMR is €624,543 for nilotinib, €788,389 for dasatinib and €927,741 for imatinib. Therefore, the cost of achieving 1 MMR with nilotinib is lower by 20.3%, dasatinib 33% and imatinib 35% vs. imatinib. **CONCLUSIONS:** The NHS findings and the differential cost of managing AEs in each treatment from this evaluation suggests that nilotinib provides better clinical outcomes and would result in lower costs for hematologic AE management from the perspective of the Greek NHS.

**PSY9 REAL-LIFE COST-ANALYSES OF CHRONIC LOW-BACK PAIN PATIENTS WITH NEUROPATHIC PAIN COMPONENTS IN DENMARK**

Kaarsholm B, Poulsen J, Oldenburg B, Schwartz-Christensen B  

**OBJECTIVES:** To evaluate the healthcare and productivity costs in chronic low back pain (CLBP) patients with a probable neuropathic pain (NeP) component before and after the initiation of pregabalin, gabapentin or a TCA (tricyclic antidepressant). **METHODS:** Patients with primary diagnosis of CLBP (ICD-10: M43, M45-48, M50-51, M53-54) and at least two prescription claims for either pregabalin, gabapentin or a TCA were identified using data from the National Patient Registry, the Medical Registries, and other registries (2004-2010). Patients identified with generalized anxiety disorders or seizures were excluded. The index date was considered the first prescription for pregabalin, gabapentin or a TCA. Descriptive assessments of health care and productivity costs were conducted 12 months pre and 12 months post the index date using the full dataset. To control for selection bias, a propensity score matched cohort controlling for age, gender, socioeconomic status, education, depression, and health care use was also conducted. Statistical tests performed the Wilcoxon signed rank test. **RESULTS:** A total of 6,035 patients with NeP met the inclusion criteria (treatment courses included: 3,507 TCA; 2,735 pregabalin, and 723 gabapentin). Twelve months health care costs increased significantly in all 3 groups (P<0.001). Matched sub-analyses covering 2,172 matched cases in the treatment group showed a significant health care cost increases; however, the pregabalin group was the only group to result in a significant reduction in hospitalization costs (P=0.03). Across all three groups number of job losses was reduced, whereas long-term sickness increased; however, insignificantly so in the pregabalin group. **CONCLUSIONS:** This study showed increased health care costs 12 months after the initiation of NeP drug treatment in CLBP patients with NeP. In matched analyses the increased health care costs in the pregabalin group were partly offset by significant savings in hospitalization costs. Production lost increased in all three groups; however, only significant in the TCA and gabapentin group.