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## INTRODUCTION:

Rheumatoid arthritis (RA) is an inflammatory, autoimmune disease of unknown etiology that usually results in joint lesions and physical incapacitation. RA treatment includes disease-modifying antirheumatic drugs (DMARD), synthetic (sDMARD) and/or biologics (bDMARD). In this study we carried out a cost-utility analysis comparing Adalimumab (ADA) versus Etanercept (ETA), with or without synthetic DMARDs ( $\pm$  sDMARD).

## METHODS:

Effectiveness measures used were the Clinical Disease Activity Index (CDAI) and Quality-Adjusted Life Years (QALY) obtained from an open prospective cohort study with Brazilian RA patients. Costs were obtained from a historical cohort composed of every patient who was prescribed medicines to treat RA in the State of Minas Gerais, Brazil. A public sector perspective was adopted. The Markov model included six-month cycles, time horizon of 5 years and 5 percent discount rates. Sensitivity analyses were performed by varying costs and outcome values.

## RESULTS:

There was no significant difference in effectiveness between the two bDMARDs. Treatment with ETA ( $\pm$  sDMARD) was more expensive after 5 years of follow-up: incremental cost of USD28,210.87. Overall, treatment with ADA ( $\pm$  sDMARD) was more cost-effective: incremental cost-effectiveness ratio for ETA ( $\pm$  sDMARD) was USD79,148.34/ QALY. Sensitivity analysis showed that this was sensitive to changes in the cost of ETA ( $\pm$  sDMARD).

## CONCLUSIONS:

Currently two Anti-tumour Necrosis Factor Alpha (anti-TNF alpha) medicines – ADA and ETA are available within the Brazilian public health system in addition to infliximab. Treatment with ADA ( $\pm$ sDMARD) was more cost-effective with an incremental cost effectiveness ratio for ETA ( $\pm$ sDMARD) at USD79,148.34 per QALY.

Sensitivity analysis showed that outcomes are sensitive to changes in the cost of ETA ( $\pm$  sDMARD) treatment. Overall, both therapeutic alternatives are valuable from the public sector perspective especially when the Clinical Protocol and Therapeutic Guidelines are properly applied in patients no longer responding to treatment. Alternatives are needed as some patients will respond differently to different anti-TNF alpha medicines.

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## VP54 Costs And Benefits Of Intensive Inpatient Rehabilitation After Stroke

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### INTRODUCTION:

This study estimated, from the societal perspective, the costs and benefits of the intensive inpatient rehabilitation treatments (IIRT) on patients after stroke using the interim results of a large ongoing registry in Korea, the Korean Stroke Cohort for Functioning and Rehabilitation (KOSCO) (1).

### METHODS:

Among others, the benefits were measured by two major cost savings: (i) decrease in government disability subsidy and (ii) caregiver savings. One of the KOSCO study results showed the functional status of the post-stroke patients, measured by the Korean Modified Barthel Index (K-MBI), improved significantly and the disability grades, which the government is using to classify the subsidy amount, reduced as well. Caregiver cost savings were calculated by K-MBI improvements, the average daily compensation of caregivers (USD58.33) and the average period of caregiving. To measure the cost of IIRT on post-stroke patients, the average costs reported by a National Evidence-based Healthcare Collaboration Agency (NECA) Health Technology Assessment report was used (2).

## RESULTS:

The disability grade improvements showed savings of government subsidy by USD58.65 to USD478.39 depending on the patient income from the registry. The average caregiving cost decrease was USD6,042 annually. The average cost of IIRT on post-stroke patients was USD926.34 for the first year.

## CONCLUSIONS:

This study estimated the cost-benefit of IIRT on post-stroke patients using the KOSCO study interim data. The intensive rehabilitation treatment improves patients functional status significantly enough to save two major cost items, the disability grades which also resulted in a decrease in government subsidy amounts and the caregiver costs which the patient family has to pay in Korea. The results warrant the use of IIRT for the post-stroke patients in Korea from the societal perspective.

## REFERENCES:

1. Chang WH, Sohn MK, Lee J, et al. Role of Intensive Inpatient Rehabilitation for Prevention of Disability after Stroke: The Korean Stroke Cohort for Functioning and Rehabilitation (KOSCO) Study. *Brain Neurorehabil.* 2016;9(2):e4. <http://doi.org/10.12786/bn.2016.9.e4>
2. Jang BH, Ahn J, Kim JM, et al. Analysing the status of medical care utilization and indentifying the factors associated with medical care utilization of stroke patients. National Evidence-based Healthcare Collaboration Agency report 2012. [http://neca.re.kr/center/paper/report\\_view.jsp?boardNo=GA&seq=73&q=626f6172644e6f3d4741](http://neca.re.kr/center/paper/report_view.jsp?boardNo=GA&seq=73&q=626f6172644e6f3d4741)

# VP55 Health Technology Assessment Of Orphan Drugs: The Case Of Hereditary Angioedema In Italy

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## INTRODUCTION:

The evaluation of orphan drugs raises both positive and normative issues. Due to the rarity of the disease, higher drug costs and greater uncertainty on effectiveness often result in incremental cost-effectiveness ratios (ICER) far beyond the usually accepted thresholds for reimbursement. However, decision makers may need to consider other criteria to assess the social value of orphan drugs such as equity, the rule of rescue, and the perceived need in the community. Hereditary Angioedema (HAE) is a rare congenital deficiency resulting in recurrent attacks of angioedema in affected patients. These episodes cause extreme pain and distress, and may even be fatal when air pathways are involved. In Italy, icantibant or C1-Esterase-Inhibitors (C1-INH) are the indicated treatments for acute attacks. Although more expensive, icantibant may reduce time to symptom-relief and the need for further treatments. Nonetheless, evidence on its social value is missing. The present study aims at evaluating the cost-effectiveness of icantibant and providing new insights on other potentially relevant criteria for decision making on HAE treatments.

## METHODS:

A cost-effectiveness model of icantibant versus C1-INH (Berinert) was developed. Using a two-part bayesian model, costs were estimated from real-world data of an unpublished national registry. Efficacy data were synthesized from both the registry and an indirect comparison of existing trials, whereas utilities were derived from the literature.