

Economic burden of disease in patients with exudative age-related macular degeneration

using common data model in South Korea

Choi Kyungseon¹, Park Sang Jun², Han Sola¹, Hae Sun Suh^{1*}

¹Laboratory of Pharmaceutical Economics, Big Data Analysis & Policy, College of Pharmacy, Kyung Hee University, Seoul, South Korea

²Department of Ophthalmology, Seoul National University Bundang Hospital, Gyeonggi-do, South Korea

*Corresponding author

INTRODUCTION

- The aim of this study is to estimate the economic burden of disease in exudative age-related macular degeneration patients using common data model.

METHODS

- Study design: A retrospective cohort study
- Data source: Electronic medical records of Seoul National University Bundang Hospital which is standardized to OHDSI's OMOP-CDM version 5.3

Study population

The eAMD group

- Patients having all followings:
 - 1st Prescription of anti-VEGF or verterporfin
 - 1st Diagnosis of eAMD before 1 year over 50 years
 - No history of condition using anti-VEGF or cancer

The non-eAMD group

- Patients having all followings:
 - 1st Diagnosis of any diagnosis over 50 years
 - No history of anti-VEGF or condition using anti-VEGF or cancer

Statistical analysis

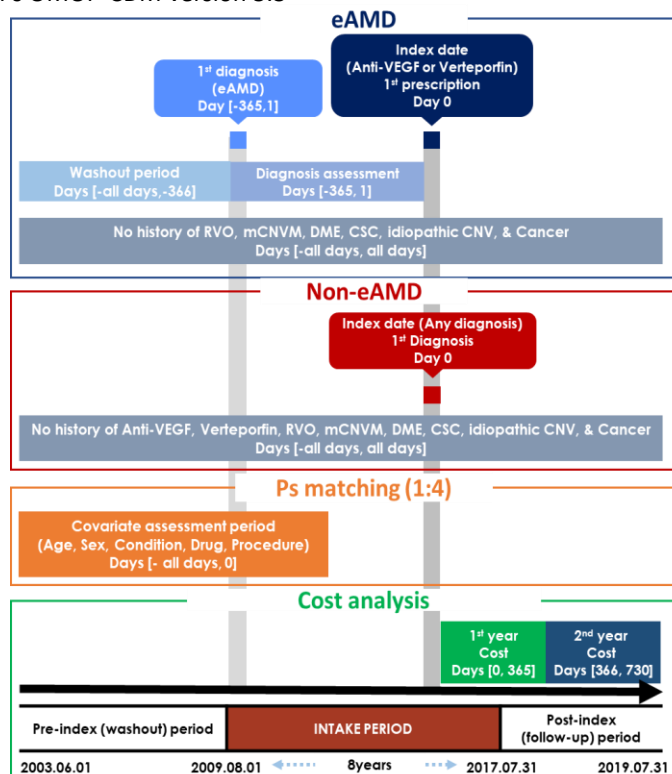
Propensity Score Matching

- Regularized logistic regression (LASSO) for demographic data, condition, drug, procedure, and CCI

The exponential conditional model (ECM)

- Generalized linear model (GLM) with Gamma distribution for medical cost in first year and second year

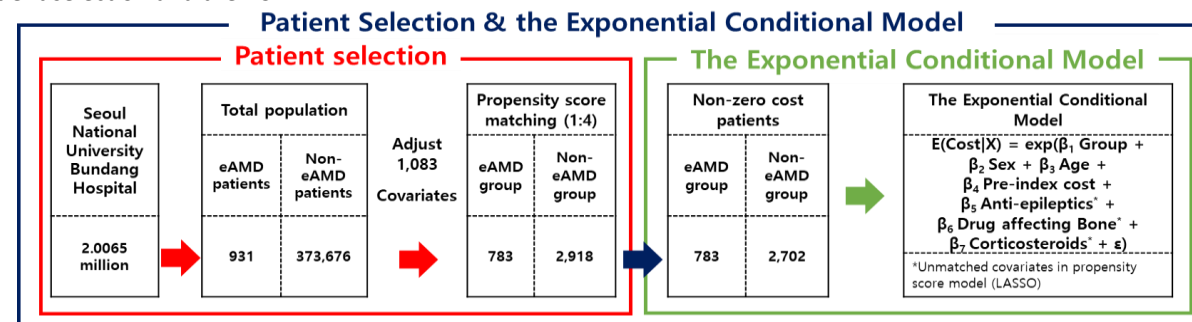
- Covariates: demographic data, pre-index cost, unmatched variables in propensity score matching



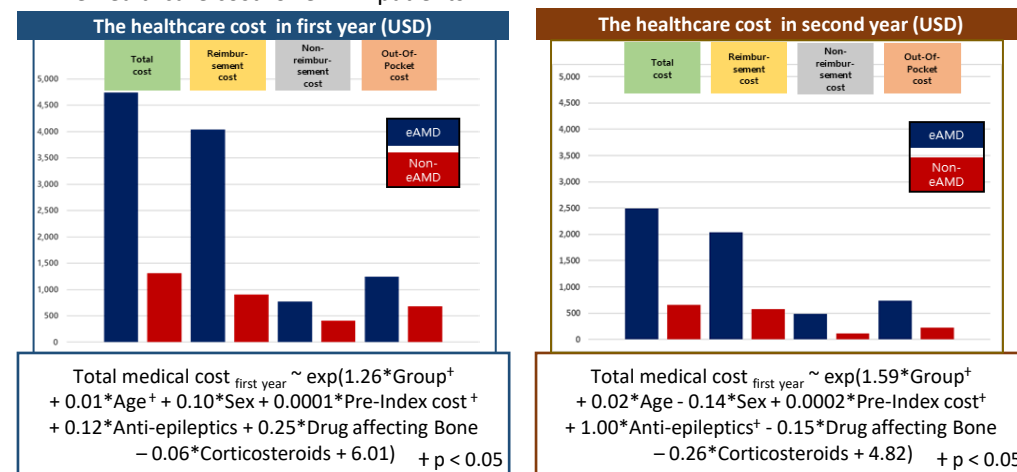
Abbreviations: Anti-VEGF, Anti-Vascular Endothelial Growth Factor therapy; CCI, Charlson Comorbidity Index; CNV, Choroidal Neovascularization; CSC, Central Serous Chorioretinopathy; DME, Diabetic Macular Edema; eAMD, exudative age-related degeneration; RVO, Retinal Vein Occlusion

RESULTS

- Patient selection and the ECM



- The healthcare cost for eAMD patients



Result of total medical cost in the ECM

- Compared to the non-eAMD group, the total medical cost of the eAMD group were **3.52** times higher in the first year, and **4.90** times higher in the second year.

Contact: kyungseon.choi@khu.ac.kr

CONCLUSIONS

- All cost were significantly higher in the eAMD group up to the second year.
- In conclusion, eAMD disease was associated with high medical costs.

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