

ECONOMIC IMPACT OF IMPLEMENTING TREAT-AND-EXTEND PROTOCOL IN AGE-RELATED MACULAR DEGENERATION (AMD) IN A HEALTH INSURANCE COMPANY IN BRAZIL

AUTHORS:

JOSE MARIO ALVES JUNIOR, FLAVIO ARANHA LEITE JR, JEAN CARLOS BASTOS MARTINELLI, CARLA SILVA, DANILO VILLAGELIN, EDSON YAMANAKA, ANTONIO CHRISPIM, FRANCISCO EDUARDO PROTA, GERSON MURARO LAURITO

INTRODUCTION

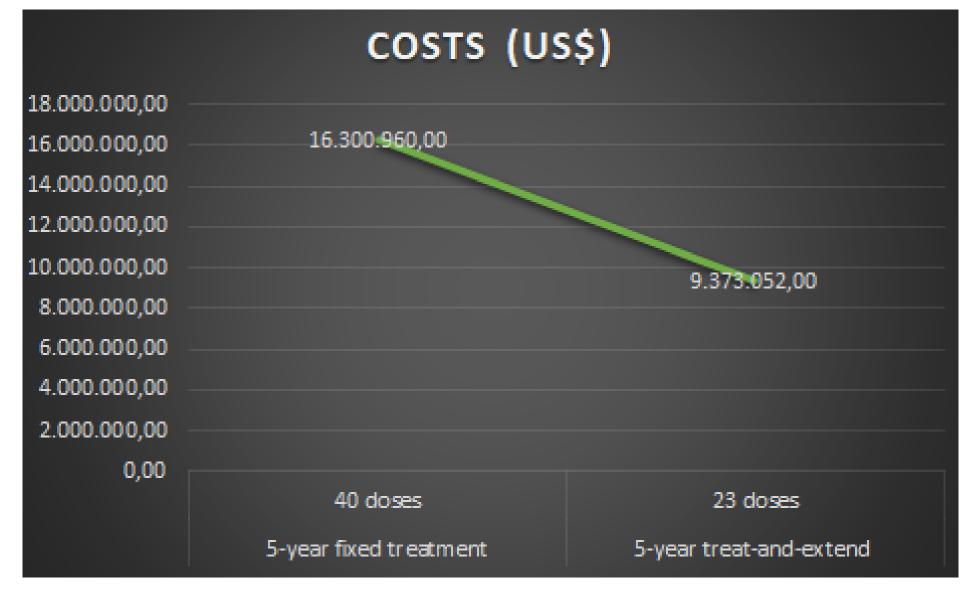
The burden of chronic diseases with the world population aging is a challenge for all countries, especially for developing countries with limited financial resources. Age-related macular degeneration (AMD) is a chronic and progressive disease that leads to decreased visual acuity. Its treatment is the use of anti-VGF medication, which is implicated at a high cost for health insurance companies. Aflibercept is a well-known anti-VGF and used for years. Some treatment models are being used. First and more traditionally is with fixed applications (FA) and second is the treat and extend (TE).

OBJECTIVES

Compare the costs of two models of age-related macular degeneration (AMD) treatment in a health insurance company in Brazil.

METHODS

Real-life study evaluating the number of users being treated for AMD, data were extracted from the Unimed Campinas Health Insurance Database. From this database, the number of patients and the respective cost of treatment with anti-VEGF agents were obtained, considering all patients using ranibizumab and aflibercept. For estimation, the adoption of the standard fixed treatment (group 1) and treat and extend (group 2) protocol proposed by the "American Academy of Ophthalmology" (AAO) was considered.



RESULTS

There are currently 922 patients using anti-VEGF therapy for AMD. The average cost of this therapy is approximately US\$442.00 per application using the 5year fixed-treatment model, 40 doses of these drugs will be used, while using the 5-year treat-and-extend model, 23 doses will be used. The costs with group 1 are US\$16,300,960.00 and for group 2 are US\$9,373,052.00 in five years. This estimate shows an approximate 43% reduction, almost 7 million dollars. Assuming 50% of patients reach the maximum extension interval of 12 weeks as proposed by recent randomized studies, the adoption of the protocol will result in an approximate savings of US\$3,463,954.00 in 5 years.

CONCLUSIONS

AMD is a chronic disease with significant costs in all countries, especially in developing countries with limited financial resources. The treat and extend protocol has an important impact on reducing the cots allowing for better resource allocation.

^{1.}AETNA. VASCULAR ENDOTHELIAL GROWTH FACTOR INHIBITORS FOR OCULAR INDICATIONS, 2021. AETNA

^{2.} EMA-EUROPA. PRODUCTINFORMATION - EYLIA. EMA.

^{3.}AMERICAN ACADEMY OF OPHTHALMOLOGY-AAO JOURNAL. PROSPECTIVETRIALOFTREAT-AND-EXTEND VERSUS MONTHLY DOSING FOR NEOVASCULAR AGE-RELATED MACULAR DEGENERATION, 2015. AMERICAN ACADEMY OF OPHTHALMOLOGY.

^{4.}THE ROYAL COLLEGE OF OPHTHALMOLOGISTS-U.K. AGE RELATED MACULAR DEGENERATION SERVICES: COMMISSIONINGGUIDANCE, 2021. THE ROYAL COLLEGE OF OPHTHALMOLOGISTIS.