Cost of nAMD management in 3rd level hospitals in Spain. Comparison of unitary cost system vs national cost database

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INTRODUCTION Economic analysis to compare across country, region on hospital usually are limited by the cost imputation to services/resources used for disease management.

OBJECTIVE Compare the costs of hospital neovascular Age-related macular degeneration (nAMD) management using a unitary cost model vs cost from a national cost database.

METHODS

Cross sectional analysis of patients attended in two 3rd level hospitals in Spain from 2017 to 2018. Cost were calculated by a validated unitary cost system (SISCOST) and price tag of costs in the ophthalmology service

Results were compared with a published paper[1] analyzing cost of nAMD management in five 3rd hospitals in Spain, which used cost imputation from a national cost database

RESULTS

Patients from both studies were comparable. In our study (1.302 patients and 1.644 eyes treated) In the Current study the **average number of injections per patient per year was 5.15**, with good visual acuity results. **Mean annual cost per patient was 2.738,43€** and 2.339,63€ for patients with only one eye affected.
The cost of anti-VEGF drug represents 66,38%, while tests, visits and other examinations was 33,62%.

Data from the literature derived in **an average of 4,8 injections** (no info on visual acuity) and the **annual cost per patient was 4.727€**.

The cost of anti-VEGF drugs represented 37,8% and test, visits and other examinations was the 52,6%

Demographic characteristics current study

Number of patients	1.302
Patients treated in both eyes (%)	26
Age (years)	79,9
Gender female (%)	41,1
One eye	40,42
Both eyes	42,98
Number of eyes (n)	1.644
Incident eyes	753
Prevalent eyes	891
Overall treatments (intravitreal injections)	13.155
Treatment per patient	10,10
Treatment per eye	8,00
Annual treatment per eye	5,15
Incident cases	5,44
Prevalent cases	4,87

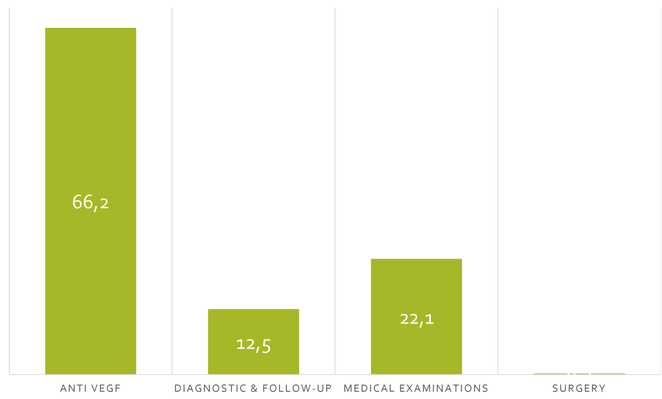
Number of anti-VEGF treated patients, current study

	Number of visits	OCT	Angiography
Overall	11.641	11.011	753
Incident patients	7.955	7.698	347
Prevalent patients	3.686	3.313	406
Per prevalent patient	*11,6*	*11,2*	*0,5*
Per prevalent patient-year	***5,8***	***5,6***	***0,3***
Per incident patient	*6,0*	*5,4*	*0,7*
Per incident patient-year	***4,6***	***4,1***	***0,5***

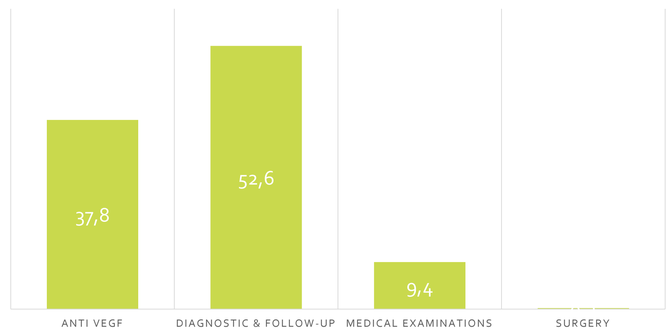
Trends in visual acuity (VA), current study

	Overall	Prevalent cases	Incident cases
Overall # eyes	**1.490**	**779**	**711**
Average VA (basal)	**0,593**	**0,547**	**0,644**
SD	*0,386*	*0,362*	*0,405*
Increase of Average VA (end of study)	**0,0045**	**0,0146**	**-0,0065**
% variation	**0,76**	**2,66**	**-1,01**

Overview of costs distribution CURRENT STUDY



Overview of costs distribution LITERATURE[1]



CONCLUSION Disease management cost is highly affected by methodology and specially data sources. **The unitary cost is the preferred methodology over the cost country databases**, since minimizes regional biases and average measures. Also, it allows **major control** and **best representativeness** at hospital level.

1.- Ruiz-Moreno JM, Arias L, Abraldes MJ, Montero J, Udaondo P, The RAMDEBURS study group. Economic burden of age-related macular degeneration in routine clinical practice: the RAMDEBURS study. Int Ophthalmol https://doi.org/10.1007/s10792-021-01906-x