COST OF FOLLOW-UP AFTER AN ISCHEMIC HEART DISEASE EVENT IN PATIENTS WITH ATHEROSCLEROTIC CARDIOVASCULAR DISEASE IN SPAIN. RESULTS FROM THE REALITY STUDY

Reality

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INTRODUCTION

- Ischemic heart disease angina and acute myocardial infarction (AMI) are one of the main causes of morbidity and mortality in developed countries and entails a high resources consumption and costs for health systems[1-3].
- The risk of suffering future CV events (ASCVD) and the consequent consumption of resources is increased in those patients who have suffered a previous AMI[4,5].
- In Spain, there is little evidence available on the administration of lipid-lowering treatments in clinical practice and their effectiveness in patients with ASCVD and hypercholesterolemia[6].
- Dimensioning the magnitude of ASCVD can help inform decision-making in Health Systems

OBJECTIVE

The aim of this study was to estimate the average annual cost per patient with a new diagnosis or new episode of angina and AMI.

METHODS

- A retrospective observational study of the electronic medical records of patients from the BIG-PAC® database (patients from 7 integrated areas of 7 Spanish Regions; n=1.8 million) was carried out.
- Patients with a new/recurrent Ischemic heart disease episode between 1/1/2017 and 12/31/2018 were included.
- Direct healthcare costs (DHCC) were calculated from the consumption of resources during follow-up (two years from diagnosis) and the mean of the Regions official published tariff.
- The indirect non-health costs (INHCC) associated with the loss of productivity were determined.
- All costs were updated to €2021.

RESULTS

- The following figures and tables show: the demographic features and follow-up events (table 1); the resource consumption - hospital admissions and visits (figures 1 & 2) and diagnostic tests (figures 3 & 4); the direct healthcare costs (table 2) and non-healthcare costs (table 3); and a cost summary (table 4).

Table 1. Demographics features and follow-up events

	Angina	IAM	Total
n	6,794	5,556	12,350
Age (years) (mean [SD])	69.6 [11.5]	68.5 [12.3]	
Gender (Male %)	4,278 (63%)	3,324 (59.8%)	7,602 (61.6%)
Follow-up events			
New ASCVD event	2,134 (31.4%)	1,378 (24.8%)	3,512 (28.4%)
Deaths - n (%)	500 (7.4%)	298 (5.4%)	798 (6.5%)

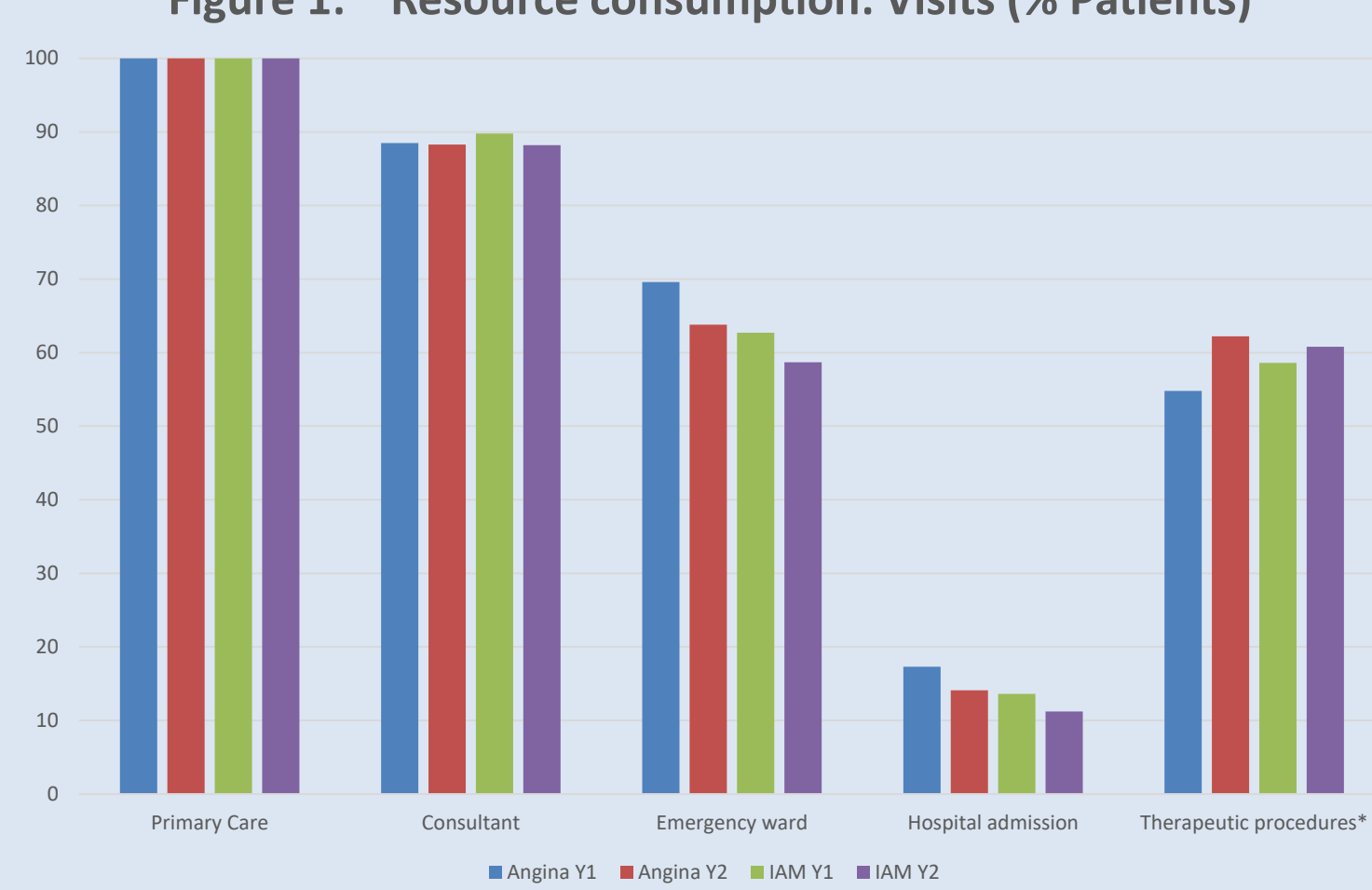Figure 1: Resource consumption: Visits (% Patients)

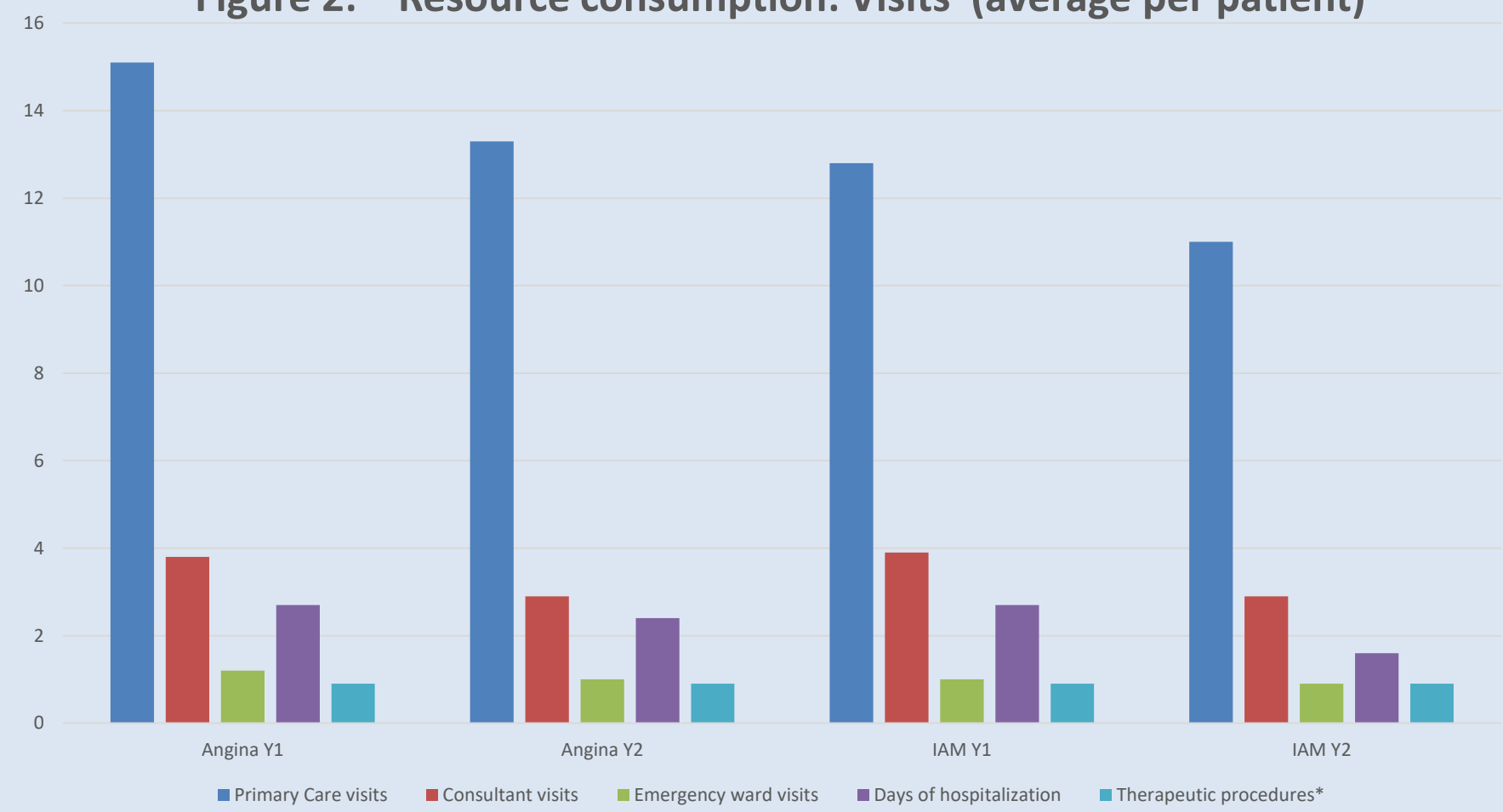Figure 2: Resource consumption: Visits (average per patient)

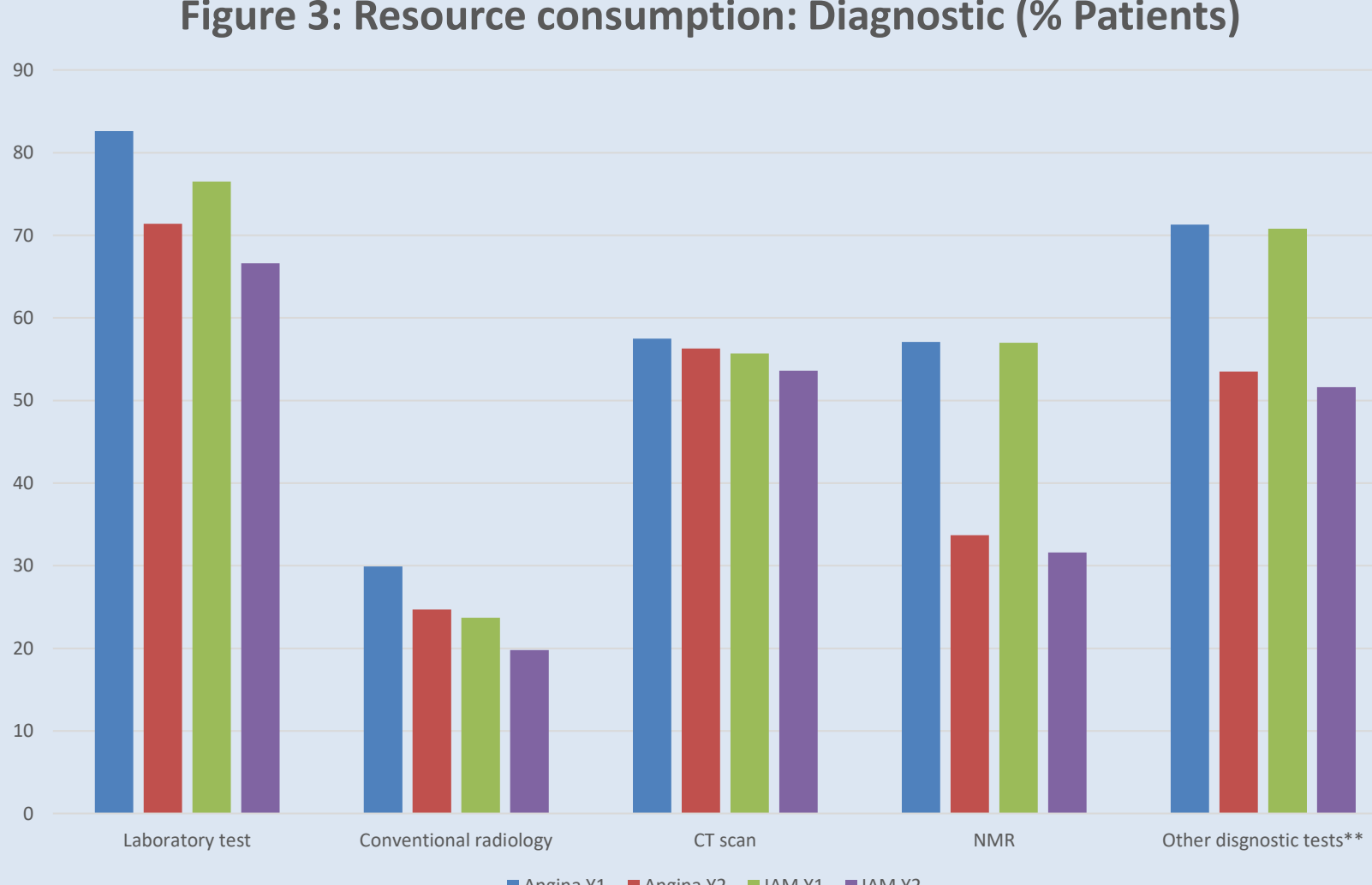Figure 3: Resource consumption: Diagnostic (% Patients)

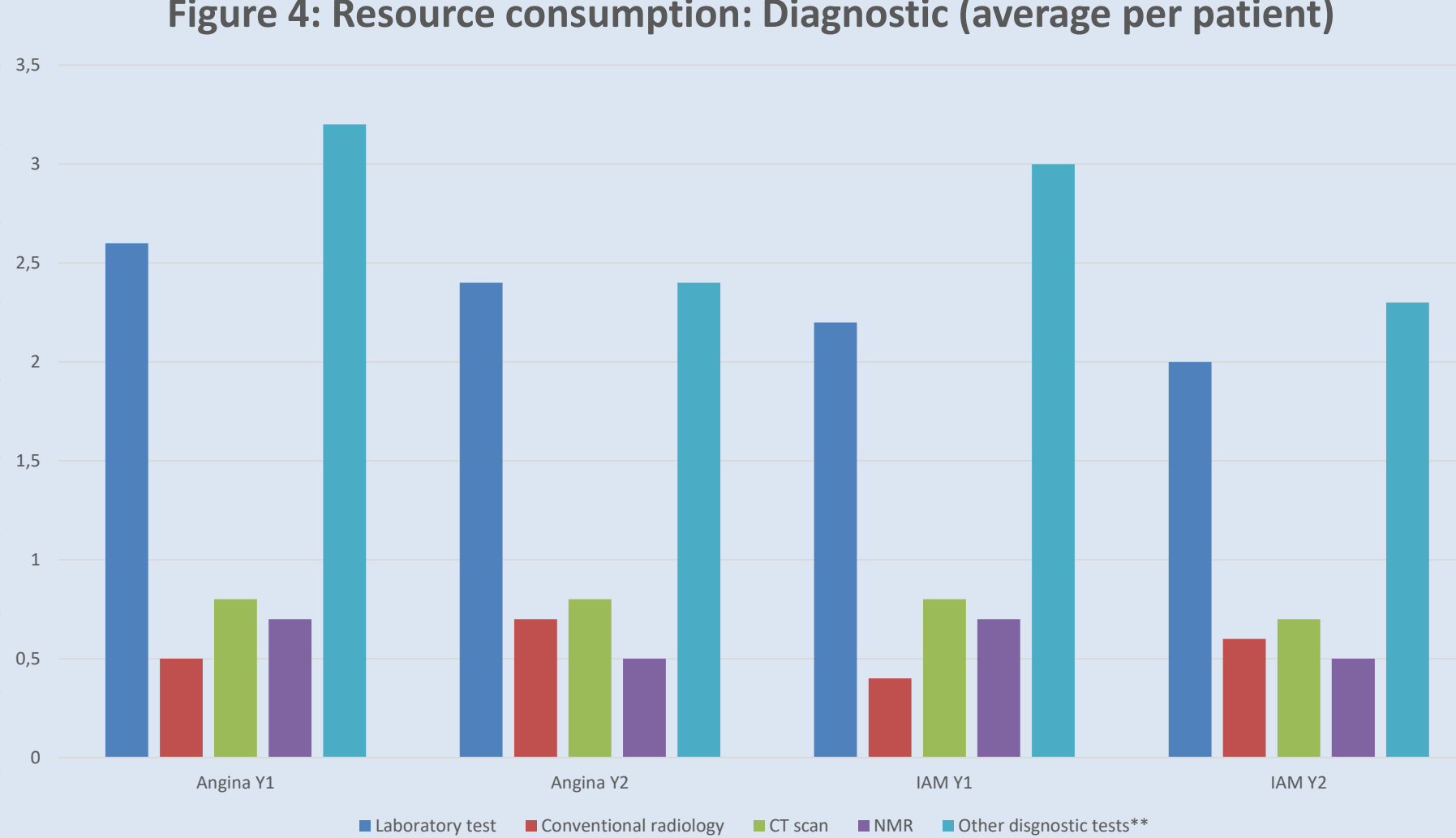Figure 4: Resource consumption: Diagnostic (average per patient)

Table 2. Direct healthcare costs (average cost per patient)

	Angina		IAM	
	Year 1	Year 2	Year 1	Year 2
Average cost per patient	9,512 €	8,566 €	8,679 €	7,548 €
Main drivers of cost				
Therapeutic procedures	4,191 €	4,157 €	3,883 €	3,805 €
Hospitalizations	1,702 €	1,509 €	1,304 €	1,003 €
Medication	1,239 €	1,199 €	1,315 €	1,204 €

Table 3. Non-healthcare costs (average cost per patient)

	Angina		IAM	
	Year 1	Year 2	Year 1	Year 2
Sick leave ***	1,208 €	1,130 €	1,306 €	1,149 €
Permanent disability****	404 €	412 €	403 €	411 €
Premature deaths *****	354 €	735 €	252 €	552 €
Non-healthcare costs	1,966 €	2,277 €	1,961 €	2,112 €

Table 4. Summary of Costs (average cost per patient)

	Angina		IAM	
	Year 1	Year 2	Year 1	Year 2
Direct Healthcare cost	9,512 €	8,566 €	8,679 €	7,548 €
Non-Healthcare cost	1,966 €	2,277 €	1,961 €	2,112 €
Average cost per patient	11,478 €	10,1843 €	10,640 €	9,660 €

- Includes coronary artery bypass(percutaneous), angioplasty and endarterectomy/thrombectomy; ** Includes echocardiogram, stress test and cardiac holter; *** Sick leave due to temporally disability in the working population (under 65 y.o.); **** Permanent disability in the working population (under 65 y.o.); ***** Difference between the age of death and the retirement age in Spain.

CONCLUSION

Patients with ischemic heart disease have a high mortality and represent a considerable social and healthcare cost. Developing preventive programs including primary care, cardiac rehabilitation and controlling cardiovascular risk factors could help reduce mortality and cost for the Spanish National Health System. Infarction (AMI) are one of the main causes of morbidity and mortality in developed countries and entails a high resources consumption and costs for health systems. The risk of suffering future CV events and the consequent consumption of resources is increased in those patients who have suffered a previous AMI..

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