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BUDGET IMPACT ANALYSIS OF TRIPLIAM FOR THE TREATMENT OF HYPERTENSION IN ITALY

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BACKGROUND

Hypertension is a major risk factor for ischaemic and haemorrhagic stroke, myocardial infarction (MI), heart failure (HF), chronic kidney disease, cognitive decline and premature death. In 2008, approximately 40% of adults aged ≥25 years had been diagnosed with hypertension worldwide¹. According to the Italian Hypertension Society (SIIA), in Italy there are approximately 14 million of people who have elevated blood pressure (hypertension), but only 3 million receive appropriate therapy and just the 37% of these with controlled blood pressure.

CVD is responsible for one-third of global deaths per year (approximately 17 million) and is a leading and increasing contributor to the global disease burden². The high prevalence of hypertension worldwide has significantly contributed to the present pandemic of CVD³.

OBJECTIVES

The objective of this study was to perform a Budget Impact Analysis (BIA) assessing the introduction of Tripliam for the treatment of hypertension into the Italian market. Tripliam is the first and only available single-tablet triple combination antihypertensive therapy containing perindopril, amlodipine and indapamide, in line with current evidence-based recommendations for the treatment and management of hypertension.

METHODS

The BIA compared two different scenarios: one without a triple fixed combination therapy (Scenario 1) vs. another one with the introduction of Tripliam (Scenario 2). The study has been conducted considering the perspective of the Italian National Healthcare Service. Population data were obtained from a Local Project Database managed by Cegedim composed by 1.100.000 patients' records originated from software used by 900 Italian GPs. The time horizon considered was 3 years from the introduction of Tripliam. Total number of patients in each of the 3 years was the same for the two Scenarios, because the model allows only the switch of patients from the dual or triple combinations to the fixed dose treatment with Tripliam. Currently there are about 338 thousands patients treated with double and triple therapy (Table 1).

Table 1. Patients in double and triple therapy

			Year 0
PATIENTS	Triple Therapy	Perindopril+Indapamide+Amlodipine	413
		Perindopril/Indapamide+Amlodipine	13.653
		Perindopril/Amlodipine+Indapamide	1.729
	Double Therapy	Perindopril+Indapamide	3.786
		Perindopril+Amlodipine	24.714
		Indapamide+Amlodipine	6.573
		Perindopril/Indapamide	119.523
		Perindopril/Amlodipine	167.690
	TOTAL		

The reference market for Tripliam is composed by the patients that can switch from the double therapy (according to major clinical trials about 30% of the patients in double therapy do not reach target blood pressure) and by all the patients currently in triple therapy (Table 2).

Table 2. Reference Market

			Year 0
Reference Market	Triple Therapy (100% of the market)	Perindopril+Indapamide+Amlodipine	413
		Perindopril/Indapamide+Amlodipine	13.653
		Perindopril/Amlodipine+Indapamide	1.729
	Double Therapy (30% of the market)	Perindopril+Indapamide	1.136
		Perindopril+Amlodipine	7.414
		Indapamide+Amlodipine	1.972
		Perindopril/Indapamide	35.857
		Perindopril/Amlodipine	50.307
	Total		

The model assumed that the percentage of patients who switch to tripliam is 27,3%, 28,8% and 32,3% the first, second and third year respectively (Table 3).

The prices used in the model are gross ex factory prices (Table 4) as published in AIFA web side.

Table 3. Switch to Tripliam

		Year 1	Year 2	Year 3	
Switch to Tripliam	Triple Therapy	Perindopril+Indapamide+Amlodipine	27,3%	28,8%	32,2%
		Perindopril/Indapamide+Amlodipine	27,3%	28,8%	32,2%
		Perindopril/Amlodipine+Indapamide	27,3%	28,8%	32,2%

Table 4. Ex factory prices

		Price per day	Price per month
Ex factory prices	Triple Therapy	Tripliam	€ 0,38 € 11,26
		Preterax + Amlodipine	€ 0,37 € 11,03
		Coverlam + Indapamide	€ 0,42 € 12,59
		Perindopril+Indapamide+Amlodipine	€ 0,34 € 10,18
	Double Therapy	Preterax	€ 0,26 € 7,77
		Coverlam	€ 0,33 € 9,90
		Perindopril+Indapamide	€ 0,23 € 6,92
		Perindopril+Amlodipine	€ 0,25 € 7,49
		Indapamide+Amlodipine	€ 0,20 € 5,95

RESULTS

The study show that the introduction of Tripliam leads to a reduction in the quantity of pills taken by patients (7.014.644, 8.743.882 and 10.127.208 in Scenario 1 and 6.469.258, 7.762.951 and 8.657.031 in Scenario 2, respectively in year 1, 2 and 3) (Figure 1).

Figure 1.



As the majority of patients with hypertension require two or more agents to achieve their BP targets, simplifying treatment by reducing pill burden through the use of SPCs is one of the most straightforward and effective ways of improving adherence⁴.

With a cost of 11,26 €/month, the introduction of Tripliam generates a very limited incremental costs in year 1 and 2 (respectively 2.977 € and 501 €) and a saving in the third year (3.478 €) over the total expenditure of 45,7 mil/€, 51,9 mil/€ and 56,7 mil/€ respectively in year 1, 2 and 3 in the two scenarios (Figure 2).

Figure 2.



CONCLUSIONS

The present study indicates that the introduction of Tripliam has two important effects:

1. It does not imply additional treatment costs; from the third year, actually, it generates a saving for the NHS.
2. The introduction of Tripliam represent a benefit for the patients, especially for the elderly, because it improves the adherence to the therapy, thanks to the reduction in the number of pills taken. Better adherence is also linked to a reduction in the number of hospitalizations caused by therapy interruption and, consequently, permits to avoid the related costs.

Reference:

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