

# ISPOR 19<sup>th</sup> Annual European Congress

Vienna, October 29<sup>th</sup> | November 2<sup>nd</sup> 2016

## BUDGET IMPACT ANALYSIS OF VIACORAM FOR THE TREATMENT OF HYPERTENSION IN ITALY

Orlando VL<sup>1</sup>, Lanati E<sup>1</sup>, Doratori S.<sup>2</sup>

<sup>1</sup>MA Provider, Milan, Italy

<sup>2</sup>Servier Group, Rome, Italy

**Introduction:** 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  $\geq 25$  years had been diagnosed with hypertension worldwide<sup>1</sup>. 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 burden<sup>2</sup>. The high prevalence of hypertension worldwide has significantly contributed to the present pandemic of CVD<sup>3</sup>.

**Objectives:** The objective of this study was to perform a Budget Impact Analysis (BIA) assessing the introduction of Viacorom for the treatment of hypertension into the Italian market. Viacorom is a single pill combination of an angiotensin-converting enzyme inhibitor (perindopril, arginine salt) and a calcium channel blocker (amlodipine, besilate salt) indicated for the treatment of essential hypertension in adult patients.

**Methods:** The BIA compares two different scenarios: one without a dual fixed combination therapy indicated as first line therapy for hypertension (Scenario 1) vs. another one with the introduction of Viacorom (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 Viacorom. Total number of patients in each of the 3 years was the same for the two Scenarios, because the model assumes that each year new Patients with hypertension who would start the new therapy using the current dual therapy with the drug combinations currently on the market (23,7% of the patients in first line therapy for hypertension), Scenario 1, would actually be able to begin their treatment with the fixed dose of Viacorom, Scenario 2. According to the Cegedim database, there are about 128 thousand patients that in 2015 began therapies for hypertension, 30 thousands of whom treated with double first line therapy (Table 1). The reference market for Viacorom is composed by the patients in dual first line therapy. In both scenarios, 51% of patients treated with traditional dual therapies and 44% of patients treated with Viacorom do not reach target blood pressure and, consequently, switch to dual or triple second line therapies (according to international hypertension guide line<sup>4</sup>, the 57% of patients not controlled switch to dual therapy and the 43% switch to the triple therapy).

FIRST LINE THERAPY	PATIENTS
Patients in mono therapy	97.466
Patients in dual therapy	30.275
Patients in first line therapy	<b>127.741</b>

Switch rate		
Traditional first line therapies	% patients who do not reach target blood pressure	51%
First line therapy with Viacorom	% patients who do not reach target blood pressure	44%
Distribution of patients who do not reach target blood pressure	% patients who switch to other dual therapy	57%
	% patients who switch to triple therapy	43%
Second line dual therapy	% patients who do not reach target blood pressure	30%

Table 1. Upper panel: Patients in first line therapy  
Lower panel: Therapies efficacy and switch rate

Ex factory prices	Price per day	Price per month
Viacorom	€ 0,28	€ 8,38
Tripliam	€ 0,34	€ 10,19
Average price of first line dual therapy	€ 0,37	€ 10,95
Average price of second line dual therapy	€ 0,27	€ 8,19

Table 2. Ex-factory prices (AIFA)

30% of patients in second line dual therapy do not reach target blood pressure and switch to the triple therapy (Table 1). The model assumed that the percentage of patients who switch to Viacorom is 30%, 42% and 49% the first, second and third year respectively. The prices used in the model are ex-factory prices (Table 2) as published in AIFA web site after price cuts. The price of the first line dual therapy has been calculated using the average price of the dual therapies that showed a positive trend in the last years (Table 3). The price of the second line dual therapy has been calculated using the average price of the dual therapies weighted by volumes reported in the CEGEDIM database. (Table 3). The price of the triple therapy, instead, has been calculated using the price of Tripliam, triple fixed combination currently in the market.

Class	Trend %	DUAL THERAPY	VOLUMES (CEGEDIM)	%	PRICE PER MONTH	MONTHLY WEIGHTED PRICE
C09B3 ACE-INIB+C-ANTAGONISTI	44	Perindopril+Indapamide	3.786	1,2%	6,2	0,1
C09D3 ANT ANGIOT+C-ANTAGONISTI	31	Perindopril+Amlodipine	24.714	7,7%	6,7	0,5
C09B3 ACE-INIB+C-ANTAGONISTI	19	Indapamide+Amlodipine	6.573	2,0%	5,4	0,1
C09B3 ACE-INIB+C-ANTAGONISTI	15	Perindopril/Indapamide	119.523	37,1%	7,1	2,6
C09D1 ANT ANGIOT+A-IPERT/DIUR	5	Perindopril/Amlodipine	167.690	52,0%	9,4	4,9
C09B1 ACE-INIB+A-IPER/DIURET.	1	Total	322.286	100%		8,2

Table 3. Left panel: First line dual therapies trend  
Right panel: Second line dual therapies – Volumes and prices

**Results:** With a cost of 8,47 €/month, the introduction of Viacorom generates savings for the Italian NHS equal to 270.807, 516.494 and 707.090 € respectively in year 1, 2 and 3 over the total expenditure of 3.9, 7.6 and 11.1 €/millions related to the year 1, 2 and 3 in the first scenario. (Figure 1).

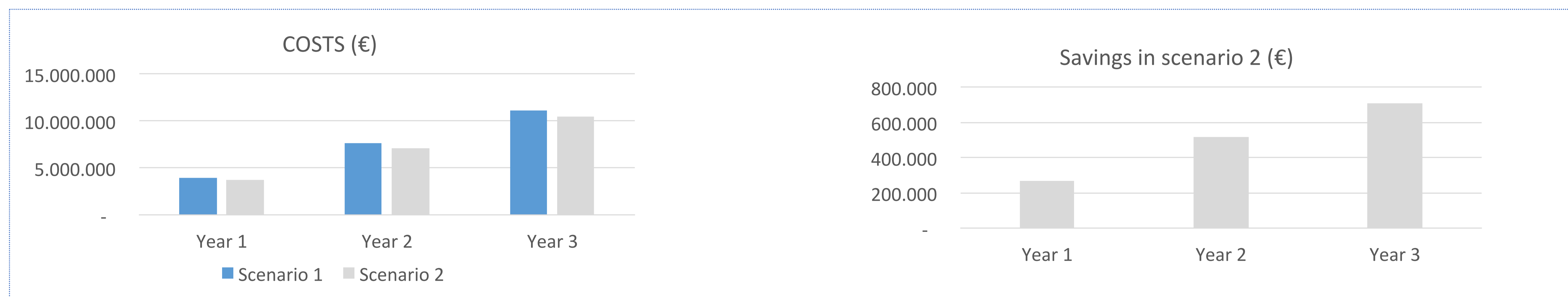


Figure 1

**Conclusions:** The present study indicates that the introduction of Viacorom has two important effects:

1. It does not imply additional treatment costs; from the first year, actually, it generates a saving for the NHS.
2. The introduction of Viacorom represents 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.

1. World Health Organization. Global status report on noncommunicable diseases 2010. Geneva, World Health Organization, 2011.
2. World Health Organization. Causes of Death 2008 [online database]. Geneva, World Health Organization, 2008. Available at: [http://www.who.int/healthinfo/global\\_burden\\_disease/cod\\_2008\\_sources\\_methods.pdf](http://www.who.int/healthinfo/global_burden_disease/cod_2008_sources_methods.pdf).
3. Kearney PM, Whelton M, Reynolds K et al. Global burden of hypertension: analysis of worldwide data. Lancet 2005; 365: 217-23.
4. Mancia G. et al., 2013 ESH/ESC Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). Eur Heart J 2013 Jun 14.

**MAProvider**  
MARKET ACCESS PROVIDER

via Carducci 24  
20123 Milan - Italy  
tel +39 02 89096682  
fax +39 02 89098927  
e-mail | [info@maprovider.com](mailto:info@maprovider.com)

piazza San Salvatore in Lauro 10  
00186 Rome - Italy  
tel | fax +39 06 68806614  
e-mail | [info.roma@maprovider.com](mailto:info.roma@maprovider.com)

web | [www.maprovider.com](http://www.maprovider.com)

The quality management system operated by MA Provider S.r.l. is in compliance with the standard UNI EN ISO 9001:2015 for planning and execution of consultancy services for the health care sector.

