

# ORIGINAL ARTICLE

# Stent for Life in Portugal: This initiative is here to stay



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Cardiologia

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#### **KEYWORDS**

Acute myocardial infarction; Primary percutaneous coronary intervention; Stent

#### Abstract

*Aims:* Portugal has one of the lowest rates of primary percutaneous coronary intervention (p-PCI) in Western Europe. This study assessed the progress of Portuguese p-PCI performance indicators one year after Portugal joined the Stent for Life (SFL) initiative.

Methods and Results: Two national surveys were carried out, each covering a period of one month: the first when Portugal joined the SFL in 2011 (Moment Zero), and the second one year later (Moment One). A total of 397 consecutive patients with probable ST-segment elevation myocardial infarction were enrolled (201 at Moment Zero and 196 at Moment One) from 15 centers. During this period, the number of patients who arrived at a local hospital without p-PCI decreased (62-47%; p=0.004) and transportation to a p-PCI hospital by the National Institute for Medical Emergencies (INEM) increased significantly (13-37%; p<0.001). Shorter times to revascularization were observed, due to shorter patient delay (118-102 min; p=0.008). Door-to-balloon delay and system delay remained unchanged.

*Conclusions:* Improvements in performance indicators for p-PCI demonstrate the success of the first year of the local SFL plan, which was mainly focused on raising public awareness of the need to use the INEM emergency services, which has reduced patient delay, and on improving secondary transportation.

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## PALAVRAS-CHAVE Enfarte agudo do miocárdio; Angioplastia primária; Stent

#### Stent for Life em Portugal: uma iniciativa para ficar

#### Resumo

*Objetivo:* Portugal é um dos países europeus que apresenta uma das mais baixas taxas de angioplastia primária (p-PCI). O objetivo deste estudo foi avaliar os indicadores de performance, em termos de p-PCI, um ano após Portugal ter integrado a Iniciativa Stent for Life (SFL).

*Métodos e resultados:* foram efetuados dois inquéritos nacionais, com a duração de um mês, o primeiro em 2011, no momento inicial de integração do projecto SFL em Portugal («Momento Zero») e o segundo em 2012 após um ano de atuação («Momento Um»). Foram incluídos 397 doentes consecutivos submetidos a cateterismo por suspeita de enfarte agudo do miocárdio com supradesnivelamento de ST (EMSST), em 15 centros nacionais de cardiologia de intervenção (201 Momento Zero, 196 Momento Um). Ocorreu uma redução significativa dos doentes que recorreram a centros sem cardiologia de intervenção (62% versus 47%, p=0,004) e aumentou o transporte dos doentes pelo sistema nacional de emergência médica (INEM) para um centro com ICP primária (13% versus 37%, p<0,001). A principal melhoria observada nos intervalos de tempo para a revascularização, foi no «atraso do doente» (118 minutos no «Momento Zero» diminuiu para 102 minutos no «Momento Um», p=0,008). O «tempo porta-balão» manteve-se constante.

*Conclusão*: a melhoria dos indicadores de desempenho da rede nacional de tratamento do enfarte do miocárdio com supradesnivelamento de ST aponta para o sucesso do plano de ação da Iniciativa Stent for Life, que neste primeiro ano se centrou na sensibilização da população para recurso ao INEM em caso de suspeita de enfarte, e na realização do transporte interhospitalar por esta instituição.

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#### Abbreviations

CODU	Referral Center for Emergency Patients
D2B	door-to-balloon
D2D	door-to-door
ECG	electrocardiogram
ESC	European Society of Cardiology
FMC	first medical contact
INEM	National Institute for Medical Emergencies
MI	myocardial infarction
p-PCI	primary percutaneous coronary intervention
SFL	Stent for Life
STEMI	ST-segment elevation myocardial infarction

### Introduction

The Stent for Life (SFL) initiative aims to improve the delivery of facilities that will reduce mortality and morbidity in patients with ST-segment elevation myocardial infarction (STEMI), by increasing timely access to primary percutaneous coronary intervention (p-PCI).<sup>1,2</sup> A 2010 study that compared how patients with STEMI were treated in different European countries reported that there was a low rate of p-PCI in Portugal, as well as a high proportion of patients who did not receive any reperfusion therapy.<sup>3</sup>

Several countries participating in the SFL initiative have reported encouraging results, with a significant increase in the rate of p-PCI per million population.<sup>4-11</sup> Portugal was one of the latest countries to join SFL, in February 2011, and a local action program has been implemented to increase patient access to p-PCI and to improve its quality, mainly by reducing the time between symptom onset and p-PCI.

The SFL Portugal initiative implemented a national survey to characterize STEMI treatment that included all centers on the Portuguese mainland with an interventional cardiology unit available 24/7 and which followed p-PCI protocols. A prospective registry was set up for one month, from May 9 to June 8, 2011 (''Moment Zero'').<sup>12</sup> This study revealed that the time between symptom onset and first medical contact (FMC) was too long, and that only one-third of patients requested medical assistance from the Portuguese emergency medical system, the National Institute for Medical Emergencies (INEM). Consequently, more than half of the patients attended local hospitals without interventional cardiology units.

The SFL Portugal Task Force set out an action plan with three main aims: (1) to launch a national public campaign to raise public awareness of the symptoms of myocardial infarction (MI) and of the actions that should be taken to ensure timely and appropriate treatment; (2) to cooperate with INEM to improve patient routing, by enabling direct admission to a hospital with p-PCI facilities (''p-PCI hospital'') and transfer from hospitals without interventional cardiology units to a p-PCI hospital; (3) to improve hospital performance in the treatment of STEMI by p-PCI.

To assess the impact of these actions, in 2012, exactly one year after the Portugal SFL initiative was launched, a new registry was set up for one month, designated Moment One. Download English Version:

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