Angioplastia Primária em Portugal. Como implementar o “Stent for Life” no nosso País

Hélder Pereira
Stent for Life Initiative

Portugal

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Annual Incidence of Primary PCIs

Stent for Life Initiative
Stent for Life
INITIATIVE

To improve the delivery and patient access to the life saving indications of PCI thereby reduce the mortality and morbidity of patients suffering from acute coronary syndromes.

www.stentforlife.com
Stent for Life Initiative
Prague 8 Feb 2011

DECLARATION

On behalf of the National Cardiology Society I declare that effective actions will be taken to fulfill the Stent for Life Initiative Mission in our country.

National Cardiology Society
Portugal

EAPCI President 2009 - 2011
Prof. Carlo di Mario

SFL Co-chairman
Dr. Jean Fajadet

SFL Co-chairman
Prof. Steven D. Kostenseen
Stent for Life Initiative

2011: ten countries
Implement an Action Plan to Increase Primary-PCI

1- Define regions/countries with an unmet medical need in the optimal treatment of ACS.

2- Implement an action program to increase patient access to primary PCI where indicated:

To increase the use of primary PCI to more than 70% among all ST segment elevation myocardial infarction patients,

To achieve primary PCI rates of more than 600 per one million inhabitants per year,

To offer 24/7 service for primary PCI procedures at all invasive facilities to cover the country STEMI population need.

J.Knot: How to set up an effective national primary angioplasty network: lessons learned from five European countries (Eurolntervention, August 2009).
Implement an Action Plan to Increase Primary PCI

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Implement an Action Plan to Increase Primary-PCI

To increase the use of primary PCI to more than 70% among all ST segment elevation myocardial infarction patients,

Reperfusion Therapies Differ in Countries
(situation in years 2007-2008 for most countries)

Reperfusion therapy for ST elevation acute myocardial infarction in Europe: description of the current situation in 30 countries.
Implement an Action Plan to Increase Primary-PCI

To increase the use of primary PCI to more than 70% among all ST segment elevation myocardial infarction patients,

Portuguese Registry ACS 2002/8

STEMI: Reperfusion:

![Bar chart showing the increase in primary PCI usage from 2002 to 2008](chart.png)

Santos J et al. RevPortCardiol 2009;28:1465
Implement an Action Plan to Increase Primary-PCI

To increase the use of primary PCI to more than 70% among all ST segment elevation myocardial infarction patients,

Portuguese Registry ACS 2002-8 RESULTS
STEMI: Reperfusion:

- Fibrinolysis contraindication:
  - Symptoms > 12h – 55%
  - BP > 180/110 – 4%
  - Recent hemorrhage – 2%
  - Other motives – 39%

- TIMES – Median (P25-P75):
  - Pain-to-Door = 177 min (90-417)
  - Door-to-Needle = 60 min (30-119)
  - Door-to-Balloon = 96 min (52-114)

Santos J et al. RevPortCardiol 2009;28:1465
Implement an Action Plan to Increase Primary PCI

Achieve primary PCI rates of more than 600 per one million inhabitants per year
Implement an Action Plan to Increase Primary PCI

Achieve primary PCI rates of more than 600 per one million inhabitants per year

Evolution of P-PCI from 2002-9:

2002: 1118
2003: 1253
2004: 1328
2005: 1401
2006: 1616
2007: 1899
2008: 2415
2009: 2565

2009: 239 PPCI/million
Implement an Action Plan to Increase Primary-PCI

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To offer 24/7 service for primary PCI procedures at all invasive facilities to cover the country STEMI population need

*Primary PCI per Million (2009):*
Bulgaria

Goal

![Graph showing PPCIs/MLN from 2008 to 2010 and the SFL Goal.]
For 10% of the Greek population distance to cath lab not covered in less than 3 hours
Italia

PCI primarie/1.000.000 abitanti
Servia

Treatment of STEMI in Serbia

- 2008 year:
  - No reperfusion: 19
  - Trombolysis: 33
  - pPCI: 48

- 2009 year:
  - No reperfusion: 34.2
  - Trombolysis: 28.3
  - pPCI: 37.5
Romania

RO-STEMI registry
Primary PCI, thrombolysis and conventional therapy (2001 – 2010)
Spain

Spain: AMI Networks in 2010

- Galicia
- Islas Baleares
- Murcia
- Navarra
- Cataluña
- Castilla la Mancha
Spain

Evolution of AMI activities in the community of Catalonia, Spain

Activations in BCN x 11

- 2005: 162
- 2006: 110
- 2007: 135
- 2008: 194
- 2009: 589
Turkey

Selected city for SFL project
Turkey

Population: 740,569
Area: 4,664 km²
Urban/Rural: %52 - %48
Centers: 2
Ambulance: 16
Implement an Action Plan to Increase Primary-PCI
I - Nominate and approve SFL Steering Committee Members;

II- Organize SFL Task Force meeting (January 2011) and agree on key program implementation barriers; (barriers and limits);

III - Analyze current STEMI network situation (including country map with 24/7 STEMI centers);

IV - Present 3 years SFL Initiative objectives to SFL Executive Board (February, Prague);

V - Start interview process to hire SFL national project manager;

VI - Establish AMI/STEMI registry if not in place;

VII - Draft SFL budget
I - Nominate and approve SFL Steering Committee Members;
SFL Steering Committee Members

- SFL Champion: Hélder Pereira
- APIC President: Leitão Marques
- Health Ministry Cardiovascular Diseases Coordinator: Rui Ferreira
- National Institute of Medical Emergency (INEM): Miguel Sousa-Oliveira
- APORMED: Paulo Tomaz
II - Organize SFL Task Force meeting and agree on key program implementation barriers; (barriers and limits)
Present 3 years SFL Initiative objectives to SFL Executive Board

**MACRO level**
- National Health Service System:
  - Reorganization of EMS (INEM)
  - Heterogeneity among country regions;
  - Secondary transportation (non-PPCI centres)
  - Awareness campaigns for patients

**MESO level**
- How hospitals are organized:
  - Strategies, structures, processes, practices;
  - Numbers of interventional cardiologists and long period of training;

**MICRO level**
- Clinical effectiveness, culture, safety, patient experience;
III - Analyze current STEMI network situation (including country map with 24/7 STEMI centers);
Analyze current STEMI network situation

Via Verde Coronária
(“Coronary Green Way”)
INEM

CODU
VMER
SIV
Analyze current STEMI network situation

Percentage of STEMI patients arriving to the first hospital via EMS services:

- Portugal: 23%
- Lisbon: 5%
- Algarve: 70%

RuiFerreira, Alto Comissariado
Analyze current STEMI network situation
MINHO
Analyze current STEMI network situation

MINHO
Analyze current STEMI network situation

ALGARVE

Algarve reperfusion rate: 86%

Mimoso J, Projecto Algarve, 2010
Analyze current STEMI network situation

ALGARVE
Analyze current STEMI network situation

ALGARVE (Faro)

Portugal: 23%; Lisbon: 5%; Algarve: 70%
Analyze current STEMI network situation

ALGARVE

Door to Balloon Time < 90 min:

98% p<0.01

50%

Mimoso J, Projecto Algarve, 2010
Analyze current STEMI network situation

ALGARVE

Reperfusion:

2009: 405 P-PCI/Million

Mimoso J, Projecto Algarve, 2010
Ferreira R. Alto Comissariado, 2010
Analyze current STEMI network situation

ALGARVE

Mortality:

- Via Verde: 4.6%, p < 0.01
- SU: 9.4%, p = 0.02
- Aos 6 meses (75%): Intrahospitalar

Mimoso J, Projecto Algarve, 2010
VI - Establish AMI/STEMI registry if not in place
Establish AMI/STEMI registry if not in place

Registries and quality control:

Interventional Cardiology: Activity Indicators;
Alto ComissariadodaSaúde

National Registry of ACS;
Portuguese Society of Cardiology

National Registry of Interventional Cardiology
Portuguese Society of Cardiology
Establish AMI/STEMI registry if not in place

Registries and quality control:

Registo nacional de síndromes coronárias agudas: sete anos de actividade em Portugal [114]

José Ferreira Santos, Carlos Aguiar, Cristina Gavina, Pedro Azevedo, João Morais,
em nome dos investigadores do Registo Nacional de Síndromes Coronárias Agudas
da Sociedade Portuguesa de Cardiologia, Lisboa, Portugal

Santos J et al. RevPortCardiol 2009;28:1465
Establish AMI/STEMI registry if not in place

Registries and quality control:

ARTIGO ESPECIAL

Registo Português de Cardiologia de Intervenção em 2002 [1]

HÉLDER PEREIRA
em nome dos investigadores do Registo Nacional de Cardiologia de Intervenção

Rev Port Cardiol 2004;23 (1):7-14
Establish AMI/STEMI registry if not in place

National Registry of Interventional Cardiology
Portuguese Society of Cardiology
Thank you