Welcome to the 10th edition of the Stent for Life Initiative Newsletter

PG 3: Primary PCI access increases in Stent for Life countries
Access to primary PCI (pPCI) has increased in Stent for Life (SFL) countries since the initiative was introduced, reveals a survey published in European Heart Journal.

PG 5: Fausto Pinto addresses SFL Forum 2014
Professor Fausto Pinto, president-elect of the European Society of Cardiology (ESC), addressed the SFL Forum 2014 audience in Prague.

PG 6: SFL Spain launches STEMI networks and shows cost effectiveness
SFL Spain has implemented STEMI networks across the country and demonstrated their cost effectiveness.

PG 7: Registry data secures funding for STEMI programme in Romania
Romania used registry data to convince the government to finance its Stent for Life (SFL) program.

PG 9: STEMI programs across the world showcased by experts
STEMI programs across the world were showcased by experts from the Gulf Countries, China and Hong Kong, India, South Africa and Europe.

PG 10: EAPCI Women Committee addresses gender disparities for professionals and patients
A committee focused on gender inequalities in interventional cardiology has been launched by the European Association of Percutaneous Cardiovascular Interventions (EAPCI), a registered branch of the European Society of Cardiology (ESC).

PG 11: Reimbursement prevents treatment of heart attacks across borders
Reimbursement of treatment and transport costs is the main barrier to cross-border collaboration in the treatment of heart attacks, according to a survey of European interventional cardiologists.

Read more country updates in the upcoming editions and send your stories to: office@solutions4life.eu
Dear All,

Welcome to the Spring issue of the Stent for Life Initiative newsletter. Today we would like to share with you the most interesting topics from the SFL Forum 2014 conference, which was held during February 27 – March 1, 2014 in Prague, Czech Republic. This 3rd annual meeting of Stent for Life Initiative, the coalition of EAPCI and EuroPCR, was attended by leading interventional cardiologists, government representatives and industry partners from 26 countries in Europe, Asia, the Gulf region and Africa.

Read the Spring issue to discover the three year impact of the Stent for Life Initiative in six pilot countries. Professor Fausto Pinto, ESC president-elect, gives SFL his stamp of approval and SFL Spain demonstrates the cost effectiveness of STEMI networks. SFL Romania uses registry data to secure funding for its STEMI programme while experts from across the globe showcase STEMI programmes in the Gulf region, China, Hong Kong, India, South Africa and Europe. SFL joins forces with the EAPCI Women Committee to address gender disparities for professionals and patients and works to improve cross-border access to pPCI in the EU.

With the SFL Forum 2014 and some busy weeks and weekends behind us, we are all already gearing up for the quickly approaching EuroPCR Congress in Paris, 20-23 May. I am looking forward to seeing you there, don’t forget to visit our Stent for Life stand!

With kindest regards,

Assist. Prof. Petr Kala
Stent for Life Initiative Chair
Primary PCI access increases in Stent for Life countries

Access to primary PCI (pPCI) has increased in Stent for Life (SFL) countries since the initiative was introduced, reveals a survey published in European Heart Journal.

The survey of 37 European Society of Cardiology (ESC) countries was a cross-sectional descriptive study based on aggregated country-level data in patients admitted with STEMI during 2010 or 2011. Data was collected on the use of reperfusion treatment (pPCI, thrombolysis or no reperfusion), mortality, numbers of cardiologists and the availability of pPCI facilities.

Information came from national or regional registries, or from expert estimates when registries did not exist. A similar questionnaire was used as in the previous survey in 2007/08 to allow for comparisons.

The survey reveals that pPCI use increased dramatically between 2007 and 2011 in the six countries enrolled in the SFL initiative in 2009. Use of pPCI in STEMI patients increased from 23% to 57% in Bulgaria, 33% to 64% in France, 9% to 32% in Greece, 19% to 44% in Serbia, 30% to 50% in Spain and 8% to 78% in Turkey. As pPCI use rose in the six countries, the percentage of patients not receiving any reperfusion therapy decreased. During this period most of these SFL countries increased the number of pPCI centres providing 24/7 services.

In the 37 countries surveyed, the number of pPCI per million inhabitants ranged from 23 in Saudi Arabia to 884 in the Netherlands. The dominant reperfusion strategy was pPCI in 32 countries and thrombolysis in three countries (Bosnia Herzegovina, Cyprus and Greece).

There were still a substantial number of non-reperfused STEMI patients in 2010/11. The highest level was reported in Ukraine, which had 526 non-reperfused STEMI patients per million inhabitants compared to 19 per million in Finland.

Professor Steen Kristensen, lead author of the EHJ paper, said: “When STEMI patients do not receive any reperfusion therapy, this is a real problem, and we need to do more to improve access to treatment.”

He added: “Our survey shows improvements in access to pPCI for STEMI patients in the SFL countries. But it also highlights the need for better data. Good registries are needed across Europe that provide accurate data on the use of reperfusion treatment and mortality so we know where to target our efforts.”

The survey also assessed time delays in STEMI patients. Countries were asked to report the following parameters: patient delay (time from symptom onset until patient contacts the healthcare system), system delay (time from first medical contact until treatment with pPCI or thrombolysis), and door-to-balloon or needle time (time from patient arrival at the hospital door until treatment with pPCI or thrombolysis). Total treatment delay was calculated as the combination of patient delay and system delay.
Primary PCI access increases in Stent for Life countries

A new parameter added since the 2007/08 survey was the percentage of patients arriving with the emergency medical service (EMS). Dr Kristina Laut, who led the analysis, said: “We know that many countries have a large proportion of self-presenters to hospital, and we wanted to see how that varied.”

The analyses on time delays were not included in the EHJ paper, but preliminary findings suggest that in the majority of the 37 countries, pre-hospital time delays are too long. Once the patient has arrived at the hospital, treatment is provided quickly.

Dr Laut said: “Our preliminary results indicate that we should focus our work on reducing delays in getting patients to hospital.”

She added: “Time delays can be difficult to register. We need common definitions across Europe and better recording of the information.”

Number of pPCI per 1 000 000 inhabitants in 37 countries 2010/2011.
Professor Fausto Pinto, president-elect of the European Society of Cardiology (ESC), addressed the SFL Forum 2014 audience in Prague.

Professor Pinto said: “Stent for Life is one of the most successful initiatives of the ESC and an excellent example of how to improve implementation of ESC guidelines.”

He added:

“I would like to express my full support for the Stent for Life initiative, both personally and institutionally as president-elect of the ESC. The ESC will provide as much support as needed to ensure that the programme becomes even stronger. I’m sure that in a few years we will be even more proud of how much we have achieved for the good of our patients and our populations.”
SFL Spain has implemented STEMI networks across the country and demonstrated their cost effectiveness. Data from 2008 show that prior to the implementation of Stent for Life, Spain had four STEMI networks covering 12.8% of the population. Just 30% of STEMI patients were given pPCI, while 35% received thrombolysis and 30% did not receive any reperfusion. There were 169 pPCI performed per one million inhabitants per year.

Dr Manel Sabaté said: “Spain has 17 autonomous regions, each with its own government, health policies and economic interests. The number of pPCI in each region did not correlate with its GDP, so we concluded that system organisation was the limiting factor.”

Spain joined SFL in 2009 and adopted the objectives to achieve pPCI use in more than 70% of STEMI patients and pPCI rates of more than 600 per one million inhabitants per year.

From 2009 to 2013, six STEMI networks were created in different regions, increasing coverage of the population to 61.3%. The number of pPCI per million inhabitants rose to 298 in 2012.

Dr Sabaté said:

“The use of pPCI increased, but the economic crisis hit. We decided to conduct a study in Catalonia to show politicians that STEMI networks are cost effective.”

Before the Catalanian STEMI network was established, the region had 10 pPCI centres, but just four worked 24 hours a day. It also had a well-developed emergency medical service (EMS) with doctors trained to diagnose STEMI and administer fibrinolysis out of hospital.

The network began in 2009 and is composed of the EMS, ten pPCI hospitals and all remaining hospitals and primary care centres. EMS professionals diagnose patients using an ECG and decide on the treatment strategy. Patients designated for pPCI are transferred to the nearest pPCI centre and afterwards are returned to the nearest hospital to avoid overcrowding.

Implementation of the STEMI network led to a complete change in the reperfusion strategy, with 89% of STEMI patients receiving pPCI compared to 31% before the network. The mean cost per patient of the different strategies was: €7,010 for pPCI, €6,868 for fibrinolysis, €11,094 for rescue PCI and €7,200 for no reperfusion.

Treating STEMI patients in the network cost €5,377 less for each life saved (as assessed by 30-day mortality) than without the network.

Dr Ander Regueiro said: “The STEMI network in Catalonia has been cost effective in the short term, primarily due to a change in reperfusion strategy.”
Romania used registry data to convince the government to finance its Stent for Life (SFL) programme. The programme has led to increased use of PCI in STEMI patients and reduced mortality.

The Romanian STEMI registry began in 1997. In 2009 the Romanian Society of Cardiology published a 12-year analysis of registry data which revealed that in-hospital mortality of STEMI patients had stabilised at around 13.5% between 2004 and 2009. In 2009 there were just ten primary PCI (pPCI) centres in the country, four of which were in Bucharest, leaving much of the country with no facilities.

That same year the society also published pre-hospital STEMI guidelines and provided the ministry of health with detailed plans for a national STEMI programme. The availability of registry data enabled the society to include specific information about the amount of money and materials required for the programme.

In 2010 Romania joined the Stent for Life programme. The ministry of health allocated €1,000 per STEMI PCI in the budget and the National Health House provided funds for medication and hospitalisation.

In 2011 an accreditation programme for training in interventional cardiology was started so that new PCI centres could be opened.

Over the past three years, five new pPCI centres have opened and three additional centres are set to open in July 2014.

Today around 75% of all STEMI patients in Romania are included in the registry. The use of thrombolysis has fallen steadily, from more than 40% in 2003 to less than 6% in 2013. After the STEMI network was introduced in 2010, the use of PCI in STEMI patients and pPCI increased dramatically to 60.9% and 44.8% respectively in 2013. During this period the proportion of patients receiving no reperfusion fell to 33%. In-hospital mortality of STEMI patients dropped from 13.5% in 2009 to around 8% in 2013.

The protocol in Romania stipulates that all STEMI patients are pretreated with clopidogrel, aspirin and heparin (plus thrombolysis in remote areas) during prehospital transfer. This pharmaco-invasive strategy has been responsible for the low mortality of patients in remote areas.
Registry data secures funding for STEMI programme in Romania

Dr Dan Deleanu, SFL Romania country champion, said:

“Registry data helped us to quantify the problem of under treatment in STEMI patients, make a detailed improvement plan and secure funding. Since implementing the STEMI network we have achieved a 150% increase in PCI treated patients and in-hospital mortality has significantly dropped by 40%.”
STEMI programmes across the world were showcased by experts from the Gulf Countries, China and Hong Kong, India, South Africa and Europe.

Presentations were given by:

- Dr Khalid Al Habib from Saudi Arabia
- Dr Yan Zhang from China
- Professor Jan J. Piek on behalf of Dr Michael K.Y. Lee from Hong Kong
- Dr Thomas Alexander from India
- Dr Adriaan Snyders from South Africa
- Professor Steen Kristensen from Denmark on programmes in Europe
A committee focused on gender inequalities in interventional cardiology has been launched by the European Association of Percutaneous Cardiovascular Interventions (EAPCI), a registered branch of the European Society of Cardiology (ESC).

The group of female interventional cardiologists will tackle gender disparities in interventional cardiology at the professional and the patient level. It is co-chaired by Professor Julinda Mehilli (Germany) and Dr Josepa Mauri (Spain).

Women with coronary artery disease are underdiagnosed and undertreated. The time to fibrinolysis is longer, the door to balloon time is longer, and fewer women receive coronary angiography and PCI. This means that women have higher rates of death and cardiogenic shock. STEMI incidence is increasing in women under 60 years of age because more young women are smoking.

Dr Mauri said:

“Women are not aware that they can have a heart attack. When they have chest pain and dyspnoea, they don’t call an ambulance because they don’t recognise the pain as a heart problem. It is difficult to recognise something if you are not aware of it.”

She added: “We need more registry data on treatments, time delays and outcomes in women so that we can close the gender gap.”

The committee will work with Stent for Life to improve awareness among women by participating in the ACT NOW. SAVE A LIFE campaign. SFL countries will be encouraged to collect gender data in their registries.

Gender disparities also exist at the professional level. Nearly 60% of medical students are women, but approximately 90% of interventional cardiologists are men. The committee will conduct a survey of female cardiologists to identify the barriers to becoming an interventional cardiologist. A number of initiatives are planned to encourage female physicians to choose a career in interventional cardiology, including grants and fellowships for young mothers.

Dr Mauri said: “We need more female interventionalists on the committees of clinical trials and guidelines who can then act as role models for young women aspiring to a career in the field.”
Reimbursement prevents treatment of heart attacks across borders

Reimbursement of treatment and transport costs is the main barrier to cross-border collaboration in the treatment of heart attacks, according to a survey of European interventional cardiologists.

Quick access to treatment improves outcomes for heart attack patients, but few arrangements exist for patients to be transferred across borders when the nearest hospital is in another country.

The European Critical Care Foundation (ECCF) investigated both the extent of existing cross-border collaborations and the barriers to their implementation. Interviews were conducted with ten leading interventional cardiologists in Austria, Greece, Latvia, Lithuania, Northern Ireland, Poland, Portugal, Slovenia, Spain and Sweden by Dr Kristina Laut.

The study, carried out in the summer of 2013, found that no formal cross-border arrangements existed. Cardiologists were open to the idea of collaboration, but said that politicians at national and EU level needed to resolve a number of issues first.

Reimbursement was the most commonly mentioned barrier, with protocols needed to specify who pays for transportation and treatment costs. Also needed were agreements for the transfer of patients by Emergency Medical Services systems, a common EU emergency number, joint training for healthcare professionals to ensure consistent quality of care, and common registries for sharing patient information. Cardiologists also mentioned the need to overcome regional barriers within their own countries.

Helen Brewer, ECCF manager, said:

“The barriers were largely a question of legal structures, institutional arrangements, economics and politics. Protocols are needed that outline how these collaborations will work in terms of logistics, payments and quality of care.”

The ECCF is convening an exploratory workshop with stakeholders in Italy, Slovenia, and Austria with a view to addressing these barriers in order to improve timely access to treatment for heart attack patients. During the Italian Presidency of the EU in the second half of 2014, the ECCF hopes to move this issue up the political agenda.

Ms Brewer said: “We will use the cross-border healthcare directive to advocate for improved collaboration across borders, while highlighting the ongoing need to improve cooperation within countries.”