

# European Critical Care Foundation

## **Treating acute heart attack patients across borders: the results of a survey**

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# European Critical Care Foundation

- An Independent, Not-for-profit Foundation established to Improve Quality in Critical Care
- Acute heart attack patients - working to address organisational barriers impeding access to primary angioplasty across Europe

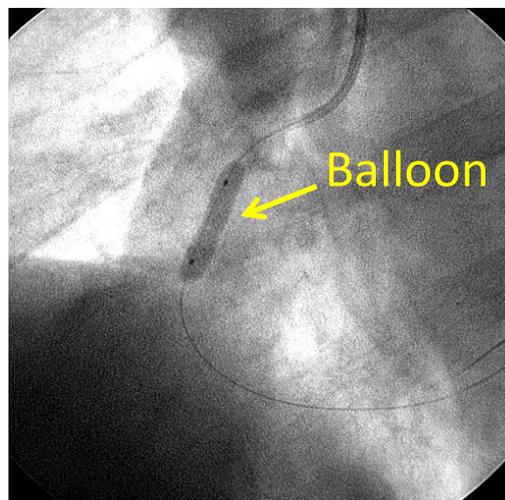
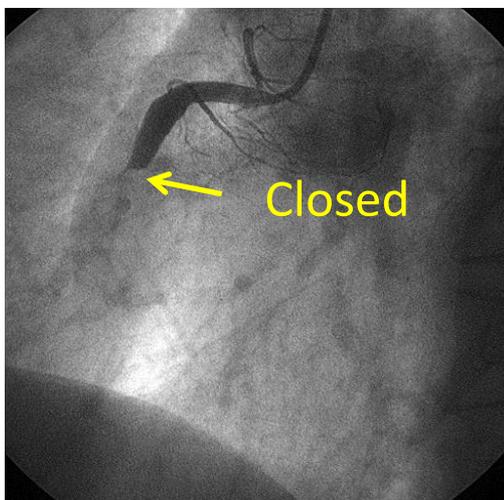
# Overview

- The science
  - Myocardial Infarction – introduction
  - Best treatment – what is primary angioplasty?
  - Saving heart muscle – the importance of time to treatment
  - Emergency transport and borders
- The survey
  - Objectives, methodology and findings
  - Conclusions and recommendations

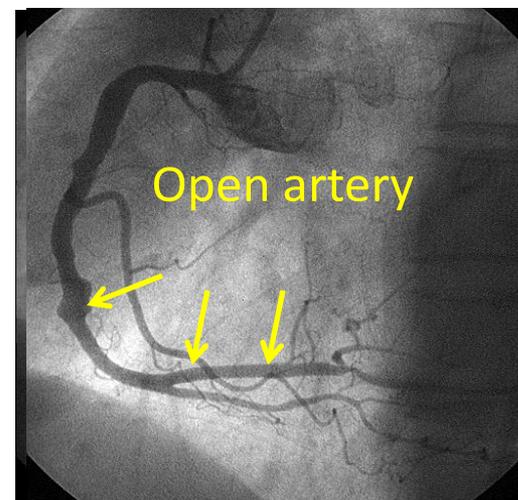
# Primary angioplasty explained

- Coronary arteries: balloon angioplasty

Arrival



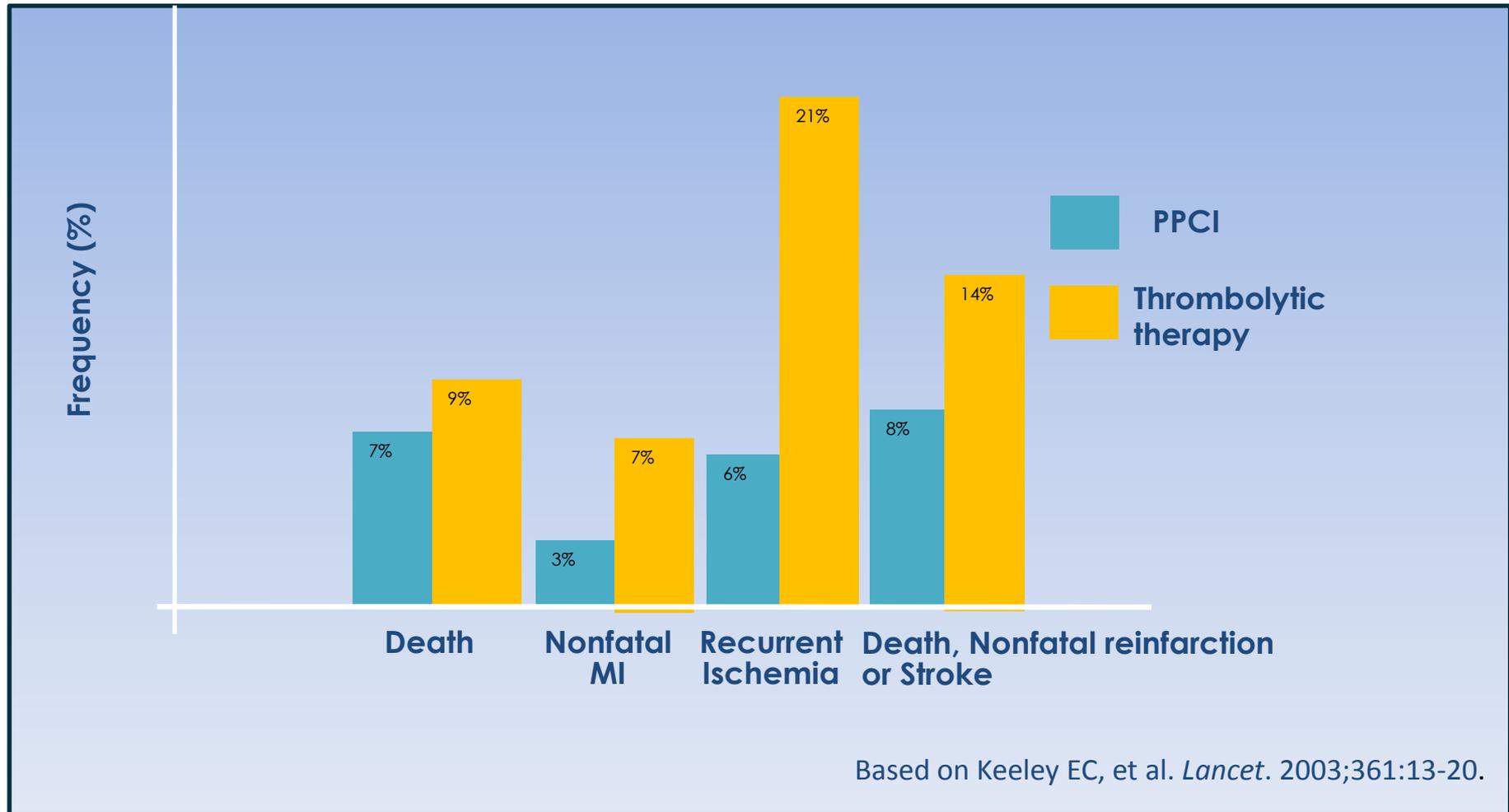
After balloon



- The European Society of Cardiology (ESC) guidelines recommend primary PCI as the preferred treatment whenever it is available within 90-120 minutes of the first medical contact

# Angioplasty reduces mortality and morbidity

Primary PCI vs. Thrombolysis in ST-Elevation Myocardial Infarction:  
Meta-analysis (23 Randomised controlled trials, N=7,739)



# Death at 3 years – presentation delay

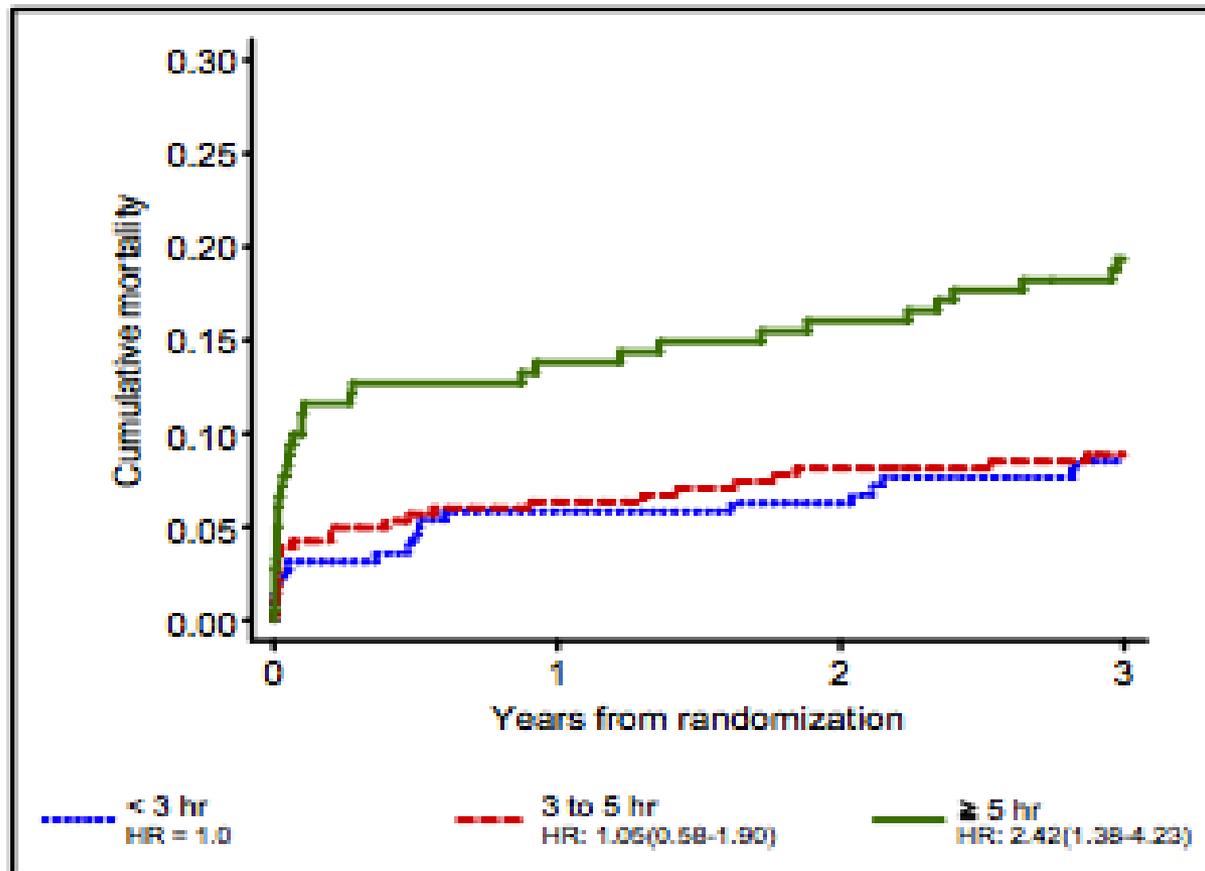
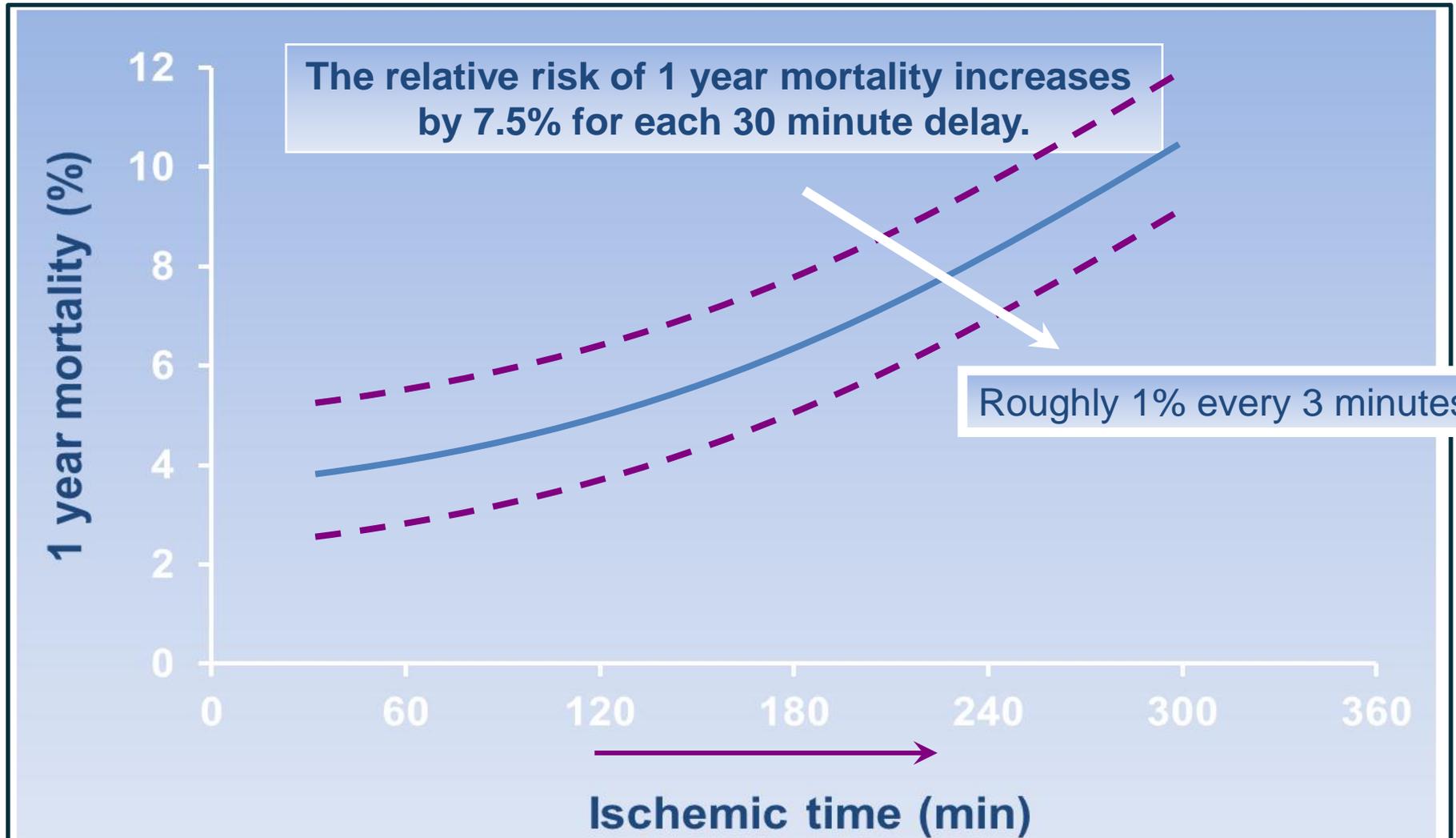


Figure 3. Symptom-to-balloon time and 3-year mortality. Symptom-to-balloon time  $\geq 5$  hours associated with significant mortality increase after 3 years of follow-up.

# Time from symptom onset to treatment predicts 1 Year Mortality—Primary PCI



# Borders and access to pPCI

Country A

Country B



# Example:Badajoz

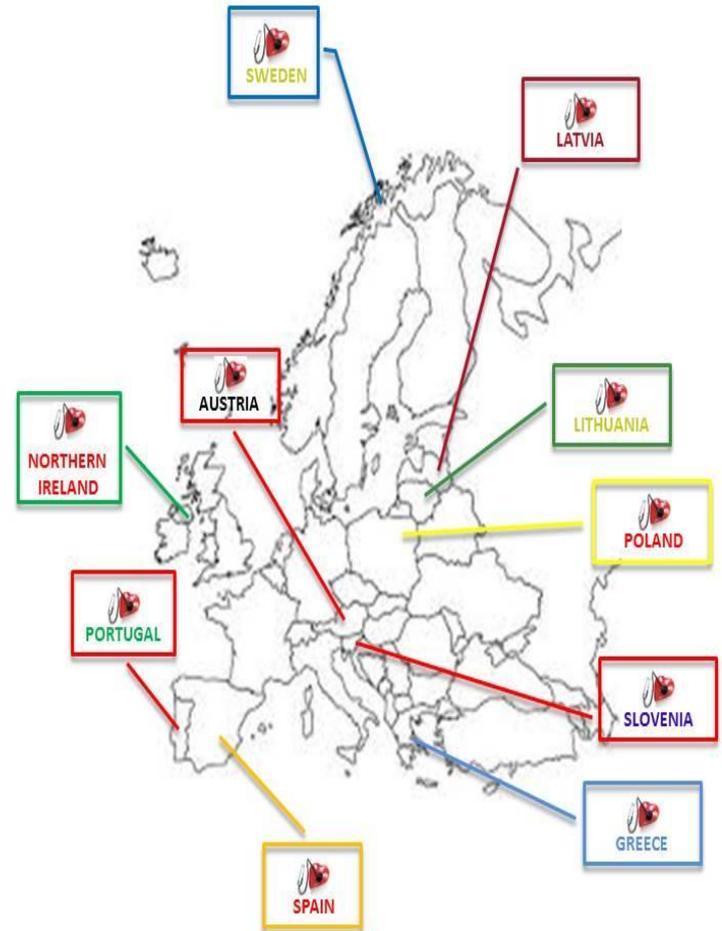


# ECCF survey objectives

- Review the extent of cross-border collaboration
- Look at opportunities and challenges in improving access to PPCI in STEMI patients across the EU
- Develop recommendations to overcome barriers to cross-border collaboration

# Methodology

- Structured interviews with interventional cardiologists (summer 2013)
- 10 EU member states
- Develop policy recommendations for healthcare providers and policymakers.



# Findings

Cross-border arrangements were absent or only partially implemented. Barriers mentioned included:

- Reimbursement systems
- Organisation and cost of Emergency Medical Systems
- Lack of awareness of the common EU emergency number 112
- Inconsistent data registries
- Need for joint training programs for healthcare professionals

# Summary - options and ideas for cross border cooperation in access to primary angioplasty

## Specific to cross-border regions

- Generate political will based on saving citizens' heart muscle
- Establish agreements to minimise delays for patients of border zones to facilitate more rapid access to 24/7 primary angioplasty centres
- Carry out research and collect additional data to identify border regions which could benefit from greater cross-border collaboration
- Identify cross-border and regional networks that are already working well and encourage transfer of best practices to other regions

## Europe-wide – across regional as well as national borders

- Endorse and support the principle of pPCI networks across Europe
- Encourage use of a unified, EU-wide 112 emergency response number
- Support coordinated action to raise standards to the level of the best performing Member States

# Conclusions & recommendations

- Barriers are largely a question of legal structures, institutional arrangements, economics and politics.
- Protocols – collaborative policies for optimal management of STEMI between countries with shared borders – are needed
- Political action at national and EU level is needed in order to overcome internal as well as cross-border barriers to collaboration.

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