

# Factors influencing patient delay before primary percutaneous coronary intervention in ST-segment elevation myocardial infarction: The Stent for life initiative in Portugal

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## **Abstract**

### Introduction and Aims

Shorter patient delays are associated with a better prognosis for patients diagnosed with ST-segment elevation myocardial infarction (STEMI). This study aimed to identify predictors of patient delay in the Portuguese population.

### Methods

Data on 994 patients with suspected STEMI of less than 12 hours' duration and referred for primary percutaneous coronary intervention (pPCI) and admitted to 18 Portuguese interventional cardiology centers were collected for a one-month period every year from 2011 to 2015. Univariate and multivariate linear regression models were used to identify predictors of patient delay.

### Results

No significant differences were observed in patient delay over the course of the survey. The multivariate analysis identified five predictors of patient delay: age  $\geq 75$  years (exp[beta] 1.28; 95% CI 1.10-1.50;  $p=0.001$ ), symptom onset between 0:00 and 8:00 a.m. (exp[beta] 1.26; 95% CI 1.10-1.45;  $p=0.001$ ), and attending a primary care unit before first medical contact (exp[beta] 1.75; 95% CI 1.41-2.16;  $p<0.001$ ) predicted longer patient delay, while calling the national medical emergency number (112) (exp[beta] 0.84; 95% CI 0.71-1.00;  $p=0.045$ ) and transport by the emergency medical services to the pPCI facility (exp[beta] 0.71; 95% CI 0.59-0.84;  $p<0.001$ ) predicted shorter patient delay.

### Conclusions

We identified five factors predicting patient delay, which will help in planning interventions to reduce patient delays and to improve the outcome of patients with STEMI.

## Keywords

Patient delay Predictive factors ST-segment elevation myocardial infarction Stent for life