

The characteristics, treatment and outcomes of patients with acute myocardial infarction from 2012–2015 in Estonian Myocardial Infarction Registry

Gudrun Veldre^{1,4}, Tiia Ainla^{2,4}, Toomas Marandi^{2,3,4}, Mai Blöndal^{2,4}, Aet Saar^{2,4}, Jaan Eha^{4,5}

¹Estonian Myocardial Infarction Registry, Tartu University Hospital, Tartu, Estonia; ²Centre of Cardiology, North Estonia Medical Centre, Tallinn, Estonia; ³Quality Department, North Estonia Medical Centre, Tallinn, Estonia; ⁴Department of Cardiology, University of Tartu, Tartu, Estonia; ⁵Heart Clinic, Tartu University Hospital, Tartu, Estonia

Purpose:

To describe the baseline characteristics, treatment and mortality of Estonian acute myocardial infarction (AMI) patients hospitalized during 2012–2015.

Material and Methods:

- Estonian Myocardial Infarction Registry (EMIR) collects data on all hospitalized AMI cases in Estonia (ICD codes I21-I22);
- Submitting the data via specific webform on www.infarkt.ee is mandatory.
- The use of personal identification number enables the linkage of EMIR data with other national registries including the Causes of Death Registry.
- EMIR collects the following data: patient demographics and medical history, data about current AMI, time points commonly used as quality indicators, diagnostic and treatment methods (incl. medicines) during hospital period and at discharge, in-hospital adverse events and mortality.

Results (1):

Baseline characteristics:

The mean age of AMI patients was 72 years and mean BMI 28.2 kg/m².

Ratio of males and patients with ST-segment elevation AMI has remained relatively stable (Fig.1). The prevalence of risk factors like dyslipidaemia (DL) and hypertension (AHT) was high and showed no major change during the study period (Fig.1).

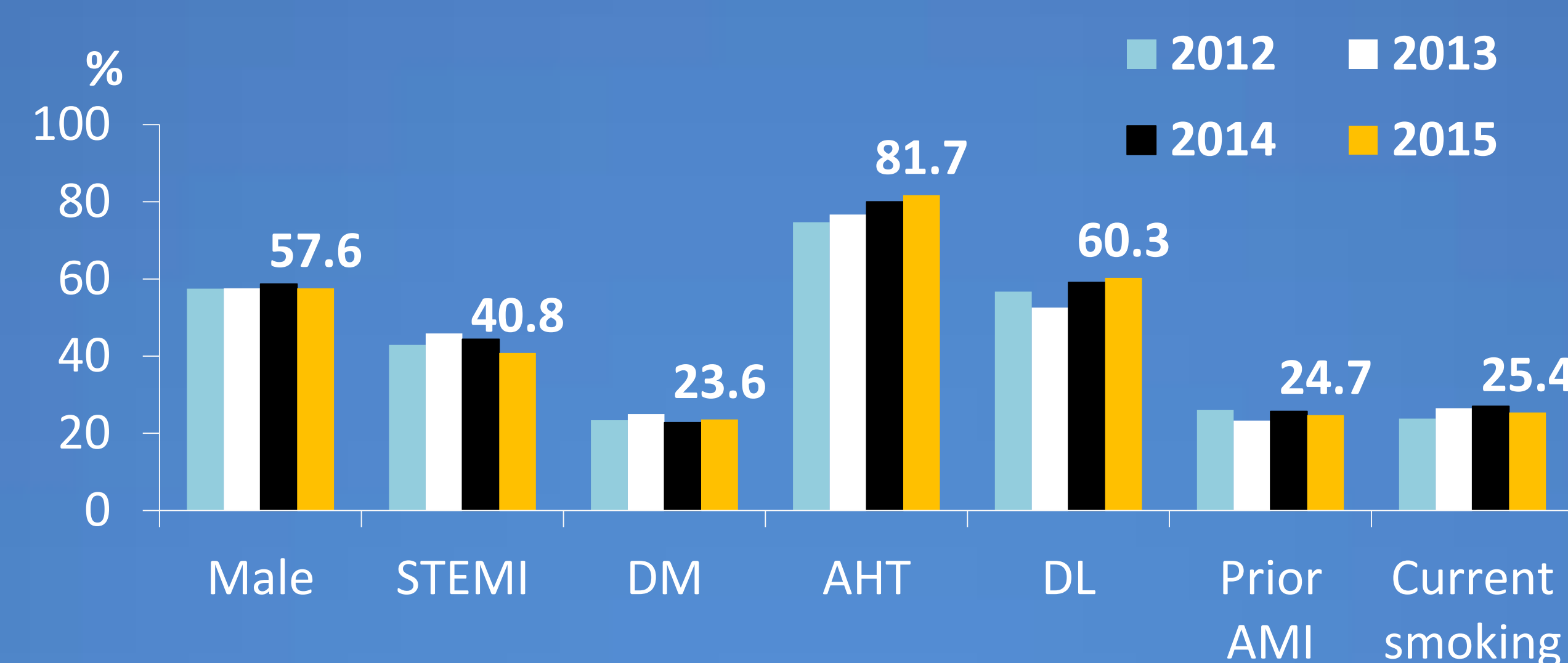


Figure 1. Baseline characteristics of Estonian AMI patients 2012-2015

AHT - arterial hypertension, AMI - acute myocardial infarction, DL - dyslipidaemia, DM - diabetes mellitus, STEMI- ST-segment elevation myocardial infarction.
*percentage given for year 2015

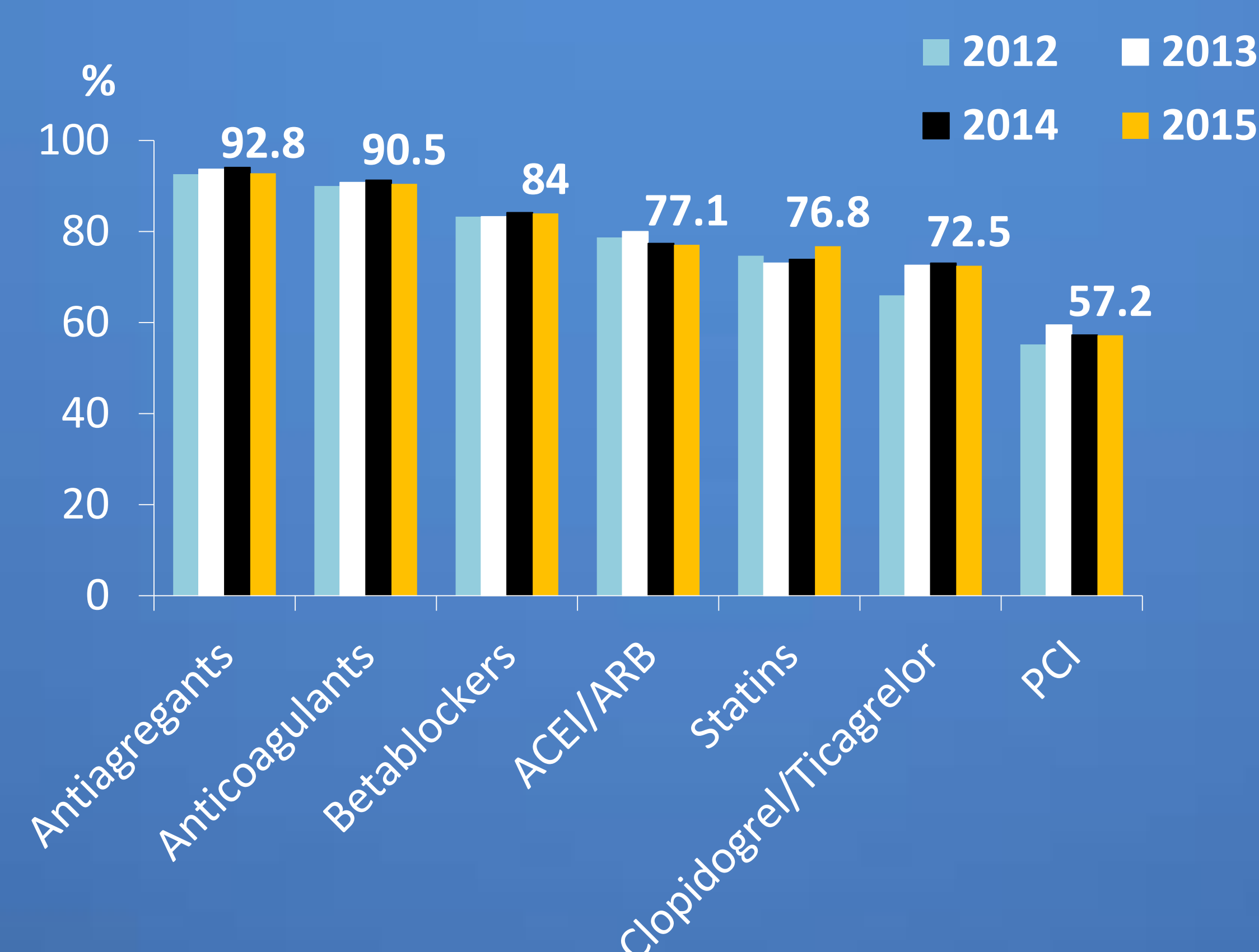


Figure 2. Hospital treatment of Estonian AMI patients 2012-2015

ACEI - angiotensin-converting-enzyme inhibitor, ARB - angiotensin receptor blockers, PCI- percutaneous coronary intervention.
*percentage given for year 2015

Results (2):

Treatment:

The prescription of evidence based medications remained above 70% (Fig. 2).

There was no marked increase in the rate of patients undergoing percutaneous coronary intervention(PCI): 55% in 2012, 59% in 2013 and 57% in 2014 and 2015 (Fig. 2). Among STEMI patients the use of thrombolysis decreased from 15% to 10% and the use of primary PCI increased from 44% to 49%.

The mortality rates have remained relatively stable through the study period except for year 2014 where in-hospital mortality was lower, compared to both 2013 and 2015 (Fig. 3).



Figure 3. Mortality rates of Estonian AMI patients 2012-2015

Conclusions:

EMIR provides a comprehensive overview of changes in baseline characteristics, treatment, as well as in short- and longterm mortality of non-selected population of hospitalized AMI patients in a high risk country.

Declaration of interest: none

Contact: Gudrun Veldre, director of registry, emir@infarkt.ee