

Patients' gender and place of residence determine their options for assessment of acute myocardial infarction. That should not be the case.

# Equal treatment for myocardial infarction patients?

Drawing on fresh figures from the Norwegian Myocardial Infarction Registry, Jortveit et al. present us with new evidence on the assessment and treatment of acute myocardial infarction (1). The authors underscore the gender differences, and although the dataset is subject to some limitations, there is little reason to doubt their main message: Myocardial infarction affects more men than women, and men are generally younger when they suffer infarction. Women with non-ST-elevation infarction were given a coronary angiogram less often than men. However, once coronary disease requiring treatment had been identified, women received revascularisation therapy (percutaneous coronary intervention, coronary surgery) as frequently as men. The suitability of patients for this surgery can only be determined by performing a coronary angiogram. There is therefore reason to believe that this treatment is less available to women than to men.

Women also fare worse when it comes to secondary prophylaxis (1). Platelet-inhibiting treatment (single and double loading-dose regimes) was prescribed for fewer women than men. There may be several reasons for this: age and comorbidity influence the choice of therapy; culturally conditioned differences in attitudes to men and women may contribute; the difference in the availability of coronary angiography may also contribute. The recommendations in the guidelines are nevertheless double loading-dose platelet inhibition after infarction, irrespective of age and gender, and of whether resvascularisation has been carried out (2).

In the early 2000s, infarction care in Norway was structured according to the prevailing guidelines for treatment of ST-elevation infarction, which were not very different from those we employ today (3). Invasive treatment of STEMI was centralised to six locations: the university hospitals in Tromsø, Trondheim, Bergen, Stavanger and Oslo (Rikshospitalet and Ullevål). In addition, a PCI centre was opened in Arendal in 2004. The reason for establishing the centre in Arendal was mainly the large distances to existing hospitals offering invasive treatment. Early prehospital diagnosis and treatment, combined with a well developed ambulance service for rapid transport directly to the invasive therapy centre – 24 hours a day, 365 days a year – is essential for treating STEMI. Jortveit et al. show that this functions very well. As many as 84 % of STEMI patients of both genders have invasive assessment and therapy, although here, too, the women come off worse once they are over 80. However, there is room for improvement for the 75 % of patients who suffered non-STEMI. Only 54 % of them were offered coronary angiography, and the eldest among them had especially low priority. A Norwegian study shows that non-STEMI patients over the age of 80 may benefit from such an option (4). It is therefore a matter for concern that a declining proportion of patients from as early as the age of 60 receive this offer.

The international guidelines that we use in Norway recommend invasive assessment and therapy after non-STEMI within 24 hours (2). At present this criterion can only be met for patients who belong to a hospital that offers invasive treatment, or when patients can be rapidly transferred to such a hospital. This is not the case for the majority. Figures from the Norwegian Myocardial Infarction Registry reveal regional differences in the therapy offered to infarction patients, and

that patients living close to hospitals that offer this service more frequently receive invasive assessment and treatment than patients living further away (5).

The treatments available in cases of acute myocardial infarction are therefore not equal. The documented gender and age differences cannot be explained on the basis of medical assessments and evidence alone. The proportion of patients who are offered invasive assessment and treatment is too low, and compliance with applicable guidelines is a long way off. Data from the Norwegian Myocardial Infarction Registry should be used to find the reasons for these differences.

There have been no changes in the organisation of the treatment provided for acute myocardial infarction since 2004, whereas the discipline and technology have developed considerably, and the treatments available and diagnoses continue to evolve. A correlation has been found between the size of the invasive treatment centre and the quality of the services provided (6). This has been an important reason for the centralised structure in Norway. In Finland, geographical factors have been given higher priority, and the country has six times as many centres as Norway in relation to population. Sweden also has more and smaller centres, but there are no reports indicating that this organisation results in poorer treatment quality. New evidence provides grounds for considering anew attitudes, priorities and the organisation of the invasive therapy offered in Norway.

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The author has completed the ICMJE form and reports no conflicts of interest.

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