alcohol intake with post-MI prognosis warrants further investigation in other datasets.

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Imre Janszky
Department of Public Health Sciences
Karolinska Institutet
Karolinska University Hospital
Norrbacka
6th floor
SE-171 76 Stockholm
Sweden
Tel: +46 8 73 73 894
Fax: +46 8 73 73 888
Email: imre.janszky@ki.se

Rickard Ljung
Centre for Epidemiology
The National Board of Health and Welfare
Stockholm
Sweden

Johan Hallqvist
Department of Public Health Sciences
Karolinska Institutet
Stockholm
Sweden

Staffan Ahnve
Department of Public Health Sciences
Karolinska Institutet
Stockholm
Sweden

Anna M. Bennet
Department of Medical Epidemiology and Biostatistics
Karolinska Institutet
Stockholm
Sweden

Kenneth J. Mukamal
Division of General Medicine and Primary Care
Beth Israel Deaconess Medical Center
Boston, MA
USA

doi:10.1093/eurheartj/ehn558
Online publish-ahead-of-print 15 January 2009

Moderate drinking, psychological factors, and cardiovascular protection: reply

We thank Dr Viktor Čulić for his interest in our article 'The combined influence of leisure-time physical activity and weekly alcohol intake on fatal ischaemic heart disease and all-cause mortality' and his thoughts concerning 'moderate drinking, psychological factors, and cardiovascular protection'. Dr Viktor Čulić's main point is that psychological factors are important for cardiovascular health. We agree. We are unsure whether Dr Viktor Čulić thinks of the psychological factors as confounders or intermediates in the relationship between moderate alcohol intake and cardiovascular disease. In any case, there were obtained only a few questions about psychological factors in the Copenhagen City Heart Study in 1981–83. However, as this is clearly interesting, we look forward to read future papers concerning studies of psychological factors, alcohol intake, and cardiovascular health.

Jane Nautrup Østergaard
Centre for Alcohol Research
National Institute of Public Health
University of Southern Denmark
Øster Farimagsgade 5a, 2. floor
1399 Copenhagen
Denmark
E-mail: jpe@niph.dk

Berit Lilienthal Heitmann
Research Unit for Dietary Studies
Institute of Preventive Medicine
Copenhagen Capital Region
Copenhagen University Hospitals
Centre for Health and Society
Øster Søgade 18, 1. floor
1357 Copenhagen
Denmark

Peter Schnohr
The Copenhagen City Heart Study
Epidemiological Research Unit
Bispebjerg University Hospital
2400 Copenhagen
Denmark

Morten Grønbæk
Centre for Alcohol Research
National Institute of Public Health
University of Southern Denmark
Øster Farimagsgade 5a, 2. floor
1399 Copenhagen
Denmark

doi:10.1093/eurheartj/ehn560
Online publish-ahead-of-print 24 December 2008

ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2008: application of natriuretic peptides

In the current ESC guidelines for the management of heart failure,[1] Dickstein *et al.* for the first time integrate B-type natriuretic peptides into a concrete diagnostic algorithm for patients with suspected first presentation of chronic heart failure. Patient presentation in this case most probably happens in primary care. Therefore, it seems uncommon that natriuretic peptides are recommended after echocardiographic assessment in the flow chart.

In addition, it is not comprehensive where the recommended cut-off values for BNP and NT-pro-BNP arise from. The presented cut-off values for BNP (rule-out 100 pg/mL, rule-in 400 pg/mL) and for NT-pro-BNP (rule-out 400 pg/mL, rule-in 2000 pg/mL) most probably correspond to the 'Breathing not properly (BNP)' study[2] for BNP and the PRIDE study[3] for NT-pro-BNP although the corresponding references are not cited. However, both studies were executed in patients with acute dyspnoea in the emergency department most probably reflecting cases of acute heart failure rather than first presentation of chronic heart failure. Cut-off values evaluated in the primary care setting[4,5] are clearly lower than those in emergency department studies like PRIDE and BNP. Primary care as well as emergency departments are staffed primarily by non-cardiologists without specific background knowledge on natriuretic peptides, so that guideline recommendations on cut-off values must be definite as they are crucial for correct test interpretation and diagnosis.

In the context of acute heart failure, the authors stress that the evidence for natriuretic peptides is not that extensive as with chronic heart failure. This seems astonishing, considering the two large multi-centre studies, PRIDE and BNP, which should push the level of evidence close to 'A'. In contrast, primary care studies corresponding to chronic heart failure are quite smaller.[4,5]

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Roman Pfister
Department III of Internal Medicine
Herzzentrum University of Cologne
Kerpenerstr. 62,
50937 Cologne
Germany
Tel: +49 221 478 32493
Fax: +49 221 478 32355
Email: roman.pfister@uk-koeln.de

Christian A. Schneider
Department III of Internal Medicine
Herzzentrum University of Cologne
Kerpenerstr. 62,
50937 Cologne
Germany

doi:10.1093/eurheartj/ehn561
Online publish-ahead-of-print 24 December 2008

ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2008: application of natriuretic peptides: reply

The comments from Dr Pfister and Dr Schneider are well founded. Figure 1 does appear to be a diagnostic algorithm for untreated patients suspected of having heart failure. Unfortunately, the legend calls it a 'flow-chart' and implies that it represents a diagnostic algorithm that would include clinical examination, ECG, chest X-ray, and echocardiography. We agree that it was unfortunate to include echocardiography in this figure as it does imply that sampling of natriuretic peptides should follow an echocardiographic examination. This has led to some misunderstanding. It was not the intention of the Task Force to recommend natriuretic peptide sampling after echo. Indeed with low values, chronic heart failure is unlikely and the indication for an echo examination would not be strong. This criticism is valid and the Task Force is grateful for this opportunity to emphasize that essentially the figure provides rough cut-off values, indicating the likelihood of the correct diagnosis in untreated patients with symptoms suggestive of heart failure.[1] The term echocardiography has been deleted from the figure in the slide set available on the ESC website.

With regard to the second point, we do indeed appreciate that the data on BNP and N-terminal proBNP, come from three different types of patient populations. Patients frequently present with symptoms suggestive of heart failure in primary care. They may also present with acute dyspnoea and symptoms suggestive of acute heart failure or may alternatively present in hospital with symptoms suggestive of decompensated chronic heart failure. The cut-off values for patients with heart failure and preserved ejection fraction are also not adequately defined.

Figure 1 represents a consensus view in an attempt to summarize the available data indicating the likelihood of the presence of heart failure. It would have been an alternative to divide this figure into categories dependant on the type of presentation. However, we felt that this might complicate interpretation and provide detail beyond the scope of the Guidelines. The point is well taken that the documented evidence for using natriuretic peptides levels in patients admitted acutely with symptoms suggestive of heart failure is stronger than the data available for primary care. Independent of the patient's presentation, we believe that the strongest documented evidence relates to the negative predictive value, and that low levels of natriuretic peptides make the diagnosis of heart failure unlikely.

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Kenneth Dickstein
University of Bergen
Stavanger University Hospital
Armauer Hansens vei 20
4100 Stavanger
Norway
Tel:+47 5151 94 53
Fax: +47 5151 99 21
Email: tbaak@stahf.no or trout@online.no