larger effect (HR = 0.40) between 'morbidly obese' and 'normal' women is found to be non-significant ($P = 0.12$). Investigation of the relative widths of the hazard ratio confidence intervals for these two comparisons in the authors' figures reveals striking differences in the sample sizes included in the relevant gender by BMI groupings. While the authors do eventually consider BMI as a continuous variable, they curiously restrict it to having a linear effect (results again show a significant increase risk for men, but not for women). This is particularly puzzling as they previously claim a J-shaped association for men (it should be kept in mind, however, that this association is dependent on the categorization selected). It would seem that a smoothing technique such as cubic splining,[4] which requires neither categorization nor an assumption of a linear effect, would have been more appropriate for modeling BMI in the analyses presented. Future research studies should avoid grouping continuous variables into categories, especially if it cannot be demonstrated that such a categorization accurately reflects the relationship between this variable and the specific outcome of interest. In addition, continuous variables should not be assumed to have a linear effect unless the assumption of linearity can be justified.

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The dangers of categorizing BMI: reply

We thank Drs Hamilton and Filardo for their interest in our article examining the association between obesity and cardiovascular events in patients with established coronary disease. They raise valid points regarding the dangers of categorizing continuous variables, such as body mass index (BMI). Our intent, however, was not to examine the association between BMI and cardiovascular events. Our intent was to examine the association between obesity and cardiovascular events, using BMI cut-points as surrogates for obesity categories. The BMI cut-points used are well established and are often used in the clinical setting for diagnostics and therapeutics, hence their clinical relevance. Even so, we do agree that continuous variables should not be assumed to have a linear effect. We did conduct a cubic spline analysis, which provided no additional information than that from the analysis of the five categories of obesity (underweight, normal, overweight, obese, and morbidly obese). With regards to the differences observed between men and women, we acknowledged in our article that the results are limited by the small sample size in women, that the null finding in women requires further study, and that BMI may not be the best measure of obesity in women. With regards to the non-significant, but large strength of association [hazard ratio (HR) = 0.40] between the morbidly obese and normal women, because of the small sample size and greater variability, the confidence interval is quite wide and therefore, the HR could not be precisely estimated. A larger sample of women would have produced a more precisely estimated HR, which may or may not have been similar to the observed HR of 0.40.

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Cardiovascular pre-participation screening of young competitive athletes for prevention of sudden death: proposal for a common European protocol

In May 2005, Corrado *et al.*[1] published a consensus statement of the ESC working groups recommending pre-participation screening of all young, competitive athletes with the aim of preventing SCD. Screening was recommended to follow the Italian model, which includes 12-lead ECG, with screening commencing at age 12–14 and continuing every 2 years until age 35. The recommendation was based on findings that in the Veneto region in Italy, SCD from HCM among screened athletes was less frequent than expected.

A task force appointed by the Danish Society of Cardiology has evaluated the available data and concluded that pre-