LETTERS TO THE EDITOR

- The British Heart Journal welcomes letters commenting on papers that it has published within the past six months.
- All letters must be typed with double spacing and signed by all authors.
- No letter should be more than 600 words.
- In general, no letter should contain more than six references (also typed with double spacing).

Prevalence of coronary heart disease

Sir,—In the November 1990 issue of the British Heart Journal you published our paper "Prevalence of coronary heart disease in Scotland: Scottish Heart Health Study" (1990;64:295-8) with an editorial "Getting a handle on the prevalence of coronary heart disease" (1990;64:291-2). While we were pleased to see the former in print, and the editorial in particular, to the paper and begins reasonably favourably, comments and statements appearing towards the end have given offence.

The editorial inaccurately states that in the published article we "go beyond . . . important observation to imply that these methods can be relied upon to support the view that coronary heart disease is more prevalent in women than in men". We do no such thing. We contrast the correlations between the different measures of prevalence and mortality within the two sexes, including the Rose angina questionnaire. The latter shows a higher prevalence of angiographic disease in women than in men, not an original observation. We point out that this measure correlates better with mortality from coronary heart disease than do the others, particularly in women, "despite the lower specificity of angina for coronary heart disease in women"—hardly a claim that "these methods can be relied upon". Both cardiologists and epidemiologists know that anginapectoris is not pathognomonic of coronary heart disease, even where coronary heart disease is common, and its specificity (and hence false positives) vary by age and sex.

The editorial questions whether the Rose questionnaire is too lacking in sensitivity and specificity to be applied to "smaller groups" such as "Scottish districts". The smallest district studied had a total population of 35 000 and the largest 435 000 while the mean and median were between 120 and 150 000. We rejected most small districts from the study because of the instability of their mortality rates, and not because of possible statistical problems with surveys. With the exception of the two MONICA districts the number of men and women surveyed was approximately the same in each district—450. The confidence intervals for estimates of frequencies are related to the size of the random sample taken, and are independent of the size of the population sampled. They are similar for Roxburgh, population 35 000 and for South Glasgow, population 325 000.

There are problems too with the disparaging contrast of measures of prevalence with "the hard data from hospital admission for infarction". Were routine statistics on hospital discharges as "hard" as all that, we, in Dundee would not have had to commit as much time and effort as we have to their validation, with colleagues in Glasgow, in the Scottish and World Health Organisation MONICA studies, and we would not have been designated as a WHO Quality Control Centre and Collaborating Center for cardiovascular epidemiology for training and methodology in this area. Equivalent validation work is also being done in the USA in the ARIC study.

The penultimate paragraph appears to be suggesting that we are accusing physicians of systematic misdiagnosis, and then goes on: "It is irresponsible for epidemiologists to present incomplete and not fully developed observations and theories because publication of such ideas in a clinical journal implies that they should be incorporated into clinical practice.

Even out of context the statement is extraordinary if you analyse it. What are referees and editors responsible for? Where is the epidemiologist, or the clinician, who thinks that epidemiological survey methods are both necessary and sufficient for clinical diagnosis of surgical disease? There is nothing incomplete or undeveloped about either the theoretical basis of the paper or the observations. The findings were presented to the International Epidemiological Association in Helsinki in 1987 and to the European Congress of Cardiology in Vienna in 1988, to critical acclaim, before submission to the British Heart Journal in 1989. The question to which we addressed ourselves (and to which much of the epidemiology) is relevant to clinicians. Variations in coronary heart disease mortality could correlate with morbidity (and therefore the need for clinical services) or with sudden cardiac death alone, largely inaccessible to clinicians. That mortality and morbidity do indeed correlate is of great importance to clinicians in areas of high coronary heart disease mortality. These coronary care units are not commensurate. Clinicians frequently leap across from mortality rates to the need for clinical services. In this case an epidemiological study has provided essential stepping stones.

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We apologise for inadvertent offence caused to the authors by the editorial. If an implication could have been drawn that the authors were attempting to apply epidemiological methods to clinical practice, we know this not to be so.—Ed.

British Heart Journal

Cardiac catheterisation with 5 French catheters

Sir,—I should like to comment on the article by O’Sullivan et al (British Heart Journal 1990;64:211-3). They cited a recent paper by Kohli et al in which the quality of coronary angiograms obtained with 5F and 7F catheters was compared in the same group of patients. The latter study concluded that "the conventional 7F coronary catheter appears to be superior to the 5F catheter in regard to diagnostic accuracy and image quality because of the higher flow rate possible with the former, allowing greater coronary filling.

Also, while high flow may be possible in 5F catheters, thinnest outer walls may compromise torque and handling. Review of the frequent incidence of non-diagnostic angiograms in patients using 5F catheters, angiographers must be aware that in some patients it may be necessary to upsizelarge coronary angiograms with 7F catheters. The latter study concludes that "the conventional 7F coronary catheter appears to be superior to the 5F catheter in regard to diagnostic accuracy and image quality because of the higher flow rate possible with the former, allowing greater coronary filling.

In view of the differences of opinion in published reports we need a proper randomised study to compare the latest 5F catheters with traditional 7F catheters.

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A controlled trial of community based coronary rehabilitation

Sir,—We read with interest the excellent study of Bethell and Mulee (1990;64:370-5). In a large randomised controlled trial they showed both the safety and the benefits of a rehabilitation programme after infarction which included exercise training three times a week for three months.

As an index of physical fitness or of exercise capacity Bethell and Mulee used the peak ventilatory equivalent (V̇O₂max) using the Astrand-Rhyming nomogram. Though the
V\textsubscript{o}max recorded during a progressive maximal exercise test is a reliable indicator of exercise capacity,\(^1\) there are methodological difficulties with the prediction of V\textsubscript{o}max when the Astrand-Ryhming nomogram is used. This nomogram is based upon externally paired observations of heart rate and either oxygen uptake or (as in the present study) external work rate during a submaximal test. Unfortunately the predicted V\textsubscript{o}max may differ widely from the actual V\textsubscript{o}max, the standard error of the estimate being some 15\%.\(^2\) Furthermore, the original nomogram was based on data from young healthy students of physical education,\(^3\) and may not be applicable to older subjects or to those with cardiac disease. Astrand himself and other authors have recently discussed the limitations of the nomogram.\(^4\) Finally, the effect of physical training in the present study may have been to improve cycling efficiency, which by altering the relation between external work rate and oxygen uptake would lead to artificially high values of predicted V\textsubscript{o}max.

Rather than extrapolate data to predict V\textsubscript{o}max, the submaximal data themselves could be used. For example, in the study by Bethell and Mullee, a standardised measurement of heart rate at a given work rate may have been a more appropriate way of assessing exercise capacity. Despite reservations about the Astrand-Ryhming nomogram there is no doubt that Bethell and Mullee have shown valuable improvements in their patients after rehabilitation both in general well-being and in the rate-pressure double product at submaximal work rates.

**BOOK REVIEW**


During 1989 the American College of Cardiology celebrated the fortieth anniversary of its founding. From a nucleus of cardiologists based in New York it has grown into an influential organisation with members in all parts of the world and international influence largely, but by no means exclusively, exerted through two major activities—its annual scientific sessions and the Journal of the American College of Cardiology. The journal and its predecessor must be unique in that they have had a single editor, Simon Dack, since the college first started its own journal in 1949. In many ways in which the college celebrated its anniversary was to invite Suzanne Knoebel of Indianapolis, as guest editor, to produce a series of scientific papers to appear each month in the journal. These have now been gathered together in a volume, supplemented by original material and two valuable commentaries.

Each chapter can stand on its own and reflects expert views on diseases, techniques of diagnosis and treatment, pathology, molecular biology, and decision making—a wide range of topics of current concern. Each is dealt with in an individual fashion and reflects the approach, experience, and quirks of an author or small team. Arrhythmias exemplify this well. Borys Surawicz illuminates the difficulties in finding medications for ventricular arrhythmias; Wellsens and Brugada convincingly take this further and explore the whole range of treatments for arrhythmias in general, and Richard Cohen and his group remind us of the mathematical concepts that may underlie the pathological and physiological expressions in these disorders. This link very well with Charles Finch’s chapter on the evolution of the electrocardiogram which itself, of course, has wider implications directly relevant to many other chapters.

One could go on and on listing and analysing contributors and contributions but that would only distract from the important message—that this is a book well worth reading and an essential source of up to date information. Various other groupings easily come to mind. Two important additional chapters do, however, orientate the reader, and the respective authors raise important issues. Eugene Braunwald writes lucidly of the golden age of cardiology encompassed by the era commemorated; and in a concluding chapter Sylvan Weinberg, editor of the college’s influential audiopse journal JACC, expresses the journal’s point of view and compares current issues with those that dominated the scene in 1949, reminding us of the emphasis in that year as seen in the pages of the only English language cardiac journals then published, the American Heart Journal and the British Heart Journal. The comments by these distinguished educators provide a perspective to the topical and authoritative contributions that cover the spectrum of cardiology so helpfully.

This expanded version of the symposium is a great credit to the editorial selection and presentation undertaken by Dr Knoebel and Dr Dack.

Dennis M Krikelas

The title reviewed here is available from the BMA Bookshop, PO Box 295, London WC1H 9TE. Prices include postage in the UK and for members of the British Medical Association, but overseas customers should add £2 per copy to cover postage and packing. Payment can be made by cheque in sterling drawn on a UK bank, or by credit card (MasterCard, VISA, or American Express). Send order, card number, expiry date, and your full name.

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**BRITISH CARDIOVASCULAR SOCIETY NEWSLETTER**

The annual meeting of the society in Glasgow had a larger attendance than for any we have had previously. The total (excluding exhibitors) was 1266. Of these, 766 were physicians or surgeons, 400 were nurses, and 150 were technicians. The venue proved to be popular. The programme met with general approval; the facilities within the conference centre were generally excellent. The proximity of the exhibition kept people together, and saved valuable time during breaks in the programme; and the convenience of an adjoining hotel was an advantage that will be missed when we return to Wembley. The success of the meeting is a tribute to Ian Hutton and his colleagues, who took much of the burden of preparation and ensured that we enjoyed something of the ambience of the "city of culture".

When we consider we have had the perfect meeting, we can relax our efforts. That has not happened, nor of course will it. Even Glasgow had its blemishes. The numbers who will be attracted by particular topics are always unpredictable; some sessions required a larger hall than was allocated and were overcrowded. Signposting for the break out meetings within the hotel was judged inadequate, especially on the first day when the layout was unfamiliar. The standard of slides was not uniformly good. Colour seems sometimes to be a substitute for careful composition rather than an aid to clarity. Colour used judiciously can enhance a presentation, but a few speakers do themselves less than justice with psychedelic displays of overcrowded data. Whatever happened to the old guideline of not more than seven words to a line or five lines to a slide? Posters remain a problem. They form an integral part of the scientific meeting and many subjects lend themselves better to this form of exposure than to spoken presentations. In Glasgow, the posters may have been set too closely together. Some authors seemed diffident about discussing their content, or perhaps those of us who were viewing the posters did too little to initiate debate.
A controlled trial of community based coronary rehabilitation.

S W Davies and C A Greig

Br Heart J 1991 66: 114-115
doi: 10.1136/hrt.66.1.114-c

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