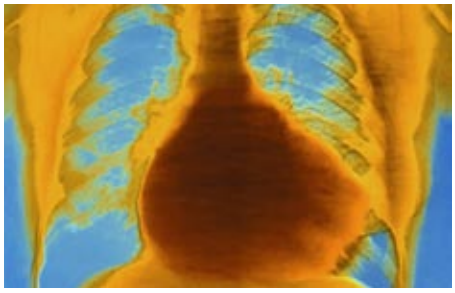
We select the letters for these pages from the rapid responses posted on bmj.com favouring those received within five days of publication of the article to which they refer. Letters are thus an early selection of rapid responses on a particular topic. Readers should consult the website for the full list of responses and any authors' replies, which usually arrive after our selection.

LETTERS



ALAIN POL/ISM/SPL

DETECTING LVH

QRS voltage criteria can be useful

Pewsner et al take no account of age or race when assessing accuracy of electrocardiography (ECG) for diagnosing left ventricular hypertrophy (LVH).[1] Ignoring them reduces specificity, and results in "disease of electrocardiographic origin" in screening programmes.[2] In particular, the upper normal limits of QRS voltages in black men are greater than in white men, while the difference between black and white women increases with age.[3]

We routinely report upper limits of normal QRS voltage for R_{aVL}, $R_{aVL}+S_{V3}$, and $R_{V5}+S_{V1}$ on all ECG referrals for hypertension. These upper limits of normal are calculated as the mean plus 2 standard deviations from data in Rautaharju et al.[3] A diagnosis of LVH is suggested if any value is greater than the age, sex, and race adjusted upper normal limit. When we compared the Pewsner criteria with our criteria in a recent sample of patients (table), the Pewsner criteria resulted in roughly twice as many diagnoses of LVH using the Sokolow-Lyon and Cornell indexes. Using just one positive criterion for a diagnosis of LVH also increased the number of diagnoses (table). The table shows the value of using R_{aVL} alone.

Number of LVH diagnoses made in 1638 consecutive referrals over 45 months

ECG measurement	Hammersmith criteria	Pewsner criteria
Sokolow-Lyon*	72	173
R_{aVL}	200	
Cornell	96	188
Cornell product		272
Gubner		114
Any criterion positive	302 (18.4%)	440 (26.9%)

*The Hammersmith criteria use only RV5+SV1; of the 173 that were positive with the Pewsner criteria, RV6 was taller than RV5 in 11.

Requiring only one of three criteria to be positive to diagnose LVH increases the false positive rate, but I know of no data on the effect of combining age, sex, and race adjusted ECG measurements. Theoretically, three independent tests that are each normally distributed—have 2.5% of measurements above the upper limit of normal—will provide a specificity of 92.7%. However, ECG measurements are not independent, so specificity will be higher. Table 2 of Pewsner's paper reports a median specificity for Sokolow-Lyon of 89%, Cornell 96%, Cornell product 85-97%, and Gubner 96%. If these four measurements were combined, the theoretical specificity would be about 75%, or 82% if the Cornell product were omitted. Even allowing for the correlation between the ECG measurements, the resulting specificity would be too low for a screening test.

Using magnetic resonance imaging to screen for LVH is impracticable. The alternative of combining ECG measurements to generate a test with a relatively low sensitivity but a high specificity is a pragmatic one.

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Competing interests: None declared.

1 Pewsner D, Jüni P, Egger M, Battaglia M, Sundström J, Bachmann LM. Accuracy of electrocardiography in diagnosis of left ventricular hypertrophy in arterial hypertension: systematic review. *BMJ* 2007;335:711-4. (6 October.)
2 Simonson E. *Differentiation between normal and abnormal in electrocardiography.* St Louis: CV Mosby Company, 1961.
3 Rautaharju PM, Zhou SH, Calhoun HP. Ethnic differences in ECG amplitudes in North American white, black, and Hispanic men and women. Effect of obesity and age. *J Electrocardiol* 1994;27(suppl):20-31.

Ethnicity is relevant

Pewsner et al highlight the danger of using electrocardiography (ECG) for detecting left ventricular hypertrophy (LVH), particularly as it has low sensitivity.[1] They conclude that no criteria are superior to the Sokolow-Lyon criteria.[2] Our recent review supports the first, but not the second, conclusion.

Bourdillon (previous letter) emphasises the need to take into account age, sex, and ethnicity. In a systematic review of the literature, we identified five studies comparing the sensitivity and specificity of ECG (using the Sokolow-Lyon and Cornell criteria) for detecting LVH in white and black (African origin) populations.[3-5]

Specificity was high using both sets of criteria in white populations (Cornell 87.4%, Sokolow-Lyon 88.9%) but was much lower in black groups using the Sokolow-Lyon criteria (72.1%). Specificity was higher in black groups using the Cornell criteria (86.2%). Some evidence suggested that Cornell criteria were more sensitive than Sokolow-Lyon criteria in black populations.

Our evidence favours the Cornell criteria over the Sokolow-Lyon criteria. While we agree with Pewsner et al that ECG is not sufficient for diagnosing LVH, we emphasise that it is not equally valid across ethnic groups.

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1 Pewsner D, Jüni P, Egger M, Battaglia M, Sundström J, Bachmann LM. Accuracy of electrocardiography in diagnosis of left ventricular hypertrophy in arterial hypertension: systematic review. *BMJ* 2007;335:711-4. (6 October.)
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5 Rautaharju PMMT, Siscovick D, Zhou SH, Gardin JM, Kronmal R, Furberg CD, et al. The CHS Collaborative Research Group. Classification accuracy of electrocardiographic criteria for left ventricular hypertrophy in normal weight and overweight older adults. *Ann Noninvas Electrocardiol* 1996;1:121-32.

GPS' 24 HOUR RESPONSIBILITY

Summary of responses

Slightly aggrieved at the suggestion that general practitioners' jobs are daytime only, many of the respondents to the head to head on whether GPs should resume 24 hour responsibility for their patients remind us that GPs do still provide out of hours care, albeit in different organisational set-ups.[1 2] Most think that

extending GPs' working hours back to those before the 2004 contract is neither feasible nor desirable—mainly because of increased workloads, doctors' and patients' safety, and a total lack of financial incentives. Few think that GPs should be expected to have to "opt in" again.

Respondents are indignant at the government and primary care trusts for not fully accepting that organising out of hours care is their responsibility under the new contract; for feeding the public perception (via the media) of GPs as overpaid, greedy, and lazy; for creating unrealistic expectations in patients as healthcare "consumers" entitled to have their demands met at all times; and for expecting GPs to do more without adequate remuneration and compensation.

GPs working for out of hours providers are as well qualified and experienced as any others, they argue, and NHS complaints have increased in total, not especially for out of hours care. Many might consider providing out of hours care with the right "package." Others do so successfully in local cooperatives staffed by doctors and other specialists, and calls have gone down.

And the way forward? One recommendation is specialists in primary care out of hours services, a separate, defined specialty with recognised qualifications and bespoke or mandatory training.

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Competing interests: None declared.

1 Jones R. Should general practitioners resume 24 hour responsibility for their patients? Yes. *BMJ* 2007;335:696. (6 October.)
2 Herbert H. Should general practitioners resume 24 hour responsibility for their patients? No. *BMJ* 2007;335:697. (6 October.)

US LIABILITY

Damned if you treat, damned if you don't

The UK government recognised the need for standardisation in the adventure travel market[1] in this year's BS8848 document, which covered the need to provide medical support by a recognised medical practitioner. All was well until the implications of providing medical cover to Americans, among others, was highlighted. Defence unions advise doctors that although they are covered to treat Americans, they are not covered for court cases that arise in North America. (Americans can sue a doctor in America, independent of where the transgression occurred.) The General Medical Council (GMC) advises doctors not to participate in activities without appropriate cover.

However, if a doctor does not treat an American on an expedition, the American participant can sue for racial discrimination and report the doctor to the GMC for improper conduct. The defence unions escape culpability in the eyes of the racial discrimination board as they are not discriminating against Americans but against legal action taken in the US, whether by an American or a UK citizen. What about Americans living permanently in the UK? Or dual nationals who retain their American status but are also UK citizens? They fall into the same bracket, so the advice to the doctor is the same.

How can this untenable situation be rectified? Could something as simple as a signed legal waiver work, or will the defence unions have to accept the risk? Whatever the solution the situation cannot be allowed to continue as it is, with doctors risking being sued for treating or being sued for refusing to treat.

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Competing interests: None declared.

1 Sutherland AI. Why are so many people dying on Everest? *BMJ* 2006;333:452. (26 August.)

BISMARK *v* BEVERIDGE

Unfair comparison

The Euro Health Consumer Index 2007 is being cited as evidence that the Bismark system "delivers better value" than the Beveridge system.[1] One might, however, pause to consider World Health Statistics 2007 from the World Health Organization (www.who.int) as shown in the table.

Surely it is premature to draw conclusions on the merits of one system over another when the playing field is far from level?

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Competing interests: None declared.

1 Watson R. UK does well on giving information to patients but poorly on access to new treatments. *BMJ* 2007;335:686. (6 October.)

Public healthcare statistics from the WHO

Measure	Germany	United Kingdom
Per capita total expenditure($)	3521.4	2899.7
Hospital beds/100 000 people	844.49	389.79
Doctors/100 000 people	340.20	389.79

1$=£0.5=€0.7.

VIVE LA DIFFERENCE?

Training and careers in France

The United Kingdom is not alone in its uncertainty about doctors' training and careers.[1] Other European countries, and particularly France, are struggling with a shortage of junior doctors and an uneven distribution of doctors across the country, leading to potential issues regarding the immigration of doctors to fill the gaps.

In France, medical schools admitted 8000 students in 1975, 6000 in 1980, 4000 in 1990, and 3500 in 2000, and it was urgently decided to train 7100 students in 2007. Thus we are still following short term reasoning, without considering other factors such as the feminisation of the workforce, the decrease in working hours, the increasing gap between graduation and beginning professional activity, early retirement, the quest for a better quality of life, the place of other health care professionals (specifically nurses), and the migration of doctors around the world.

The distribution of doctors across France is also a subject of debate as there are discrepancies between regions, with more doctors per capita in the south than in the north. Many villages in the countryside have no doctors, and too many specialists are competing in large cities.

In hospitals, vacant positions are filled by poorly paid foreign doctors. In 2007 there are thousands of doctors who qualified abroad and are employed in hospitals without having passed any serious selection process.

We need to assess competencies of all doctors throughout their career, irrespective of the country where they qualified. As in many countries, in France, this reflection on competency assessment started in 2002,[2] after the Bristol affair.

We should allocate funds to organise conferences and observe the immigration of doctors. This should avoid making short term opinion based decisions, and allow for long term decisions to be taken based on research data.

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1 Godlee F. Editor's choice. Training our doctors. *BMJ* 2007;335:0. (22 September.)
2 Matillon Y, LeBoeuf D, Maisonneuve H. Defining and assessing the competence of health care professionals in France. *Journal of Continuing Education in the Health Professions* 2005;25:290-6.