work but allow some shades of grey. Finally, it is necessary to keep the rules simple and easy to understand, as doctors change posts so frequently.

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1 Junior doctors' hours [letters]. *BMJ* 1995;311:632. (2 September.)

Flexible partial shifts should be made to work

EDITOR,—The new deal on junior doctors' hours arose out of an agreement signed in 1990, the government having been forced to address the issue of hours of work by a sustained campaign of publicity by junior doctors over the preceding 3 years. Under the terms of the new deal no doctors should work more than 56 hours, whatever their working pattern. Set in the context of a maximum average of 72 hours on call, this obviously implies periods of rest.¹ Despite the rantings of Christopher Wong this is not a new policy.^{1,2}

The new deal is far from perfect and fell far short of our aspirations. It was, however, the best agreement that could have been attained within the financial constraints set by the government and was signed in the belief that a little progress was better than none at all. The 100 hour week that Wong refers to as "gone" could easily return if we were to allow the new deal to be renegotiated. Much criticism of the agreement arises out of misconceptions about training; misunderstanding of the agreement; improper implementation; and ignorance of the fact that rates for additional duty hours were an improvement on units of medical time, leading to a substantial pay increase, which has been partially eroded by the reduction in hours.

Wong's enthusiasm to gain experience is commendable and, I am sure, is fuelled by the desire to provide patients with the best possible care. Wong would do well, however, to remember that he needs adequate rest to perform optimally. Fatigue often causes error. In the same way that the public is entitled to safe passage on commercial air flights, which is guaranteed in part by strict controls on pilots' working hours, it is entitled to safe medical care.

I found some amusement in Wong's banal adage that "practice makes perfect" and in being told that "training in any profession requires exposure and practice."³ Junior doctors are usually unsupervised when providing services out of hours. I contend that only supervised practice makes perfect and merits description as training. Imperfect practice repeated without constructive criticism does not lead to perfection. It will, however, provide exposure. It exposes patients to the imperfect practice of medicine or surgery by partially trained and often inadequately rested staff. It exposes junior staff, and the consultants supposed to be guiding their practice, to the possibility of litigation. Patients are not guinea pigs to be practised on. As the confidential reports on mortality and morbidity indicate, patients are entitled to the highest standards of care provided by fully trained doctors.

To Wong I would say, "If you do not like the partial shift you are working, take steps to amend it to your satisfaction. If you do not like the policies of the Junior Doctors Committee,

then get elected, attend its meetings, and change them."

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1 Wong C. Junior doctors' hours. *BMJ* 1995;311:632. (2 September.)
2 Wong C. Junior doctors' hours. *BMJ* 1995;311:1093. (21 October.)

Wong has support of retired physician

EDITOR,—I congratulate Christopher Wong for his letter opposing further statutory reductions in hours.¹ I should like to remind the current whingers that in the early 1950s the BMA's official view was that, when possible, the hours worked by house officers should be less than 168 hours a week, or words to that effect. The salary was £250 a year, with £100 being deducted for full board and lodging.

Times have certainly changed for the better for junior doctors, and I applaud this. But juniors should remember that if they want to be good at something then they have to work at it, and this should include the experience of working unsocial hours.

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1 Wong C. Junior doctors' hours. *BMJ* 1995;311:632. (2 September.)

Wong should join Junior Doctors Committee

EDITOR,—I strongly second S J Krikler's suggestion¹ that Christopher Wong² should join the Junior Doctors Committee. If he and like minded colleagues think that the committee is not representing them, why don't they try to be constructive rather than damning and destructive? Why aren't they active members of their regional junior doctors committee? Why don't they come to the next national meeting of the Junior Doctors Committee, on 16 December, through the new visitors' scheme? Why don't they stand for election to the committee?

If Wong and Chris Davies³ and others believe that the Junior Doctors Committee has no mandate, who has? The committee is composed of highly committed people who spend a lot of time endeavouring to do their best for junior doctors throughout Britain. As a relative newcomer to the committee I am amazed at the emptiness of the debating chamber. It is a measure of the inherent apathy in junior doctors, which we can't afford to have, especially with issues such as the Calman report and contracts going down to trust level just around the corner. The emptiness of the chamber is balanced, however, by the commitment of those who religiously attend national meetings of the committee at the expense of their personal time. If juniors like Wong believe that committee members like Keith Reid have no mandate they should first acquaint themselves with what he and all current active members are trying to do. Reid is one of the people most committed to improving junior doctors' education and working and living conditions.

Partial shifts and reductions in the hours of work are ways of improving our lot, but we must also look at inappropriate duties and inadequate education if we are to remain truly professional (and stop ourselves becoming the poor relations of the European Union) and not just NHS dogsbodies.

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1 Junior doctors' hours [letters]. *BMJ* 1995;311:1093-4. (21 October.)
2 Wong C. Junior doctors' hours. *BMJ* 1995;311:632. (2 September.)

Harmonising specialist training in Europe

EDITOR,—As a German junior doctor who has studied and trained in Germany, England, the United States, and Canada, I strongly support Stephen Brearley's general view about the harmonisation of specialist training in Europe.¹ Specialist training and medical systems adapt to the requirements of each particular society with its needs, beliefs, and financial potential. Medicine has its place in each society and cannot be separated from it; differences between medical systems are thus inevitable. While it may be possible to improve specialist training by importing ideas from other medical systems, complete unification is undesirable. The evolution of several medical systems brings forward more valuable ideas than does a large, unified medical system. Each national system then serves as an example to others.

Modern medicine cannot exist without an international exchange of ideas, data, and staff. Undoubtedly the best way of obtaining insight into other medical systems is to work in them, which makes exchanges of trainees and specialists between countries of the European Union desirable. Unfortunately, however, experience abroad may not be credited towards specialist training.

What the European medical community needs is not more rules and regulations but the flexibility to allow movement between the systems. The result of specialist education depends at least as much on the individual as on the system in which he or she trains. The curriculum vitae, references, a personal interview, and perhaps a period of probation may show much more about the abilities of an applicant than any certificate.

It is time that the European bodies realised the strength of diversity. The European and national specialists' organisations should acknowledge that medicine can be practised in various ways with equally good results. Future goals of European medical bodies should shift from harmonisation to the creation of a framework that permits the recognition of carefully chosen training abroad. This would allow trainees, specialists, and their patients to benefit from the positive aspects of the diversity among national medical systems in Europe.

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1 Brearley S. Harmonisation of specialist training in Europe: is it a mirage? *BMJ* 1995;311:297-9. (29 July.)

Summative assessment for general practitioner registrars

System is currently used in west of Scotland

EDITOR,—Linda Beecham's report that general practitioner registrars may withdraw from summative assessments—because of their uncertainty about the validity of the assessment package, the lack of a unified national assessment, poor communication within English regions, and inadequate testing of the assessment package¹

—suggests to me that these registrars are ill informed.

Summative assessment has been a component of training in the west of Scotland for three years, and the reliability and validity of the system have been widely reported.^{2,5} The system being adopted throughout the United Kingdom is the one currently used in the west of Scotland with a more detailed trainer's report. All regional advisers are aware of these developments; in addition to training the regional advisers, the west of Scotland's assessors have trained 582 regional assessors on the video and audit components of the package at eight courses arranged throughout the United Kingdom. This number represents an appreciable proportion of the organisers in the training establishment throughout the United Kingdom. This preparation has taken place throughout this year, and an information pack for all trainers and general practitioner registrars is now available. Any trainers or registrars who do not have this should contact their local regional adviser.

The summative assessment package is robust and academically sound and has been adopted in a way that is fair for those taking part. I hope that this reassures all registrars who will take part in this important national test, which will give objective evidence of competence for independent practice.

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- 1 Beecham L. Registrars may withdraw from summative assessments. *BMJ* 1995;311:1170. (28 October.)
- 2 Campbell LM, Howie JGR, Murray TS. Summative assessment—the west of Scotland pilot project. *Br J Gen Pract* 1993;43:430-4.
- 3 Campbell LM, Howie JGR, Murray TS. The use of videotaped consultations in summative assessment of trainees in general practice. *Br J Gen Pract* 1995;45:137-41.
- 4 Campbell LM, Sullivan FM, Murray TS. Video recording of general practice consultations—the effect on patient satisfaction. *BMJ* 1995;311:236. (22 July.)
- 5 Lough JRM, McKay J, Murray TS. Audit and summative assessment: a criterion-referenced marking schedule. *Br J Gen Pract* (in press).

Summative assessment will protect patients from incompetent GPs

EDITOR,—There seems to be some misunderstanding by the general practitioner registrars' sub-committee of the General Medical Services Committee in relation to summative assessment.¹

Firstly, the registrars express concerns about the validity of summative assessment. The work that has been done by the United Kingdom conference of postgraduate advisers in general practice has ensured that the assessment has a high validity; indeed, general practice registrars, trainers, and course organisers have been involved in all stages of the design.

Secondly, the position statement mentioned in Linda Beecham's report suggests that the registrars were not aware of summative assessment. There have been two national meetings with regional representatives of general practitioner registrars to discuss the package, and regional advisers in general practice have been kept informed through regular meetings and news sheets.

Thirdly, the statement raises the issue of funding. This remained unresolved until this month. It had been hoped that the vocational training regulations could be altered in time to give one year's notice before implementation, but, despite encouragement from the minister of health that work on assessment should be continued, this has not been possible. There have, however, been positive discussions with the postgraduate deans to secure funding for the first year.

After a meeting with all the leaders of the professional organisations in general practice we

have agreed that all regions should, if funding permits, use all four parts of the summative assessment package. If funding is a problem, however, every region should use the structured trainer's report adopted by the United Kingdom conference of postgraduate advisers in general practice to assess the trainee before signing the vocational training certificate (VTR1). This will be a minimum requirement from September next year and will not entail any cost to the general practitioner registrars.

The profession should be aware that summative assessment of vocational trainees is an important component of a range of activities designed to protect patients from incompetent doctors.

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- 1 Beecham L. Registrars may withdraw from summative assessments. *BMJ* 1995;311:1170. (28 October.)

NRPB will provide advice on radiation

EDITOR,—In her review of a television programme¹ based on John Gofman's book claiming that three quarters of cases of breast cancer in American women are due to radiation from medical radiography done in 1920-60,² Elizabeth White seems to criticise the National Radiological Protection Board for not contributing to the programme. As she says, however, the board distributed a detailed scientific critique of Gofman's work to the media. The fact that the media did not take up the story after transmission of the programme may contain a message in itself.

The board has a duty to provide information and advice on protection from radiation hazards that arise in medicine and elsewhere. In particular, it has established a medical department with two full time physicians who are available to any doctor in Britain concerned about radiation risks who wishes to discuss them further.

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- 1 White E. Midsummer madness: x rays and breast cancer. *BMJ* 1995;311:458-9. (12 August.)
- 2 Gofman J. *Preventing breast cancer: the story of a major, proven, preventable cause of this disease*. San Francisco: CNR Books, 1995.

Bone mineral densitometry in clinical practice

Differences in reference values are important

EDITOR,—J E Compston and colleagues emphasise the merits of assessing bone density in patients relative to that in young adults (the T score) rather than relative to that in controls matched for age (the Z score), on the basis of the recommendations of an expert panel of the World Health Organisation.¹ Consensus on this issue, however, is still lacking,² and the T score has not been widely used clinically in Britain, where comparisons with controls matched for age still dominate.

Among the limitations of bone densitometry the authors briefly note the differences in the reference data provided by the manufacturers.³ Such reference data are critical to allow accurate assessment of bone density and thus determine whether inter-

Number of patients attending for bone densitometry who were defined as having osteoporosis by T scores of < -2.5 for different ranges used in Britain* (number of centres using each reference range was identified in survey)

Reference range*	No of centres using range	Spine	Femoral neck
Hologic			
A	1	183	231
B	22	216	231
C	2	396	444
D	1	270	231
E	1	216	293
F	3	140	47
G	2	274	293
Lunar			
H	3	292	44
I	22	212	40
J	1	216	44
K	2	216	36
Norland			
L	4	268	0
M	1	239	47
N	2	328	47
O	1	268	47

*Reference ranges are arbitrarily labelled—for example, the reference range B is the current reference range derived from Hologic's data.

vention is recommended. We believe that the relevance and magnitude of these differences in reference data have not been fully and widely appreciated.

We recently surveyed the number of normal reference ranges being used for two of the most clinically relevant sites (the femoral neck and lumbar spine) for white women in Britain.⁴ We found that 15 pairs of reference ranges, comprising not only different versions of the manufacturers' reference ranges but also locally derived ones, were in use. To investigate the effects on the classification of patients we compared the effect of the different reference ranges on a representative sample of over 1000 patients scanned in our unit.⁵ The table summarises the findings, which show the wide variation in classification for the three main makes of equipment used in Britain: Hologic, Lunar, and Norland.

Our findings suggest that patients may be diagnosed as having osteoporosis if one reference range is used but not if another is used, even when the same manufacturer's dual energy x ray absorptiometry system is used. This is likely to affect decisions regarding intervention and to be an increasing problem now that NHS purchasers can switch contracts between providers. We advocate the construction of a British national reference dataset appropriate to all dual energy x ray absorptiometry systems to harmonise patients' management.

Finally, although we agree with the authors that the availability of equipment for dual energy x ray absorptiometry is poor in Britain, we have shown that 106 systems capable of measuring the bone density of the hip and spine were in use in March 1994.⁴ About 120 systems are currently in use, making 2.1 systems per million population rather than the 1.6 reported by the authors.

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- 1 Compston JE, Cooper C, Kanis JA. Bone densitometry in clinical practice. *BMJ* 1995;310:1507-10.
- 2 Eastell R, Peel NFA. Interpretation of bone density results. *Osteoporosis Review* 1994;2:1-3.
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