aviation seems to be a key player in the human-made global climate change. The exact number of European — mostly German — doctors shuttling by air to do OOH service in the UK is still uncounted to date. However, based on the data from several British PCTs, we estimated the number of German GPs working as locums in the UK during 1 month. We figured out that a total number of about 400 Germans who need to shuttle monthly, results in more than 3500 tons of additional effective carbon dioxide emissions by aviation during 1 year. This emission is equal to the amount which is emitted by a mid-range car driving round the equator 526 times.

As increasing greenhouse gas emission is a major cause of worldwide climate change, it should be offset by paying money to fund projects that provide renewable energy or reduce carbon dioxide emissions. A number of non-profitable carbon dioxide offset companies exist and the service is easily available via the internet. Until today only single doctors have been willing to offset the implications of their profitable sideline voluntarily. However, this should become standard either for the European doctors who work as locums or for the PCTs and agencies that employ them.

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Vitamin D deficiency

I read the report on Vitamin D deficiency[1] with interest. In my practice in Hounslow we have a list size of 3700 with a large Somali population. We have been testing for Vitamin D deficiency for 2 years in any patient in an at-risk group who presents with bone or joint pain or non-specific malaise. We started to do this because we picked up several cases of young Somali women presenting with symptoms who were discovered to have frank osteomalacia and two children with rickets.

In the 2-year period we have identified 138 cases of low Vitamin D (70% frank deficiency; serum level <25 nmol/l) and 30% insufficient (serum levels 25–50 nmol/l). Of the individuals found to have low Vitamin D, 93% are non-white patients, and the majority come from the Somali, African, Asian, and Afghan communities.

We have been treating these people with oral vitamin D according to our locally developed protocol, but often find that levels do not respond. Although is has not always been possible to ascertain whether this is due to compliance issues or absorption, we have adopted a pragmatic approach and started to give IM treatment if re-testing shows little or no improvement at 6 months. There are several pregnant women, and although we have not been formally testing their babies' levels, we have started to advise supplementation from birth with appropriate vitamin drops.

We are offering blood testing to screen asymptomatic family members of affected individuals, but this does have resource implications for smaller practices such as ours. To date, of the blood tests carried out 88% have been abnormal, so we are confident that we are reaching some of the vulnerable population.

We have also identified some Read Coding issues, and hope that addressing these will assist in the process of auditing and recall of patients.

I agree with the authors that vitamin D deficiency is a significant and sizeable public heath issue in primary care.

There are likely to be a high proportion of cases that are unrecognised and untreated. The current lack of coherent guidelines about screening and treatment is a major problem.

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Author's response

The experience of Dr Lambert in her Hounslow practice is not surprising, and adds weight to the argument for clarity on the identification and management of such patients. Personal communications with primary care and public health colleagues in East London, Cardiff, Birmingham, Liverpool, Stoke, and Bradford have all yielded similar stories of population groups with unmet needs. No doubt there are many more.

The treatment of identified deficiency and the prevention of recurrence is complicated by the range of preparations currently available on prescription. Our local policy for the treatment of adults (300 000 IU repeated at 1 month assuming no evidence of hypercalcaemia) is frequently offered as an intramuscular injection, and appears to be very acceptable. Oral calciferol tablets (either 10 000 IU or 50 000 IU) can be taken as a short course to achieve an equivalent dose, but have been more difficult for local pharmacies to obtain, and delay in providing these tablets has led to reduced compliance with treatment.

Any patient with ongoing risk factors for deficiency should commence daily supplements after completion of treatment. Prescribable oral preparations of vitamin D that are suitable for adult supplementation (that is, containing 400 IU) are only available combined with calcium. Like Dr Lambert, we have found that compliance with such preparations is very poor, and believe this is largely due to gastrointestinal side effects secondary to the calcium component. We also aim to assess other family members whenever a mother or child is found to be affected, as family history of vitamin D deficiency appears to be a very significant risk factor.

The recent position statement on vitamin D by the Scientific Advisory Committee on Nutrition[1] illustrates the extensive gaps in current knowledge on the epidemiology, diagnosis, and consequences of vitamin D deficiency. Their confirmation that all pregnant and breastfeeding women should be taking Healthy Start vitamins is welcomed, and it is hoped that their call for further research and guidance will be taken up urgently.

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Screening for peripheral vascular disease

Campbell *et al*'s study of targeted screening for peripheral vascular disease (PVD) in patients with hypertension aged 60 years or over[1] yielded, as they acknowledge, a surprisingly low prevalence of 8% with PVD, as defined by an ankle-brachial pressure index ≤0.9. Leng *et al*'s previous Scottish study of 11 practices revealed a prevalence by the same definition of 18.2% for participants aged 55 to 74 years.[2] I have also recently reported a prevalence in hypertensives of 20% from my practice (mean age 70 years) as part of a study of the interarm blood pressure difference as an indicator of PVD,[3] and also showed that the use of a simple tiptoe stress test[4] was feasible and increased the overall detection of prevalence to 25%.

These prevalences are significantly higher than Campbell *et al*'s finding and would clearly make a stronger case for targeted screening in primary care. The authors assert that their practice prevalence rates for hypertension are similar to average Scottish figures, yet the study profile suggests a prevalence of hypertension of 28% in their over 60s. Scottish public health data suggest a prevalence 33% for adults aged over 16, and that 75% are hypertensive above age 75.[5] Other recent estimates for prevalence of hypertension exceed 60% in the over 60s.[6]

Therefore we suggest that the prevalence of hypertension was low for the age group included in this study, which would suggest that many cases of PVD have gone undetected as they were not included in the study. Consequently, the case for targeted screening has been understated and further work is required. This should include assessment of the peripheral circulation with exercise.

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QOF

The views contained in the editorial written by Professor Les Toop and Dee Mangin of the University of Otago, New Zealand, in the *BJGP*[1] coincide to a very large degree with those of some of the Executive members of the National Association of Primary Care. That is: the very nature of professionalism, professional values, and the concept of good care (as understood in GP training) are being corroded by the GP contract's Quality and Outcomes Framework, as is the patient-centred ethos of general practice.

The article draws attention to Downie's description of the characteristics of a profession that underpin good care: a credible profession must be independent of the influence of state or commerce; disciplined by its own professional body; have claim to and be actively expanding its unique knowledge base; and concerned with the education of its members.[2] It is clear that as a result of the introduction of the GP contract, the first criterion has been swept aside, maybe unwittingly. With the requirement that from 1 August 2007 all those who wish to become a GP principal must undertake the MRCGP examination, there is hope that the second and fourth criteria will in time be universally met. Revalidation should address any failure in relation to the third criterion.

It is unfortunate that many practices failed to keep detailed clinical patient data, and it is this failure into which the QOF has made some serious inroads, but information which is merely used for accountability purposes and is not actively used as knowledge to inform and improve patient care, both for individuals and wider populations, is equally meaningless. There are opportunities to convert this information into knowledge about patients' health and wellbeing, and to assess the impact of interventions to measure outcomes. The profession itself should be driving this and should be seeking to select targets based on local need. What the QOF has yielded to date should be used positively by the professionals themselves, as well as at PCT level and nationally, to understand the value of interventions and trends in disease. Where is the wisdom of leaving such powerful information untapped on individual clinical systems?

Equally, we agree that damage has already been done in allowing greater status to be given to what is written and coded than to what is spoken in the patient–doctor relationship. The greatest challenge facing medicine today, as the article says, is for it to retain or regain its humanity, without losing its foundation in science. Medicine by numbers completely undermines the humanity of its delivery.

One of the possible ways through is for the profession's leaders to negotiate the alternative approach advocated in the article. Let us hope they can do so.

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