

deficiency and musculoskeletal symptoms among Somali populations. They did not include data on clinical follow up, and so causality should not be assumed. There is a very poor correlation between vitamin deficiency and musculoskeletal symptoms, and both conditions are common among adult populations. Our east London practice (population 10 000, 30% from Bangladesh) audited all vitamin D levels taken over an 18-month period (Table 1). The majority of requests were made in response to symptomatic aches and pains, 86% of tests were in women. Results showed deficiency in 50% or more of tests in black and Asian groups, falling to 25% in white groups.

These results draw attention to a number of unresolved problems in testing and treatment. There is continuing debate about the definition of deficiency, insufficiency and replete levels of vitamin D. For example, the *Drug and Therapeutics Bulletin* quotes <25 nmol/l as deficiency (<10 mcg/l), 30–50 nmol/l as insufficiency, and >50 nmol/l (20 mcg/l) as sufficiency.² Our local laboratory sets the value for sufficiency considerably higher at 75 nmol/l, with a consequent increase in caseness. But there is no published data to show that long-term health is improved by giving supplements to keep the serum levels at 50 nmol or higher.

Treatment of dietary deficiency remains problematic. As Lambert reports in response to Mytton's study, compliance with oral medication is low due to the unpalatable nature of vitamin D in combination with calcium.³ However, it seems perverse to resort to injections; with the consequence of blood monitoring requirements, over medicalisation, and

workload implications for practices.

For such a common and preventable condition, with a health burden which falls disproportionately on inner urban deprived populations, the NHS needs to make a coherent policy response. This should include the re-introduction of freely available vitamin drops for children and mothers, and the production of suitable, and palatable, vitamin D preparations without calcium. What about a new 1000 IU ergocalciferol tablet, safe for daily use without blood monitoring? Extrapolation from our audit suggests a large and growing market for such preparations, which should be commissioned from drug companies by the NHS.

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Environmental impact of GP-led melanoma follow up

The letter by Freund, *et al.*,¹ in the August issue of the *BJGP* raises the fascinating issue of assessing the potential environmental impact of developments in

Table 1. Comparative total distance travelled, total and mean CO₂ emissions generated in attending hospital versus GP for melanoma follow-up.

12-month follow up	Total (pre-year), km ^a	Total CO ₂ emissions, kg ^b	Mean CO ₂ emissions, kg ^b
Hospital	14 341	3083	58
GP	4599	989	19

^akm = kilometre. ^bkg = kilogram.

health services. Given the amount of concern currently evinced by CO₂ emissions in the global warming debate, it seems plausible that researchers may now need to consider the environmental impact when developing and evaluating complex healthcare interventions²

We have recently completed a randomised controlled trial of GP led integrated follow up for people with cutaneous malignant melanoma.³ As our main analyses proceed, we believe that we can provide some heartening data to boost the green credentials of primary care.

In the 12 months prior to the study (and assuming that the median mode of transport was a Toyota Avensis 4-door saloon with CDX trim)⁴ we estimate that our intervention group generated a mean of 58 kg of CO₂ in attending hospital follow up). During the 12 months of the study, participants generated a mean of 19 kg of CO₂, attending their own GP for melanoma follow up. We further believe that this 39 kg reduction in follow up related CO₂ emissions is conservative, since several participants may have exercised the healthy option, left their Avensis in the garage, and walked to their GP surgery.

Furthermore, we estimate that there are approximately 4000 people in Scotland and 48 000 people in the whole UK currently receiving follow up for melanoma.^{5,6} Extrapolating our data, we believe that if proven to be otherwise effective, UK-wide GP-led follow up for melanoma would result in annual reduction in CO₂ emissions of 1872 tonnes. We stop short of suggesting that primary care can save the planet, but

Table 1. Ethnicity and age in 257 consecutive Vitamin D levels (2006–2007).

Ethnicity	Number	Deficient (<25 nmol/l), n (%)	Sufficient (>50 nmol/l), n (%)	Sufficient ^a (>75 nmol/l), n (%)
Asian	210	103 (49)	16 (8)	4 (2)
Somali/African	17	10 (59)	0	0
White	29	7 (24)	12 (41)	6 (20)
Age, years				
<15	11	5 (45)	5 (45)	1 (1)
16–64	201	99 (49)	22 (11)	7 (3)
≥65	45	14 (31)	18 (40)	3 (7)

^aLaboratory values at Barts and the London NHS Trust.

in common with one leading supermarket chain, would suggest that 'every little helps.'

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PBC and out-of-hours work

Make no mistake, practice-based commissioning is here to save money. It should also improve patient services as a crucial component of a corporate efficiency drive by the largest employer in Europe. Of course, in a politically-sensitive organisation, cost and service cutting must be discrete and this is performed with varying success across the breadth of the NHS.

But these are the crude efficiencies and we now have an opportunity for a root and branch reform. As always there are valuable lessons from the past which could make this latest plan a roaring success. Whatever one felt about fundholding it was an immensely valuable exercise which demonstrated that GPs could manage the care of their patients beyond the surgery door and save money. Diagnostics, treatments and interventions were all done more quickly, conveniently, and at less cost. Developing this theme

alone could turn around the fortunes of the NHS.

The critical reform must address the subtleties of decision making in primary care. As a GP I spend £120 000 on just the outpatient care of my patients. Multiply this up by my 40 000 GP colleagues and the national outpatient spend exceeds £5 billion. We know there are a wide range of referral thresholds among GPs but the reasons are ill defined. It is widely acknowledged that a GP with a special interest may refer more patients within that specialty so the explanation is not fundamentally knowledge related. One of the crucial factors is working within our 'comfort zone'. As GPs we live and work in a field of clinical doubt and tackle this by evolving strategies in patient treatments that are followed up and amended if necessary. The most common reason for GPs to fall victim to complaints is a lack of follow-up arrangements. If we accept that we need to widen this comfort zone then the service redesign pathways and speedier diagnostics have a clearer meaning. The aim is to put the GP at the centre of the patient care plan and to use him/her to access appropriate investigations which will stay in primary care unless referral is in the patient's best interests. Frequently it is not and, in the case of our work in cardiology and ophthalmology, only half the patients need to see the consultant — according to the consultants! The potential impact across secondary care could be immense and rationalisation is inevitable. It does seem logical however that as primary care does more historical secondary care work they, in turn, should be developing more current tertiary high value procedures to offer to patients in their localities.

Governments have made serial crashing errors in their understanding of primary care, which so often fails to accept just how much illness is kept outside hospital. Understanding and developing the 'comfort zone' is the path to cheaper and yet better care which must be more supportive and yet fulfilling for GPs. Finally, I would like to offer a controversial view about out-of-hours care which is consistent with these thoughts.

We know just how grossly the

government undervalued out-of-hours care both directly and indirectly. Paying for the service is one thing but the unscheduled referral costs was a sting in the tail. I feel there is a role for local GPs in out-of-hours care at least in telephone triage. Bearing in mind that maybe 90% of our time is spent with just 10% of our patients we have the capacity to talk down and use our local knowledge to re-route a vast number of 'emergency' patients who are probably already known to us. This is what we do and have done for generations. I urge Alan Johnson to empower and facilitate those who can really make a difference.

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Correction

In the article 'Is Primary Care the right place for genetic diagnosis?' *Br J Gen Pract* 2007; **57**(542): 750–751, there is a typing error. The sentence reads 'Primary Care was viewed as the place to undertaken genetic diagnosis, at least for the time being'. It should have read 'Primary Care was *not* viewed as the place to undertake genetic diagnosis, at least for the time being'.