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## Respiratory infection and antibiotic prescription rates

In the October issue of the *BJGP*, Fleming *et al* showed that a decrease in antibiotic prescription rates is directly related to a decrease in respiratory infections presented in general practice.<sup>1</sup> We compliment the authors for their interesting study and the clear presentation of their results.

We are especially interested in this topic because we recently performed analyses of the first (1987) and second (2001) national surveys of morbidity in Dutch general practice, concerning differences in antibiotic prescription for children.2 In both surveys, presented morbidity and drug prescription were registered, which allowed valid comparison of incidence and prescription rates over time. We also found decreasing antibiotic prescription rates in childhood in parallel with declining incidence rates of respiratory tract problems in children who were presented to general practice. In this respect, we were pleased that these findings in The Netherlands were comparable with the results of Fleming et al.

However, Fleming *et al* concluded that the decrease in respiratory tract infections in general practice was most likely explained by a decline in the occurrence of these infections in the general population. This is partly based on the fact that there is no evidence for decreasing GP consultation rates in the UK and also that it is unlikely that children with otitis media acuta would consult the GP less often. However, the authors do not provide sufficient evidence for this statement and interestingly, our study shows the opposite.

We found an overall declining con-

sultation rate in children (not only for respiratory problems) and provide evidence that the threshold for consulting the GP has changed in children aged 0-4 years. For example, incidence rates of otitis media acuta in 0- to 4-year-olds decreased from 201 per 1000 person years in 1987 to 152 per 1000 person years in 2001, however, from health interviews in a sample of the study population we found that complaints of earache in the previous fortnight occurred as often in 2001 as in 1987 (49 out of 664 children in 1987 versus 49 out of 768 children in 2001, P = 0.5). Thus, in our opinion, a higher threshold for consulting the GP is an important explanation of the lower incidence rate of these infections in general practice.

If possible in their analyses, it would have been interesting to have included consultation rates from practices that participate in the weekly returns service from the different analyses periods, to assess whether their conclusion then remains similar.

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### References

- Fleming DM, Ross AM, Kenneth WC, et al. The reducing incidence of respiratory tract infection and its relation to antibiotic prescribing. Br J Gen Pract 2003; 53: 778-783.
- Otters HBM, van der Wouden JC, Schellevis FG, et al. Trends in prescribing antibiotics for children in Dutch general

practice. J Antimicrob Chemother, in press.

### Author's response

The primary focus of this letter by Otters et al is a two point comparison of the incidence of otitis media in children in 1987 and 2001, and responses to a retrospective health enquiry undertaken in a subset of the population at the same time. Thus your correspondents cannot comment on trends; they do not have the relevant data for the intervening years. Nor do they make any assessment of the changes in incidence of the many other conditions reported in our paper. Our conclusions were based on a consideration of all the relevant facts and from a long period of continuous surveillance. Indeed, they provide a compelling argument for the need for continuous, as opposed to intermittent, surveillance.

The Dutch health interview study of 700 children asked mothers in each year if their child had experienced earache in the previous 2 weeks. From my experience in general practice, it is exceedingly difficult to know if young children have earache. For many mothers earache is believed to be present if a child rubs his or her ear. Half of the children in the Dutch survey would not be old enough to speak. Other potential confounders include the importance of seasonality when considering matters related to respiratory infections. Recruitment to the Dutch study was carefully stratified by season, but of course that also means that many children would be recruited at times of the year when there was a much reduced likelihood of respiratory tract infections.

The interpretation of 'the last fort-

night' can present difficulties, though the questionnaire in the Dutch survey was applied similarly in both their surveys. On the face of it, 70 per 1000 children (49 in 700) experiencing earache each fortnight seems inconsistent with an annual incidence of 152 per 1000 reporting such an incident to a doctor in a year (26 fortnights). I have checked our weekly returns service annual reports for the years of the Dutch survey, when the annual incidence in the age group 0–4 years was 265 (1987) and 172 (2001) per 1000, figures very similar to their own.

No one denies that recent pressures to reduce antibiotic prescribing may have had an effect and this point was made in our paper. However, as the comprehensive analysis we presented shows, this is an insufficient explanation for the substantial reduction in respiratory infections presenting to doctors that has taken place in recent years.

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# More reflections on annual appraisal

In your December edition, you published reflections from a GP who shared a very personal experience of the GP appraisal in the public domain.<sup>1</sup> I felt it would be helpful to clarify some of the issues raised in the article.

Firstly, there is no pass or fail level in the appraisal scheme for GPs. The appraisal has been designed to be a developmental, educational, and supportive process. All GPs have the right to appeal against any particular concerns experienced at any time during the process. After each appraisal session the GP appraised is asked to evaluate the session. With our process of GP appraisal well advanced, the evaluations that have been received have not only been overwhelmingly positive, all but a few have rated the experience as excellent.

Secondly, as you will be aware, the personal development plan (PDP) is linked with the post-graduate education allowance, previously accessed

through a points system. A GP will put together a PDP, which is informed by appraisal, and there are a number of educational tools available to support GPs to develop and maintain a PDP. A PDP may be discussed and supported by the GP tutor. It would be appropriate for an appraiser to look at the appraisee's PDP but not to sign it off. This PDP is not the same as the personal development template in the appraisal document, which is intended for other purposes that would not meet the deanery quality standards, and does not achieve the same goals. This may well change after April 2004, with the introduction of the new contract.

While respecting the views of the GP whose reflections were published, I am grateful for the opportunity to correct any confusion that points made in the article might create.

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### Reference

 Archer M. Reflections on annual appraisal [Back Pages]. Br J Gen Pract 2003; 53: 982-983.

I was horrified to read Dr Michael Archer's account of his appraisal.<sup>1</sup> It's some comfort that his partners felt theirs were okay, but as an appraiser, I have to wonder if his appraiser had the same training as the rest of us. My understanding of the process is that it is appraisee-centred, supportive, facilitative, and all those things. It is about celebrating successes as well as about identifying and discussing development needs. It is an opportunity for a doctor to have a discussion with a trusted colleague about his or her professional life, including life outside work.

Personally, I have two aims when doing an appraisal — firstly, that the appraisee ends up feeling that they've enjoyed it, and secondly, that I've learnt something myself. And 3 hours?! We were told to aim for an hour, and I think that most of us manage this. Certainly, in our locality (Swindon), the word is going round that appraisals

aren't that bad, and may even be positive and fun.

It may be that Dr Archer, in saying that he can't appeal against an appraisal that he 'passed', misunderstands some fundamental things about appraisals, because, of course, there's no pass or fail to them. Perhaps his local appraisers' group will be able to address his concerns — and certainly he won't need to re-do it. Let's only hope that his experience is the exception rather than the rule. It's good to have highlighted it; maybe we might hear, in due course, of a positive outcome for him.

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### Reference

 Archer M. Reflections on annual appraisal [Back Pages]. Br J Gen Pract 2003; 53: 982-983.

I cannot be the only one who was appalled by the appraisal reflections of Dr Archer. I read them on the morning of my own first appraisal and our experiences could not have been more different.

I do not believe that there is room for such unprofessional treatment of a colleague in the modern NHS. This appraisal appeared to break all of the rules, and I am sure that the relevant primary care trust would be very interested and will hopefully root out such appraisers!

My own experience was of two colleagues meeting for a friendly and professional discussion, where I was able to reflect on my achievements and plan my learning objectives for the coming year.

The rules of appraisal are quite clear and must be followed. I found my appraisal to be a positive experience and I am encouraging colleagues to be less nervous and to put themselves forward.

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 Archer M. Reflections on annual appraisal [Back Pages]. Br J Gen Pract 2003; 53: 982-983.

I was surprised to read Michael Archer's experience of appraisal. His account bears no relation to the process that has been embraced and accepted in this area. While it seems unfair to apportion blame, I do wonder whether his primary care trust (PCT) has followed a few simple rules when implementing appraisal. It may be salutary to remind ourselves of these.

Firstly, all appraisers should have received at least 1 day's training in appraisal techniques — this is not rocket science. For GPs, the process must be learner-centred, in the same way that our consultations are patient-centred. This is enhanced if appraisers also have educational experience as trainers, or as teachers of medical students, for example. PCTs would do well to look to the ranks of teachers among them when seeking appraisers.

Secondly, the time, place, and person of appraisal should be the appraisee's choice. This is simply done by offering a list of appraisers to each appraisee and asking them to delete those by whom they would not wish to be appraised, to indicate their preferred time and place. Although we have drawn the line at pubs and restaurants, any environment that is quiet, confidential, and protected in time and place from interruption would be suitable. Often this is the appraisee's surgery, but not always.

Thirdly, all GPs should be given guidelines and advice on how to prepare for appraisal. PCTs can organise this in protected learning time, roadshows, or surgery visits by a trusted GP. The process should be transparent, so that GPs understand in advance what is required of them, what the appraiser is likely to need in the portfolio, and how their personal development plan (PDP) fits in with form 3 of the appraisal paperwork. This will avoid any misunderstanding in the meeting itself.

Fourthly, the process should be evaluated. It is perfectly possible to do this anonymously and at a later date. Feedback should not be

requested by the appraiser nor given directly after the meeting, as this may influence the appraisee's comments. Forms can be coded for appraiser, the code being blind to the appraisal lead, appraiser, and appraisee. In this way inconsistencies in appraisal technique can soon be uncovered.

In our PCT we have achieved a remarkably high acceptance and satisfaction by following these simple rules. Feedback from the first 80 GPs appraised showed that 96% found the time and place appropriate, would be happy to have the same appraiser again, and had plenty of time to discuss everything they wished. Seventysix per cent felt comfortable with the process, and 90% found the appraiser gave constructive and sensitive feedback. Only 12% felt that it was a waste of time, and apprehension before appraisal had largely disappeared afterwards. Many commented that it was a positive experience and had made significant changes to their work and learning as a result.

I do hope Dr Archer's experience is an isolated case. If not, it is up to PCTs to ensure that the process is revised and refined, and that unacceptable methods are weeded out. Appraisal is an important element in GPs' professional development. We must not let it lose its way due to problems in implementation.

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### Reference

 Archer M. Reflections on annual appraisal [Back Pages]. Br J Gen Pract 2003; 53: 982-983.

I read with dismay the article by Michael Archer entitled 'Reflections on annual appraisal'. As a trained appraiser and someone who has undergone appraisal, I find the attitude of the 'appraiser', as expressed by Dr Archer, totally unacceptable.

By apparently treating the appraisal event as an opportunity for intimidation, harrowing, and bullying, Dr Archer's appraiser seems to have missed the

point completely. Rather, the event should be an opportunity for constructive and supportive dialogue that allows the appraisee to express their views on their own practice and outline a personal development plan to improve the service offered to patients. This is not to say that an appraisal should be a cosy fire-side chat. Indeed, the system adopted by the Independent Doctors' Forum to appraise its members involves close scrutiny, which includes monitoring the appraisee's mortality rates. The latter, I believe, lies at the heart of the debate to protect the public from any repetition of the Shipman debacle.

For appraisal to be more meaningful, a centralised database of all deceased individuals needs to be set up and mortality data made available; for example, in listings provided by funeral directors, coroners offices, or the registrar for births and deaths. In this way, each doctor's mortality rates could readily be compared by region. Appraisal would then have a far more significant meaning for the public. However, it should not be considered an opportunity for appraisers to flex their muscles and bully colleagues.

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### Reference

 Archer M. Reflections on annual appraisal [Back Pages]. Br J Gen Pract 2003; 53: 982-983.

It only seems fair to the anonymous appraiser to point out that Michael Archer's account was not a general criticism, rather a criticism of the appraiser's conduct on a single occasion. Michael Archer was at pains to point out that his partners had enjoyed a much better experience with the same appraiser.

ΕD

### Time to wake up to private finance initiatives

I have been surprised at the lack of

debate within general practice on the subject of private finance initiative (PFI) surgery development. Quietly, over the last few years, the health service has stopped financing and building. The cost rent scheme has been shelved and in its place has come an insidious form of finance, which is designed primarily to satisfy the electoral needs of the politicians who drive change in the health service. These politicians need short-term results and PFI is the means by which this is achieved.

As GPs we are expected, in many cases, to underwrite these deals personally, with contracts whose life may well reach beyond the age of retirement. Primary care trusts are not anxious to increase their liabilities and responsibilities, and so they are not keen to take over these contracts. Therefore, we are dependent on our successors in a practice being willing to take on our leaseholder's responsibility. Retirement or resignation does not free us from our liability

What will you do if no one applies for your job when you retire or resign? I think it is time we woke up to the reality of private finance initiatives.

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## Any value in venlafaxine study?

We would like to add to the critique put forward by Hartman, van Rijswijk and Lucassen<sup>1</sup> by asking whether the study by Lennox-Smith and Reynolds<sup>2</sup> should have been conducted, and whether the BJGP should have published it. Their trial of venlafaxine for generalised anxiety disorder could not have contributed anything of value to this subject, even if their results had been less dubious than Hartman, van Rijswijk and Lucassen have shown. The narrow view reflected in the 'What does this paper add?' box is not sufficient justification for publication by the BJGP when considered against the broader base of knowledge on this subject.

Here is another list for 'What do we know?': antidepressants are effective in the treatment of generalised anxiety

disorder and of depression;<sup>3</sup> antidepressants are effective in the treatment of mixed anxiety and depression;<sup>4</sup> antidepressants are effective in a wide variety of neuroses, including post-traumatic stress disorder<sup>5</sup> and obsessive compulsive disorder.<sup>6</sup> In fact, the non-selective effectiveness of antidepressants has led some to question the concept that anxiety and depression are different disease entities.<sup>7</sup>

No difference has been demonstrated between amitriptyline and other antidepressants, or between tricyclics and modern antidepressants, for effectiveness, but there is a difference in their side effect profiles.<sup>8,9</sup>

From this data we can draw sensible conclusions for practice. If GPs and their patients have decided on medication rather than other methods of treatment, they should choose an antidepressant on the basis of the likely side effects rather than the diagnosis or the supposed superior effectiveness of any particular drug.

So, what then did the paper by Lenox-Smith and Reynolds add?

MRCGP candidates critically appraising this paper might be concerned that the researchers were employed by the manufacturers of venlafaxine, and wonder whether the research question was clinically significant for most GPs. They might even ask whether the *BJGP* should publish research unlikely to benefit anyone except the manufacturers, who can exploit a prestigious reference in their promotional literature.

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### References

- olde Hartman TC, van Rijswijk E, Lucassen PLBJ. Wishful pharmaceutical thinking [Letter]. Br J Gen Pract 2003: 53: 971.
- Lenox-Smith AJ, Reynolds A. A doubleblind, randomised, placebo controlled study of venlafaxine XL in patients with

- generalised anxiety disorder in primary care. *Br J Gen Pract* 2003; **53**: 772-777.
- Casacalenda N, Boulenger JP.
   Pharmacologic treatments effective in
   both generalized anxiety disorder and
   major depressive disorder: clinical and
   theoretical implications. Can J Psychiatry
   1998: 43: 722-730.
- Berk M. Selective serotonin reuptake inhibitors in mixed anxiety-depression. *Int Clin Psychopharmacol*. 2000; **15(suppl 2)**: S41-S45.
- Pearlstein T. Antidepressant treatment of posttraumatic stress disorder. *J Clin Psychiatry* 2000; 61(suppl 7): 40-43.
   Piccinelli M, Pini S, Bellantuono C,
- Piccinelli M, Pini S, Bellantuono C, Wilkinson G. Efficacy of drug treatment in obsessive-compulsive disorder. A metaanalytic review. *Br J Psychiatry*. 1995; 166: 424-443.
- Shorter E, Tyrer P. Separation of anxiety and depressive disorders: blind alley in psychopharmacology and classification of disease. BMJ 2003; 327: 158-160.
- Guaiana G, Barbui C, Hotopf M. Amitriptyline versus other types of pharmacotherapy for depression. In: Cochrane Collaboration. *Cochrane Library*. Issue 2. Oxford: Update Software, 2003.
- Silva de Lima M, Hotopf M. A comparison of active drugs for the treatment of dysthymia. In: Cochrane Collaboration. Cochrane Library. Issue 3. Oxford: Update Software, 2003.

As one who has tried to teach critical appraisal skills in the past, I should agree with the authors of this letter that readers need to read the paper carefully to decide what final message they want to take away from it — as with most other papers. As for its origins with a pharmaceutical company, it is a reminder that the interface between a national health service and commercial interests is difficult, and publishing is one of the areas where conflicts can arise. My own view is that it is neither the best nor the worst paper that we have published. Here the link with the pharmaceutical industry is clearly stated, and it would have been wrong to reject it only because of such a link.

ΕD

# Sexual violence in women attending general practice

We welcomed the novel and innovative paper on the reported prevalence of sexual violence in women attending general practice.<sup>1</sup> This appropriately sized and well-presented study highlighted an important and underresearched issue.

### Letters

However, we do have a number of concerns regarding subject selection and the representativeness of the sample population to the UK population as a whole.

We speculated whether patients attending a general practice would be representative of all women in the Hackney area, and if so, are these women representative of most women in the UK?

It was interesting to note that just 54% of the sample population consented to complete the questionnaire. We questioned the reasons why 31% declined to participate and thought further consideration could have been given to this. Even some demographics on this subset would help to determine if this group were fundamentally different from the sample population. Would a more appropriate setting than the waiting room have encouraged more women to take part?

Also, we were unsure if any attempt had been made to include those with language difficulties especially since ethnicity was considered as an associated demographic factor in the subsequent analysis.

Finally, we speculated on the possible benefit to individual patients of the general practitioner being aware of a patient's past experience of sexual violence. If there is evidence that this would be beneficial, only then should the acceptability of screening be further evaluated.

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### References

 Coid J, Petruckevitch A, Chung W-S, et al. Sexual violence against adult women primary care attenders in east London. Br. J Gen Pract 2003: 53: 858-862.

### Authors' response

We appreciate the letter from Rachel

Ion and her colleagues about our paper. They raise important questions.

First, they wonder how representative the sample of women recruited in practices are of the population in Hackney. In comparison with census population data, our sample, like other studies based in general practice populations, has a higher proportion of younger women. But the aim of the study was not to look at the population prevalence of domestic violence, but prevalence among women attending primary care services. Extrapolating the rates to community populations would be inappropriate. We know from the British crime survey1 that the current and lifetime population rates for domestic violence in the UK are about half those we measured in our study.

Second, they question whether our study can be generalised to the UK as a whole. We do not assume the rates of sexual violence are the same in other areas. The paucity of health-related research on domestic and other forms of violence, means that there are no comparable UK studies. The most comparable data comes from a study of general practices in Ireland,<sup>2</sup> which found similar lifetime rates of domestic violence as we found in east London, but lower lifetime rates of forced sex by a partner (9% versus 16% in our study).

Third, they are concerned about the implications of non-responders. So are we and we explored the implications of non-response in another paper<sup>3</sup> from the same study that reported rates of partner abuse. We found that even if all the non-responders had not experienced abuse, the rates would be high. In fact, that conservative assumption is likely to be wrong, as some survivors of abuse would also be reluctant to complete the questionnaire, so undercounting is as likely as over-counting. We agree that administration of the questionnaire in waiting rooms is fraught with problems and in our subsequent research on partner abuse we have administered questionnaires in private rooms, although initial recruitment in the waiting room is still necessary.

Fourth, they wonder about languages. The questionnaire was translated into Bengali and Turkish, the two main languages, other than English, of our participants. It is true that patients

who did not speak one of these three languages were excluded.

Fifth, they question whether there is any evidence that knowledge of sexual violence by a general practitioner could benefit the patient. We think it is unarguable that when a woman is suffering psychological sequelae of violence or other forms of abuse, knowledge leading to support and possibly referral for further care can be helpful. On the other hand, we agree that it is premature to recommend screening in health care settings for sexual violence or partner abuse.

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### References

- Mirrlees-Black C. Domestic violence findings from a new British crime survey selfcompletion questionnaire. London: Home Office, 1999.
- Bradley F, Smith M, Long J, O'Dowd T. Reported frequency of domestic violence: cross-sectional survey of women attending general practice. *BMJ* 2002: 324: 271.
   Richardson J, Coid J, Petruckevitch A,
- Richardson J, Coid J, Petruckevitch A, et al. Identifying domestic violence: cross sectional study in primary care. BMJ 2002; 324: 274-278.

## Electronic versus mercury sphygmomanometers

The local primary care trust presented us with electronic sphygmomanometers (Omron 705CP) a couple of years ago. This was without consultation. Our nurses and GPs found them guite unusable, with recurrent error messages and giving different readings from our mercury ones. We reverted to our old, regularly calibrated mercury and aneroid ones. Currently, it costs £10 to scrap a mercury sphygmomanometer — and this only needs doing when it's broken (one in the last 10 years), and they don't require batteries. So we have about a dozen unused electronic ones. Any offers?

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Denbighshire Local Health Board introduced electronic blood pressure measurement into its affiliated practices in 2002 using the Omron 705CP. In one practice, of over 15 GPs and practice nurses, analysis of systolic blood pressure (BP) readings from data recorded on the clinical database showed there was a significant difference (*P*<0.001) in the means of the years either side of the introductory year (Table 1).

McManus *et al* did not find a difference in means reported in their paper,<sup>1</sup> but other findings mirrored the dramatic decline in the number of BP readings ending in a terminal digit of zero. It appears that lower BP readings may be considerably inflated and rounded to 120–130 mmHg, which may have been a factor affecting significance testing in their analysis.

McManus *et al* suggest that the introduction of electronic blood pressure measurement should be associated with a lower mean value of BP readings due to intensive treatment, but the readings from electronic measurement in the practice were higher despite a 31.8% increase in prescribing costs of antihypertensive drugs (12 months up to August 2003). The proportion of systolic BP readings over 160 mmHg increased from 6.3% to 15.5% ( $\chi^2$ , P<0.001), indicating improved identification of uncontrolled hypertension.

The means for systolic BP readings of patients aged over 55 years, which excluded the young and transient (contraceptive monitoring and new patient health checks), also remained significant (for 2001, n = 613, mean = 141.9 mmHg, SD+/- = 20.7; for 2003, n = 2802, mean = 148.3 mmHg, SD+/- = 22.4 [P<0.001]). Over 41% were on the disease registers for coronary heart disease, stroke, hypertension and diabetes, emphasising the importance of this range as it includes national service framework and the other widely

Table 1. Blood pressure readings of individual patients before (2001) and after (2003) the introduction of electronic blood pressure measurement: means and numbers of readings with a zero terminal digit.

	2001 <sup>a</sup> ( <i>n</i> [%])	2003 <sup>b</sup> ( <i>n</i> [%])	
Blood pressure reading			
230, 220, 210, 200 and 190	16 (0.9)	48 (0.8)	
180	16 (0.9)	54 (0.1)	
170	41 (2.4)	75 (1.2)	
160	93 (5.5)	142 (2.4)	
150	136 (8.1)	186 (3.1)	
140	203 (12.1)	317 (̀5.3)́	
130	274 (16.3)	251 (4.2)	
120	300 (17.9)	212 (3.5)	
110	226 (13.5)	38 (0.6)	
100	52 (3.1)	59 (1.0)	
Total for all readings with	•	·	
zero terminal digit	1357 (80.9)	1382 (22.9)	
Mean (mmHg)	131.2	139.9	
SD (+/-)	20.4	22.5	

<sup>&</sup>lt;sup>a</sup>Total n = 1677. <sup>b</sup>Total n = 6022. SD = standard deviation.

accepted threshold targets.

It can be difficult to attain the exacting gold standard of good practice<sup>2</sup> using a mercury sphygmomanometer in a busy GP surgery, but there appears to be a bias by operators who also prescribe, to round values to below those that would trigger new or additional treatment. This may be owing to reluctance on the part of doctors to engage in polypharmacy preventative treatment and to encourage patient concordance when there is an increased likelihood of side effects and poor compliance.

The significant changes found in these results suggest that BP readings using electronic blood pressure measurement are not due to instrument error, but are precise values as a consequence of eliminating one source of bias, which was that of the healthcare professional.<sup>3</sup> The introduction of electronic blood pressure measurement will lead to an increase in the use of antihypertensive therapy, so benefiting patients with treatment that they were previously denied.

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### References

1. McManus RJ, Mant J, Hull MRP, Hobbs

- FDR. Does changing from mercury to electronic blood pressure measurement influence recorded blood pressure? An observational study. *Br J Gen Pract* 2003; **53**: 953-956.
- Petrie JR. Blood pressure measurement in diabetes: theory and practice. Br J Diabetes Vasc Disease 2003; 3: 258-261.
- Hla KM, Vokaty KA, Feussner JR.
   Observer error in systolic blood pressure measurement in the elderly. A case for automatic recorders? *Arch Intern Med* 1986; 146: 2373-2376.

The paper by McManus et al does miss several studies on automated blood pressure monitors, including the one done in our practice.2 This is supported by the letter by Hartley et al in the January 2004 Journal.3 Before we are rushed headlong into abandoning mercury (at, paradoxically, a greater risk to the environment then maintaining the status quo) the letter by Professor Murray should be noted.4 Specifically, he says 'automated devices are not suitable as a routine substitute for the measurement of clinic blood pressure in the diagnosis of hypertension and not appropriate for determining the need for treatment and for assessing treatment efficacy'. This is from someone who works on assessing sphygmomanometers. Other letters are available on the BMJ website (www.bmj.com) for those who

It is easy to be fooled into thinking that a result is accurate just because it has a digital readout, but one only has

### Letters

to stand on a set of digital scales five or six times to get five or six different readings, or to record an ear temperature several times to realise the variability that occurs. The worrying fact with digital blood pressure machines (especially wrist ones) is that they appear to give a higher figure than a mercury arm reading.

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- McManus RJ, Mant J, Hull MRP, Hobbs FDR. Does changing from mercury to electronic blood pressure measurement influence recorded blood pressure? An observational study. Br J Gen Pract 2003; 53: 953-956.
- Matthews H. Re: mercury vs automated sphygmomanometers [Rapid response]. BMJ 29 Dec 2000. http://bmj.bmjjournals.com/cgi/eletters/ 321/7275/1534/a (accessed 7 Jan 2004)
- Hartley S, Bello G, McKinlay WJD. Accuracy of electronic sphygmomanometers [Letter]. Br J Gen Pract 2004; 54: 59.
- Murray A. Selecting the appropriate sphygmomanometer [Rapid response]. BMJ 3 Jan 2001. http://bmj.bmjjournals.com/cgi/eletters/ 321/7275/1534/a (accessed 7 Jan 2004).

# Personalised medicine in primary care

The editorial by Rhydian Hapgood on current developments in personalised medicine, 1 is a timely analysis of the impact that the human genome project will have on general practice. Drug reps are unlikely to point out to us that, due to genetic variations in response to statins, 35% of patients will get no more benefit from statins than they would from a placebo!<sup>2,3</sup> Hapgood points out, however, that genetic testing on the NHS is still a long way off and that research into the practicalities of pharmacogenetic tests at the primary care level is needed. £2 million has already been allocated by government for genetic initiatives in primary care. This is a challenge that we, in British primary care, must rise to. The implications of a successful outcome are revolutionary.4

A critical point in evaluating any such programme is that such tests are 'one off' as the genetic profile of an individual is constant throughout life. The same can be said of nutrigenomics, the study of gene-nutrient interactions. We already know that genetic variation determines what

dietary (or diet plus supplementation) intake of folate is needed to lower homocysteine levels and reduce the risk of artherosclerosis, and that this involves at least a four-fold difference.<sup>5</sup> A dietary intake of 100 µg a day might be sufficient for one genetic type, but an unfavourable combination of genes in another individual will make a daily intake of 800 µg necessary<sup>5</sup> to produce the same benefits.

Similar genetic variations have been found in relation to other metabolic pathways involving gene-nutrient interactions that influence artherosclerosis (KS Kornman et al. The second international nutrigenomics conference, Amsterdam, 2003),6 and pathways that involve detoxification of carcinogens,7 the metabolic syndrome,8 and osteoporosis.9 Research tools developed by human genome scientists, such as polymerase chain reaction (PCR) and related techniques (DNA and RNA microarray research), have led to an explosion of new research in this area and rapid advances in nutrigenomics are inevitable.

The private sector is already providing a service for doctors who wish to take a buccal swab and send it off for PCR analysis, but they emphasise that this has to be combined with a lifestyle and food frequency questionnaire for them to give valid personalised nutritional advice. If the £2 million earmarked for GP research was all spent on investigating gene therapy and pharmacogenomics (drug-gene interactions), I am sure the drug industry would be very pleased, but perhaps patients and doctors would benefit just as much, if not more, from investing in nutrigenomics in primary care.

I can foresee a future in which our practice computer will include in its database the genetic information needed for effective personalised medical care. With appropriate precautions for confidentiality, I can see no problem with this. The computer could then, for instance, warn us that the patient we have just prescribed a statin for would get no benefit from this, but would benefit from a nutritional regimen including dietary advice, Omacor, and an antioxidant supplement. The nutritional regimen will, of course, be extremely unlikely to have any significant side effects.

I have no conflict of interest in giving

the above opinions, but have learned a good deal about the subject from an MSc course in Nutritional Medicine at The University of Surrey.

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### References

- Hapgood R. The potential and limitations of personalised medicine in primary care. Br J Gen Pract 2003; 53: 915-916.
- Schmitz G, Drobnik W. Pharmacogenomics and pharmacogenetics of cholesterol-lowering therapy. Clin Chem Lab Med 2003; 41(4): 581-589.
- Kuivenhoven JA, Jukema JW, Zwinderman AH, et al. The role of a common variant of the cholesteryl ester transfer protein gene in the progression of coronary artherosclerosis. N Eng J Med 1998; 338: 86-93.
- Godfrey K. Genetics white paper heralds 'a revolution of health care'. BMJ 2003; 326: 1413.
- Molloy AM, Daly S, Mills JL, et al. Thermolabile variant of 5,10-methlenetetrahydrofolate reductase associated with low red-cell folates: implications for folate intake recommendations. *Lancet* 1997; 349: 1591-1593.
- Minihane AM, Khan S, Leigh-Firbank EC, et al. ApoE polymorphism and fish oil supplementation in subjects with an atherogenic lipoprotein phenotype. Arterioscler Thromb Vasc Biol 2000; 20(8): 1990-1997.
- Vineis P, McMichael A. Interplay between heterocyclic amines in cooked meat and metabolic phenotype in the etiology of colon cancer. *Cancer Causes Control* 1996; 7(4): 479-486.
- Hsueh WA, Law R. The central role of fat and effect of peroxisome proliferatoractivated receptor-gamma on progression of insulin resistance and cardiovascular disease. Am J Cardiol 2003; 92(suppl 1): 3-9.
- Morrison NA, Qi JC, Tokita A. et al. Prediction of bone density from vitamin D receptor alleles. Nature 1994; 367(6460): 284-287.

### Correction

In the November 2003 issue, in Arroll B, Kenealy T, Kerse N. Do delayed prescriptions reduce antibiotic use in respiratory tract infections? A systematic review. (*Br J Gen Pract* 2003; **53**: 871–877), there is a correction to Table 3 on page 875. The relative risks are in the incorrect order and the column should read as follows:

RR (95% CI random) 0.54 (0.41 to 0.70) 0.45 (0.73 to 0.81)

0.25 (0.36 to 0.56)

0.77 (0.25 to 0.39)

0.31 (0.19 to 0.34)

An amended version of this paper is available on the journal website: http://www.rcgp.org.uk/journal/index.asp