herbal medicines are in fact the effects of other herbal material used in error. This type of mistake is typified by the irritatingly common practice of naming vincristine and related anticancer compounds as *Vinca* alkaloids although they are derived from *Catharanthus roseus*. Unfortunately, classical taxonomists and phytoanalysts do not have the same glamour and potential to attract money as some other scientists and so are an endangered species. Their demise will result in mistakes more serious than the one in the editorial.

PETER J HOUGHTON
Senior lecturer in pharmacognosy

Department of Pharmacy,
King's College London,
London SW3 6LX

- 1 Linde K, Ramirez G, Mulrow CD, Pauls A, Weidenhammer W, Melchart D. St John's wort for depression—an overview and meta-analysis of randomised clinical trials. *BMJ* 1996;313:253-8. (3 August.)
- 2 De Smet PAGM, Nolen WA. St John's wort as an antidepressant. *BMJ* 1996;313:241-2. (3 August.)

Iron deficiency anaemia and febrile convulsions

Possible confounding factors include lead toxicity ...

EDITOR,—Alfredo Pisacane and colleagues report that they found an association between iron deficiency anaemia and febrile seizures in Neapolitan children.¹ They apparently failed, however, to consider the confounding possibility of lead poisoning in these children with hypochromic, microcytic anaemia and low serum iron concentrations,² lowers the seizure threshold,² and could easily account for the apparent association between "iron deficiency" and seizures in these children. Was this potential confounder adjusted for, or even considered, by the authors?

Additionally, the study began with 156 subjects, yet only 146 were commented on. What became of the missing 10 children? Were they excluded for some reason?

Finally, even if an association between iron deficiency anaemia and febrile seizures does exist, a case-control study cannot prove causation (which is hinted at in the concluding paragraph).

WILLIAM M WIKE
Family practice intern
W R KISER
Specialty adviser to the surgeon general

Department of Family Practice,
United States Naval Hospital,
Jacksonville, FL 32214-5227,
USA

- 1 Pisacane A, Sansone R, Impagliazzo N, Coppola A, Rolando P, D'Apuzzo A, et al. Iron deficiency anaemia and febrile convulsions: case-control study in children under 2 years. *BMJ* 1996;313:343. (10 August.)
- 2 Rudolph AM, ed. *Rudolph's pediatrics*. 20th ed. Stamford, CT: Appleton and Lange, 1996.
- 3 Johnson KB, ed. *The Harriet Lane handbook*. 13th ed. St Louis, MO: Mosby, 1993:222.

... and coeliac disease

EDITOR,—Alfredo Pisacane and colleagues report an increased incidence of iron deficiency anaemia in children under the age of 2 years presenting with febrile convulsions.¹ Although they considered confounding variables, they do not seem to have considered a known and linking condition for anaemia and fits. The literature, in both children^{2,3} and adults,⁴ documents an association between epilepsy, coeliac disease, and, intriguingly, intracerebral calcification. Some of this association may, of course, be due to the associated hypomagnesaemia and hypocalcaemia. Although the frequency of

coeliac disease in unselected patients with epilepsy is low (1%), we suspect that in an anaemic population it would be much higher. Because control of epilepsy improves with treatment,⁵ we would suggest that the authors screen the anaemic group for coeliac disease.

C E MACDONALD
Research registrar
R J PLAYFORD
Professor

University Division of Gastroenterology,
Leicester General Hospital NHS Trust,
Leicester LE5 4PW

- 1 Pisacane A, Sansone R, Impagliazzo N, Coppola A, Rolando P, D'Apuzzo A, et al. Iron deficiency anaemia and febrile convulsions: case-control study in children under 2 years. *BMJ* 1996;313:343. (10 August.)
- 2 Fois A, Vascotto M, Di Bartolo RM, Di Marco V. Celiac disease and epilepsy in pediatric patients. *Childs Nerv Syst* 1994;10:450-4.
- 3 Piattella L, Zamponi N, Cardinali C, Porfiri L, Tavoni MA. Endocranial calcifications, infantile celiac disease and epilepsy. *Childs Nerv Syst* 1993;9:172-5.
- 4 Ambrosetto G, Antonini L, Tassinari CA. Occipital lobe seizures related to clinically asymptomatic celiac disease in adulthood. *Epilepsia* 1992;33:476-81.
- 5 Cernibori A, Gobbi G. Partial seizures, cerebral calcifications and celiac disease. *Ital J Neurol Sci* 1995;16:187-91.

Authors' reply

EDITOR,—The suggestion that potential confounders such as lead poisoning and coeliac disease might be responsible for the association that we reported between iron deficiency anaemia and febrile convulsions is important. Because of the characteristics of our study, however, no data are available from the clinical records that might indicate whether lead poisoning or coeliac disease was present in some of the cases.

Nevertheless, even though iron deficiency anaemia has been associated with both these conditions, febrile convulsions have not. Seizures without fever can occur as a clinical manifestation of lead encephalopathy and of coeliac disease in association with cerebral calcification. However, children with febrile seizures are usually children who are well before and after the fit, and afebrile convulsions are uncommon among them.

We are now studying prospectively a large group of children admitted with their first febrile seizure to some hospitals in greater Naples. All of them had a good nutritional status both at the time of the seizure and one year later, with no clinical signs of lead poisoning or coeliac disease. Moreover, when only those children with a haemoglobin concentration of >110 g/l were considered, iron deficiency was considerably more common among cases than controls. That could mean that iron deficiency rather than anaemia is associated with febrile seizures. Obviously, the points raised in the letters about our report need attention, and no claim of causation should be made before more studies have been carried out.

Finally, we regret that the reason for the exclusion of 10 cases (the fact that no haematological data were available from the clinical records) did not appear in the final manuscript.

ALFREDO PISACANE
Senior lecturer
RENATO SANSONE
Postgraduate trainee
NICOLA IMPAGLIAZZO
Postgraduate trainee
ANGELO COPPOLA
Postgraduate trainee

Dipartimento di Pediatria,
Università Degli Studi di Napoli Federico II,
5-80131 Naples,
Italy

PAOLO ROLANDO
Paediatric consultant
ALFONSO D'APUZZO
Paediatrician
CIRO TREGROSSI
Paediatrician

Divisione di Pediatria,
Ospedale di Castellammare di Stabia,
Naples

Hormone replacement therapy for all?

Women must choose for themselves

EDITOR,—Philip Tooze-Hobson and Linda Cardozo assert that "there are three main reasons why many who would benefit do not take oestrogen supplementation," but they offer no evidence to support this assertion.¹ They then state that women who believe that the menopause is a natural event are wrong. Aside from being irrelevant to the merits or otherwise of using hormone replacement therapy, this view ignores the fact that the word "natural" has no defined meaning when applied as a descriptive epithet to biological processes. It simply conveys some of our health beliefs concerning the event. In other words, people may disagree about whether a process is natural or not according to what they understand by natural. The fact that the authors reject all other interpretations of the word but their own does not augur well for their sensitivity towards lay health beliefs or their patients' autonomy. My own belief is that to regard the biological processes of one phase of life as more or less normal than those of another is problematic. Indeed, recasting the menopause as a medical event by definition makes symptoms out of what might otherwise be experiences.

The central issue is whether the advantages of hormone replacement outweigh the disadvantages. It has been noted that the potential reduction in cardiovascular disease would have the greatest impact on health outcomes.² Clearly, relief of symptoms (if there are any symptoms and these are perceived as problematic) and a reduced incidence of stroke and fracture are also important. The disadvantages include possible increased risks of breast cancer, medicalisation, resumption of bleeding, and cost. People may be expected to give different weight to these risks and benefits, especially those concerning medicalisation. We should not be surprised that different women will make different choices or even disagree with our assessments. It is up to women to make these choices themselves. For clinicians to impose their view rather than to advise encroaches on patients' autonomy and exceeds the mandate of the doctor-patient relationship.

TOM MARSHALL
Registrar in public health

Northamptonshire Health Authority,
Northampton NN1 5DN

- 1 Tooze-Hobson P, Cardozo L, Jacobs HS. Hormone replacement for all? *BMJ* 1996;313:350-2. (10 August.)
- 2 Daly E, Roche M, Barlow D, Gray A, McPherson K, Vessey M. HRT: an analysis of benefits, risks and costs. *Br Med Bull* 1992;48:368-400.

Arguments should be based on ratio of benefits to risks

EDITOR,—Philip Tooze-Hobson and Linda Cardozo assert that "some women believe that the menopause is a natural event and that taking medication (hormones) should be avoided. These women are wrong: oestrogen deficiency is the unnatural state."¹ Oestrogen concentrations normally change in childhood, the reproductive years, and postmenopausally, but nobody is suggesting that prepubertal girls are oestrogen deficient, so why should all older women be? It seems extraordinary that these gynaecologists wish to define all women over a certain age as being diseased and "wrong" if they do not concur with their diagnosis. The historical argument about increasing life expectancy is specious because the increase is largely due to falls in infant mortality, and women who have reached 50 have always had a life expectancy well beyond their menopause.

It is not necessary for Toozs-Hobson and Cardozo to claim that the whole female population is diseased in order to recommend prophylaxis; we recommend supplementation with folic acid for women before conception and in the first trimester without believing that they all have a dietary deficiency. There may well be a very good argument for all postmenopausal women to take hormone replacement therapy, based on evidence of a favourable ratio of benefits to risks. For the women who are being recommended lifelong hormone replacement therapy, convincing arguments of this sort will be more persuasive than labelling a universal life event as a disease.

SUSAN BEWLEY
Director of obstetrics

Guy's and St Thomas's Trust,
St Thomas's Hospital,
Women's Services Directorate,
London SE1 7EH

1 Toozs-Hobson P, Cardozo L, Jacobs HS. Hormone replacement for all? *BMJ* 1996;313:350-2. (10 August.)

Long term randomised controlled trial is needed

EDITOR,—Karen McKinney disagrees with Elizabeth H Price and Helen Kaye Little's letter about informing women of the risk of hormone replacement therapy, particularly in relation to breast cancer.^{1 2} McKinney cites the nurses' health study as evidence against a link between hormone replacement therapy and the development of breast cancer.³

Unfortunately, the data in the nurses' health study and the authors' conclusions are at variance with McKinney's assertion. In the study past use of hormone replacement therapy was associated with an excess incidence of breast cancer within two years after treatment was stopped, but not for longer. Current use was associated with a significant 32-46% excess of breast cancers. The risks were higher in older women and similar for all hormone replacement therapy preparations. The authors concluded, "The addition of progestin to estrogen therapy does not reduce the risk of breast cancer among postmenopausal women. The substantial increase in the risk of breast cancer among older women who take hormones suggests that the trade-offs between risk and benefits should be carefully assessed."

McKinney also states that the evidence overwhelmingly supports a protective effect of hormone replacement therapy on the cardiovascular system and against osteoporosis. Unfortunately, the cohort studies showing a substantial reduction in heart disease in users of hormone replacement therapy are open to bias, with healthier women being more likely to use the therapy. Barrett-Connor has shown that women who choose to take hormone replacement therapy eat healthier diets, take more exercise, and are more likely to visit their doctor.⁴ Cauley *et al* calculated that women aged over 65 who decided to take hormone replacement therapy had a lower risk of heart disease.⁵ Whether such biases fully explain the apparent protective effect of hormone replacement therapy on heart disease is unknown.

It must be borne in mind that coronary heart disease accounts for around 23% of all deaths among women each year, breast cancer around 5%, and fractured hips about 1%. A small increase in the risk of breast cancer might completely overshadow a larger decrease in the risk of hip fracture.

The only way to determine whether long term hormone replacement therapy is beneficial to women's health is through a randomised controlled trial with long term follow up. Such a trial is long overdue. In the meantime, we should be wary of letting our enthusiasm to prevent illness lead us to make unjustified extrapolations of

results from studies that can suggest hypotheses but not test them.

RONAN LYONS
Consultant in public health medicine

Lechyd Morgannwg Health,
Swansea SA1 1LT

- 1 McKinney K. Use of hormone replacement therapy. *BMJ* 1996;313:686. (14 September.)
- 2 Price EH, Little HK. Women need to be fully informed about risks of hormone replacement therapy. *BMJ* 1996;312:1301. (18 May.)
- 3 Colditz GA, Hankinson SE, Hunter DJ, Willett WC, Manson J, Hennekens C, *et al*. The use of estrogens and progestins and the risk of breast cancer in postmenopausal women. *N Engl J Med* 1995;332:1589-93.
- 4 Barrett-Connor E. Postmenopausal estrogen and prevention bias. *Ann Intern Med* 1991;115:455-6.
- 5 Cauley JA, Cummings SR, Black DM, Mascioli SR, Surley DG. Prevalence and determinants of estrogen replacement therapy in postmenopausal women. *Am J Obstet Gynecol* 1990;163:1438-44.

Invalidity benefit has been superseded by incapacity benefit

EDITOR,—In an article in the series on caring for older people Charlie Teale presents a clear picture of the bewildering array of benefits that elderly people may be able to claim.¹ Inevitably, with benefit rates changing every year, some of the figures quoted are incorrect. In particular, the article describes invalidity benefit, which was replaced by incapacity benefit in April 1995.

There are three bands of incapacity benefit: the short term lower rate, paid for the first 196 days; the short term higher rate, paid from day 197 to day 364; and the long term rate, paid from day 365 onwards. To qualify for incapacity benefit a claimant must be under pensionable age when the period of incapacity for work begins and must satisfy the conditions regarding national insurance contributions. Women aged 60-65 and men aged 65-70 can continue to receive short term incapacity benefit provided they would be entitled to a retirement pension on the basis of their own contributions. People over retirement age cannot receive incapacity benefit at the long term rate.

Entitlement to benefits is a complex subject for everyone, but especially for elderly people. Citizens' advice bureaux have access to comprehensive information on all benefits. They also have a wealth of experience in helping elderly clients to make the appropriate claims. The service is free and confidential and is based on an understanding of the client's overall situation rather than just the presenting problem. Readers of the *BMJ* should feel free to refer any of their patients with money problems to their local citizens' advice bureau. We will be glad to help.

DAVID SNELL
Manager

Romsey and District Citizens Advice Bureau,
Romsey SO51 8BT

1 Teale C. Caring for older people: money problems and financial help. *BMJ* 1996;313:288-90. (3 August.)

Rights and responsibilities in HIV prevention

EDITOR,—Paul Bailey¹ and Stuart MacWilliam² take issue with some of the ideas that I put forward in my article about possible changes in attitudes towards the prevention of HIV infection.³ I should like to make clear that I did not advocate a restriction on the human rights of any individual or group. On the contrary, my article concluded with a clear call for greater protection against discrimination for people who are HIV positive.

My argument is that, while respect for human rights is essential, our concern about protecting

human rights should not cloud our thinking about responsibilities—including the responsibility of individual people, both HIV positive and HIV negative—to prevent the transmission of HIV. Just as governments should not be absolved of their responsibility to people infected with or affected by HIV, so too individual people, whatever their serostatus, cannot be absolved of their responsibilities to themselves and others. Addressing this issue is problematic for all sorts of reasons, but that does not mean that it should not be done.⁴

MacWilliam asks whether AIDS has really been normalised. Sadly, there are innumerable examples of stigmatisation such as that to which he refers. Yet, alongside these, there are also examples indicating the normalisation of AIDS (albeit it is a slow process). This is the result of a combination of factors: epidemiological, medical, and also social and historical.

I am certainly not recommending draconian or Orwellian measures. Far from it. But it is incumbent on us all to consider different approaches to the prevention of HIV infection and to talk openly about what does and does not seem to work.

RENÉE DANZIGER
Lecturer

London School of Hygiene and Tropical Medicine,
London WC1E 7HT

- 1 Bailey P. Rights and responsibilities in HIV prevention. *BMJ* 1996;313:303. (3 August.)
- 2 MacWilliam S. Rights and responsibilities in HIV prevention. *BMJ* 1996;313:304. (3 August.)
- 3 Danziger R. An epidemic like any other? Rights and responsibilities in HIV prevention. *BMJ* 1996;312:1083-4. (27 April.)
- 4 Bayer R. AIDS prevention—sexual ethics and responsibility. *N Engl J Med* 1996;334:1540-2.

Income and mortality in the United States

Incomes should have been adjusted in the two studies

EDITOR,—Whether inequalities in the distribution of income in advanced industrial societies are associated with average levels of population health is a contentious issue.¹ The papers by George A Kaplan and colleagues and Bruce P Kennedy and colleagues seem to support the view that some indicators of income inequality are correlated with mortality, at least in the United States.^{2 3} Given that the United States is the most inegalitarian of the richest industrial nations, such findings are perhaps not so surprising, but whether they are generalisable to other countries remains to be seen. More importantly, however, the significance of these papers is questionable on methodological grounds.

Assessing variations in the distribution of household income is complex. There is general agreement among social scientists, however, that comparative analyses make most sense when primary incomes—from sources such as salaries and wages—are adjusted to take account of taxes, cash benefits, and household composition to yield a measure of "equivalent disposable income." Any failure to make these adjustments is likely to exaggerate the extent of inequality in the distribution of disposable household income.

Unfortunately, the data used by Kaplan and colleagues and Kennedy and colleagues are derived from the United States census, which provides estimates of incomes unadjusted for taxes, benefits, and size of household. The extent of the problem this poses can be illustrated with an example taken from a report prepared for the Organisation for Economic Cooperation and Development, which reproduces estimates produced by the Congressional Budget Office comparing the distribution of income in the United