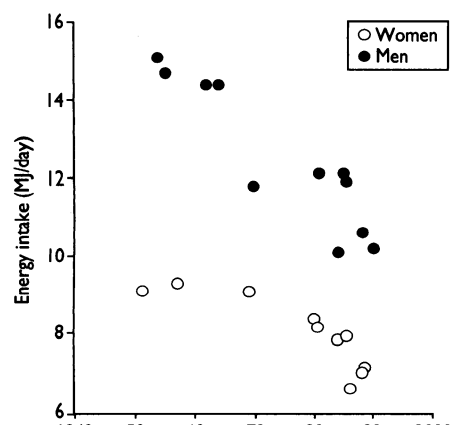


critical determinant of excess weight gain for some people. This is why we have emphasised negative proxies for activity (ownership of cars and labour saving devices, television viewing, etc). We dispute Morris's claim that television viewing is declining to any great extent. According to figures published by the Central Statistical Office, average viewing was 26 hours 32 minutes a week in 1986 and 26 hours 44 minutes in 1992.<sup>4</sup> Over the same period the number of households owning a video recorder rose from 9 million to 17 million, which implies that secondary viewing will have risen sharply.

With respect to food intake, space constraints prevented us from presenting cross sectional data that corroborate the apparent fall in energy intake recorded by the national food survey. The figure shows a compilation of weighed dietary surveys of adults in Britain. Overall intakes are higher than that found in the national food survey, reflecting the fact that weighed surveys record all foods and beverages, but the downward trend is similar.



Compilation of cross sectional dietary surveys of adult energy intake in Britain (original citations are available on request)

Whatever the exact trajectory of energy intakes may be, it seems clear that per capita food intake has not increased and therefore that low levels of physical activity must be implicated in the current rising trend in obesity.

In our original paper we also presented an analysis of the social class trends in obesity, which again implicated physical inactivity. It is the combination of these different lines of evidence that we find particularly persuasive.

ANDREW M PRENTICE  
Head of energy metabolism group  
SUSAN A JEBB  
Research scientist

MRC Dunn Clinical Nutrition Centre,  
Cambridge CB2 2DH

- 1 Department of Health. *Obesity: reversing the increasing problem of obesity in England*. London: DoH, 1995.
- 2 Rose G. Population distributions of risk of disease. *Nutrition and Metabolism of Cardiovascular Disease* 1991;1:37-40.
- 3 Office of Population Censuses and Surveys. *Health survey for England 1993*. London: HMSO, 1995.
- 4 Central Statistical Office. *Social trends 24*. London: HMSO, 1994.

### Rising trend may be due to "pathoenvironment"

EDITOR.—The prevalence of obesity has reached epidemic proportions in the United States and many European countries. Andrew M Prentice and Susan A Jebb provide convincing evidence that "simple gluttony" cannot account for this increased prevalence since over the past 20 years food intake has decreased whereas body mass index has continued to increase in Britain.<sup>1</sup> The authors conclude that physical activity has decreased even faster over the same period and so

obesity can be blamed on "sloth." Many readers may incorrectly conclude from this study that obesity is simply the result of a lack of the willpower to control eating and exercise.

Epidemiological and genetic studies suggest, however, that obesity in a given population is largely determined by the environment, whereas the variability among individuals within a given environment is largely determined by the individual genetic responses to that environment.<sup>2,3</sup> I therefore propose that the high prevalence of obesity in some environments is the consequence of normal, genetically determined physiology in a "pathoenvironment." Throughout most of its history, humankind has evolved in a restricted environment characterised by scarcity of food and a need for high levels of physical activity. Survivors of those times were probably people with a "thrifty genotype," which made them fatter during times of plenty so that during lean times they could survive on their own energy stores.<sup>4</sup> More than 30 years after the proposal of the thrifty genotype hypothesis,<sup>5</sup> however, we are still waiting for the identification of specific "survival" genes, which are likely to be common among many native populations with a high prevalence of obesity, such as Pima Indians, Australian Aborigines, and Pacific Islanders. Some people in Western societies may also have inherited stronger metabolic drives to eat more or exercise less than others and will, therefore, become obese in the present pathoenvironment.

To combat obesity on societal levels, public health strategies should be designed to make the environment less pathogenic by reducing the energy density of readily available food and increasing physical activity. These programmes should be targeted at children as early as the primary grades in school. Intervention programmes will not, however, be accepted until it is recognised that obesity is not simply due to the gluttony and sloth of undisciplined people but often results from genetically determined metabolic drives to eat more and exercise less in a pathoenvironment.

ERIC RAVUSSIN  
Visiting scientist

Clinical Diabetes and Nutrition Section,  
National Institute of Diabetes and Digestive and Kidney Diseases,  
National Institutes of Health,  
Phoenix, AZ 85016,  
USA

- 1 Prentice AM, Jebb SA. Obesity in Britain: gluttony or sloth? *BMJ* 1995;311:437-9. (12 August.)
- 2 Ravussin E, Swinburn BA. Pathophysiology of obesity. *Lancet* 1992;340:404-8.
- 3 Stunkard AJ, Harris JR, Pederson NL, McClearn GE. The body-mass index of twins who have been reared apart. *N Engl J Med* 1990;322:1483-7.
- 4 O'dea K. Obesity and diabetes in "the land of milk and honey." *Diabetes Metab Rev* 1992;8:373-88.
- 5 Neel JV. Diabetes mellitus: a "thrifty" genotype rendered detrimental by progress? *Am J Hum Genet* 1962;14:353-63.

## Monitoring the safety of herbal remedies

### Herbal remedies have a heterogeneous nature

EDITOR.—Herbal remedies are becoming increasingly popular with the public as they are perceived as being beneficial, free of side effects, and complementary to Western medicines.<sup>1</sup> There have been a number of reports of hepatic toxicity involving different herbal products.<sup>2,3</sup> Guy Vautier and R C Spiller report fulminant hepatic failure due to a Chinese herbal remedy labelled "eternal life."<sup>4</sup> We report a case related to the same remedy.

A 27 year old insulin dependent diabetic man presented with a two week history of progressive jaundice after consuming "eternal life." His peak bilirubin concentration was 458  $\mu\text{mol/l}$ , alanine transferase 2230 IU/l (normal range <30), and

peak prothrombin time 19.3 s (normal range <15). A causal relation between the herbal tea and this patient's hepatitis was supported by the exclusion of viral, autoimmune, hereditary, and biliary diseases. Liver biopsy showed inflammation around the portal tract and piecemeal necrosis. The patient's clinical condition improved over the next four weeks. We sought advice about the constituents of our patient's tea from a local Chinese herbalist. Alarming, although the product is called eternal life, it does not always contain the same plant extracts. Apparently each prescription is tailor made to suit the patient's needs.

The heterogeneous nature of herbal products renders monitoring of adverse reactions difficult. We share Vautier and Spiller's concerns about herbal remedies. If we wish to have an effective national surveillance and licensing policy, however, we must first seek the cooperation of the practitioners of alternative medicine. It is only with their help that we can know accurately what the formulations of these herbal remedies are. To enforce legislation on them is likely to drive them underground.

Our case also shows the importance of asking specifically about the use of alternative medicines by patients who present with jaundice.

We thank Dr R C Read, senior lecturer in infectious diseases, for permission to report this case.

D SANDERS  
Senior house officer, infectious diseases  
N KENNEDY  
Senior registrar, infectious diseases  
M W MCKENDRICK  
Consultant physician

Royal Hallamshire Hospital,  
Sheffield S10 2JF

- 1 Hall C. Beware the herbs that harm as well as heal. *Independent* 1988 Jul 12:17 (cols 2-7).
- 2 Woolf GM, Petrovic LN, Rojter SE, Wainwright S, Villamil FG, Katkov WN. Acute hepatitis associated with the Chinese herbal product Jin bu huan. *Ann Intern Med* 1994;121:729-35.
- 3 Larrey D, Vial T, Pauwels A, Castot A, Biour M, David M. Hepatitis after germander (*Teucrium chamaedrys*) administration: another instance of herbal medicine hepatotoxicity. *Ann Intern Med* 1992;117:129-32.
- 4 Vautier G, Spiller RC. Safety of complementary medicines should be monitored. *BMJ* 1995;311:633. (2 September.)

### WHO project is under way

EDITOR.—Guy Vautier and R C Spiller report a suspected severe hepatotoxic reaction to *Dictamnus dasycarpus*.<sup>1</sup> They make the important general suggestion that suspected reactions to herbal or natural medicines should be reported in the same way as are those to other drugs.

The World Health Organisation Collaborating Centre for International Drug Monitoring has received, from different national centres, over 5000 reports of suspected adverse reactions that have mentioned herbal medicines. This probably represents considerable underreporting, given the total size of the database of over 1.4 million reports related to conventional drugs.

In addition to the underreporting there is a great problem in categorising such products, which often have multiple ingredients of uncertain or variable amount or activity. Without the registration of herbal products the only recourse is to record each recognisable ingredient. We have a project under way to classify known, common toxic ingredients. The project is in an early phase but includes experts from around the world. The international programme on chemical safety has provided a forum for discussion so far, and additional funding is being sought by a consortium of poison control centres and experts in plant taxonomy from the Royal Botanical Gardens, London, and similar groups in other countries. Dr P A G M de Smet has provided much support for developing an extended anatomical (site of action) and therapeutic classification in conjunction with

the WHO Collaborating Centre on Drug Statistics Methodology in Oslo. The collaboration of poison control centres in this work is essential. Throughout the world they receive toxicological information on plant products and other natural remedies, since they keep records of calls for help with clinical management from medical practitioners and others.

Efforts are being made by prescribers of herbal medicines within Europe to gain information on adverse reactions. An international group, the European Scientific Cooperative on Phytotherapy, supported by the European Union and coordinated by Mr Simon Mills (of the Centre for Complementary Health Studies, Exeter University), is also promoting the collection of this information.

There is a growing need to tackle this problem in Europe and North America, where phytotherapy is being used more commonly. In many other countries phytotherapy and treatment with other natural remedies are the first treatments that people use and may perhaps be the only treatments that many people can afford. It is essential to cooperate and pool information on the risks, benefits, and safe use of these preparations.

RALPH EDWARDS  
Director

WHO Collaborating Centre for International Drug Monitoring,  
Box 26,  
S-751 03 Uppsala,  
Sweden

1 Vautier G, Spiller RC. Safety of complementary medicines should be monitored. *BMJ* 1995;311:633. (2 September.)

### European pilot studies are under way

EDITOR,—Guy Vautier and R C Spiller call for better monitoring of the safety of herbal remedies.<sup>1</sup> They are correct in identifying a serious gap in provisions. It may be helpful to elaborate on the situation and outline some steps that are being taken to improve matters.

Several hundred herbal products are available in Britain with full product licences as medicines under the terms of the Medicines Act and relevant European directives. These have to comply with tight criteria concerning quality, and their manufacturers are obliged to appoint staff to be responsible for formal pharmacovigilance duties. As almost all such products are sold over the counter, however, physicians have little opportunity to encounter them and report ill effects to the Committee on the Safety of Medicines. No other formal reporting schemes are available.

There are no mechanisms concerning safety for the much larger group of herbal remedies supplied without a licence, either in a category exempt from licensing (because they are supplied on direct personal recommendation) or by default under food safety legislation. Complaints to trading standards or environmental health officers cannot be regarded as a satisfactory safeguard for the public against products that could, especially if imported, contain almost anything.

The Centre for Complementary Health Studies is coordinating a programme funded by the European Commission to improve formal reporting schemes. This includes pilot studies in several European countries to improve the scope of conventional reports by doctors and to expand the potential for reporting by pharmacies, at least for the licensed herbal sector. Surveys will also test whether consumers' attitudes to the safety of herbal remedies affect the detection of adverse effects. Reports to pharmacovigilance centres around Europe and elsewhere will be collated centrally, and regular reports will be produced. Taken together, these projects will improve statutory safety procedures and contribute to the information available on the adverse effects of herbal remedies.

The non-licensed sector requires additional

steps. The costs of a product licence are too high for such licences to be widely applied to such a diverse market, and other approaches have to be considered.<sup>2</sup> The primary safety concern is for the quality of the products and for guarantees that they do not contain known harmful ingredients. A registration scheme for manufacturers and for products is necessary as a minimal first step and should be based on adherence to the open procedures of good manufacturing practice and to pharmacopoeial monographs. This is a realistic goal supported by representatives of responsible suppliers such as the British Herbal Medicine Association, but it requires political will and medical support.

SIMON Y MILLS  
Projects coordinator

Centre for Complementary Health Studies,  
University of Exeter,  
Exeter EX4 4PU

1 Vautier G, Spiller RC. Safety of complementary medicines should be monitored. *BMJ* 1995;311:633. (2 September.)

2 De Smet PAGM. Should herbal medicine-like products be licensed as medicines? *BMJ* 1995;310:1023-4. (22 April.)

## Depression, antidepressants, and accidents

EDITOR,—J Guy Edwards states that no epidemiological data exist to support the view that substituting newer antidepressants for older tricyclic drugs would lead to fewer accidents.<sup>1</sup> In a study of deaths in road traffic accidents tricyclic antidepressants were found in a low proportion of body fluids of accident victims (0.2%) compared with the proportions of such fluids containing alcohol (35%) or other drugs likely to affect the central nervous system (7.4%).<sup>2</sup> Further studies would certainly need to show that substitution with reversible inhibitors of monoamine oxidase A and selective serotonin reuptake inhibitors could improve on this comparatively low figure.

Section 4 of the 1988 Road Traffic Act states that "a person, who, when driving or attempting to drive a motor vehicle on a road or other public place, is unfit to drive through drink or drugs is guilty of an offence" and makes no distinction between prescribed drugs and misuse of drugs. All patients who are prescribed drugs, whether in the old or new categories, should be warned of the potential risks when driving and, indeed, when working in dangerous situations. Those patients for whom Edwards says that newer antidepressants should be considered have risk factors that probably preclude these tasks in any case.

P A M DIAMOND  
Chief medical adviser

Department of Transport,  
London SW1P 4DR

1 Edwards JG. Depression, antidepressants, and accidents. *BMJ* 1995;311:887-8. (7 October.)

2 Everst JT, Tunbridge RJ, Widdop B. *The incidence of drugs in road accident fatalities*. Crowthorne: Transport Research Laboratory, 1989. (TRL research report 202.)

## Patients often present too late for inclusion in trials

EDITOR,—Heather Goodare and Richard Smith encourage patients to become involved in the establishment as well as the performance of clinical trials.<sup>1</sup> In prospective randomised controlled clinical trials in malignant disease, patients are in general well prepared to cooperate and participate. However, they must first reach the treatment centre at a time when their condition is suitable for inclusion.

The randomised controlled clinical trials of the CHART (continuous, hyperfractionated, acceler-

ated radiotherapy) regimen of radiotherapy, in which 36 treatments are given over 12 days, were established in a cooperation between the Medical Research Council, Cancer Research Campaign, and Department of Health in 1990. Entry to the head and neck study was satisfactory, but fewer patients were submitted to the companion study in non-small cell lung cancer.

A survey of 484 patients who attended for radiotherapy for non-small cell lung cancer at 12 of the contributing centres during a three month period showed that only 24 (5%) were suitable for entry (unpublished data). The commonest causes for exclusion were poor general condition (35%), large tumour (26%), and metastases (19%).

The time course from first symptom to treatment was studied in the 484 patients. There seemed to be no undue delay by the patient reporting symptoms (median time three weeks) nor by the general practitioner referring the patient to hospital (median time to attendance at hospital four weeks). However, the median time from first symptom to diagnosis was 13 weeks and from first symptom to first treatment 19 weeks. Furthermore, in a quarter of the patients these intervals were greater than 25 and 33 weeks.

In non-small cell lung cancer, earlier diagnosis and more immediate referral for consideration of treatment may increase the number of patients suitable for inclusion in trials of radical treatment. If new methods give greater benefit, more patients will gain advantage when these methods are applied in routine practice.

S DISCHE  
D GIBSON  
M PARMAR  
M I SAUNDERS  
A BARRETT  
(Chairman)

CHART Steering Committee,  
Mount Vernon Centre for Cancer Treatment,  
Northwood,  
Middlesex HA6 2RN

1 Goodare H, Smith R. The rights of patients in research. *BMJ* 1995;310:1277-8. (20 May.)

## Local research ethics committees

### Local committees have strengths too

EDITOR,—Anyone familiar with observer variation in measurement, the psychology of committees, or lunacy in the law courts would predict disagreement between research ethics committees. K G M M Alberti implies that common forms, central direction, and training will help,<sup>1</sup> but differences will remain. Is conformity the priority? If so, why have local committees?

The idea that research done in a community should be approved locally by a committee of medical and lay members is changing towards managed research and predictable committees. The choice of lay members is another paradox. The ideal might be a working class mother, but the need to read and argue monthly about abstruse scientific and medicolegal problems contained in about 2-3 kg of paper tends to result in members being not true laypeople but experienced members of other professions, particularly lawyers.

There is a case for unitary approval of large surveys operated through a central team, which depend on standardisation and completeness. A central committee could additionally be useful in inhibiting alleged multicentre research projects that are really promotions of products. Such a committee would have to be replicated elsewhere in Britain or be less tied to the English health service structure than Alberti's editorial suggests. Cooperative studies that entail intervention by local clinicians on patients they recruit need local consideration.

Interviewing every applicant, as Alberti implies, is beyond the capacity of committees reviewing