

the whole NHS. That beige box on your desk is the agent of fundamental changes in clinical work, whose implications have not yet been established.

The new information technology strategy also envisages that electronic patient records will be implemented across the NHS by 2005. However, it is not clear what these will look like. The main strategy document suggests that records will be shared between the patient, general practice, hospital, and other services. According to a statement by Health Secretary Alan Milburn, however, records will continue to be controlled by the NHS, with patients able to read them only on screen.⁵ Again, these shared records might look like a technology problem, but the change is really far more profound.

Whatever the details, there are fundamental problems here. Consider the case of Mrs Smith, who currently lives in a nursing home. There are good arguments for sharing her health data with the social care staff who look after her.⁶ The government certainly expects that she will have shared multi-disciplinary health and social care assessments.⁷ The nursing home is a private establishment, so there need to be links between NHS and private sector organisations.⁶ We might add here that history tells us that scandals in health and social care have often occurred because of failure to share information, not from sharing too much. Yet there are no concrete plans about sharing information with social services, private sector organisations, or other organisations outside the NHS.

At the same time, it is important to guard against inappropriate uses of personal data. Data about Mrs Smith should be shared only with her consent and in her interests. At present, no rules for sharing Mrs Smith's personal electronic records are available, even though they are needed to implement joint assessments and other policies. The necessary guidance is not in the new strategy, and the revised Data Protection Act 1998 has not yet been fully implemented.⁸ The need now is to debate and understand how to trade off the benefits of sharing personal data with the risks of abuse.

Even when we have debated the issues, successful implementation will depend on major changes in clinical practice. Sharing data requires clinicians to trust one another, and non-clinical colleagues, far more than is common at the moment. Clinicians can be too cautious about sharing or relying on information generated by others.⁹ This is a cultural, not a technical, issue and the pace of change cannot be forced.

Given all this, the belief that electronic records can ever precede a clear and coherent health information technology policy is misplaced. As things stand the technology will, as in earlier strategies, be imposed on the NHS before fundamental issues have been thought through. The challenge for doctors is to thrash out how networks and records should support clinical practice and better collaborative relationships in the NHS and beyond. If there was ever a time to engage, it is now.

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JW holds a small fraction of the equity of Medix, an internet service provider for UK doctors.

- 1 Borowitz S, Wyatt J. The origin, content and workload of electronic mail consultations. *JAMA* 1998;280:1321-4.
- 2 Gibbs W. Taking computers to task. *Scientific American* 1997;278:64-71.
- 3 Department of Health. *Building the information core: implementing the NHS Plan*. London: Department of Health, 2001.
- 4 Coiera E. Information epidemics, economics, and immunity on the internet. *BMJ* 1998;317:1469-70.
- 5 Department of Health. At-a-glance electronic health records for every patient. 4th February 2001. www.doh.gov.uk/newsdesk/recent/4-naa-05012001.html. [Accessed 12th February 2001]
- 6 Keen J, Wyatt JC. Back to basics on NHS networking. *BMJ* 2000;321:875-8.
- 7 *Care Standards Act 2000*. London: Stationery Office, 2000.
- 8 Strobl J, Cave E, Walley T. Data protection legislation: interpretation and barriers to research. *BMJ* 2000;321:890-2.
- 9 Luke SG, Gallagher A, Lloyd BW. Staff and family attitudes to keeping joint medical and nursing notes at the foot of the bed: questionnaire survey. *BMJ* 1999;319:735.

Drug treatment for obesity

We need more studies in men at higher risk of coronary events

Although obesity, especially abdominal obesity, is the commonest cause of complications such as type 2 diabetes, hypertension, dyslipidaemia, and cardiovascular diseases, doctors most often use drugs to treat the complications rather than the underlying condition. This situation can be attributed to several factors, including lack of recognition of obesity as an important causal factor, doctors' ignorance about the potential contribution of drugs to managing obesity, and a lack of evidence that weight loss drugs can help maintain a reduced body weight while improving the patient's health profile. A recent trial has now provided some good evidence of the long term effectiveness of a weight loss drug.

The recently published STORM (sibutramine trial of obesity reduction and maintenance) study¹ differs

from previous weight loss trials. Its objective was not to show that sibutramine, a drug acting on the central nervous system and increasing energy expenditure, could induce significant weight loss beyond that achieved by a reduced calorie diet or placebo—an effect that already has been well documented.² Rather, it aimed to test whether sibutramine therapy for an additional period of 18 months could prevent weight regain among obese patients who had achieved a weight loss of over 5% over six months with an initial dose of 10 mg/day. Of the 467 patients who lost 5% of their body weight in the first phase and who were then randomised to sibutramine or placebo for the second phase, 43% of the sibutramine treated patients maintained at least 80% of their weight loss compared with only 16% in the placebo group. Furthermore, sig-

nificant changes in cardiovascular disease risk factors were noted, including reduced triglyceride concentrations, increased high density lipoprotein (HDL) cholesterol concentrations, reduced cholesterol:HDL cholesterol ratio (an important index to predict the risk of coronary heart disease,³), reduced insulinaemia and C peptide levels, and decreased uric acid concentrations.

Only blood pressure did not fall significantly, a finding discordant with the expected effect of weight loss.⁴ This result will have to be re-examined carefully, but it is possible that sibutramine should be preferred for obese, insulin resistant dyslipidaemic patients who are not hypertensive. Indeed, these high risk but normotensive obese patients represent a substantial proportion of the obese population, because about half of all insulin resistant individuals do not have hypertension.⁵ Further studies are needed to identify the subgroup of patients likely to benefit most from sibutramine.

Though the results of the STORM study are important, they also raise several questions to address in future studies. Firstly, the study used specialised obesity clinics, often in academic settings, and a fairly sophisticated approach: assessment of resting metabolic rate for estimating daily energy needs; adjustment of the recommended energy intake over time to compensate for the body weight loss; dietary supervision every two weeks; and a visit to the treating physician every month. Thus, the results probably do not reflect what could be achieved by most family physicians in routine practice.

Secondly, only the successful weight losers (467/605) took part in the second part of the study. Thus, sibutramine was effective in maintaining reduced body weight so long as the patient had already "responded" to the drug. This result should again be interpreted in the context of routine practice. It may be argued that if a patient does not respond to a weight loss drug after a few months there is little chance that its continued use would be beneficial. Studies that have examined this issue suggest that a period of about three months may be sufficient to identify responders.⁶⁻⁸

Finally, as in most weight loss trials, the vast majority of patients enrolled (over 80%) were women. Though this reflects the population of patients treated in most obesity clinics around the world, men are generally characterised by a more dangerous form of obesity—visceral, or abdominal, obesity.⁹ The current tragedy in medical practice is that neither obese men nor their doctors recognise the tremendous hazards of abdominal obesity. In the STORM study sibutramine therapy for two years reduced the waist circumference (the best crude index of abdominal fat accumulation) by more than 9 cm while also improving the cardiovascular risk profile. However, as the sample consisted largely of women with only moderate deterioration in their cardiovascular risk profile, even greater improvement in cardiovascular risk might have been observed in abdominally obese men.

What remains to be established from such a reduction in waist circumference is the impact on the risk of a first or recurrent coronary heart disease event in high risk abdominally obese patients. The VA-HIT study showed that increasing plasma HDL cholesterol concentrations with a fibrate was associated with a significant reduction (22%) in the risk of a recurrent coronary event among men with low HDL cholesterol and

pre-existing coronary heart disease.¹⁰ As a large proportion of men in this study had abdominal obesity, combining a fibrate with a weight loss drug might be a good approach to managing the risk of coronary heart disease in abdominally obese patients.

Finally, the apparent lack of effect of sibutramine induced weight loss on plasma low density lipoprotein (LDL) cholesterol concentrations might mislead. We have reported that abdominally obese patients with high triglyceride and low HDL cholesterol concentrations have small, dense LDL particles.¹¹ It is known that pharmacotherapy leading to a significant reduction in triglyceridaemia could lead to the production of larger LDL particles, richer in cholesterol ester,¹² an alteration that might completely mask changes in LDL concentration resulting from weight loss. Studies on drug treatment of obesity and LDL size are therefore needed. Meanwhile, clinicians should not be misled by the lack of change in LDL cholesterol concentrations observed in some obese patients who have successfully reduced their body weight and their triglyceride concentrations.

In summary, the successful findings of the STORM study should pave the way to the design of long term randomised trials in high risk abdominally obese patients. Future trials should include proper evaluation of the impact of such drug treatment on the risk of developing prevalent chronic metabolic diseases such as type 2 diabetes and cardiovascular diseases.

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J-PD has received honorariums for consultancy and lectures and funding for his laboratory from Servier, Parke-Davis/Warner Lambert, Merck-Frosst, Fournier, Gatorade, DuPont-Merck, Knoll, Weight Watchers International, Roche, Eli Lilly, and Janssen-Ortho.

- 1 James WPT, Astrup A, Finer N, Hilsted J, Kopelman P, Rossner S, et al. Effect of sibutramine on weight maintenance after weight loss: a randomised trial. *Lancet* 2000;356:2119-25.
- 2 Bray GA, Blackburn GL, Ferguson JM, Greenway FL, Jain AK, Mendel CM, et al. Sibutramine produces dose-related weight loss. *Obes Res* 1999;7:189-98.
- 3 Castelli WP. Epidemiology of coronary heart disease: the Framingham study. *Am J Med* 1984;76:4-12.
- 4 Resin E, Abel R, Modan M, Silverberg DS, Eliahou HE, Modan B. Effect of weight loss without salt restriction on the reduction of blood pressure in overweight hypertensive patients. *N Engl J Med* 1978;298:1-6.
- 5 Reaven GR, Lithell H, Landsberg L. Hypertension and associated metabolic abnormalities—the role of insulin resistance and the sympathoadrenal system. *N Engl J Med* 1996;334:374-81.
- 6 Royal College of Physicians. *Clinical management of overweight and obese patients: with particular reference to the use of drugs*. Royal College of Physicians, London, 1998.
- 7 Guy-Grand B, Apfelbaum M, Crepaldi G, Gries A, Lefebvre P, Turner P. International trial of long-term dexfenfluramine in obesity. *Lancet* 1989;2:1142-5.
- 8 Weintraub M, Sundaesan PR, Madan M, Schuster B, Balder A, Lasagna L, et al. Long-term weight control study. I (weeks 0 to 34). The enhancement of behavior modification, caloric restriction, and exercise by fenfluramine plus phentermine versus placebo. *Clin Pharmacol Ther* 1992;51:586-94.
- 9 Després JP, Lemieux I, Prud'homme D. Treatment of obesity: need to focus on high risk abdominally obese patient. *BMJ* 2001;322:716-20.
- 10 Rubins HB, Robins SJ, Collins D, Fye CL, Anderson JW, Elam MB, et al. Gemfibrozil for the secondary prevention of coronary heart disease in men with low levels of high-density lipoprotein cholesterol. Veterans Affairs High-Density Lipoprotein Cholesterol Intervention Trial Study Group. *N Engl J Med* 1999;341:410-8.
- 11 Tchernof A, Lamarche B, Prud'homme D, Nadeau A, Moorjani S, Labrie F, et al. The dense LDL phenotype. Association with plasma lipoprotein levels, visceral obesity, and hyperinsulinemia in men. *Diabetes Care* 1996;19:629-37.
- 12 Chapman MJ, Bruckert E. The atherogenic role of triglycerides and small, dense low density lipoproteins: Impact of ciprofibrate therapy. *Atherosclerosis* 1996;124:S21-8.

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