

17 β and norethindrone. Other formulations of oestrogen and progestin may not result in the same outcome. This is a speculative statement, based on the fact that each progestin has a different biological profile. On the basis of biochemical parameters, norethindrone could be considered a more potent progestin than either medroxyprogesterone acetate or progesterone.⁹ To date endometrial morphology has been used to determine the safety of the progestin used with oestrogen in hormone replacement preparations. The end point in clinical trials has been the morphological changes seen in the endometrial tissue acquired through biopsy. The accuracy of the interpretation of the histology of the endometrium between pathologists has been questioned because of the discrepancies found in the interpretation of the endometrium in clinical trials.¹⁰

Better markers of endometrial stimulation and inhibition than that of histology alone are needed. Until these are available, we must rely on the pathological interpretation of the findings, as was done in this study, to reassure us that the endometrium is protected with continuous combined hormone replacement therapy. For clinicians this means that investigation of a woman taking continuous combined hormone replacement without bleeding is not required, and with bleeding and spotting the chances of finding a neoplasm are low to non-existent.

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Prevention and cure of type 2 diabetes

Weight loss is the key to controlling the diabetes epidemic

The Department of Health has published the first part of the national service framework defining standards of care for people with diabetes. The substance—how these standards will be achieved—is now awaited. Type 2 diabetes, however, is reaching epidemic proportions, and epidemics are seldom controlled unless their causes are addressed. Obesity is strongly and causally linked to type 2 diabetes. Recent data suggest that the prevention of diabetes is feasible if weight management is addressed adequately in individuals at high risk. More controversially, weight management also has the potential to make a significant impact in those with established type 2 diabetes.

The most common definition of obesity is a body mass index greater than 30 kg/m². In the nurses' health study the risk of type 2 diabetes in women with an index of 29-31 was 28-fold increased compared with women with an index lower than 22, and an index greater than 35 carried a 93-fold increased risk.¹

The overall prevalence of self reported diabetes in the United States has reached 7.3%, and 15% in people over 60 years of age, driven by epidemic obesity.² There is no room for complacency in the United Kingdom.

The prevalence of known and new type 2 diabetes, detected by oral glucose tolerance test, was 20% in Europeans, 22% in Afro-Caribbeans, and 33% in Pakistanis in urban Manchester.³ Obesity and physical inactivity were the principal factors associated with diabetes, and waist circumference, a measure of intra-abdominal fat, was the strongest predictor of glucose tolerance. Similarly, obesity related diabetes in childhood, already common worldwide, has now reached the United Kingdom.⁴

So, could we prevent type 2 diabetes? In a prospective study of 84 941 female nurses followed for 16 years, a combination of five modifiable risk factors related to dietary behaviour, physical activity, weight, and cigarette smoking was identified that was associated with a remarkable 91% reduction in the risk of developing diabetes.⁵ Even with a family history of diabetes the risk reduction was 88%. In theory, therefore, most diabetes could be preventable, largely irrespective of genetic background.

Two pioneering studies show that this is feasible. In the Finnish diabetes prevention study weight loss in overweight subjects with impaired glucose tolerance, averaging just 3-4 kg over 4 years, led to a 58% reduc-

tion in incident diabetes.⁶ A similar result was achieved by the diabetes prevention programme in the United States, in which lifestyle intervention involving exercise and dietary change in subjects with impaired glucose tolerance reduced incident diabetes by 58%.⁷

The mechanism of prevention of diabetes probably entails changes in both dietary behaviour and physical activity, for which weight loss is a surrogate indicator. Whatever the mechanism the message is that much could be done to prevent diabetes in individuals at high risk. If theory is to be put into practice in the United Kingdom, however, where few general practitioners see a role for primary care in the prevention of diabetes,⁸ a substantially increased awareness of risk factors such as obesity and impaired glucose tolerance is needed. A bigger obstacle still is that lifestyle and body weight are far from being under voluntary control, and so prevention of diabetes requires sustained cultural change.

The success of the diabetes prevention studies begs a controversial question: should we put greater emphasis on weight loss for patients with new diabetes? The traditional dogma (not strongly evidence based) is that people with diabetes cannot lose weight and so this is futile. However, the regular support of a dietician, practical help with physical activity, and behavioural change at home and at work—the central tenets of successful weight management—are absent from diabetes care. The most thought provoking data on improved glycaemic control, and sometimes remission of diabetes, through restriction of calories come from morbidly obese individuals undergoing bariatric surgery.⁹ Although this remedy can hardly be advocated widely, the data show how diabetes can be controlled and sometimes cured by major reductions in caloric intake. Weight loss, therefore, of at least 5-10% would be a logical goal, alongside standard glycaemic and cardiovascular targets, for many overweight people with diabetes. This would slow progression, reduce insulin requirements, allow withdrawal of treatment for some, and, most importantly, reduce

mortality.¹⁰ Experience shows, however, that this is often beyond the reach of older patients; it may be more realistic for younger newly diagnosed patients, given appropriate support, and perhaps judicious use of anti-obesity drugs. Much remains to be learned about the treatment of this disease.

Testing times lie ahead for this national service framework. Epidemic type 2 diabetes demands more than a reiteration of the established glycaemic and cardiovascular targets on a grand scale. While the goal of a cure for type 2 diabetes remains some way off for most patients, prevention of diabetes and slowing of the natural history of the disease are clearly feasible. We should act on this important new evidence.

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Counting the cost of medical negligence

NHS litigation authority will be able to report on costs and high risk procedures

The financial cost of medical negligence is a topic that rarely recedes from the headlines. In part this is due to a perception that the money paid out to patients is a measure of the adverse health consequences of medical errors, but in part it is due to a concern over the impact such payments will have on healthcare providers themselves. Each million pounds paid in damages is a million pounds that otherwise could be spent on patient care. What is sometimes overlooked is that this financial impact on providers can fulfil a positive role—it gives a signal of where things are going wrong, and an incentive to put them right. For these reasons it is important for consistent data to be collected on the frequency and cost of medical incidents.

Given the interest generated by the topic, it is perhaps surprising that so little is known with confidence about the cash cost of clinical negligence to the English health service. In a recent article in this journal,¹ my colleagues and I attempted to use information from hospitals in the Oxford region to extrapolate a national figure for cash paid out by the NHS in 1998-9. We arrived at a figure in the range of £48m to £130m, which we now believe may be an underestimate owing to the small number of very large claims in our sample. The National Audit Office, in its recent review of claims handling in the NHS,² cites evidence from the NHS Litigation Authority that it closed 3254 claims in 1999-2000 at a cost of £386m. In the same document the legal services commission is said to have funded 7375