Overall, only 42 (4%) of 1033 patients treated surgically for breast cancer or benign disease required frozen section for confirmation or exclusion of malignancy. Needless to say, this policy has been achieved only by the very helpful co-operation we have received from Dr T J Anderson and his colleagues in the pathology department.

We would be interested to know how Dr Thomson and his colleagues investigate their patients prior to mastectomy, whether they prepare them for the psychological effects of operation or discuss how these may be reduced by breast reconstruction or by more conservative methods of treatment. We have long believed that the diagnosis and treatment of breast cancer should not be telescoped into a single operative event. Satisfactory methods of outpatient diagnosis are available and should be used.

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¹ Forrest APM. *Can J Surg* 1971;14:244-52.

* * * We sent this letter to the authors, who reply below.—Ed, *BMJ*.

SIR,—Thank you for the opportunity of replying to the letter from Mr Nixon and Professor Forrest. Our article was concerned with consent for mastectomy, whether this be total mastectomy (our present preference), as described by Forrest *et al.*,¹ or any other form of mastectomy. We were not concerned with the controversy surrounding the different operations.

Whatever method is chosen, however, there is a need for preoperative diagnosis, and clearly this should be as accurate as possible. In endeavouring to achieve a high degree of accuracy there is a tendency to add one method of investigation on top of another, as new methods are devised.

It would appear from the description by Mr Nixon and Professor Forrest of their technique that there were women who had, in addition to clinical examination, mammography, needle aspiration, Trucut biopsy, and lump excision under general or local anaesthesia prior to definitive surgery. From the point of view of financial economy as well as economy of the patient's time and worry (and each method of examination must add to the patient's mounting anxiety before operation), we feel it important to minimise the number of investigations carried out. Hence the importance we attach to the retrospective analysis of our results, which has enabled us to discontinue the use of ultrasound altogether, and the use of mammography in patients younger than 30 years. We would make a plea that this principle be applied to other areas of clinical investigation.

When selecting from methods which have a similar degree of accuracy, we have tended to favour non-invasive techniques. We admit that needle biopsy was not a part of our critical appraisal; but in an earlier unpublished study we were unable to achieve the results reported by some others,² and in some cases we were impressed by the pain that this procedure could cause.

We are particularly concerned with avoiding multiple procedures, and we note that with the policy used by Mr Nixon and Professor Forrest nearly one-fifth of patients who

required mastectomy had this performed as a second procedure, whereas none of our patients required two operations.

With regard to the question of our psychological preparation of the patient, we have found that the attitudes of women to mastectomy are so variable that each patient must be assessed individually, and no general rules can be applied.

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¹ Forrest APM, Roberts MM, Cant E, Shivas AA. *Br J Surg* 1976;63:569-75.

² Duguid HLD, Wood RAB, Irving AD, Preece PE, Cuschieri A. (1979) *Br Med J* 1979;iii:185-7.

Pancreatic transplantation

SIR,—Your leading article (25 October, p 1091) comments on the report¹ of the conference on pancreatic transplantation held nearly 18 months ago in Los Angeles, and concludes that "current results are insufficient to warrant human pancreatic transplantation." It might have presented a more encouraging view if some of the current work in pancreatic transplantation reported at recent international conferences² had been mentioned.

One prerequisite for clinical pancreatic transplantation, it was stated, would be "newer methods of immunosuppression" and improved technical management of pancreatic grafts. In Cambridge a pilot study of pancreatic transplantation has recently been undertaken in which cyclosporin A was used as the immunosuppressive agent, thus avoiding steroids and azathioprine. In addition, a new ductal blocking agent, polyisoprene, was evaluated. May we briefly summarise the study to date?

Ten long-term insulin-dependent diabetics with major systemic complications from their disease underwent pancreatic transplantation; in seven this was undertaken simultaneously with the renal graft, and in one patient with a hepatic transplant. Eight patients are currently alive, four of these patients requiring no exogenous insulin and a fifth patient requiring a small quantity following a rejection episode treated by steroids. One patient died in the postoperative period, with a functioning pancreatic graft but delayed function of the renal transplant. The second patient died 12 weeks after transplantation owing to severe pulmonary infection. One of the patients is well over one year following combined transplantation, requiring no insulin and without fluid, protein, or carbohydrate restriction.

The quality of rehabilitation in these successfully transplanted patients has been impressive. The study has given a greater understanding of the technical problems involved in ductal occlusion; and the development of a distal arteriovenous fistula in the pancreatic graft³ may make this operation less prone to failure. However, further detailed studies are required to assess if the improvement in carbohydrate control will influence progression of diabetic complications and in particular delay them in a renal graft.

The management of diabetics in renal failure has proved difficult and current results of treatment in Europe, whether with chronic haemodialysis or cadaveric grafting, show an increased morbidity and mortality compared with non-diabetics.⁴ We believe the time has come for a detailed prospective study

of diabetic patients in end-stage renal failure, which could establish the role of pancreatic transplantation coupled with renal transplantation.

We certainly agree that pancreatic transplantation has not yet saved lives, but as a combined procedure it may significantly improve the quality of the patient's life and may lead to a better understanding of the role of carbohydrate control in the development of microangiopathic diabetic lesions.

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¹ Conference on Pancreatic Transplantation. *Diabetes* 1980;29:1-128.

² McMaster P, Calne RY, Gibby O, Evans DP. *Transplantation Proceedings* (in press).

³ Calne RY, McMaster P, Rolles K, Duffy TJ. *Transplantation Proceedings* (in press).

⁴ Jervell J, Dahl BO, Flatmark A, *et al.* A joint Scandinavian report. *Lancet* 1978;iii:915-17.

Newspaper reports of new drugs

SIR,—Those making claims for new drugs should bear in mind the effect of newspaper reports on patients undergoing existing treatments. I have in mind the new drug Opren (benoxaprofen), which was described as "a new era" in the treatment of arthritis in one newspaper.

The reports were followed by a steady stream of patients with newspaper cuttings coming to the surgery and demanding it. For the last few weeks we have had to tell our patients gently that it is too early to know whether the new drug is better suited to their condition than their existing treatment.

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Hazards of surgical glove powders

SIR,—We are interested to note the warning in your leading article (4 October, p 892) that talc particles are still to be found coating many surgical gloves currently manufactured in North America. The clinical course of present-day glove powder peritonitis differs from the talc peritonitis seen before the introduction of starch. In starch peritonitis the latent interval, systemic manifestations,¹ and response to steroid therapy² suggest an immunological component. Experimental guinea-pig ear³ and peritoneal⁴ reactions in immunised animals are consistent with a cell-mediated response. The histology of human peritoneal lesions and skin inoculations in patients who have developed glove-powder peritonitis indicate a similar pathogenesis (Grant *et al.*, unpublished observations). Such an immunological reaction to a polysaccharide antigen is unusual.³

The role of talc (and possibly other additives to latex gloves and their lubricant powders) in the pathogenesis of starch glove-powder peritonitis remains uncertain. The progressive sclerosis in earlier talc peritonitis is not seen nowadays. The clinical course and histological characteristics of starch glove-powder peritonitis differ in displaying features suggestive of an immunological reaction. None the less, the presence of talc or talc-like crystals are well known components of the foreign material⁵ seen in the granulomatous lesions of starch peritonitis. However, we have failed to demonstrate any immunological hypersensitivity to talc itself in guinea-pigs.⁶

One explanation of these anomalies is that talc may be acting as a particulate adjuvant, promoting cell-mediated hypersensitivity reactions to polysaccharide antigens of starch in susceptible individuals. For these reasons we would support efforts to eliminate talc, which although not directly pathogenic in low concentration, may facilitate cell-mediated reaction to other agents on the surface of surgical gloves.

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² Cade D, Ellis H. *Eur Surg Res* 1976;8:471-9.

³ Grant JBF, Davies JD, Jones JV. *Br J Exp Path* 1975;56:396-401.

⁴ Grant JBF, Davies JD, Jones JV. *Br J Surg* 1976;63:867-9.

⁵ Davies JD, Neely J. *J Path* 1972;107:265-78.

⁶ Grant JBF, Davies JD, Jones JV, Espiner HJ, Eltringham WK. *Br J Surg* 1976;63:864-6.

Are reflectance meters necessary for home blood glucose monitoring?

SIR,—Drs J H Baumer and D C L Savage (8 November, p 1286) report serious inaccuracies in blood glucose estimation using the Boehringer reagent strip. This is at variance with the findings of Lawson *et al.*¹ who in a study of 150 independent blood sugar estimations using this reagent strip found that 109 of the observations were in the same range as the laboratory results and that none of those which fell outside this range did so by more than one colour standard on the strip. On reanalysing our reported results² on the same basis as Lawson we were able to confirm his claims.

Therapeutic decisions affecting diabetic control are aided by serial trends in blood sugar levels at the same time of day from day to day. The reliability of these trends is more important than the accuracy of a single observation. The evidence from our work² and that of Lawson *et al.*¹ Walford *et al.*³ and Earis *et al.*⁴ all support the view that the Boehringer strip is sufficiently reliable for this purpose.

The home blood sampling method described by Drs Baumer and Savage is a revival of the principle first described by Keen and Knight in 1962.⁵ Its major drawback is still that the patient is unable to act on the results until they are made available some time later.

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¹ Lawson PM, Kesson CM, Ireland JT. *Lancet* 1979; i:742.

² Ferguson SD, Prosser R. *Br Med J* 1980;281:912.

³ Walford S, Clark P, Paisley R, Hartog M, Allison SP. *Lancet* 1980;i:653-4.

⁴ Earis JE, Greenway MW, Macauley MB. *Lancet* 1980;i:823-4.

⁵ Keen H, Knight R. *Lancet* 1962;i:1037-42.

Changeover to U100 insulin

SIR,—It is hoped to introduce U100 insulin into the UK in the near future but the main setback to this apparently is the attitude of the DHSS, which estimates that such a conversion

would cost £1-1½m. The U20, U40, and U80 insulins and the present standard diabetic syringe would then be discontinued.

In an attempt to discover the most convenient size of diabetic syringes for the new insulin, a note was made of the range of insulin doses injected by patients at any one time. These details were taken from all the patients attending five consecutive diabetic clinics held at Leeds General Infirmary. A total of 508 patients attended these clinics, of whom 241 (47.4%) were on insulin therapy and 42 (17.4%) were injecting twice daily. The table shows the range of insulin doses injected. It can be seen that 77.4% of patients injected 50U or less at any one time (that is, 0.5 ml of U100) and there was one patient who injected over 100U (that is, over 1 ml).

Insulin doses injected by 241 patients attending diabetic clinic

Units insulin	Total No of injections	% total
0-19	16	5.7
20-49	203	71.7
50-99	63	22.3
100+	1	0.4

When U100 insulin is introduced a number of diabetic syringes would therefore be required to cover the range of insulin volumes injected—for example, 0.5 ml, 1.0 ml, and 1.5 ml syringes—as it seems unlikely that one syringe would be able to deliver, for instance, 12 units (0.12 ml) and 120 units (1.2 ml) accurately and be easily read by the patient.

A date for the introduction of U100 has been postponed owing to the indecision of the DHSS in funding the new insulin and syringes. Hopefully these syringes will be disposable and available on the NHS prescription. Although there are clear savings for the NHS in introducing a single insulin strength—that is, in packaging, pharmacist's fees etc—the different syringes will no doubt give rise to occasional error, as does the present usage of three insulin concentrations.

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Generalised allergy to porcine and bovine monocomponent insulins

SIR,—Although Dr J P Simmonds and others (2 August, p 355) were able to find only one prior case of systemic allergy to monocomponent insulin,¹ there is at least one other reported case.² We would like to present a similar case.

A 74-year-old woman with diabetes had been treated with oral hypoglycaemic agents for seven years. In March 1978 she was briefly treated with insulin while hospitalised elsewhere for a haemorrhoidectomy. She presented at our hospital in July 1980 with uncontrolled diabetes while on chlorpropamide 750 mg daily. Six days after starting daily injections of insulin (isophane beef-pork, Lilly) she developed generalised urticaria and pruritus. She was taking no other medications at this time. Since she refused admission to the hospital, she was given lente monocomponent pork insulin (Lente Pork Iletin II, Lilly). By eight hours after injection she had again developed generalised urticaria and pruritus, which was more severe than previously. She was subsequently admitted to the hospital, where, despite hydration, intravenous bicarbonate, and chlorpropamide she developed severe diabetic ketoacidosis (arterial pH 7.06). Therefore she was desensitised to soluble mono-

component pork insulin (Regular Pork Iletin II, Lilly) over a six-hour period.³ During the desensitisation she had local reactions of erythema to the 1:500-1:100 dilutions within five minutes of injection, but these disappeared with further desensitisation. The ketoacidosis was then treated with intramuscular injections of soluble monocomponent pork insulin. Subsequently, lente monocomponent pork insulin was also added after skin testing showed no reactions. Her diabetes is now controlled on a combination of lente and soluble monocomponent pork insulin with no reactions.

Although allergic reactions to monocomponent insulin are rare, they can be of extreme importance. This is illustrated by our patient, who required insulin for severe ketoacidosis. As in one of the other reported cases,¹ we successfully desensitised her using monocomponent insulin. It is interesting that each of these four patients had received less pure insulin previously. In a recent review⁴ it is noted that no cases of insulin allergy (local or systemic) have been seen in patients who received only monocomponent pork insulin. The widespread use of purified insulins and the introduction of human insulin may eventually eliminate this clinical problem.

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¹ Leslie D. *Br Med J* 1977;iii:736-7.

² Goldman BA, Lewis AE, Rose LI. *JAMA* 1976;236: 1148-9.

³ Galloway JA, Bressler R. *Med Clin N Am* 1978;62: 663-80.

⁴ Galloway JA. *Diab Care* 1980;3:615-22.

Impotence in diabetic and non-diabetic hospital outpatients

SIR,—Dr D K McCulloch and others (1 November, p 1216) regard our control group of non-diabetic hospital outpatients as unsatisfactory because chronic obstructive airways disease, ischaemic heart disease, uraemia, and multiple sclerosis are known to be associated with sexual dysfunction. It is difficult to see what specific pathogenetic denominator could be common to all these conditions and diabetes mellitus. The obvious common one is that patients with any of these disorders are unlikely to be feeling very fit. Although an obvious explanation may not necessarily be correct, its obviousness does not of itself disqualify it.

The writers refer to current research from their unit suggesting that impotence may be the earliest manifestation of diabetic autonomic neuropathy. We await with interest the outcome of this work, but until it has been demonstrated by a prospective study that impotence is followed by other manifestations of diabetic autonomic neuropathy it is surely unjustifiable to call it the "earliest" manifestation.

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PGE₁ and vasospastic disease

SIR,—I was very interested to read the report by Mr P C Clifford and others (18 October,