

Insulin for the non-insulin dependent?

SIR,—Dr Roy Taylor (9 April, p 1015) assumes that improved blood glucose control is advantageous, although the most appropriate treatment for patients with non-insulin dependent diabetes will remain uncertain until the results of the United Kingdom prospective diabetes study are available. In younger patients with a long life expectancy blood glucose concentrations near to normal should be aimed for, whereas in older patients less tight control aiming merely to abolish symptoms may be more appropriate.

If an acceptable fasting blood glucose concentration cannot be achieved with diet and oral agents then a basal insulin supplement—for example, with once daily ultralente insulin—can be successful^{1,2} and does not carry the substantial risk of hypoglycaemia suggested by Dr Taylor. As this regimen aims primarily to reduce the fasting blood glucose concentration to normal there is no need to match individual meals to short acting insulin doses, and consequently there is less risk of hypoglycaemia should a meal be delayed or missed. Ultralente insulin is thus particularly useful in elderly patients living alone provided the dose is adjusted according to the fasting blood glucose concentration. Short and medium acting insulins, such as isophane and lente insulin, carry an increased risk of daytime hypoglycaemia in patients who still have a reasonable insulin secretory response to meals and are more useful in patients with a severely diminished secretory capacity who require additional insulin to cover meals.²

With failure of treatment with sulphonylureas it is a moot point whether they should be continued when insulin is started. Stimulation of endogenous insulin release by sulphonylurea allows a lower dose of insulin than would otherwise be needed.³ The gradual introduction of a long acting insulin to a patient who remains on maximum sulphonylurea treatment allows an easy transition even if one wishes eventually to withdraw the sulphonylurea. When a patient needs additional short acting

insulin to cover meals there is likely to be sufficient B cell failure for continuation of a sulphonylurea to be of marginal benefit, and it can be withdrawn. Simple guidelines on the use of tablets and insulin⁴ can cater for most patients until long term studies show a different regimen to be particularly beneficial.

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- 1 UK prospective study of therapies of maturity-onset diabetes. Effect of diet, sulphonylurea, insulin or biguanide therapy on fasting plasma glucose and body weight over one year. *Diabetologia* 1983;24:404-11.
- 2 Holman RR, Turner RC. A practical guide to basal and prandial insulin therapy. *Diabetic Medicine* 1985;2:45-53.
- 3 Holman RR, Steemson J, Turner RC. Sulphonylurea failure in type 2 diabetes: treatment with a basal insulin supplement. *Diabetic Medicine* 1987;4:457-62.
- 4 Holman RR, Turner RC. Optimizing glycaemic control in type 2 diabetes: an approach based on fasting blood glucose measurements. *Diabetic Medicine* (in press).