

## **Editorial**



David Kerr Editor

## **Exciting times ahead**

"Doctors are men who prescribe medicines of which they know little, to cure diseases of which they know less, in human beings of whom they know nothing."

Voltaire's cynical view of the medical profession is hopefully no longer appropriate for those involved in the management of individuals with type 1 diabetes. The evidence base that improving glycaemic control is of benefit has stimulated innovative approaches to the education of patients, the development of more efficacious insulins and novel, technologically advanced delivery systems for insulin. The nihilistic view that patients with diabetes are unable to understand the nuances of their condition and thus remain dependent on medical and nursing practitioners for day-to-day guidance, should be confined to history.

Today, patients with type 1 diabetes should be provided with information on:

- Skills training promoting dietary freedom: the recently published DAFNE (Dose Adjustment For Normal Eating) project (DAFNE Study Group, 2002) has convincingly shown that teaching patients to adjust insulin according to what they are about to eat is effective in improving glycaemic control without increasing the risk of severe hypoglycaemia, at least in the short term. Interestingly, the DAFNE trial has been criticised by some who think that the concept is already widely understood and practised (http://bmi.com/cgi/eletters/325/7367/746)!
- Insulin analogues both short- and long-acting that are associated with modest improvements in blood glucose control, impressive reductions in rates of hypoglycaemia and improved wellbeing (Owens et al, 2001).
- New technologies of continuous subcutaneous insulin infusions (CSII insulin pump therapy) and glucose sensing. By applying structured and specific processes of selection, pumps can transform an individual's life by reducing the glycaemic excursions (especially hypoglycaemia) associated with traditional insulin therapy (Pickup et al, 2002). It is hoped that the financial penalties associated with CSII and other technologies will be removed in the not-too-distant future. Soon, data from the use of long-term intravenous glucose sensors coupled with implantable insulin pumps a closed-loop system will be available.
- Islet cell transplantation (Kim, 2002) offers real hope of an insulin-free (and thus hypoglycaemia-free) life. At present, the data are limited, patients are few in number and there are problems related to donor availability and lifelong immunosuppression.
  Nevertheless, the potential of transplantation is a tangible expectation for patients suffering from type 1 diabetes.

These developments emphasise the importance of maintaining specialist management of type 1 diabetes and the central tenet of a team approach to modern diabetes care.

Voltaire's fictitious, eternal optimist, Dr Pangloss, would probably be very happy with this level of enthusiasm. Whether it is justified in the longer term is unclear but (restrained) optimism does seem preferable to some of the contemporary approaches towards the more common type 2 diabetes — 'Too deadly to ignore'.

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DAFNE Study Group (2002) Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: dose adjustment for normal eating (DAFNE) randomised controlled trial. *British Medical Journal* 325: 746 Owens DR, Zinman B, Bolli GB (2001) Insulins today and beyond. *The Lancet* 358: 739–46 Pickup J, Mattock M, Kerry S (2002) Glycaemic control with continuous subcutaneous insulin infusion compared with intensive insulin injections in patients with type 1 diabetes: meta-analysis of randomised control trials. *British Medical Journal* 324: 705–8 Kim SK (2002) Pancreatic islet cell replacement: successes and opportunities. *Annals of the New York Academy of Sciences* 961: 41–3