
Insulin pump position statement

Insulin pump therapy

Insulin pump therapy, also known as continuous subcutaneous insulin infusion (or CSII) is well established as a treatment option for type 1 diabetes and has been proven to reduce all grades of hypoglycaemia when compared with Multiple Daily Injections (MDI). Insulin pump therapy can also reduce severe disabling hypoglycaemia by up to 75 per cent¹ and on average, HbA1c results also improve when people with type 1 diabetes switch from MDI to pump therapy.²

What we believe.

Juvenile Diabetes Research Foundation would like to see everyone with type 1 diabetes who would benefit from using an insulin pump to have access to one. Suitability for insulin pump therapy should be determined by clinical need and patient choice – not on the basis of a postcode lottery or the ability to self-fund treatment. JDRF would like to see NICE guidance on the uptake of insulin pump therapy to be fully implemented across the United Kingdom.

Currently about 4 per cent of people with type 1 diabetes in the UK use insulin pumps. This is one of the lowest rates of pump therapy in any developed nation worldwide. JDRF is working with the Department for Health to try to ensure that more people with type 1 diabetes are offered insulin pump therapy to manage their condition.

NICE guidance

NICE guidance on the use of insulin pump therapy for the treatment of diabetes mellitus was updated in 2008 and it recommended that children under 12 should be offered insulin pump therapy if treatment with MDI is not practical or considered appropriate. It also recommended that insulin pump therapy should now be considered a treatment option for adults with type 1 diabetes who struggle to achieve their target HbA1c levels, in spite of best attempts with MDI. Patients who meet these criteria should therefore be offered insulin pump therapy if they would like it.³

Quality of life

The difference that pump therapy can make to quality of life is hard to quantify. However, there is an emerging consensus that quality of life and satisfaction with treatment are likely to be better on pump treatment than on MDI, particularly for people who have experienced significant and continued control problems on MDI.^{4, 5}

¹ John C. Pickup and Eric Renard, Long-Acting Insulin Analogs Versus Insulin Pump Therapy for the Treatment of Type 1 and Type 2 Diabetes, *Diabetes Care*, February 2008, vol. 31 no. Supplement 2

² Doyle EA, Weinzimer SA, Steffen AT, Ahern JAH, Vincent M, Tamborlane WV. A randomized prospective trial comparing the efficacy of insulin pump therapy with multiple daily injections using insulin glargine. *Diabetes Care*. 2004;27(7):1554-1558.

³ Continuous subcutaneous insulin infusion for the treatment of diabetes mellitus - Review of technology appraisal guidance 57, NICE, 2008, [Link to document](#)

⁴ Hoogma RPML, Hammond PJ, Gomis R, *et al.* Comparison of the effects of continuous subcutaneous insulin infusion (CSII) and NPH based multiple daily insulin injections (MDI) on glycaemic control and quality of life: results of the 5-nations trial. *Diabetic Med* 2006; 23: 141–147.

⁵ Linkeschova R, Raoul M, Bott U, *et al.* Less severe hypoglycaemia, better metabolic control, and improved quality of life in Type 1 diabetes mellitus with continuous subcutaneous insulin infusion (CSII) therapy; an observational study of 100 consecutive patients followed for a mean of 2 years. *Diabetic Med* 2002; 19: 746–751.