

A description of two patients with Type 1 diabetes

LIVING IN A HIGH SECURE PSYCHIATRIC HOSPITAL;

their journey moving from fixed dose to self directed, variable dose insulin using an individualised adaptation of the Bournemouth Type 1 Intensive Education (BERTIE) Programme and a unique calculation tool

PATIENT A

33 year old Male
Type 1 diabetes
BMI 33kg/m²
Insulin px before:
48 units Detemir,
52 units Novorapid
per day

Education started April 2013; weekly education, dose adjustment started August 2013



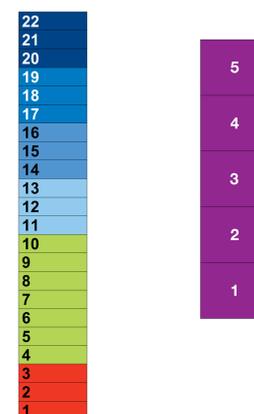
A simple slide rule can help calculate correction doses for people with learning difficulties. Using a scale of 1 unit to 3 (to match initial correction dose) the purple scale can be moved up or down the variegated scale and lined up with current and target blood results. If correction dose ratios need altering a new scale can easily be produced.

PATIENT B

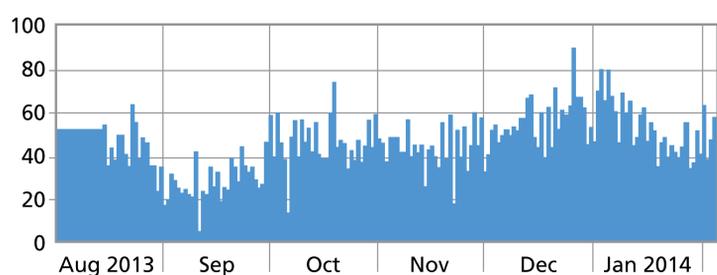
40 year old Male
Type 1 diabetes
BMI 22kg/m²
Insulin px before:
30 units Detemir
18 units Novorapid
per day

Education started November 2012; monthly education, self adjustment started June 2013

Slide rule = Blood monitoring scale and insulin counter



'Insulin Aspart (Novorapid) units'



HbA1c Before 80mmol/mol

HbA1c After 72mmol/mol

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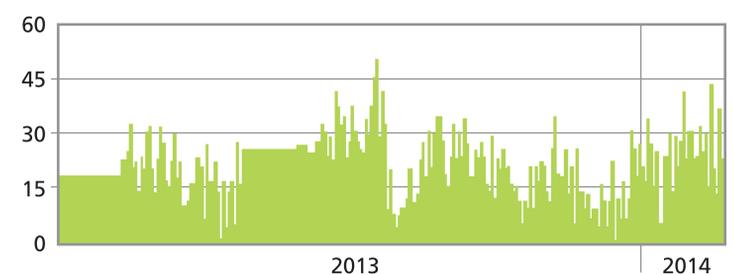
by CHRIS CHEYETTE & YELLO BALOLIA

in association with DIABETES UK CARE, CONNECT, CAMPAIGN.

500 new food & drink photos added! Now includes protein, fat, saturated fat & fibre!



'Insulin Aspart (Novorapid) units'



HbA1c Before 107mmol/mol

HbA1c After 78mmol/mol

Rampton Hospital treats people with mental disorder who require treatment in conditions of high security. It has its own health centre with associated staff. The prevalence of diabetes in high secure psychiatric hospitals is between 15% to 20% and whilst most of these patients have Type II diabetes, a significant number of the patients have Type I (between 1.5% to 2% at Rampton). On arrival, initial responsibility for administering medication is taken by the mental health nursing staff. Insulin is given according to a set regime which previously has not allowed for variable doses, and has not allowed any input from the patient themselves. This does not fit well with the current concepts for variable dose insulin and

does not consider the patient's initial blood glucose, carbohydrate intake, or activity. Patients who chose to have no or low carbohydrate meals were at risk of hypoglycaemia and the once a week shopping trips to the tuck shop regularly showed raised serum blood glucose levels in the evening. Allowing patients to calculate their own fast acting insulin doses was initially met with resistance from care teams, however changes in working relationships has produced a collaboration of care providing improved outcomes for health. The patients concerned appreciate the benefits of freedom of choice and recognise the health benefits of improved glycaemic control. The patients described above had low educational levels,

therefore the slide rule was developed to make calculation of a correction dose easy. The examples show how they have been adapted as the correction dose has been adjusted to individual requirements.

This project has shown what can be achieved for people with Type I diabetes with appropriately skilled clinicians and appropriate resources in a high secure environment. Empowering patients with learning difficulties to calculate and adjust their fast acting insulin has been shown, in two cases, to improve glycaemic control. A further challenge awaits for patients who are unable to cooperate with their own care, but whose blood glucose fluctuates widely.