however, a fall in fasting plasma glucose was correlated with improvement, regardless of treatment group.

Although the mechanism is currently unknown, high peripheral glucose levels are thought to adversely affect cerebral glucose, which has been shown to be important in animal studies of working memory. These results indicate that glucose, rather than insulin, mediates cognitive dysfunction in diabetic adults.

Katherine Sole

Original article Ryan CM *et al.* (2006) Improving metabolic control leads to better working memory in adults with type 2 diabetes. *Diabetes Care* **29:** 345–351

Intensive insulin therapy reduces morbidity in the medical ICU

Previous studies have demonstrated that strict control of blood glucose levels, using insulin therapy, substantially reduces in-hospital mortality in a surgical intensive care unit (ICU), with a more distinct benefit in patients who stayed in the ICU for more than 3 days. In this randomized controlled study, Van den Berghe *et al*. investigated whether this would also be the case in a medical ICU.

On admission to a medical ICU, adult patients were randomly assigned to either an intensive treatment group, whose blood glucose levels were maintained between 4.4 and 6.1 mmol/l, or a conventional therapy group in whom insulin was started only when blood glucose levels exceeded 12 mmol/l and was tapered when blood glucose levels fell below 10 mmol/l. Among the 1,200 patients enrolled in the study, in-hospital mortality was not substantially reduced by intensive insulin therapy. Morbidity was reduced in the intensive therapy group, however, as shown by a reduction in newly acquired kidney injury, accelerated weaning from mechanical ventilation, and accelerated discharge both from ICU and from the hospital, compared with the conventional treatment group. Patients who received intensive insulin therapy and stayed in the ICU for >3 days ($n = 386$) had reduced mortality and morbidity compared with those receiving conventional therapy ($n = 381$).

The authors conclude that intensive insulin therapy reduces morbidity in all patients in the medical ICU. Patients who received intensive insulin therapy and who stayed in the ICU longer than 3 days experienced a reduced mortality as well as morbidity, but these patients could not be identified upon admission.

Marie Lofthouse

Original article Van den Berghe G *et al.* (2006) Intensive insulin therapy in the medical ICU. *N Engl J Med* **354:** 449–461

Effects of long-term somatostatin analog treatment in boys of a tall stature

Despite previous studies reporting that the somatostatin analog 201–995 (SMS) reduces growth in children in the short-term, the long-term efficacy and safety of SMS for the treatment of tall stature in boys has not previously been evaluated.

In this study, Noordam *et al*. assessed 15 boys with tall stature and a predicted final height of 197 cm who presented to the University Medical Center in Nijmegen, The Netherlands, between June 1993 and June 1995. Subcutaneous daily SMS injections were administered to patients, with a starting dose of 0.05 mg in prepubertal boys and 0.15 mg in pubertal boys. The dose was increased to a maximum of 0.15 and 0.25 mg in prepubertal and pubertal boys, respectively, in those whose growth hormone secretion or height velocity did not decrease by 50%. In addition, five boys were receiving treatment with androgens before initiating SMS treatment and eight boys were given androgens to induce puberty after treatment with SMS. The mean duration of SMS treatment was 33 months.

The mean reduction in predicted final height was 0.1 cm. No patient discontinued treatment because of side effects; however, 6 out of 15 boys experienced transient diarrhea and initial abdominal discomfort, and three boys were diagnosed with asymptomatic microlithiasis of the gall bladder.

The authors conclude that long-term treatment with SMS does not reduce final height by a sufficient amount to warrant SMS treatment in boys with tall stature.

Marie Lofthouse

Original article Noordam C *et al.* (2006) Treatment of tall stature in boys with somatostatin analogue 201-995: effect on final height. *Eur J Endocrinol* **154:** 253–257