

## **CONTINUOUS GLUCOSE MONITORING IMPROVES DIABETES CONTROL AND REDUCES HYPOGLYCAEMIA**

JDRF funded researchers have today added to the evidence that using a continuous glucose monitoring (CGM) device can improve diabetes control.

Further analysis of the original six-month study data from the groundbreaking JDRF Continuous Glucose Monitoring Trial has been published, along with new data showing the effect of using CGMs for one year. Both sets of results are publishing in the medical journal Diabetes Care.

When the initial data from the JDRF CGM trial was published in October 2008, the data seemed to indicate that adults over the age of 25 saw most improvement in their blood glucose control when using CGMs. However, the data has now been analysed in a different way, and this shows that the key factor in who benefits from using CGMs is not age, but frequency of use.

People who use their CGM six days a week or more are likely to see a significant improvement in their HbA1c (the long term measure of blood glucose control), than people who use the CGM less regularly.

The team showed that regularity of use was a more significant factor in improving blood glucose control than any other clinical or psychosocial factor. The paper also highlights that people who regularly used standard blood glucose testing before they started using the CGM were most likely to use their CGM regularly, and consequently were most likely to see improvements in glucose control.

The second of the findings looks at the effect of using CGMs for a whole year. The results from this study show that the benefit of using CGMs shown at six months is sustained over the course of a whole year.

People who began the trial with HbA1c levels at 7% or above saw a reduction in HbA1c mainly in the first eight weeks of the study, and then remained relatively stable through the next 44 weeks. People who began the trial with an HbA1c below 7% remained within that target range for the entire 12 months of the study.

But perhaps the most important finding of this study is that using a CGM had a positive impact on the rates of hypoglycaemia. The researchers looked at the rate of severe hypoglycemic events – which required the assistance of another person or medical professional – over the course of the study.

During the first six months of the study, 10% of the study participants experienced a severe hypoglycaemic event. But during the second six months, only 4% experienced a severe hypo. And strikingly, participants who began the trial with an HbA1c below 7% experience no severe hypoglycemia at all during the second six months of the study.

Commenting on the study, Karen Addington CEO of JDRF in the UK said 'This ground breaking study is continuing to teach us just how valuable continuous glucose monitors can be in helping people to gain better control of their diabetes. The fact that CGMs can help people stay in control of their diabetes over an extended period of time, while also reducing their risk of hypoglycaemia is very exciting.'

'We know that achieving good glucose control can help to reduce the risk of developing the devastating complications of diabetes, so anything that helps improve this control is a major step forward for everyone affected by type 1 diabetes.'

The Diabetes Research Foundation applauds JDRF in these research findings. Research into diabetes is vital and we are thankful for those that support us in our research efforts.

If you would like to support the DRF please return to our 'supporting research' page.