

New issue of Diabetic Hypoglycaemia discusses the potential contribution of hypoglycaemia to the observed differences in cardiac mortality seen in the ACCORD and ADVANCE studies (15 October 2008)

Diabetic Hypoglycaemia (<http://www.hypodiab.com>), the influential online diabetes journal published by ESP Bioscience, leads its new issue with a topical editorial, authored by Professor Simon Heller, one of the ADVANCE investigators, and Dr Rory McCrimmon. The impact of intensive lowering of blood glucose levels on cardiac mortality was studied in the ACCORD and ADVANCE trials, and the outcomes of these trials suggested very different conclusions. Results from the ACCORD trial certainly suggest that aggressive lowering of blood glucose using multiple therapies to target an HbA1c of 6% or below is unsafe in some patients with type 2 diabetes; the trial was terminated due to an unexpected increase in the number of sudden cardiac deaths.

In contrast, the ADVANCE trial management group report that intensive glucose control reduces serious complications such as the risk of kidney disease, and that no evidence was seen of any increased risk of death among patients receiving intensive treatment. The editorial in this issue of Diabetic Hypoglycaemia examines why there were such differences in mortality between the two trials. For instance, the two trials showed striking differences in the methods by which glycaemic control was intensified, and the ACCORD study not only used rosiglitazone, but patients had far higher rates of hypoglycaemia, and showed considerable weight gain.

Diabetic Hypoglycaemia

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“The investigators in the ACCORD trial have stated that hypoglycaemia did not directly cause sudden death, although it is difficult to see how they can be confident of this in the absence of continuous glucose monitoring” Professor Simon Heller.

Hypoglycaemia can have a major effect on the cardiovascular system and has been recognised as a potential cause of death ever since the introduction of insulin therapy. In the feature article of this issue, authored by Professor Heller, the phenomenon of sudden death and hypoglycaemia is examined in detail. There is considerable evidence implicating hypoglycaemia as a cause of sudden death in both type 1 and type 2 diabetes. Hypoglycaemia may also increase the risk of ischaemia and sudden death, although it is unclear whether the same mechanisms operating in type 1 diabetes are responsible – a hypothesis which requires considerable further research.

This issue of Diabetic Hypoglycaemia also contains highlights of the 68th Annual Scientific Sessions of the American Diabetes Association (ADA) and an interview with the world-renowned expert in hypoglycaemia, Professor Philip E Cryer.

Diabetic Hypoglycaemia is created with and run by an editorial board of hypoglycaemia experts led by Professor Brian Frier (Edinburgh, UK) with Associate Editors: Simon Heller (Sheffield, UK), Christopher Ryan (Pittsburgh, US) and Rory McCrimmon (Yale, US). The journal is published three times per year, providing an interactive forum for readers to share practical knowledge and opinions on the rapidly evolving topic that is hypoglycaemia. To explore the Diabetic Hypoglycaemia website and its key features, our guided tour can be activated by clicking the following link:

<http://www.hypodiab.com/Teaser/hypodiab.html>.

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About ESP Bioscience

ESP Bioscience (a division of ESP Limited) is a publisher of novel and new medical information products and online medical communities, with headquarters in Sandhurst, United Kingdom. Working in association with its academic partners in the global healthcare community, ESP Bioscience publishes journals, books and online resources.

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