Hypoglycaemia Awareness in the Era of CGM: Does it Matter?

The widespread adoption of continuous glucose monitoring (CGM) and automated insulin delivery (AID) systems has transformed diabetes management and substantially reduced exposure to hypoglycaemia for many people living with type 1 diabetes. However, severe hypoglycaemia continues to occur, and impaired awareness of hypoglycaemia (IAH) remains an important clinical challenge. This presentation will explore whether hypoglycaemia awareness still matters in the modern era of diabetes technology.

The session will review the impact of CGM and AID systems on hypoglycaemia rates and examine the extent to which hypoglycaemia persists despite technological advances. Key physiological and psychological determinants of hypoglycaemia awareness will be discussed, including counter-regulatory responses, interoceptive mechanisms, and the influence of behaviours, beliefs and treatment experiences on symptom recognition.

I will discuss how to assess awareness and identify those at higher risk of severe hypoglycaemia, highlighting the strengths and limitations of currently available tools and questionnaires. Finally, I will discuss evidence-based strategies for supporting individuals with impaired awareness of hypoglycaemia, including structured education, optimisation of diabetes technologies, behavioural interventions, and personalised clinical care.

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Biography

Pratik Choudhary is a Professor and Honorary Consultant in Diabetes with a special interest in type 1 diabetes and technology. Since joining the team in 2020, he has developed a wide portfolio of research around type 1 diabetes, management of hypoglycamia and improved use of diabetes technology. His current work is based around developing a better understanding of the impact of low and high glucose levels measured by continuous glucose monitoring systems and trying to link these data with better use of electronic health records. He is also leading work looking at evaluating the benefits of diabetes technologies in people living with type 2 diabetes. He has led the development of hands on as well as online training for people with diabetes as well as care professionals to learn about how to use diabetes technologies. Professor Choudhary is the lead for type 1 diabetes in Leicester and is also Clinical Lead for Type 1 diabetes for the Midlands. He also chairs the Secretary of State for Transports Honorary Advisory Panel for diabetes and is ex-chair of the Diabetes Technology Network - UK that works to improve access to technology for diabetes through training, education and advocacy.