

Driving with Diabetes in the Future: In-Vehicle Medical Monitoring

David Kerr, M.D., and Tolulope Olateju, M.B., B.S., MRCP

Abstract

The motor car is a ubiquitous feature of modern life, and most of us spend significant amounts of time in a car, behind the wheel. Driving a vehicle requires complex coordination of cognitive, motor, and sensory skills. All of these aspects can be affected adversely by diabetes per se, with hypoglycemia being the main concern for people with diabetes who drive. Here we introduce the concept of using the motor vehicle as a device to collect and deliver physiological and clinical information, which, in turn, may enable more people to drive more safely by reducing the chances of medical mishaps behind the wheel. This is particularly relevant for people living with diabetes who are at risk from a number of medical conditions that have the potential to have an impact on safe driving. The development of in-vehicle medical monitoring presents a new opportunity for novel collaborations between two industries, which have safety as a core value.

J Diabetes Sci Technol 2010;4(2):464-469

Author Affiliation: Centre of Postgraduate Medical Research and Education, Bournemouth University, Bournemouth, United Kingdom

Abbreviations: (DVLA) Driver Vehicle Licensing Authority, (LIG) low interstitial glucose, (OSA) obstructive sleep apnea

Keywords: diabetes, hypoglycemia, in-vehicle medical monitoring, driving, driving mishaps, obstructive sleep apnea

Corresponding Author: Professor David Kerr, M.D., Bournemouth Diabetes and Endocrine Centre, Royal Bournemouth Hospital NHS Foundation Trust, Bournemouth BH7 7DW, United Kingdom; email address david.kerr@rbch.nhs.uk