

Mobile Application for Diabetes Monitoring and Management



DESCRIPTION

In 2010, diabetes mellitus affected 285 million people worldwide with that number is expected to rise to 438 million over the next 20 years. The cost of long term treatment and complications has dramatic impacts on the economy, and that will only rise as the age of onset becomes increasingly earlier. In response to the epidemic, the Karlsburg Diabetes Management System (KADIS), a simulation program for improving diabetes management, was developed. The program models a predicted blood glucose saturation curve over time based on provided information, such as insulin dose and timing, ingestion of oral anti-diabetic drugs, duration and intensity of physical activity, and food intake. KADIS then makes individually tailored recommendations on actions that should be taken to adjust the curve and maintain an optimal blood glucose level. Studies have demonstrated that both Type 1 and Type 2 diabetics have shown marked improvement in their metabolic state within a few months of using KADIS to inform daily management of the disease.

In an era where rising healthcare costs are outgrowing economic growth and threaten to bankrupt the economy, self-management of chronic diseases such as diabetes must be improved to reduce the burden on our healthcare system. This technology discloses an application for mobile devices such as smart phones, tablets, or laptop computers that directly connects patients with KADIS, giving them valuable feedback on their food and lifestyle choices and empowering them to play an active role in the management of their disease.

KEY ASPECTS

- Mobile KADIS application for patients to improve self-management of diabetes can be used on any smart phone
- Makes recommendations based on user-inputted data to maintain healthy blood glucose saturation
- Graphical user interface makes the application easy to learn and efficient to use.
- Applications in 3rd world since nutrition is a large component of disease management

INTELLECTUAL PROPERTY

Title	US Application Number	Filed
Carbohydrate Modeling Methods, Systems, and Devices	61/651,597	5/25/12

CONTACT

Matthew Grunseth, M.B.S.
Senior Manager, Office of Technology Licensing
Telephone: (626) 471-7221 | Email: mgrunseth@coh.org

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