

METABO – ICT TOOLS TO SUPPORT DIABETIC PATIENTS IN THEIR DAILY LIFE

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Contemporary mobile devices have made computing and communication a steady companion. Exploitation of this ubiquitous infrastructure for tasks relevant to health is a natural requirement that now begins to change the landscape of services related to health. Continuous monitoring of various physiological parameters is a most valuable source of data – not only for monitoring of human task forces in dangerous environments. With the aim to design, create and verify tools based on contemporary ICT that will support diabetic patients in their everyday life, project METABO of the 7th Framework Programme develops a comprehensive platform for continuous and multi-parametric monitoring of the metabolic status in patients with, or at risk of, diabetes. The platform is based on a computational model of glucose metabolism that is continuously compared with measured blood glucose values, taking into account the most relevant factors like medication, food intake and energetic output / physical exercise. Based on the model, predictions and relevant recommendations are presented to the patient, e.g. to prevent hypoglycaemic episodes. On the longer perspective, the individual metabolic model of each patient is personalized to his/her individual values that are determined by the type of disease, by lifestyle, by genetic predispositions etc. Besides immediate predictions, recommendations and alerts that are designed to assist the individual patients to manage their daily life with diabetes, the other stream of communication will inform the doctors in charge about important facts related to the health status of their patients. The project is run by a consortium of 21 partners, commercial and universities, from both information technology and medicine.