
CONFERENCE ABSTRACT

ICT based Empowerment of Diabetic Patients: the PROEMPOWER value-based procurement

ICIC20 Virtual Conference – September 2020

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Type 2 Diabetes Mellitus (T2DM) is a chronic disease accompanied by multi-morbidity, complications and stages. It represents an increasing burden worldwide on health care systems expenditure and is often considered a pandemic. The management of T2DM is far from being truly integrated. The services provided to diabetic patients are very fragmented. Healthcare systems in most regions of Europe react to acute events rather than actively prevent them. Patients are treated rather than being active in the management of the disease. PROEMPOWER is a Pre-Commercial Procurement (PCP) project funded by the European Commission Horizon 2020 programme, which aims to define new T2DM care pathways that ensure both continuity of care and the integration of social and health interventions. Procurers, coming from four EU countries have worked on defining functional and non-functional requirements and use cases for diabetes self-management, which resulted in the development of an innovative management model for T2DM, using digital technologies to support professionals and patients, in an integrated system characterized by health services and patient empowerment. The PCP selection process involved three phases: Phase I: Concept design, solution architecture and technical specifications; Phase II: Development of prototype systems; Phase III: Development and testing of pilot systems. The selection process led to the implementation of two ICT prototypes to be tested in four pilot sites. The two ICT solutions aim to support healthcare professionals and patients themselves, in the early identification of diabetes and personalization of treatment. The solutions allow to monitor, depending on the stage of the disease, blood pressure, weight, blood sugar levels, physical activity and nutrition, and to promote adherence to drug prescription and diet, healthier lifestyles, training, self-help and mutual support among patients. The PCP aims to develop an innovative tool that would respond to the expressed unmet needs of professionals and patients. The definition of the requirements for the development of the PROEMPOWER solutions involved patients and professionals from the early stages. According to the requirements, the solutions are fully integrated with clinical practice and organizational models. Furthermore, they are consistent with international, national and regional guidelines for the diagnosis and follow-up of patients with type 2 diabetes mellitus. The

approach does not modify the existing organizational models, but rather improves the efficacy of self-management of the disease by the patient and the quality and quantity of data available during follow-up visits. The selection process does not allow a second chance to those consortia that do not get chosen, and therefore, solutions that could have turned out to be effective can be lost without any further opportunity of development in this framework. The pilot study will allow verifying if the model is adoptable and scalable in the different regional contexts and care settings. It is advisable to assess whether the solutions are developed in a non-invasive workload for the professionals, and they improve the patient's awareness and empowerment, in order to positively impact the quality of life and health.