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DESIGN EVALUATION OF A PROTOTYPE USER INTERFACE TO SUPPORT A GUIDELINE-BASED DECISION SUPPORT SYSTEM IN GESTATIONAL DIABETES

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**Background:** Gestational Diabetes (GD) has increased over the last 20 years, affecting up to 15% of pregnant women worldwide. The complications associated can be reduced with the appropriate glycemic control during the pregnancy.

**Methods:** The EU FP7 project ‘MobiGuide: Guiding patients anytime everywhere’, focuses on GD patients to provide guidance based on clinical guidelines supported by an intelligent decision-support system integrated in a mobile application. The application for GD patients consists of a software implemented on a Smartphone running Android from 2.x. The evaluation was performed with a prototype version with self-explanatory messages to access each of the scenarios: a) Patients logbook (including glycemia, diet compliance and exercise); b) Recommendations; c) Settings; and d) Automatic physical activity monitoring.

We collected feedback on the design and functionality of the mobile application after the patients interacted with the system, in order to support subsequent iterations of the application development. The system was tested with 8 patients with GD, who answered a questionnaire about the design, perceived ease of use and perceived usefulness of the mobile application.

**Results:** Most patients have shown positive comments. 75.0% strongly agree that the system will help them to be more confident with the disease. 87.5% consider that the terminology is clear and the information is logically shown. And, 75.0% stated that it will be easy to use and easy to learn the application.

**Conclusions:** Including patient feedback in design-concept development is essential to identify critical factors to fulfill usability, ease of use and usefulness requirements.

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IMPROVING DIABETES CARE BY USING MOBILE TECHNOLOGY IN ADULTS WITH TYPE 1 DIABETES

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**Objectives:** The role of mobile technology to improve diabetes care in adults with type 1 diabetes (REMOTE-T1D) study was aimed to evaluate the use of mobile technology (iBGStar® [iPhone plus the BGStar®]) in improving Patient Reported Outcomes (PRO).

**Methods:** This single-center, prospective, randomized, open-label, investigator initiated pilot study enrolled 100 adult patients with T1D. Patients were randomized in a 1:1 fashion to an intervention group using self-monitoring of blood glucose (SMBG) with BG Star® and mobile technology (iBG Star) vs. SMBG with Accu-Chek Nano® (Control). All subjects had similar clinic and phone visits for 3 months with a 3 month extension period and wore a blinded DexCom Gen4 Platinum® continuous glucose monitor (CGM) for 4 separate 7-day periods.