example	Name				
age	11				
weight	31				
Correct hypernatremia	0	0=No 1= yes	Best after 1st hour		
Base Excess	22				
Glycemia	229				
Bicarbonate	0	0=No 1=Yes	If pH < 7 and HCO3 < 6 mmol/l. Stop when ph > 7,1		
K dose (mEq/Kg/h)	0,3	Insert value from 0,1 to 0,5			
Therapy	Fluid	Quantity (ml)	ml/Kg	Infusion rate	Regular insulin infusion rate (25 U in 250 ml of NaCl 0,9 % solution) - ml/h
1st hour	NaCl 0.9%	310	10	310	-
	Acqua Distillata	0			
	NaHCO3	0			
2nd to 4th	NaCl 0.9%	164	8	248	27
	glucose 5%	82			
	KCL	4,65			
	K2HPO4	4,65			
	Acqua Distillata	0			
	NaHCO3	0			
5th to 7th	NaCl 0,9%	150	7	217	35
	Glucose 10%	150			
	KCl	4,65			
	K2HPO4	4,65			
8th to 13th	NaCl 0,9%	115	5	155	38
	Glucose 10%	335			
	K2HPO4	4,65			
	KCL	4,65			
14th to 18th	Nacl 0,9%	50	3	93	23
	Glucose 10%	160			
	KCL	4,65			
	K2HPO4	4,65			

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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.

Change in A1c and Hypoglycemia Fear at 3 Months

	Control (n=43)	iBG Star (n=45)	P-value comparing change in control vs. change in iBG Star
Change in A1c (%)	-0. 0.21 ± 0.65*	-0.38 ± 0.72**	0.24
Change in Hypoglycemia Fear Scale	-2.9 ± 11.2	-4.48 ± 9.4	0.90
Change in Hypoglycemia Behavior Scale	-1.2 ± 5.9	2.5 ± 6.1	0.32
Change in Hypoglycemia Worry Scale	-3.0 ± 9.2	-2.0 ± 6.3**	0.55

*p=0.05; **p=0.001

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