HeartCycle project - Compliance and effectiveness in HF and CHD closed-loop management

HeartCycle provides a closed-loop disease management solution being able to serve both Heart Failure (HF) patients and Coronary Heart Disease (CHD) patients, including possible co-morbidities hypertension, diabetes and arrhythmias. This is achieved by multi-parametric monitoring and analysis of vital signs and other measurements. HeartCycle is partially funded by the European Commission under the Seventh (FP7 - 2007-2013) Framework Programme for Research and Technological Development. It is the EU’s largest integrated project in the area of Personal Health Systems (PHS).

Personal Health Systems (PHS) assist in the provision of continuous, quality controlled, and personalized health services to empowered individuals regardless of location. They consist of:
- Ambient and/or body (wearable, portable or implantable) devices, which acquire, monitor and communicate physiological parameters and other health related context of an individual (e.g. vital body signs, biochemical markers, activity, emotional and social state, environment);
- Intelligent processing of the acquired information and coupling of it with expert biomedical knowledge to derive important new insights about individual’s health status;
- Active feedback based on such new insights, either from health professionals or directly from the devices to the individuals, assisting in diagnosis, treatment and rehabilitation as well as in disease prevention and lifestyle management.

HeartCycle creates innovation and breakthroughs in the area of personal health systems by embedding intelligence and quality control mechanisms in all aspects of the PHS from the sensors and the data acquisition, to the decision support, the user interaction, the professional platform meant for enabling interaction and feedback through the HeartCycle system of the medical staff, and finally to the clinical care plans.

Demonstration at the exhibition
The demonstration will be of one of the real systems developed within the project for supporting rehabilitation of cardiac patients. The system is composed of several innovative sensors, a professional station in a laptop, and a tablet PC and a PDA with the patient's application.

More: http://www.heartcycle.eu/