



HEARTFAID

**D42 – 12th Quarterly Managerial
Report**

(MB and STAB meeting minutes)

Submission date: 18/03/09

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HEARTFAID

A KNOWLEDGE BASED PLATFORM OF SERVICES FOR SUPPORTING MEDICAL-CLINICAL MANAGEMENT OF THE HEART FAILURE WITHIN THE ELDERLY POPULATION

Project summary	
Project acronym:	HEARTFAID
Project identifier:	IST – 2005 – 027107
Duration of the Project:	01/02/2006 – 30/04/2009
Project Co-ordinator Name:	Domenico Conforti
Project Co-ordinator Organisation:	UNICAL University of Calabria (Italy)
Thematic Priority:	Information Society Technology-ICT for Health
Instrument:	Specific Targeted Research Project

Consortium
<ul style="list-style-type: none"> ➤ UNICAL- Università della Calabria (Italy) ➤ UNICZ- Università degli studi Magna Graecia di Catanzaro (Italy) ➤ UNIMIB- Università degli studi di Milano Bicocca (Italy) ➤ JUMC- Jagiellonian University Medical College (Poland) ➤ VMWS- Virtual Medical World Solutions Ltd (United Kingdom) ➤ FORTHNET S. A.- Hellenic Telecommunications and Telematic Applications Company S. A. (Greece) ➤ SYNAP- Synapsis s.r.l. (Italy) ➤ CNR- Consiglio Nazionale delle Ricerche (Italy) ➤ FORTH-Foundation for Research and Technology Hellas (Greece) ➤ RBI- Rudjer Boskovic Institute (Croatia) ➤ AUXOL- Istituto Auxologico Italiano (Italy)

D42 – 12th Quarterly Managerial Report MB and STAB meeting minutes

Document summary	
Document Title:	12 th Quarterly Managerial Report
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Work package:	WP0 – Management
Report Version:	1.2

Short Description
This document describes the activities of the Consortium during the 12th quarterly of HEARTFAID project and its future activities.

Change Record		
Version Number	Changes	Release date
1.0	First draft of the Document	16/02/2009
1.1	Contributions from Partners	03/03/2009
1.2	Final version	18/03/09

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Executive Summary

The 12th Quarterly Managerial Report describes the activities and the objectives reached by Heartfaid Consortium during the period November 1 - January 31, 2009.

In short the following WPs have been involved in the work:

- WP0: Management
- WP7: Testing and validation
- WP8: Dissemination and Exploitation

In particular, the following activities have been carried out:

- WP0: coordination of the technical and administrative activities. Coordination of the project extension procedures.
- WP7: clinical testing of the services provided by the platform.
- WP8: dissemination of the project results and definition of exploitation strategies.

Ongoing workpackages progress: WP0

WORK PACKAGE: 0
TITLE: MANAGEMENT
START DATE: MONTH 1
WORK PACKAGE LEADER: UNICAL
PARTNERS INVOLVED: ALL

STATUS OF DELIVERABLES DUE IN THIS PERIOD

DELIVERABLE	N°	DATE DUE	COMMENTS
12th Quarterly Managerial Report	D42	31/01/09	On time

FORECAST STATUS OF DELIVERABLES DUE IN THE NEXT 3 MONTHS

DELIVERABLE	N°	DATE DUE	COMMENTS
3 rd Periodic Report (activity and management)	D43	30/04/09	Foreseen to be completed on time
3 rd periodic Report on the distribution of the Community contribution among contractors	D44	30/04/09	Foreseen to be completed on time
13 th Quarterly Managerial Report	D48	30/04/09	Foreseen to be completed on time
Final Report	D49	30/04/09	Foreseen to be completed on time

FINAL QUESTIONNAIRES

QUESTIONNAIRES	DATE DUE	COMMENTS
Science and Society Reporting Questionnaire	30/04/09	Foreseen to be completed on time
Reporting Questionnaire on Workforce statistics	30/04/09	Foreseen to be completed on time
Socio-economic Reporting Questionnaire	30/04/09	Foreseen to be completed on time

FORECASTED MEETINGS WP0- MB & STAB MEETINGS

ACTIVITY	ATTENDANTS	DATE/PLACE
MB & STAB Final Project meeting	Coordinated and hosted by UNICAL/UNICZ Attendants: Representatives from MB & STAB	Catanzaro April 6/8
Final Review Meeting	MB & STAB PO? REVIEWERS	Catanzaro, July 2

Description of Activities

During this quarter management activities, after the MB meeting in Crete, have mainly focused on the project extension procedures which has been confirmed by the Commission on January 19th and on the production of last quarterly D41 which has been sent on due time.

Deviation from the plan

Further delay in the submission of D38 and D40 has to be reported. The related material has been already produced and it needs to be finalized in the final version of the documents. However, this delay has not impaired the overall activities of the project.

Forecasted activities

During the next 3 months management activities will focus on the co-organisation of Heartfaid final MB/STAB meeting and of the final review meeting. A strong interaction with the organising partner UNICZ is foreseen, with each partner and with the PO, giving the necessary support and information. Moreover WPO will now focus on the production of all final reports and questionnaires listed in the previous page.

Ongoing workpackages progress: WP7

WORK PACKAGE: 7
TITLE: TESTING AND VALIDATION
START DATE: MONTH 25
WORK PACKAGE LEADER: UNIMIB/AUXOL
PARTNERS INVOLVED: UNICAL, UNICZ, UNIMIB, JUMC, VMWS, FORTHNET, SYNAP

STATUS OF TASKS DUE IN THIS PERIOD

TASK	TITLE	COMMENTS
T 7.2	Clinical Validation	The activities have included the following: selection and recruitment of patients; implementation of the platform interface software in the clinical setting and at patients' home; modification and adaptation of hardware and software related to use of wearable sensors for data collection at patients' s home; education of patients to have them included in the validation process.

FORECAST STATUS OF TASKS DUE IN THE NEXT 3 MONTHS

TASK	N°	COMMENTS
Clinical validation	T 7.2	Continuation of the above activities, data collection from patients and testing of platform reactions

STATUS OF DELIVERABLES DUE IN THE NEXT 3 MONTHS

DELIVERABLE	N°	DATE DUE	COMMENTS
Clinical Testing Protocol and Validation results	D45	30/04/09	Preliminary contributions have been collected.

Description of activities

UNIMIB/AUXOL:

In this period at UNIMIB and AUXOL both the clinical and the technical components of the team have worked on the activities connected with WP7, i.e. activities regarding implementation of testing and validation of the platform.

The clinical components have selected 7 patients with the characteristics defined in the clinical protocol and shared with the other clinical partners and have requested them to sign the written informed consent that has been approved by the Institution's Ethical Committee.

A subgroup of 3 patients has been assigned to test the NURSE@HOME application by means of home self collected biological parameters in combination with parameters collected by MagIC vest developed by UNIMIB and AUXOL focussing on ECG (and the derived heart rate signal) and respiratory activity. Such patients have been instructed on blood pressure and heart rate self measurement, on how to wear and operate the vest, on how to transmit both manually and automatically the measured biological parameters, and on how to answer to the Minnesota questionnaire. Finally, they have been provided with

written material summarizing such instructions, the protocol for measurements and contact information.

Another subgroup of 4 patients has been selected and instructed for data collection in the home setting by means of either the “Manual” acquisition procedures, or “Automatic” acquisition devices (using the blood pressure recorders and scales). A timeline on the actual simultaneous start and conduct of the period of home monitoring has been set pending the internal full technical testing.

The technical components of our team have worked on installing the software provided by the other technical partners of this project on the PC located in the medical environment and on the PCs used at home by the patients. They have also verified the correct functioning of data transmission from the home environment.

JUMC:

A prototype plan of the platform testing and validation proposed by UNIMIB/AUXOL have been agreed and accepted by all clinical partners. According to the proposal, JUMC has selected a group of CHF patients in NYHA class II- III who currently are being enrolled into the platform and will follow the plan of clinical validation. The necessary clinical data of the patients were collected and the agreement for participation in the study was also obtained. All patients have been trained how to use the Nurse@Home application software at their homes and how to appropriately perform the measurements required by the system. The Nurse@Home application software have been installed at patients homes and the following measurements will be performed daily: systolic and diastolic blood pressure, heart rate, weight, respiratory rate, body temperature and urine output. For JUMC patients only manual acquisition procedures were foreseen.

FORTH:

Nurse@Home and the ECG acquisition system have been officially released to the entire consortium including their installation, configuration and user manuals. Training has been performed for the technical people responsible of the validation sites in Catanzaro, Milan and Krakow. Technical support has been provided to technicians and clinicians by email, phone calls and Skype conferences

UNICZ:

In this period at UNICZ both the clinical and the technical components of the team have worked on the activities connected with WP7 i.e. activities regarding implementation of testing and validation of the platform.

The first phase of testing and validation has regarded the evaluation of the functionalities of Heartfaid platform. In particular has been evaluated the patient condition by Home Care telemonitoring during which have been acquired data regarding systolic and diastolic blood pressure and heart rate in first and second measure, body weight, body temperature. All data are acquired by the same patient or some relatives, using Nurse@Home application.

The data can be acquired both “manually” and “automatically”, using the functionalities provided by Nurse@Home application.

In the “manual” version, the patient himself or some relatives, using the interface forms provided by Nurse@Home, upload the data to the platform manually.

In the “automatic” version same data can be acquired “automatically”, in particular blood pressure and body weight, by the functionalities provided by Nurse@Home through use of the medical devices based on bluetooth technology.



In this phase 7 patients have been enrolled, with a CHF severity ranging from NYHA class II and NYHA class III, evaluates in the hospital environment, that underwent a training, during which has been installed Nurse@Home service on patient's notebooks and a manual in Italian language to explain functionalities of Nurse@Home service, has been provided.

For three patients, the bluetooth devices for automatic acquisition have been supplied and installed, setting Nurse@Home in according to specific configuration, of the data. The control of data from Nurse@Home application was made by the doctor using the front-end of the platform daily.

Deviation from the plan:

Delay in delivering D40: Integration and Configuration of the Prototype.

Ongoing workpackages progress: WP8

WORK PACKAGE: 8
TITLE: DISSEMINATION AND EXPLOITATION
START DATE: MONTH 1
WORK PACKAGE LEADER: UNICAL
PARTNERS INVOLVED: ALL

STATUS OF TASKS DUE IN THIS PERIOD

TASK	TITLE	COMMENTS
T 8.1	Dissemination activities	The dissemination activities have been mainly characterized by internal dissemination, preparation and submission of scientific and technical papers, oral presentations at Conferences.
T 8.2.2	Cost/Benefit analysis	Definition and final assessment of the criteria for Cost/Benefits analysis
T 8.2.3	Exploitation plan	Further definition of the exploitation strategies.

FORECAST STATUS OF TASKS DUE IN THE NEXT 3 MONTHS

TASK	N°	COMMENTS
Dissemination activities	T 8.1	The activities will carry out with more stressing to collaboration and involvement of the medical professional associations and patient associations
Exploitation plan	T 8.2.3	Completion of a detailed exploitation plan

STATUS OF DELIVERABLES DUE IN THE NEXT 3 MONTHS

DELIVERABLE	N°	DATE DUE	COMMENTS
Report on Dissemination activities and Exploitation Activities Plan	D46	30/04/09	Foreseen to be completed on time
Report on Raising Public Participation and Awareness	D47	30/04/09	Foreseen to be completed on time

Description of the activities

JUMC

JUMC have continued the previously started dissemination activities especially among patients enrolled into HEARTFAID platform, other CHF patients attending the hospital and ambulatory unit and their relatives . We have also carried out our internal dissemination activities, by increasing the awareness of Heartfaid project and its current results within our own institution and monthly meetings of Polish Society of Cardiology (Cracow Unit). The experience which was gained with HEARTFAID project has also supported the design of future studies planned on the management and treatment of patients with chronic heart failure.

UNIMIB/AUXOL:

Presentation of the Heartfaid project during local seminars and at the time of University lectures. During next 3 months presentations at symposia and workshops within and inside the institution. Preparation of database for future publications.



UNICZ dissemination activities

The following abstract have been submitted:

- 1) Data mining approaches for predicting new destabilizations in chronic heart failure patients, European Congress of Heart Failure, Nice (France), 30 May-2 June 2009 (accepted)
- 2) Early detection of decompensation in chronic heart failure by intelligent data analysis, National Congress of Italian Society of Cardiology, Rome (Italy) 13-16 December 2008.

Deviation from the plan:

Delay in delivering D38: Investigation on new models for health care delivery

Dissemination activities of the period

Date	Channel	Event	Place/ Country	Partner responsible	Nature and size of audience
15.-19. December 2008.	Oral presentation	Tenth Pacific Rim International Conference on Artificial Intelligence	Hanoi, Vietnam	RBI	computer scientists mainly from Asia, USA, and Australia, 300 participants
24. December 2008.	Invited talk	Presentation at Faculty of Computer Science of Ho Chi Minh City University of Technology	Ho Chi Minh City, Vietnam	RBI	professors and computer science students, 25 persons
November 18-20, 2008	Presentation	Geospatial Data in the Operational Decision Making Process	NATO-NURC La Spezia, Italy	CNR	30 among Computer Scientists and Engineers from US, Italy, UK
January 14, 2009	Seminar	Engineering and Computational Science for Oncology Network (ECSON) Seminars	University of Central Lancashire, Preston, UK	CNR	20 among Computer Scientists and Mathematicians

Future activities and dissemination

Date	Place	Event	Partner responsible	Description
5. February 2009.	Zagreb, Croatia	Invited talk at Clinic of Cardiovascular Diseases, Clinical Medical Centre Rebro, Zagreb, Croatia	RBI	Presentation of the results of the HEARTFAID project
February 5-8, 2009	Lisboa, Portugal	Second International Workshop on Image Mining. Theory and Applications – IMTA 2009	CNR	Two Oral Presentations