Project HELLODOC

In recent years, despite home based medical services having been adopted in different countries, few studies have been performed about the efficiency of home-based rehabilitation. Difficulties seem to arise from the monitoring of performance and therapeutic activity at home and from the medical structures not being prepared to provide this kind of service. ***The objective of the eTen HELLODOC project is to validate the HELLODOC home-based rehabilitation service for the functional recovery of the arm in Stroke, Multiple Sclerosis and TBI (Traumatic Brain Injury).***

The key actions foreseen are:

- Setting/adaptation of the hospital infrastructures, and organisation of a dedicated team
- Adaptation of the infrastructures of the telephony network and hospital LAN
- Implementation of an e-learning platform to educate professionals to use tele-rehab apparatus.

The pilot service is centred on a **home-care device developed and tested within the IST project H-CAD (Home Care Activity Desk).** A lighter engineered product has been developed within the HELLODOC project, whose main improvements are the use of new light materials, an embedded graphic tablet, an interchangeable layer, a larger table, and a new arm support.

The service will operate at hospital sites providing: *safe communication, full integration with the hospital LAN, encrypted data and videoconferencing facilities*.

The pilot service is currently implemented in three hospitals in Italy, Belgium and Spain. An e-Learning programme dealing with clinical and technical aspects of HELLODOC will be used to train a dedicated team of professionals at each centre. The tele-rehabilitation program consists of a set of exercises purposely adapted to the patient's impairment. The patient executes the exercises using the home-based apparatus, which is connected to the hospital. Remote monitoring and control is possible with two web cams and a teleconferencing service. The main parameters of the exercises (i.e. duration, success, number of attempts) are sent electronically and on video tape to the hospital.

For further information: www.iss.it/hdoc

Partner	Role and Competence
• **Istituto Superiore di Sanità** • **Signo Motus srl**	**Project coordinators**
• Pragma Engineering	Technology developer
• Fundaciò Privida Institut de Neurorehabilitation Guttmann • Unità Organica di Riabilitazione Intensiva Neuromotoria • National Multiple Sclerosis Centrum	Health Organisations / Hospitals
Roessingh Research & Development	Main Clinical Assessor

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