



**Mobile Assistance for Groups & Individuals
within the Community**

STROKE REHABILITATION – POST STROKE

<http://magic-pcp.eu/>

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 687228



Innovative technology

Transforming services for patients post stroke



- Empower patients post-stroke
- Optimise recovery
- New cost effective solutions

What is Pre-Commercial Procurement (PCP)?

- Enables procurement of Research & Development when solutions are not available within the market
- Opportunity for enterprises to participate in meaningful research and development
- Create new technologies to be taken to market

MAGIC Background

MAGIC Project is a large PCP funded through the European Commission's Horizon 2020 programme. The MAGIC Consortium is led and co-ordinated by Business Services Organisation with partners from across the EU. Northern Ireland consortium members include the Health and Social Care Board, the Public Health Agency, Invest NI and the University of Ulster. There are also members from Italy, Ireland, Finland, Spain, Luxembourg and Denmark.

Transforming Services

MAGIC is a European wide PCP focused on creating innovative technology; transforming services for patients post stroke to improve physical function and personal independence.

Pre-Commercial Procurement is a phased process and between January 2016 and August 2018 the MAGIC Consortium has described the issues to be solved and issued a call for tender. In Phase 1 eight suppliers developed solution concepts, in Phase 2 four suppliers developed prototypes and in Phase 3 in October 2018 three suppliers will start feasibility study field trials to test the solutions.

Each of the three Phase 3 suppliers will enable two parallel clinical trials of their technology; one site will be within Northern Ireland and one in Italy. Each feasibility study field trial will aim to recruit up to 150 post stroke patients so that there is a potential for up to 450 post stroke patients in Northern Ireland and 450 post stroke patients in Italy to become involved and hopefully benefit.

In Northern Ireland the three trial sites will be located within the Health and Social Care Trusts.

- Northern Trust will host the supplier Camlin to trial the ARC-Intellicare solution
- Belfast & South Eastern Trusts will host the supplier Corehab to trial the WeReha solution
- Western & Southern Trusts will host the supplier Tech4Care to trial the MAGIC-GLASS solution



Creating innovative technology to transform services

Camlin – ARC-Intellicare

ARC-Intellicare is a machine-learning-based wireless platform designed to work in a patient's home in post-acute phase after stroke. ARC can address the specific rehabilitation needs of each patient, by allowing therapists to personalise rehabilitation routines, provide continuous monitoring and give performance feedback during both the exercise program and Activity of Daily Living (ADL). The main components are: wearable inertial sensors for upper, lower limb and postural monitoring, a tablet and a software platform, with a simple, gamified and straightforward usability. From October 2018 the ARCANGEL field trial to evaluate the feasibility, acceptability and usefulness of ARC during the rehabilitation program of Italian and Northern-Irish patients.



CAMLIN

Corehab-WeReha

WeReha is an innovative medical device to rehabilitate stroke patients by using wearable sensors and biofeedback for total body exercises and "smart objects" for hand rehabilitation. The study will be evaluated in Northern Ireland and Italy with more than 100 stroke patients to assess their acceptance of technology and evaluate improvement in motor skills after 3 and 6 months of usage at home. Physiotherapists will train patients before discharge and follow progress at home through an easy to use web application. Outcome measures include percentage of patients using WeReha and their effective activity level, Barhel index, mRS and other validated scores will be used in the study.



Tech4Care – Magic Glass

The MAGIC-GLASS project aims to develop an innovative home rehabilitation solution for rehabilitation of stroke survivors. MAGIC-GLASS exploits the potential of augmented and virtual reality (AR / VR) for enabling the patient to perform optimal physical and cognitive rehabilitation at home, by means of serious games grounded on the mirror-therapy approach. In Phase 3, the MAGIC-GLASS project will have the main aim to test and evaluate a working prototype in clinical trials with stroke patients in both Italy and Northern Ireland. Study results will provide evidence about the feasibility, effectiveness and usability of the MAGIC-GLASS prototype.



Tech4Care
Nuove tecnologie per l'assistenza

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