



European  
Commission



**m-RESIST: Mobile Therapeutic  
Attention for Patients with  
Treatment-Resistant Schizophrenia  
Programme H2020-PHC-26-2014**

This project aims to develop an innovative disease management system, m-RESIST, a mobile ICT system addressed to empower patients suffering from treatment-resistant schizophrenia, which will involve them to actively participate in the therapeutic process and will enable them to self-manage their condition.

### AT A GLANCE

**Project title:**

Mobile Therapeutic Attention for Patients with Treatment Resistant Schizophrenia

**Project coordinator:**

Margarita Hospedales Salomó, FUNDACIO TICSALUT (SPAIN)

**Partners:**

FUNDACIO PRIVADA INSTITUT DE RECERCA DE L'HOSPITAL DE LA SANTA CREU I SANT PAU (SPAIN)

PARC SANITARI SANT JOAN DE DEU (SPAIN)

THE GERTNER INSTITUTE FOR EPIDEMIOLOGY & HEALTH POLICY RESEARCH, LTD (ISRAEL)

OULUN YLIOPISTO (FINLAND)

IMINDS VZW (BELGIUM)

IBM GLOBAL SERVICES ESPANA SA (SPAIN)

ATHENS TECHNOLOGY CENTER SA (GREECE)

SEMMELWEIS EGYETEM (HUNGARY)

AGENCIA DE QUALITAT I AVALUACIO SANITARIES DE CATALUNYA (SPAIN)

AB.ACUS SRL (ITALY)

INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS (GREECE)

**Duration:**

36 months (Jan. 2015 – Dec. 2017)

**Total costs:**

€4.034.222

**Website:**

[www.mresist.eu/](http://www.mresist.eu/)

### CONCEPT

Schizophrenia is one of the most severe mental illnesses with a frequent unfavorable prognosis associated with higher degrees of suffering for patients' family and social environment. In the European Union, around 5 million people suffer from psychotic disorders, being schizophrenia one of the most widely-known. Around 30-50% patients are considered treatment-resistant and present persistent symptoms, requiring long periods of hospital care and being at greater risk of mortality and multi morbidity.

Taking into account this complexity, intervention in resistant patients should include psychiatric/psychological/medical treatment, and correct adherence to communitary healthcare, for instance with social workers. Moreover the role of the caregivers in the prognosis of the illness is a key aspect, improving adherence to treatment and identifying early signs of relapse or physical problems.

For all reasons mentioned above, m-RESIST is an innovative, secure and sustainable project, aimed at personalizing psychiatric and psychosocial (CBT-p) treatments, ensuring continuation of health care services and allowing patients to manage their condition. Moreover the integration of caregivers and family of patients together with the professionals would enable the provision of specific support services and would prevent acute symptoms. It will be developed bearing in mind the pilot experiences of other groups (internet, phone messages, apps) and taking into account specific features of patients (i.e. treatment resistance).

## OBJECTIVE

m-RESIST will become a step forward in improving and optimizing the clinical decision process. The specific aims for developing the m-RESIST programme are:

- Design and develop the m-RESIST system.
- Design the m-RESIST programme (services, care pathways or health routes).
- Test the m-RESIST system and programme on healthy volunteers and patients with treatment-resistant schizophrenia.
- Promote an active role of patients, caregivers and clinicians in the design of the m-RESIST programme and its apps: involvement in the process of users' needs identification.
- Promote an active role of patients, caregivers and clinicians in the development and improvement processes of the m-RESIST programme and its apps:
- Create a predictive model based on a wide range of relevant data gathered by the system in order to identify risks and gaps in the treatments which will enable the prescription of personalised treatment and tools for patients, for managing co-morbidities and healthcare.

The achievement of these specific aims will demonstrate that the system operates and that the target audience, treatment-resistant schizophrenia patients, their families, and the clinicians caring for them are able and willing to use it. This will pave the way for a follow-up process to assess the effectiveness and efficiency of the m-RESIST system, in achieving clinical, psychological, social and economic benefits.

## APPROACH

The overall approach to design, develop and test the m-RESIST system and program will consist of the following sequential steps:

- To design the m-RESIST programme and to define the specification for the ICT system into the m-RESIST programme
- To create the m-RESIST system and programme
- To test the m-RESIST system and programme in healthy volunteers
- To test the m-RESIST system and programme in treatment-resistant schizophrenia
- To evaluate the m-RESIST impact on the organization

- To determine next steps for evolving m-RESIST idea

## IMPACT

As an m-Health program, m-RESIST, aimed at treatment-resistant schizophrenia, could overcome the limitations of standard programs by empowering patients, making them less resistant and more responsive to treatment while improving clinical outcomes as well as the effectiveness and efficiency of care systems. The use of m-RESIST integrated care program, Big Data mining tools and predictive model will impact on current healthcare system by improving and optimise healthcare processes.

In summary, using the available extensive data, with modern mobile methods, it is possible to gain new insights and strategies of intervention in treatment-resistant schizophrenia. This would create real-world benefits for people who develop psychosis, and contribute to attempts to develop and adapt effective treatment algorithms to treat or ameliorate these devastating disorders.