





## DolorTic.com: AN INTEGRAL ICT-SUPPORTED MODEL FOR CHRONIC PAIN INTERVENTION

### DESCRIPTION OF THE TECHNOLOGY

Researchers at the Universitat Jaume I (UJI) in Castelló and at CIBERobn, Instituto de Salud Carlos III, have developed <u>DolorTIC.com</u>, an integral solution for chronic pain. DolorTIC is a technological network that makes it possible to interconnect all the stakeholders involved in the treatment of chronic pain (professionals, patients, relatives, organisations, etc.).

**The platform for the patient** includes several different technologies that have been developed to improve the care of patients with chronic pain at different levels:

- App for daily monitoring of pain. This is an app that makes it possible to monitor pain, the associated symptoms, the appearance of side effects, the use of rescue medicines or even non-compliance to treatment.
- App for monitoring daily activity. This application allows the patients' activity to be monitored and related to their pain patterns.
- App for POET treatment (Pain Online Emotional Therapy). The purpose of this program is to help provide patients with strategies for managing chronic pain and other associated symptoms, with the aim of improving both their emotional state and their quality of life.

All these tools can be used in a modular way, that is, each patient can use only the ones that will have a beneficial effect on his or her treatment.

The platform for the professional aims to provide the clinician with a comprehensive view of the data about the patient and his or her treatment in real time, thereby optimising the time spent on monitoring their patients.

On this platform, all the actions carried out by the user are registered and later presented in a single report, and is where the data and therapeutic alarms of the different ICTs that make up the <u>DolorTic.com</u> network are received:

- Daily monitoring of pain
- Symptoms
- Treatment compliance
- Use of rescue medicines
- Psychological aspects associated with pain
- Appearance of side effects
- · Monitoring the patient's activity
- Progress made with the online psychological treatment

Not only would the comprehensive care system be useful to improve patient care and reduce professionals' workload, but also, from a scientific point of view, the network would obtain a considerable amount of data in an efficient manner. Via Big Data, this information could be used to put forward additional theoretical challenges and improve the knowledge we have on chronic pain in terms of its aetiology, evolution, treatment interactions, comorbidity, and influence and correlation with different psychological constructs. All the data generated are stored in an anonymised and encrypted form in compliance with the data protection laws in force.

### SECTORS FOR COMMERCIAL APPLICATION

The technology is useful for the following sectors:

- Pharmaceutical industry and the development of more effective painkillers.
- Hospitals and centres devoted to caring for patients with chronic pain.







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• Clinical trials and research in clinical psychology.

### TECHNICAL ADVANTAGES AND COMMERCIAL BENEFITS

The main advantages of this technology are:

- It makes it easier for the professional to have a comprehensive view of the details about patients and their treatment in real time. In this way, the professional can take decisions or adjust the treatment based on the in-depth, daily evaluation of each patient's symptoms.
- It can help to achieve faster detection of cases in which the painkilling medication is not being effective.
- It can contribute to increase the treatment efficacy by making it possible to see the relation between symptoms and medication.
- It offers patients strategies with which to manage chronic pain and other associated symptoms so as to improve their emotional state and quality of life.
- It allows a comprehensive and personalised profile of the experience of pain to be obtained from patients with chronic pain and its influence on their daily life.
- Since it is an application, it makes it easy to collect data without biases, as patients can enter the information in the moment they are experiencing the pain.

#### STAGE OF DEVELOPMENT OF THE TECHNOLOGY

The computer application is fully developed and ready for installation and use in Android-based devices. The tool has been validated by means of empirical studies.

### INTELLECTUAL PROPERTY RIGHTS

Registered software.

COLLABORATION SOUGHT

Licensing agreement.

**RELATED IMAGES** 



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