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Poster abstract

## Knowledge capture for self management of long-term conditions

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## Abstract

**Introduction:** Self-management encourages a person with a long-term condition (LTC) to solve problems, take decisions, locate and use resources and take actions to manage their condition.

**Aims and objectives:** The aim of this paper is to discover appropriate knowledge to facilitate the self-management paradigm. For use in a computing platform, such knowledge must be expressed in digital form in a database.

**Methods:** The SMART2 [1] project is developing a Personalised Self Management System (PSMS) for use in the home environment and in the immediate community for people living with the LTCs: stroke, chronic pain and congestive heart failure (CHF). This system relies on access to clinically validated digital media for therapeutic instruction and appropriate feedback, based on current use.

**Results:** Two approaches to knowledge acquisition were used: (i) obtaining knowledge from the stakeholders, using a user-centred design approach (ii) obtaining knowledge from the PSMS, as the user undertakes activities of daily living in pursuit of their end-goal. We have utilized data mining and classification techniques to quantify PSMS interventions.

**Conclusions:** Knowledge capture requires abstraction of key process used by the stakeholders and the use of data mining procedures to obtain information patterns, which can be used to promote self-management.

## **Keywords**

**self management, chronic pain, stroke, coronary hearth failure, decision support**

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## **Reference**

1. Engineering and Physical Sciences Research Council. Self-management supported by assistive, rehabilitation and telecare technologies. UK: Engineering and Physical Sciences Research Council; 2008-11. (UK EP/F001916).