This tool is used to compare different strings with the same meaning and assign diagnosis codes by repetition, which is if "Back pain" and "Painful back" share the same base forms "back pain", both of them should be represented with the same code in any given vocabulary.

To achieve this goal an emulation of the Specialist Lexicon of UMLS was performed, as reported in other languages (German and French). Initially more than 40 lexical rules in Spanish had to be created form scratch, and lengthy tables of synonyms, derivations, articles, etc. had to be filled.

*Conclusion*: A prototype was created using J2EE technology, is published on the Internet, and is tested and maintained by several collaborative groups in different centres around the country.

## Medical Program Administrator: A Study and Functional Analysis of Software for Follow-Up and Control of a Patient Population with Chronic Diseases

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*Purpose*: To perform an investigation of needs and a functional analysis of software for follow-up on a population of patients with chronic diseases and their contacts with the Medical Program, using records from existing medical information systems (CPR, Admission, Appointments, etc.)

*Methodology*: Anecdotes (Storyboards), Use Cases and Activity Diagrams were used for UML documentation.

Basic Definitions: The Medical Program Administrator is a software package that manages a patient population with chronic diseases in order to schedule for each patient and enable the follow-up of Medical Program contacts with the patients, with priority based on patient risk. It includes as well a defined clinical practice guide for the treatment of chronic diseases.

*Design*: A system that integrates various medical information system patient data was designed to perform follow-up on patients based on their risk. The system automatically detects those patients for which clinical (results of practices and procedures) or attitudinal (adherence to treatments, consultations, etc.) parameters were incongruent with the expected values as defined in clinical practice guidelines. Based on this selection process, which users can adapt and customize, the system generates patient contact lists, and these in turn generate e-mail reminders for patients. Scheduling can be done by patient or by patient group, as can be the definition of control objectives, and the system adapts automatically to the clinical parameters and the performance of examinations and procedures, allowing for a personalized follow-up of patients. This software, like other medical information systems, has been developed in a web based format and can be integrated into the institutionalet.

Conclusion: The Medical Program Administrator is a system that analyzes patient data from various medical information systems, allowing for a personalized follow-up of each patient, and which automatically orients Medical Program resources toward those patients of greater risk. This enables better treatment of chronic diseases, thereby contributing to a decrease in morbidity and mortality and an improved quality of life in this population.