

2 Thesis

EviMed Online GmbH is an information service provider in the field of oncology. This service is specialized for physicians in clinic and practice as well. Core system is the Oncology Information System (OIS). The OIS is a web-application which allows the physicians to characterize and administer their patients. While doing that they will be served with patient specific and personalized recommendations. The recommendations contains guidelines from expert societies like the American Society of Clinical Oncology (ASCO) and published clinical trials (up to 1.600 new clinical trials containing new treatments were published per year in the field of oncology) as well as running clinical trials (currently up to 8.000 are running in oncology).

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2.1 Example 1: General System for calculation prognostic scoring

The OIS is build in a modular way. Whereas the described features representing the core functionality we are now working on separate extensions. In the current project it is planned to develop, implement and evaluate a module for prognostic scoring. Prognostic scoring systems are important in clinical staging to decide if the patient has to become treated with an aggressive or a gentle treatment.

A simple example is the FLIPI-Score for follicular lymphoma¹. According the FLIPI there are limits for five independent factors defined. If the limit for a factor is reached or overspend the score will increased by one. From that result the risk-groups from good risk (FLIPI 0-1) over intermediate risk (FLIPI 2) up to poor risk (FLIPI 3-5) are defined. Based on the score the ten-year surviving expectance varied from 71% (good risk) down to 36% (poor risk).

It is the aim of that project to develop a scoring module, which is able to handle each kind of scoring system. From user site this means the administrators should be able to define the scoring algorithm with a free to handle tool. Implementing or editing existing scoring systems should be done without programming. It is therefore necessary to develop a module which allows the users for defining the rules for the scoring systems.

Comparable modules are already realized. There is for example the ability to match recommendations to patient characteristics. This matching allows each kind of combination of attributes and including/excluding criteria. As well there is a module for laboratory data. Because of two kinds of different but used systems to describe the concentrations of single parameters the software allows for the user to use both systems and the system takes care for transforming. Transforming definitions are handled by the administrator and are not directly coded.

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¹ Blood. 2004 Sep 1;104(5):1258-65