

# **Workshop on Current Aspects of Knowledge Management in Medicine (KMM05)**

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## **Topics of KMM05**

Traditional Knowledge Management systems in the medical field predominantly focus on medical knowledge and problem solving like diagnosis, prognosis, therapy planning and critiquing, image processing with image classification, and teaching or practising medical knowledge. Today, also economical, organizational, and quality aspects move into the centre of medical knowledge management, such as efficiency, analysis, and optimisation of hospital processes, workflow management and collaborative treatments by physicians of remote health care facilities. Using the changing accounting system based on flat rates, health care organizations have to change their operating philosophies to become profitable, enterprise-like organizations.

The Workshop KMM05 presented concepts and solutions that show how knowledge management can be applied profitably to solve today's problems and challenges in the medical domain. The Program Committee accepted the ten most interesting papers, written by authors of seven countries, out of 15 submissions for inclusion in this workshop proceeding either as long (six contributions) or short papers (four contributions). The contributions were grouped according to the following headlines:

### **Integration and Acceptance of Knowledge Management Solutions**

Three contributions focus on how KM solutions can be integrated into the daily routine and how their acceptance can be increased. Bobrowski and Kreymann present a solution that provides medical knowledge mainly by means of standard software. In contrast Muscholl introduces a model-based architecture to support clinical pathways by adding and integrating knowledge management functions in hospital information systems. Puppe et al. discuss the benefits and acceptance of their KM solution proven by an evaluation that was carried out in a concrete hospital.

## **Availability and Usability of Clinical Document Knowledge**

Clinical document knowledge plays an important role during the daily routine. Three contributions deal with the challenge of its availability and usability. Jablonski et al. introduce a document classification method along clinical pathways, Alexandrini et al. describe the management of radiological reports with automatically generated, standardised reports and Katirai and Sax present an approach that uses “compilable templates” for translating CDA conforming clinical documents into relevant key data (and vice versa).

## **Cost Reduction and Cost Control in Healthcare**

The last four papers describe KM systems that help to control and reduce the costs in health care organizations: Curé introduces an ontology-based system providing decision support in self-medication. Eikemeier presents a peer-to-peer system architecture that supports cooperating physicians in preventing adverse drug reactions, but also keeps medical confidentiality. Tsybal et al. propose a data mining method for prognosis and early detection of nosocomial infections in microbiology data and Herrler et al. present a multi-agent system approach for optimizing clinic processes.

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We hope this short workshop description has made you curious to read the papers... enjoy reading!

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