ARDENSUITE in Research and Teaching

Arden Syntax—a language for the representation and processing of clinical knowledge in a standardized way—has already been put into practice in various clinical contexts (e.g., in Vienna, Colorado, Erlangen). Besides its usefulness in clinical routine, the Arden Syntax is also particularly suited to contribute to research projects as well as for use in teaching.

Several universities and university hospitals have already taken advantage of the benefits the Arden Syntax offers for educational and research contexts and purchased Medexter's ARDENSUITE research and teaching license including the Arden Syntax integrated development and test environment (IDE), the Arden Syntax server, and server connector.

Innovation Center for Computer-Assisted Surgery (ICCAS), Leipzig

At Leipzig University's ICCAS, Medexter's ARDENSUITE is part of a research project developing a "Clinical decision support system for personalized therapy of larynx carcinoma". The system development is expert-based, that is, physicians are taking an active part in writing medical logic modules (MLMs), especially the MLMs' logic slots. Another main characteristic of this project is that it manages to represent uncertainty found in clinical medicine, especially fuzzy concepts and qualities, using Fuzzy Arden Syntax. Coming fall semester 2015, Arden Syntax is going to be part of a lecture on "Medical planning and simulation systems".

Erlangen University Hospital

Over the past years, a number of master and doctoral theses in the context of Arden Syntax were completed at Erlangen University Hospital. As part of a current dissertation, a new, bidirectional interface is being developed connecting Dräger's intensive care system ICM and Medexter's ArdenSuite software, including full clinical event monitoring. They are currently preparing for another research project at the Anesthesia Department on "Fuzzy patient study recruitment" using Fuzzy Arden Syntax. Furthermore, the Arden Syntax IDE is used to explore Fuzzy Arden Syntax in student seminars.

Medical University of Vienna

At the Medical University of Vienna, three research projects are currently using the ArdenSuite: (1) For the Vienna General Hospital's Dermatology Department a system was developed to support the classification of tumor stages of cutaneous melanomas. (2) TacroDS is a clinical decision support system that assists the Department of Nephrology and Dialysis at the Vienna General Hospital in the selection and adaption of the dosage of immunosuppressive drugs for patients who received a kidney transplant. (3) MONTE is a clinical decision support system that automatically performs

nutritional triage in cancer outpatients. As for teaching activities, the Medical University of Vienna currently prepares two courses that will include practical training with Arden Syntax and Fuzzy Arden Syntax.

Osnabrück University of Applied Sciences

At the Osnabrück University of Applied Sciences, Arden Syntax is involved in the "Business Information Management" bachelor's curriculum as well as in the "Management for Health Services" master's curriculum. Students are given an introduction to Arden Syntax and the opportunity to further explore the topic in projects and bachelor's/master's theses, including the development of their own Arden Syntax applications.

Bern University of Applied Sciences

The Bern University of Applied Sciences recently purchased a number of ARDENSUITE research and teaching licenses. Working with the ARDENSUITE will be part of a new module in their "Medical Informatics" bachelor's curriculum. For those students who are interested, the opportunity to expand their work with Arden Syntax will be given in seminars or by working with case studies.

We at Medexter Healthcare are delighted to find our ARDENSUITE software to be used not only in clinical routine but also in this variety of important research projects. We especially value the integration of our ARDENSUITE software in the education of future IT, eHealth, and medical informatics specialists.

Arden Syntax is a powerful tool that will help shape the future of healthcare information technology. As it is extremely versatile and flexible, it can be applied to a grand variety of clinical tasks. If you are thinking about including the ARDENSUITE into your research and/or teaching activities, please contact us at office@medexter.com or visit our website for more information. In our newsletter section, further details can be found on clinical as well as educational and research applications of our ARDENSUITE at different sites/institutions.

For details on applying ARDENSUITE for your research and teaching duties, talk to us now or contact us at **office@medexter.com**.