In 2009, clinicians at Klinikum Weiden decided that the most logical path to a paperless department and modern radiation therapy techniques was through a conversion of its Siemens Oncology Information System (OIS) and ageing linear accelerators to Elekta’s MOSAIQ® OIS and Elekta Synergy® treatment systems. The complete conversion was implemented between 2009 and 2011.

“Our linear accelerators were 14 years old and only one had a multi-leaf collimator,” says Bernd Gagel, M.D., head of the radiation therapy department at Klinikum Weiden. “In addition, the existing LANTIS™ OIS was able to do only 3D conformal radiation therapy. To modernise the department, we knew we needed to change our therapy delivery systems and – to optimise workflow – the oncology information management system as well.”

A major factor in the clinic’s decision to convert to Elekta treatment systems was the ease with which Klinikum Weiden could convert from LANTIS to MOSAIQ, which included importing all the patient data in LANTIS to MOSAIQ.

“The hospital staff were familiar with the LANTIS user interface and functionality so we thought they would become accustomed to MOSAIQ easily,” Dr. Gagel says.

The EMR functionality of MOSAIQ was seen as a particularly attractive feature due to its promise of a paperless department. EMR is increasingly used in hospitals throughout Germany.

“We knew that with MOSAIQ we could optimise our workflow by centralizing the department’s operation management, using functionalities such as scheduling, documentation of the complete treatment chain and image management,” he notes.

Klinikum Weiden is not yet completely paperless, but in the course of digitalising its department with MOSAIQ, the clinic has implemented many improvements, including:

- Workflow management using MOSAIQ Quality Checklists (QCL)
- Using MOSAIQ Photos & Diagrams to import patient photos and patient positioning photos
- Using MOSAIQ Clinical Image Management to store and manage DRRs, portal images, planning CT’s and cone beam CT’s (CBCT)
- Follow up analysis for quality management needs using MOSAIQ Reporting in combination with Crystal Reports

Advanced therapies

The two Elekta Synergy systems have transformed Klinikum Weiden’s therapy capabilities, enabling clinicians to perform Intensity Modulated Radiation Therapy (IMRT), Image Guided Radiation Therapy (IGRT) and stereotactic treatments.

“In 2011 alone, we treated 70 percent of our patients using IMRT,” Dr. Gagel reports. “We also can check the patient set-up for IMRT patients with both, MV and kV modalities. These modalities, the iViewGT™ and XVI [CBCT] technology of the Synergy systems, are coordinated by the SYNERGIISTIQ™ workstations, which we acquired for both systems in 2010. In addition, in the near future we plan to introduce VMAT. The Elekta Synergy systems are very stable and reliable, and provide a smooth workflow in our department, each system treating up to 50 patients per day.”

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