

FDR VISIONARY SUITE USER'S VOICE

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Digital Radiography

First fully automated X-ray system at the pediatric clinic, treatment center Aschau / Chiemgau



The orthopedic pediatric clinic at the treatment center Aschau GmbH in Chiemgau / Germany is one of the largest specialist clinics for children's orthopedics in Central Europe with a team of doctors, therapists and nursing staff professionally dedicated to children. Every year, they look after approx. 69 acute care beds inpatient, 12,200 radiograms are being generated in the ambulance, furthermore there are 5,100 patients to be planned for a suitable operation or therapy. An average of 30 children and teenagers are x-rayed every day – quite a high workload. In addition to general pediatric orthopedics, the clinic is also a contact point for so-called “complex “ cases, i.e. for children and teenagers, who already had one or more operations on the musculoskeletal system and for whom the results are still unsatisfactory. The clinic's high-level expertise also ensures a significant demand of international patients. Even adults, who have been treated in Aschau since childhood return to the clinic.

Only recently, Fujifilm's new fully automated FDR Visionary Suite X-ray system was installed in Aschau with digital FDR D-EVO direct detectors of various sizes, including the long format detector, which enables whole leg and whole spine images to be taken with a single exposure. Since then, the system has facilitated the daily work of the healthcare professionals in diagnostics and measurement by using a low radiation dose. Previously, the clinic used an Computed Radiography System which required a post-exposure image readout process. Today, the images are being transmitted quickly and directly from the exposed detector and displayed on the monitor. This time-saving process will directly benefit the children.

The Pediatric Clinic Aschau has designed a very child-friendly examination room with colorful LED lights and images particularly suitable for children, in order to reduce the fear of medical examination of even the youngest patients through a pleasant and calming atmosphere. Mrs. Ulrike Stowasser, radiographer at the Children's Clinic in



Designed for children: the examination room at the orthopedic children's hospital in Aschau

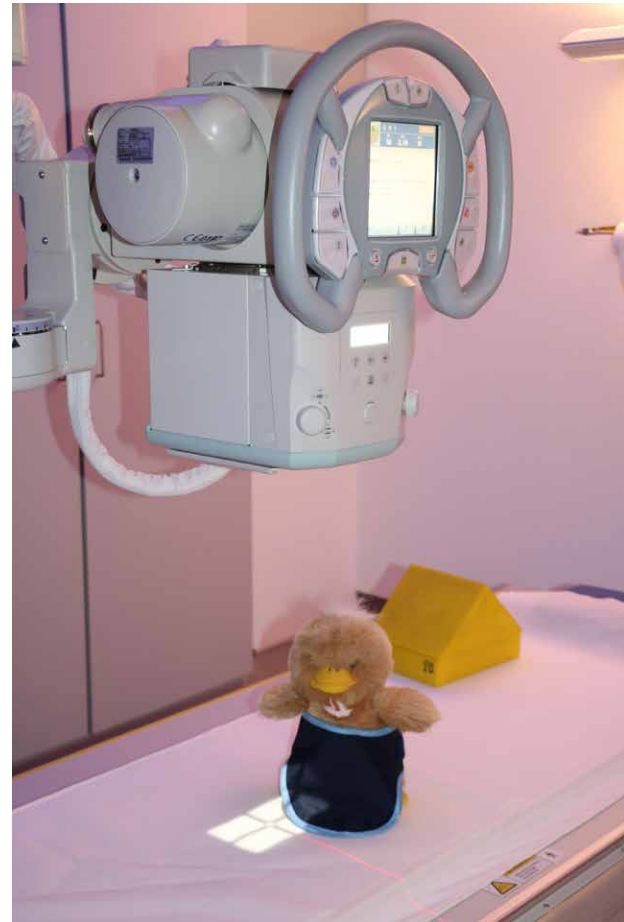
Aschau, is convinced of the new system: “When dealing with nervous patients, the automatic positioning function supports us tremendously. The remote control automatically moves the ceiling, the wall stand and also the bucky table into the preselected position, which avoids a lot of physical effort,” she reports on her experiences with the system during the first two months. “We can do magic” – is what I often say to children to take away their fear of the medical examination - while the system starts moving by itself. A wonderful side-effect!”

Mrs. Stowasser also reports on the challenges of examining patients with massive movement restrictions: “A considerable progress is the use of the long format detector. This device enables us to take a single image of the child's entire spine or hip down to the feet in a continuous operation – even when examining some of the most severely ill children, who generally face difficulties to remain calm during a given period of time,” explains Mrs. Stowasser. “What a drastic improvement compared to earlier times, when several partial images were necessary, which simply took a lot more time”.

In many cases, multiple examinations of children and teenagers with orthopedic or neurological illnesses are necessary in order to provide optimal treatment. In addition, regular X-ray examinations are necessary to follow the progression of a physical handicap in order to avoid disorders of growth and physical development. Fujifilm's FDR Visionary Suite offers the Aschau pediatric clinic a state-of-the-art digital X-ray system, with a great degree of security for pediatric examinations, and equipped with Fujifilm's technology "Virtual Grid", a virtual lead grid against scattered radiation and "Dynamic Visualization II" Image Processing. This delivers a detailed, high-contrast display of fine structures and compensation of movement artifacts.



Dr. Florian Paulitsch with radiographers Ulrike Stowasser and Theresa Röhl at the FDR Visionary Suite



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"The new dose-efficient X-ray system enables us to obtain particularly fine-resolution images with a single exposure. This protects children from repeated radiation exposure. The diagnosis is extremely important for follow-up examinations during their adolescence, as these patients have to be x-rayed frequently," confirms Dr. med. Florian Paulitsch, chief physician at the orthopedic pediatric hospital in Aschau. "Pediatric radiology always places very high demands, not only on the imaging system. Radiographs require a very precise and detailed picture of even the finest structures, and protection of the most x-ray-sensitive patients has always to be kept in mind. It is our goal to limit the number of x-ray examinations to an absolute minimum, with as little technical effort as possible and, most importantly, saving dose of radiation. Finally, it is our intention to focus on the children's wellbeing, not on the equipment during the examination."