



KONICA MINOLTA

Case study

Radiology clinic

Mutlangen/Schwäbisch Gmünd

A DR for every situation

Forming the basis of Diagnostic Radiology



Andreas Wagner particularly enjoys working with Konica Minolta because the company is reliable and meets all agreed deadlines.

Radiologists are service providers. With that mindset, Andreas Wagner not only strives to provide his patients with high-quality care, but the Radiology Clinic in Schwäbisch Gmünd also offers its services to specialist radiologists in the surrounding area whose X-ray equipment cannot keep pace with his modern standards. Therefore, he and his colleagues were quick to decide that the new X-ray system they were looking to purchase must be fitted with an innovative flat panel detector.

Giving Shape to Ideas



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In order to guarantee local care, the new radiology clinic is situated right in the heart of Schwäbisch Gmünd.

“The conventional X-ray image of the thorax or the skeletal system still forms the basis of diagnostic radiology and is part of the standard equipment of every radiology practice,” says Andreas Wagner from the Radiology Clinic in Schwäbisch Gmünd. The rapid advancement of digital technology has also resulted in a technological leap in diagnostic radiology. Modern X-ray devices such as the AeroDR X50 have digital WLAN detectors which immediately transmit the images directly and wirelessly from the cassette to the CS-7 operating console.

Small footprint

Little of the equipment in the X-ray room bares any resemblance to a generator console. The numerous knobs and dials on old X-ray systems have been replaced by touchscreens and tiny buttons. The only thing that has remained unchanged is the exposure button. It still displays the words “Prepara-

tion” and “Expose” and is attached to a long coiled cable.

The high-frequency generator of the AeroDR X50 is integrated beneath the bucky table to save space, but despite of this the height of the table can be adjusted by 21cm, from 90 cm to 69 cm. Vanessa Herzig, radiographer: “Lowering the height of the table makes it much easier for patients, and especially those who are less mobile, to sit or lie on it.” Depending on the model in question, the generator power varies from 32 kW to 80 kW and from 40 kV to 150 kV and hence covers the entire spectrum of diagnostic radiology. The complete system takes up just 3.5 m by 2.5 m of space and the minimum ceiling height is just 2.3 m.

Nevertheless, it is Konica Minolta’s mobile AeroDR detector that makes the AeroDR X50 truly unique. The integrated long-life lithium-ion capacitors can be recharged

extremely quickly, namely in just 30 minutes, either via a cable connection or in the battery charger, and in emergency situations the battery has sufficient capacity for up to 10 X-ray images after just 3 minutes of charging. A so-called memory effect does not occur in lithium-ion capacitors. Unlike batteries, capacitors do not need to be replaced so they do not incur any additional consequential costs.

Low dose

Konica Minolta’s mobile AeroDR detectors are further characterized by the fact that they are extremely lightweight and produce high-quality and very detailed images. Measuring 35 × 43 cm and weighing in at just 2.9 kg, the flat panel detector is one of the very lightest around. Vanessa Herzig, radiographer at the clinic in Schwäbisch-Gmünd,

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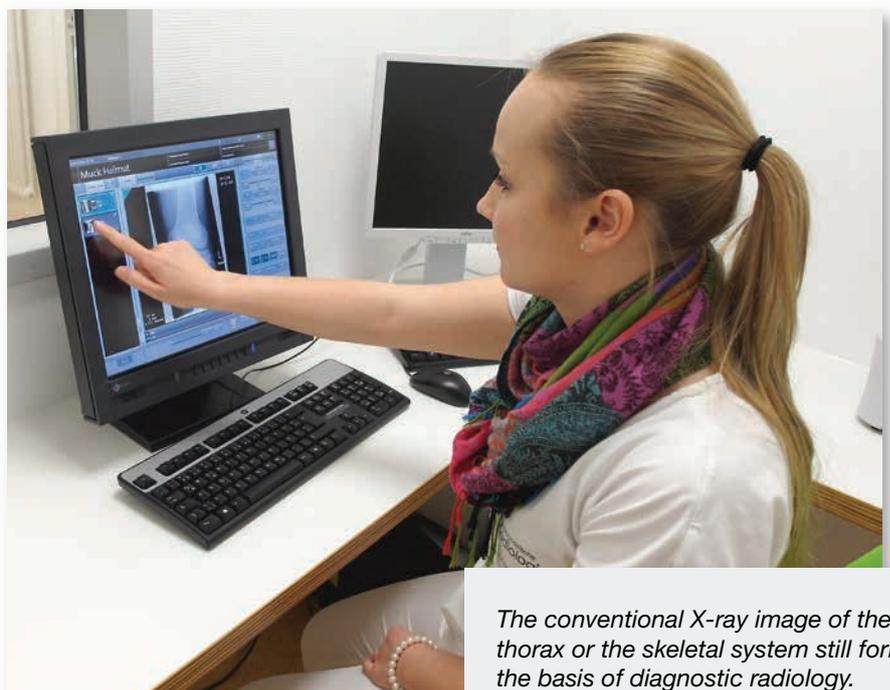
Mutlangen/Schwäbisch Gmünd



Andreas Wagner: "We are keen to offer our high-quality services to nearby practices. Our offering comprises: good image quality based on modern technology with a low dose."

benefits from the advantages of the Konica Minolta digital detector on a daily basis: "Digital detectors unburden us in many ways. The X-ray image is visible on the CS-7 operating console immediately after exposure. Notes, markings or minor corrections can be made with just a few keystrokes." This has significantly shortened the X-ray process itself, leaving more time to spend on dealing with patients and positioning them correctly.

Konica Minolta produces virtually all the components for its AeroDR detectors itself, including the CsI scintillator. The stringent quality controls during manufacturing and the unique production process minimize the effect of light scattering between scintillator and the semiconductor material. In combination with modern digital image processing, this ensures optimal image quality at a lower dose level.



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The radiology clinic has three locations. In addition to the practices in Mutlangen and Schwäbisch Gmünd the specialists work in the Radiology Department at the Stauferklinikum hospital.



Andreas Wagner confirms: "The AeroDR demonstrates an exceptionally efficient dynamic range. For example, when X-raying the shoulder area, it's possible to achieve a precise representation of the outline of the skin."

Perfect service

When choosing an X-ray system, radiologist Andreas Wagner puts a

high value on modern WLAN technology, high resolution and a low dose level: "We discounted wired systems immediately." He was particularly impressed by Konica Minolta's proactive approach in relation to planning and installation of the system.

Although the layout of the X-ray room had been designed for another manufacturer's system, Konica Minolta's experienced engineers soon gave the radiologist the green light for the integration of the AeroDR X50. The floor in the old building presented the only major challenge; the area for the new X-ray system had already been reinforced with a solid metal plate, so the new device had to be positioned in precisely the same spot.

Andreas Wagner expects that offering high-quality X-ray images and diagnostics will help him to attract more and more referring practitioners to make use of his services. Furthermore, the pioneering radiologist is already planning his next step: to provide referring practitioners with

direct access to their patients' X-ray images and diagnostics via a portal.

Technical data

AeroDR X50

Generator: 32–80 kW

Integrated DAP meter

Collimator with power LED technology

Height-adjustable table (69 - 90 cm)

Floating tabletop (220 x 90 cm)

Vetically adjustable wall stand:

38 - 190 cm (floor-center of detector)

Mechanical tracking (optional)

Min. space required:

350 x 250 x 230 cm (L x B x H)

AeroDR detector

Type: a-Si / CsI, 35 x 43 cm

WLAN connection

Resolution 175µm (1.994 x 2.430 Pixels)

Maintenance-free lithium-ion capacitors



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