

BG Bergmannstrost, Germany

Digital radiology expert resolutely chooses Barco medical displays



“I am so glad to work with Barco. It really is the most experienced player in the field of medical display devices, worldwide.”

*Dr. Rainer Braunschweig,
head radiologist, Bergmannstrost*

The German Bergmannstrost Hospital was a pioneer in adopting digital acquisition modalities and PACS. Barco’s bold claim that they “deliver the best display performance” made Dr. Rainer Braunschweig, head of the radiology department and an expert in digital radiology, switch to the Barco Coronis range in 2002. Impressed by the displays’ outstanding image quality, reliability, excellent return on investment and the MediCal QAWeb quality assurance service, the Bergmannstrost radiology team has been a Barco advocate ever since. Recently, they upgraded the Coronis portfolio to include several color displays. In the medium term, Dr. Braunschweig dreams of operating rooms fitted with Barco surgical displays.

BARCO

Visibly yours

Customer:

BG Bergmannstrost (Clinic for diagnostic imaging and interventional radiology), Halle, Germany

Challenges and objectives:

- Provide complete diagnostic confidence
- Deliver the best display performance possible

Barco solution and services:

- Ca. 20 Coronis diagnostic display systems 2 MP - 5 MP (color and grayscale)
- Proprietary Barco graphics controllers
- MediCal QAWeb Premium Level service

Why Barco

- Optimal diagnostic precision and image quality
- High contrast and shades of grey
- Reliability and stability
- Intervention-free QA



With roots going back to 1895, the German BG Bergmannstrost in Halle, near Leipzig, is one of Europe's leading trauma centers. Bergmannstrost's Clinic for Diagnostic Imaging and Interventional Radiology conducts about 116,000 radiology examinations per year. At the helm of the Clinic is Dr. Rainer Braunschweig, a popular speaker on digital radiology at expert congresses who also advises DIN, the German Institute for Standardization, on requirements for medical display systems.

Dr. Rainer Braunschweig was the driver behind the digital transition at Bergmannstrost, as far back as 1998: "Going digital is key in the quest for greater efficiency. Because of the enormous volume of data generated by diagnostic imaging in hospitals, our radiology department had to spearhead that effort." The effectiveness of a diagnostic imaging practice, however, largely depends on the displays' image quality. "The medical display is typically the last stage of the imaging chain. It's a real challenge to retain the image quality from the modality to the display," Braunschweig stated. "For many years, radiologists found digital images not as acceptable as film for interpretation purposes. Barco greatly aided their acceptance at our hospital, as Barco display devices offer the same quality - i.e. brightness, contrast, etc. - as films."

DICOM compliance

Dr. Braunschweig's cooperation with Barco goes back to 2002, when the Clinic purchased PACS. Since then, a wide range of Coronis diagnostic displays have been in use in Halle. The radiologists praise the systems' ultra-high resolution, rich contrast, exceptional luminance and the high number of available shades of gray. "Barco ensures continuous DICOM-compliant imaging, which is a major asset," Braunschweig added. The secret behind the consistent image quality and continuous DICOM accuracy is the front-mounted I-Guard sensor. It continuously monitors and adjusts the luminance output of the actual diagnostic viewing area.

Automatic calibration and QA

Another distinct asset is MediCal QAWeb, Barco's online Quality Assurance service. "Quality assurance in the past was a complex, time-consuming job," Braunschweig commented. "The radiologists lost a lot of time keeping tabs on the strict German and European regulations for calibration and quality assurance. MediCal QAWeb has taken over that responsibility, thus helping us save precious time while guaranteeing the diagnostic confidence we need 24/7. It's a giant leap forward!"

Color displays - another first!

In 2009, Bergmannstrost decided to upgrade its existing Coronis display systems, including MediCal QAWeb. One of the key changes was the step from monochrome to color displays at the Clinic for diagnostic imaging - again a first for Bergmannstrost in the hospital world. "95% of the diagnostics in still done in black and white but we are increasingly using color imaging. Color is, for example, very helpful for MRI reconstruction or CT perfusion," Braunschweig explained. "In the latter case, you get an overview of the skeletal system in black and white, while the vessels are rendered in red or blue. The combination of the two provides in-depth diagnostic insight."

Most experienced worldwide

The majority of displays in use at the radiology department are the Coronis 3MP, while Braunschweig and a few other senior consultants use the Coronis 5MP. "Different imaging tasks require different levels of image quality," he continued. "3MP is enough to display CT or MR results, as the spatial resolution in CT is only 1MP. The Coronis 5MP is a great help to view the full details of, for example, X-rays images." Dr. Braunschweig is so enthusiastic about Barco that he now dreams of integrating Barco surgical displays into the hospital's operation rooms (OR). "I am so glad to work with Barco. It really is the most experienced player in the field of medical display devices, worldwide," the expert concluded.