

University hospital Dr. Peset Valencia, Spain



Diagnostic precision and simplicity at
leading university hospital in Spain



“For thorax and skeleton-muscle studies you can rely on the displays’ excellent contrast, offering a superior image quality, similar to conventional film”.

MD José Vilar Samper
Thorax expert radiologist
Chief Radiologist
University Hospital Dr. Peset

The implementation, in January 2006, of an integrated RIS/PACS solution at the Dr. Peset University Hospital in Valencia has considerably increased the efficiency of its radiology department. Chief Radiologist José Vilar Samper is convinced that the high-quality display solutions are a vital link in the new digital chain and a prerequisite for diagnostic precision.

The Dr. Peset hospital recently celebrated its 50th anniversary. Located south of Valencia, the university hospital has 540 beds and provides radiology services to an area with 390,000 inhabitants. 230,000 imaging procedures are performed each year by 17 radiologists, of which 2 are working at the C.E. Monteolivete facility 3 km away from the main hospital. The hospital also closely collaborates with two satellite centers for basic medical care, Fuente San Luis and Catarroja.

From analog to digital imaging

According to Dr. Vilar, who has been responsible for operations at the medical imaging department for more than 20 years, the hospital offers the full range of radiology procedures including CT, ultrasound, mammography, angiography and MR. In many other hospitals in Spain, MR procedures are often outsourced to private institutions.

“The RIS/PACS solution, which was introduced at the beginning of this year is already 100% operational in the entire medical imaging department,” says Dr. Vilar. “Remaining studies, such

as electrocardiograms and endoscopy images, will soon be integrated in the system as well. Images are not yet exchanged digitally between the off-site facilities and the hospital. It’s only a matter of connecting computers and integrating them into the network before we have a teleradiology solution in place.”

Color and grayscale medical displays combined

Along with the RIS/PACS system, the hospital had to select a display vendor. “To make our decision we relied first of all on our confidence in Dimensión Informática, which delivered the hospital’s RIS/PACS solution and is a Barco partner. In addition, we were familiar with Barco’s outstanding reputation in the market. It was clear to us that the best quality would be delivered by Barco”, explains Dr. Vilar.

The hospital has acquired a mix of Barco’s diagnostic display solutions: six CORONIS® 3MP grayscale display systems, four CORONIS® 2MP grayscale display systems and two MFCD-1219 1MP color displays.

"We selected the displays tailored to the specific needs of the radiologist and the studies he or she needs to view," says Mr. Vilar. All displays are portrait dual-heads, except for the color displays. The Chief Radiologist adds: "Barco's MFC-1219 1MP color displays are used for ultrasound studies and color studies with Doppler where resolution is rather low compared to other imaging applications. For viewing bone studies, CT or MR, Corionis 2MP displays offer sufficient resolution. CORONIS® 3MP grayscale displays are used for images where a higher resolution is needed, such as thorax images."

"At a University hospital, there are always residents. A wide viewing angle is strongly appreciated when two or three physicians are simultaneously viewing cases on the same display."

Diagnostic displays: vital links in the digital chain

Diagnostic displays, a HIS, a RIS/PACS, etc. are all part of a hospital's advanced digital chain. But for radiologists, the displays are vital links in the chain.

"Barco's reputation to deliver state-of-the-art display technology was obvious at the radiology congresses we attended," remarks Dr. Vilar. "We especially value the built-in I-GUARD® sensor and Barco's softcopy QA software, which automatically assure a stable and consistent image quality over time and across displays. The fact that no human intervention is needed for calibration and QA is particularly appreciated at the emergency department, where the displays need to be operational 24/7."

"Barco's medical displays are widely accepted by the radiology staff. My colleagues sometimes complain about

issues related to their job," mentions J. Vilar, "but I have never heard any complaints about our display systems."

Exceptional image accuracy

What the radiologists like most are the sharpness and crispness of the images offered by the Barco displays. As a thorax expert, Dr. José Vilar emphasizes: "On thorax images, Barco's displays allow to easily identify patterns of interstitial lung disease, incipient heart failures and small nodules. Also in skeleton-muscle studies, especially for rheumatologic pathologies, you can rely on the displays' excellent contrast, offering a superior image quality, similar to conventional film."

Dr. Vilar is also very satisfied with the viewing angle. "At a University hospital, there are always residents.



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"Having the appropriate lighting in the reading room is key to making accurate diagnoses, certainly when several workstations are in operation simultaneously. We are using soft ambient light and Barco's displays successfully eliminate disturbing mirroring reflections.

The protective front glass cover also offers a remarkable advantage. People have a habit of touching the display to point out specific areas of the image. The front glass cover protects the display system against damage."

The next step: Barco's 5MP mammography display

"Our next short-term investment – after the implementation of a teleradiology solution between the hospital and its three satellite centers – will be the acquisition of a new mammography display. For mammography studies, an excellent resolution is needed, which is only offered by 5 Megapixel displays," explains Dr. José Vilar. "Although the vendor of the digital mammography solution is offering a display solution as well, we decided to buy the Barco CORONIS® 5MP Mammo instead, because we are convinced of the superior image quality Barco provides."



Request more information

Europe, Middle East, Africa &
Latin America
Phone: +32 56 233 557
sales.medical.eu@barco.com

North America
Phone: +1 866 302 7939
sales.medical.us@barco.com

Taiwan
Phone: +886 2 8221 6868
sales.medical.apac@barco.com

South Korea
Phone: +82 2 2175 8900
sales.medical.apac@barco.com

China
Phone: +86 21 5465 5501
sales.medical.apac@barco.com

Singapore
Phone: +65-6243.7610
sales.medical.apac@barco.com

Australia
Phone: +61 3 9646 5833
sales.medical.apac@barco.com

Japan
Phone: +81 3 3279 0771