



Photo courtesy of Birmingham Heartlands Hospital

DigitalMedia™ Provides the Best Remedy for UK Hospital

Challenge

Birmingham Heartlands Hospital had a problem. There were hundreds of medical students vying for the best spots to witness live surgical procedures. But there wasn't nearly enough space to comfortably accommodate all of them. Therefore, the hospital set out to build a new lecture theatre and outfit it with an advanced video technology solution.

Having experienced the benefits of Crestron integrated technology while working in hotel management, David Twist, Faculty Divisional Manager, knew Crestron would be the ideal solution provider.

Solutions

The hospital tasked Quadrant Solutions with incorporating the latest technology in medical training and treatment into the new lecture theatre. They turned to Crestron DigitalMedia™.

The teaching space was fitted with three LED displays that show three separate sources simultaneously. These can come

from the computer network, patient records, microscopes, video conferencing, live operating theatre streams or a medical visualiser. Similar to a microscope, the visualiser facilitates close-up shots of everything from slides to organ removals.

“The key to this new setup is that we have three simultaneous sources with unparalleled quality and live feeds, when necessary,” says Twist. “Before this, we would have to switch sources and could only view them one at a time. This made for lengthier diagnosis times in MDTs, with the resolution of scans and patient notes also being far from optimal.” MDTs are multi-disciplinary training sessions where doctors, nurses and surgeons of varying specialties review a case and reach a consensus on a more accurate diagnosis and effective course of treatment.

Where the Heartlands system shines is in its signal delivery. Crestron DigitalMedia manages and distributes 1080p resolution, and now that radiology and x-ray scans are digitized, the images relayed to the staff are as clear and accurate as possible.



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Also fed to the LED displays are the video streams from two of the hospital's operating theatres. Audio feeds are distributed to theatres, as well. The lecture hall is outfitted with radio microphones so the students can ask questions during the procedure. A Crestron V-Panel™ is fitted into the lectern in the lecture hall which allows instructors to annotate on screen during the live procedures.

"The speed and capacity of the DigitalMedia network allowed us to engage with distance teaching and international collaborations," says Twist. "Using the video conferencing facility, students at any of our partnered universities can benefit from the operation streams. We are also able to include specialists from the international community to assist with the MDT process and consult in real-time."

Results

This pioneering setup is the first DigitalMedia installation of its kind in a medical facility and one Twist is rightly proud of. "The Heartlands lecture theatre is something we are incredibly pleased with and it has added immense value as a teaching facility, treatment and diagnosis asset and as a source of revenue." Outside of teaching and operating, the industry-

leading power and capacity of the Crestron system has also enabled Heartlands to outsource the facility for corporate use.

With the added benefit of room monitoring from Crestron RoomView® software, the installation at Heartlands also represents an investment for the future, providing energy savings and increased revenue.

The students aren't in the operating room vying for the best view of the procedure, but instead observing from a distance, in the comfort and high-definition surroundings of a new facility, considered one of the most advanced and pragmatic diagnosis and teaching processes in the UK today. From high-definition x-rays, PACS images and true live video streaming, doctors both in-house and across the globe convene to realise the vision of a former hotel manager and his Crestron DigitalMedia first aid kit.

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