Royal Bournemouth Hospital

Customer Case Study

Royal Bournemouth Hospital Increases Physician Productivity, Broadens Access to Advanced Visualizations and CT Scans, and Improves Patient Care with Vitrea® Enterprise Suite

Using the Vitrea Enterprise Suite, the Royal Bournemouth Hospital has dramatically increased the use of cardiac studies, increased collaboration between physicians, allowed physicians to access cardiac studies from anywhere including home, and improved patient care.

The Royal Bournemouth Hospital in the United Kingdom is a 690 acute-bed hospital, which includes 272 medical beds, six CCU beds, seven intensive treatment unit beds, and eight beds on the high-dependency unit.

To improve patient care, the hospital purchased a Toshiba Aquilion ONE dynamic volume CT system, the first one in the United Kingdom. The hospital had to decide what imaging visualization and management solution to use in concert with the Aquilion ONE. It was looking for a solution that would access cardiac studies from any location, and without the use of special workstations, be simple to use, and display studies quickly.

The hospital was previously using a solution from Vital Images, and upgraded to the Vitrea Enterprise Suite because it offered all the features that the hospital was looking for, and because of the hospital's previous experience with Vital Images.

The hospital also chose the Vitrea Enterprise Suite because radiologists were already familiar and comfortable with Vital Images technology, and so would not have to learn a new system. The Vitrea Enterprise Suite also worked well with the Toshiba Aquilion ONE.

Using the Vitrea Enterprise Suite, the Royal Bournemouth Hospital has dramatically increased the use of cardiac studies, increased collaboration among physicians, allowed physicians to access cardiac studies from anywhere, including home, and improved patient care.

The cardiac studies are viewed on PCs throughout the hospital, rather than at only a handful of workstations. Because the studies can be viewed anywhere, physicians can more easily collaborate, because they can view the images in meeting rooms and offices. Overall, cardiac CT throughput has increased fivefold.

> "We are probably doing more than 1,000 CT cardiac studies a year, and so we've got to be quick and efficient. The Vitrea Enterprise Suite lets us work faster and more effectively, no matter where we are.
>
> The real benefits of the Vitrea Enterprise Suite and the Toshiba Aquilion ONE go well beyond speed, accessibility, and cost savings—they will help us improve patient care."

Dr. Russell Bull
Radiologist
Royal Bournemouth

VITAL

The Challenge: Improve Patient Care by Broadening the Use of Cardiac CT Scans

The Royal Bournemouth Hospital in the United Kingdom is a 690 acute-bed hospital, which includes 272 medical beds, six CCU beds, seven intensive treatment unit beds, and eight beds on the high-dependency unit.

To improve patient care, the hospital purchased a Toshiba Aquilion® ONE dynamic volume CT system, the first one in the United Kingdom. The device will scan more than 70,000 patients in the next eight years.

The Royal Bournemouth Hospital needed an imaging visualization and management solution to use in concert with the Aquilion ONE. The hospital was looking for a solution that would:

- **Access cardiac studies from any location**
  The hospital did not want access to the studies to be limited to only certain areas of the hospital. It wanted the studies to be accessible in offices, meeting rooms, and other locations and even from home.
- **Access cardiac studies without special workstations**
  Many visualization solutions require special workstations for accessing CT studies. Bournemouth did not want to purchase and maintain the additional workstations that would be required to work with the Aquilion ONE. It was looking for a solution that would allow the studies to be accessed using PCs.
- **Expand use of the new scanner**
  The new scanner's benefits would only be realized if it were used widely, rather than for only a few patients. The Royal Bournemouth Hospital wanted to make the scanner's studies as widely available as possible.
- **Be simple to use**
  Doctors did not want to have to spend their time learning complex software—they wanted to gain quick access to information and studies. The visualization solution would have to be straightforward and easy to use.
- **Bring up studies quickly**
  Some systems take too much time to display cardiac studies after an initial scan is done. The hospital wanted a system that would bring up studies with no delays.

"Whatever visualization solution we chose would have to maximize the impact of the Aquilion ONE," says Royal Bournemouth staff radiologist Dr. Russell Bull. "We wanted to make sure that it would improve patient care as much as possible."

The Royal Bournemouth Hospital Chooses Vitrea® Enterprise Suite

The Royal Bournemouth Hospital was already using workstations from Vital Images for accessing clinical images from its existing Toshiba Aquilion 16 CT scanner, and was extremely impressed with the solution, as well as with the quality of Vital Images' support. The hospital chose to upgrade to the Vitrea Enterprise Suite because it offered all the features that the hospital was looking for, and because of the hospital's previous experience with Vital Images.

The hospital also chose the Vitrea Enterprise Suite because radiologists were already familiar and comfortable with Vital Images technology, and so would not have to learn a new system. The Vitrea Enterprise Suite also worked well with the Aquilion ONE. In addition, the ease of use of Vitrea Enterprise Suite would improve doctor productivity.

“We were very impressed with the ease of use and the simplicity of Vitrea Enterprise Suite,” Dr. Bull says. “You don’t have to struggle through complex menus. If I want to look at a cardiac CT study, it semi-automates the process for me, by automatically selecting the coronary arteries. The key thing is how quickly it lets you get your work done.”

The Aquilion 16 continues to be critical to Bournemouth’s clinical practice, and Vitrea Enterprise Suite integrates with it as well as with the Aquilion ONE scanner, giving clinicians a consistent set of advanced clinical tools accessible anywhere, with centralized data management for CT data.

“We’re excited to be able to use all the advantages and clinical capabilities of Vitrea Enterprise Suite for data captured from all scanners,” says Dr. Bull.

Vitrea Enterprise Suite is Vital Images’ premier package of advanced visualization tools, clinical applications, and data management systems, backed by first-rate professional services. It integrates seamlessly with PACS, and is available across an enterprise, via the Web, and on both thin- and thick-client technologies.

Vitrea Enterprise Suite’s software utilizes an intuitive clinical workflow, fueled by intelligent automation to improve speed and simplicity. Vitrea Enterprise Suite can be customized for any enterprise and is backed by first-rate professional services and support.

The Bottom Line for the Royal Bournemouth Hospital

Using the Vitrea Enterprise Suite, the Royal Bournemouth Hospital has dramatically increased the use of cardiac studies, increased collaboration among physicians, allowed physicians to access cardiac studies from anywhere, including home, and improved patient care.

The cardiac studies are viewed on PCs and laptops throughout the hospital, rather than at only a handful of workstations. Physicians can more easily collaborate because the studies can be viewed anywhere, including in meeting rooms and offices.

“I can now easily review cases with cardiologists,” Dr. Bull explains. “Previously, we would both have to go down to a workstation near the scanner, which made it much more difficult. So there has been a big improvement in our workflow and collaboration.”

In addition, physicians can view advanced CT studies and perform all their necessary work from home, which improves productivity and efficiency. With Vitrea Enterprise Suite, doctors are able to see the full 3D studies from home, with no degradation of image quality.

Vitrea Enterprise Suite has also sped up the time it takes to display images, Dr. Bull says.

“The extra speed is a very big advantage,” he continues. “In an emergency setting, when a study is ready, the radiologist wants to be able to see it right away. With Vitrea Enterprise Suite, he or she can.”

Because physicians access studies from anywhere, because images display more quickly than previously, and because images can be viewed on multiple PCs simultaneously, the scanner is used far more frequently than it otherwise would have.

“We can now do 12 cardiac patients in a morning, and we wouldn’t have dreamed of being able to do that previously,” Dr. Bull says. “Because of the speed of the Aquilion ONE and Vitrea Enterprise Suite, our throughput for cardiac CT has gone up fivefold.”

Vitrea Enterprise Suite also reduces costs, says Dr. Bull.

“We pay on a per-license basis, and each license costs less than a workstation,” he explains. “You can view the studies on your regular PC, and so the hospital does not have to pay for extra workstations. If you want to look at the data in six different places, you don’t have to install six workstations—people can just use their own computers.”

But the real bottom line for the hospital goes beyond finances — it’s in improved patient care.

“The scanner and Vitrea Enterprise Suite allow more patients to be diagnosed, which means cardiac interventional suites are used more effectively,” Dr. Bull Says.

About Royal Bournemouth Hospital

The Royal Bournemouth Hospital in the United Kingdom is a 690 acute-bed site, which includes 272 medical beds, six CCU beds, seven intensive treatment unit beds, and eight beds on the high-dependency unit. There is a 24-hour accident and emergency department, which sees approximately 60,000 patients a year, and a large day theatre unit. A new purpose-built 18 bed (four pediatric) ophthalmic unit is also located at the Royal Bournemouth Hospital, as well as a £6.5 million state-of-the art cardiology unit.

About Vital Images

Vital Images, Inc., headquartered in Minneapolis, is a leading provider of advanced visualization and analysis software solutions. The company’s technology gives radiologists, cardiologists, oncologists, and other medical specialists time-saving productivity and communications tools that can be accessed throughout the enterprise and via the Web for easy use in the day-to-day practice of medicine. For more information, visit www.vitalimages.com.

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