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Hitach`s APERTO Open MRI Unparalleled for Patient Care & Cost-Effectiveness

There are three main reasons why Mark Sherratt, Radiology Services Manager at the Bronglais Hospital, part of the Ceredigion and Mid-Wales NHS Trust in Wales, UK, is extremely pleased with the facility's latest equipment purchase, a Hitachi Medical Systems Europe APERTO Open MRI scanner: increased patient care and satisfaction, sharp image quality and low running costs. Here, the busy manager explains how the system has boosted their business and describes how it has slotted seamlessly into the department workflow.

What is APERTO Open MRI?

The Hitachi's APERTO Open MRI system is a permanent magnet 0.4 Tesla open MRI system. 90 of all routine standard examinations can be done with this system, with excellent image quality. Fast image sequences such as needed in cardiac MRI are reduced. Diagnostic confidence is equal to standard high field systems.

Patient Care a Key Decision-Making Factor

Mr. Sherratt says that, *"We chose the APERTO Open MRI system because patient care is the key philosophy here at BGH, and it was felt that an open scanner provides the best patient experience without compromising image quality. We had a visiting van service prior to the APERTO. Connectivity has been seamless. Now we have seen huge improvements compared to the van"*.

The APERTO permanent open MRI system is the most open MRI system on the market, designed with the patient experience as a focus, drawing on over 25 years of open MRI experience in the HITACHI Medical Corporation Group.

For Bronglais Hospital, this has meant that they have benefited from a wide range of patient experience-enhancing factors, such as:

- The machine is particularly good for scanning shoulders and knees as the area can be positioned in the isocentre; •Very silent gradient system, excellent for sensitive groups such as children and the elderly;
- The easy access allows bariatric patients to be scanned who would not fit a horizontal bore magnet;
- The open structure allows easy patient position ing in the ISO centre of the magnet, enhan cing patient comfort and optimising image quality;
- Its structure allows excellent observation of patients during the scan procedure, beneficial for monitoring slightly confused elderly patients undergoing a scan, patients with ventilation support after a severe trauma or critical ICU patients. This is much less cumbersome than with a horizontal bore system, and
- Claustrophobic patients are much more at ease with being scanned on this type of open, comfortable MRI scanner.

"We are constantly receiving positive feedback on the imaging experience. I put this down to the quality of the equipment, the room layout (we have a panoramic photograph on one wall) and the quality of the staff who run the system", continues Sherratt.

Why Choose Open MRI Over High-Field Systems?

A superconductive MRI system (horizontal bore) requires a large infrastructure, control equipment room, cold head and chiller installation, cooling/water pipes and pumps, helium, and a large power consumption to keep the system running, plus a 24/7 service organisation from the OEM to repair things when needed.

Permanent Open MRI does not need a complicated infrastructure and only needs 20 square metres of examination room for installation. This makes the system very suitable for old hospital infrastructures, and due to its technical design, the operational costs are low. This makes it an excellent investment choice for small hospitals and diagnostic centres and a better alternative for more expensive highfield systems that require a minimum patient throughput to achieve break-even.

Cost-Effectiveness

The system's operational/running costs are attractive compared with high field systems, with the hospital spending just 40,000 pounds per annum on service costs.

The system also works well in existing spaces, requiring no special area to install it. Says Sherratt, "It was a new build in an old screening room. As a result we were able to build it to our requirements. Available space was an issue and we found we have a fully workable unit in just 35 m2 "

Although the hospital has not run any official cost-effectiveness analysis, they have found that due to its unique nature (the only open MRI in the Welsh National Health System) they are getting a lot of extra contractual referrals, which brings in additional revenue. "The scanner is capable of performing more scans than we currently have reporting capacity to deal with."

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