OpenOR™ was chosen for integrating operating theatre functions

Dolomiti Sport Clinic is a new health centre situated in the middle of the beautiful landscape of the Dolomiti Mountains in Italy. The construction of its two operating theatres was entrusted to the “Ospital” division of Dimensione Group. Dimensione managed the design and construction process, and used the latest technology to equip the new clinic, including Merivaara’s ground-breaking OpenOR™ solution for image management and remote consultation.
Specialising in sports medicine, the Dolomiti Sport Clinic in Ortisei operates as a fully private outpatient clinic and rehabilitation facility equipped with advanced imaging equipment, such as MRI, CT scanners, C-arc, etc. Its surgical department comprises two operating theatres with cutting-edge technology.

The approach that inspired the design and construction of the new clinic is based on simplicity, efficiency and safety. In order to attain these objectives, high-quality solutions were required to get a proper balance between costs and benefits. The heart of the entire clinic revolves around the two operating theatres, so most of the focus was dedicated to these areas during the construction phase.

The operating theatres were built with easily upgradable elements, such as premium wall panels, monitoring and image management system.

**Video and image management in a single system**

In order to improve efficiency, the operating theatres were equipped with an integrated system for managing pictures and video during surgery. This very straightforward, intuitive and open system, known as “OpenOR”, was provided by Merivaara. The control unit is placed inside the wall and the user interface, a 24” touchscreen monitor, is installed on a suspended mechanical arm.

From the OpenOR monitor, it is possible to import patient data from, e.g. the room PC or a USB stick. By grouping all data under a single patient identification code, the operation can then be initiated; subsequently, at the end of the operation, pictures and video files are sent through a DICOM protocol to the clinic’s centralised system. OpenOR is also capable of acquiring previously taken images of the patient uploaded directly from the centralised system or, in the case of external patients, through a USB stick; images from the theatre camera; images from the surgical light camera; images from the C-arc and images from the endoscopic camera. Additionally, the room PC screen can be displayed on the OpenOR monitor.

As a custom-made feature, the touchscreen OpenOR monitor is connected to a keyboard through which it can also be used as a room PC. The surgical team can then navigate within the clinic’s IT system to, for example, select information and images needed and display these on the same 24” monitor or, alternatively, a broad 42” medical monitor installed on the wall.

**Remote consultations made easy**

OpenOR also allows for telemedicine and remote consultations in real-time simply via a straightforward Internet connection through the clinic’s LAN network.

“I am not at the clinic every day, but the operating theatre staff can activate the connection and invite me for remote consultation. We can then verbally interact, and I can view images of the operation in real-time, using any computer with web browser and connection to the clinic’s network. Throughout the entire duration of the operation, photographs and video clips can be saved in our patient data

The two operating rooms are otherwise identical, but decorated with different themes; summer and winter landscapes on the high-class wall panels.
Dolomiti Sport Clinic in Ortisei, Italy

system. This is very convenient and helps us increase efficiency and improve patient safety”, says Dr Arnold Gurdin, Manager of the Practice.

Tight collaboration during the project

The “Ospital” division of Dimensione Group – with in-house designers and personnel with an extensive experience in building projects - managed the design and construction process and implemented all specialised works.

“Together with the clinic we defined the needs for managing pictures and video, and found the perfect fit in Merivaara’s OpenOR. Thanks to its vendor-independent open architecture the system can interface with other equipment used in the operating theatre, which was greatly appreciated by the clinic’s owner”, says Claudio Majavacca, Technical Director at Dimensione.

During the installations phase, Dimensione worked closely together with Merivaara’s INTEGRA team to get the OpenOR system in place, both on site and through remote connections. Once the software system is installed, updates and technical assistance can be done remotely. The installation phase of OpenOR took only a couple of weeks, and the integration a couple of months. User training was hardly needed in the end – so simple is the user interface that the clinic’s personnel got on track immediately.

“We chose a single company, Dimensione, to do the design and integration, as they are experienced and able to choose the equipment we wanted, from different manufacturers. The integration of all systems and medical components went perfectly well, and we were able to open just in time before the high skiing season started,” Dr Gurdin continues. “And OpenOR, it is so amazingly simple to use!”

CHALLENGE

Dolomiti Sport Clinic is a completely new practice, specialised in orthopaedic surgery, in northern Italy. Simplicity, efficiency and patient safety were in focus, as the clinic and its two operating theatres were designed and constructed. The manager of the practice wanted certain surgical equipment; the challenge was to integrate these into a smoothly functioning system. The chief surgeon is also working elsewhere, and is therefore not always on site for consultations.

SOLUTION

Gruppo Dimensione S.p.A with its Ospital division was assigned the project. They chose to offer OpenOR as part of the integrated operating theatre system to manage images and video with an easy-to-use, intuitive touchscreen control panel. The same system can be used for real-time remote consultation, as well.

BENEFITS

The customer was able to choose vendor-independently the systems and equipment he wanted the most.

Image management is simple and straightforward, and all data can be easily stored together with the patient’s data.

Real-time remote consultation brings lot of added value to the clinic’s operations and gives the clinic’s surgeons freedom to work elsewhere even when consultation is needed in the operating room.

“ And OpenOR, it is so amazingly simple to use! ”
Solutions for efficient physical patient flow and well-being

Merivaara provides a wide range of hospital-grade furniture such as operating tables, medical lights, examination tables, trolleys and stretchers for transportation and day surgery, as well as birthing and patient beds. Additionally, our new concepts include both revolutionary integrated management systems and after-sales services.

Our versatile solutions and product offering enable convenient and cost-effective physical patient flow within the hospital, in day surgery and health clinics, as well as in nursing homes and home care. Our priority is to enhance comfort and well-being of both patients and their caregivers.

Established in 1901, Merivaara has more than 100 years of experience in designing and manufacturing hospital-grade furniture. Today our products are highly appreciated by users in more than 120 countries thanks to their ease-of-use, durability and ergonomic design.

Merivaara medical products are CE-labelled and the company’s quality management system complies with EU directives for medical device. It is certified by DNV according to ISO 9001:2008 and ISO 13485:2003 standards. The company’s environmental management system is ISO 14001:2004 certified.