

SJG Weert Chooses a Flexible Customized Solution

The many applications of AMiS

At the intensive care unit (ICU) of SJG Hospital in Weert, the Netherlands, preparations for the arrival of a new patient are underway. A nurse enters data into the computer located next to the bed. This is not just any computer; it's an AMiS medical cart, with a fixed power supply and data connection provided through the ceiling. Meanwhile, a very unique AMiS cart integrated with ECG equipment is placed on standby in the corner of the room. This is the story behind the development of intelligent customized solutions.



With the introduction of electronic health records in the Special Care department and critical care unit (CCU), SJG Weert required an appropriate computer system for delivering bedside care. To fit the limited space, this system had to be compact, include medication drawers, and provide a viable work surface. "We considered using an extra wallmount or brace to attach a suitable device to the existing computers, but the space available was insufficient. Thus, a computer on wheels (COW) seemed to be the ideal solution. COWs are compact and moveable, and support a range of accessories," commented Chris Kivits, team leader of Medical Electronics. "For us as users, the COWs had to be as practical as possible and easy to clean. We also wanted the ability to operate the computer system when sitting beside a patient's bed, and to customize the workstations according to our requirements," added Hennie Doensen, team leader of the Special Care department.

Power Outlet

Standard COWs are powered by a battery. "That was a problem because no power outlets were located near the patient's bed for recharging the computer, and we did not want to run cables under the bed," said Richard Clijsters, project team member and medical technician. "This led to the idea of running the power cable through the ceiling. And, because we were already installing one cable, why not install a data cable as well?"

Although the hospital already owned several mobile computers, they did not satisfy their requirements. This meant that the project team had to identify a new supplier. Chris Kivits stated, "We had seen the AMiS cart at the Medica Trade Fair. The cart looked suitable and had numerous methods of expansion. Additionally, we also saw pictures of an AMiS with a flexible tube connected to the ceiling in Medical Motion magazine. This prompted us to contact Alpatron and setup an equipment test."

Efficient Ceiling Refurbishment



Following a consultation, Alpatron and the project team decided on a solution that involved installing five AMiS units beside patient beds in the ICU. Using steel wire, the power and data cables were installed in the ceiling and connected to the devices via a

flexible tube. In case of emergency or relocation, the mobile workstations can be easily disconnected and moved through a standard door opening. For the CCU, which has even greater space limitations, the hospital ordered two “standard” AMiS units. Because these units operate on a wireless network, they can be moved between beds.

Installing the AMiS units in the ICU was fairly challenging. Because the ceiling needed to be dismantled with minimal disruption to operations, a tight renovation schedule was essential. “On a relatively calm day, we moved the patients and refurbished the rooms all in one go. That is, drilling, installing power outlets in the ceiling, pulling data cables through, and connecting the cables to the computers. Although it was a difficult task, we successfully completed the installation,” reported Richard Clijsters.

ECGs to Order

Although digitalization is currently ubiquitous throughout the hospital, 10 years ago, the only digital equipment was the electrocardiogram (ECG) monitor in the cardiology department. Because the ECG results were not available elsewhere in the hospital, the cardiologists had to wait for ECGs to be faxed to them at night or over the weekend. The arrival of the new AMiS carts challenged the project team to further digitize this process.

Chris Kivits stated, “Because the AMiS units worked so well, we decided to integrate one with an ECG device. By consulting the ECG device supplier and Alphatron, a suitable solution was devised. The ECG arm now hangs on the AMiS cart by means of braces specially designed by Alphatron. A standard computer was also incorporated, enabling the cart to serve as an extra workstation.”



“Perfect”

Team leader Hennie Doensen is enthusiastic about the new ECG and AMiS cart with computer. “Accessing patients’ medical history is easier, communication with the cardiologist is faster, and the quality of images transmitted is much better – 24 hours a day. ECG can be taken and sent to cardiologists via e-mail, which the cardiologists can then access using their mobile phone. Sharper images enable physicians to diagnose more confidently and treat patients promptly. Additionally, all data and test results are immediately stored digitally. The entire system functions perfectly.”

The AMiS is much more than a COW. Because the AMiS units worked so well, we integrated one with an ECG device.”

About SJG Weert

SJG Weert (NL) is a small-scale hospital committed to providing high-quality professional medical care. Over 700 healthcare professionals, including 70 specialized physicians, attend to patients daily. SJG Weert distinguishes itself by providing high-quality services to maintain its reputation as an independent hospital that delivers excellence. In 2009, operating theatres were opened in the newly constructed hospital wing, and the outpatient clinics were renovated.