

At Jorvi hospital everything is devoted to healthcare



Customer
Jorvi Hospital

Markets Served
Healthcare

At times a constant supply of power can become critical to human life. Jorvi Hospital in Finland has taken power supply issues into serious consideration to guarantee a high availability of power at all times with the help of Eaton's Powerware UPS devices and services.

To learn more about Powerware UPS products, please visit:
www.powerware.com

Standards set the minimum level of power supply security. Nevertheless, guaranteeing the operation of hospital devices must be considered on a case-by-case basis.

It is essential that the power supply to Jorvi Hospital is guaranteed. After all what happens when power to a device hooked up to a patient fails? The answer is it can't fail, wouldn't this put patient's lives at risk? And that's why Jorvi Hospital is proud to announce that it exceeds the standards in the field of power supply security – for the good of the patient.

Jorvi Hospital in Espoo, Finland, has dedicated over twenty years of work to ensuring power supply security within the operations of the hospital. Guaranteeing an uninterrupted power supply enables the hospital to take care of every aspect of its patients' safety. Finnish standards require hospitals to ensure lighting for operat-

ing rooms using batteries and to guarantee power supply to the rest of the hospital using reserve power generators. However, Jorvi Hospital considers the 4-5 second start-up time of the generators in question as too long for many critical devices. These devices include heart balloon angioplasty devices, gamma cameras used in neurological research, information systems that monitor the patient's vital functions in the intensive care unit, maternity ward and the cardiac monitoring department, medical equipment in the eye operating room, and certain laboratory devices. And instead Jorvi Hospital keeps these devices in continuous operation by using UPS solutions, which are always connected to them.

Jorvi Hospital has always taken power supply issues into consideration at the project planning stage and when introducing new equipment to the hospital. Doctors and nurses who use

a device review the risks associated with a possible power failure during a procedure with the person responsible for electrical devices at the hospital. The danger posed to the patient by a power failure is estimated and this is used to determine the right level of power supply security necessary.

Pekka Puustinen, maintenance supervisor, Jorvi Hospital, explains: "National standards set the minimum level of power supply security. Nevertheless, guaranteeing the operation of hospital devices must be considered on a case-by-case basis."

Information systems are an important part of health care

In addition to protecting the patients' immediate security, Jorvi Hospital also uses UPS devices to ensure the operation of computers during a power failure. The use of digital X-ray images places further demands on ensuring an uninterrupted power supply. Similarly, since other

patient data and laboratory results can only be found in the information system, an interruption in the use of the system would in practice shut down the operations of the entire hospital.

As such, Jorvi Hospital's latest investment in UPS equipment is intended to guarantee the operation of information systems in all situations. At the moment, three parallel Eaton Powerware 9305 UPS devices located in the data centre provide power supply security for all information systems. If one UPS malfunctions, the power supplied by the other two is enough to ensure uninterrupted power supply.

Cost-efficient solutions are found through co-operation

Jorvi Hospital has co-operated for a long time on power supply security with experts from Eaton. This has proved useful in determining how much power supply from UPS devices is necessary. Small UPS devices are often sufficient to power small hospital devices. Jorvi Hospital uses seven Powerware online UPS devices, whose power varies between 8-80 kVA. Smaller individual UPS devices are also found in ADP main distribution frames, for example, where the UPS devices guarantee current supply to active devices. There is a total of about 30 telecommunication areas, which have ADP main distribution frames.

Pekka Puustinen, maintenance supervisor, Jorvi Hospital, considers the 4–5 second start-up time of the generators as too long for many critical devices



Puustinen adds: "The manufacturer of one medical device recommended using a UPS with a power of about 300 kVA to guarantee power supply to an imaging device. At its factory in Finland, Eaton tested what kind of UPS is in reality needed to guarantee current supply to the device for the purpose of a short-term start-up situation. As a result of the tests, we concluded that an 80 kVA UPS is sufficient and its use has not caused any problems. Eaton's exemplary service saved the hospital tens of thousands of euros."

In a hospital, it is of primary importance to get the UPS devices into use straightaway, and to make sure that they have been installed properly. And in an emergency situation, help for the maintenance of a UPS must

be available immediately. Jorvi Hospital also uses Eaton for the start-up of the devices and the maintenance of the most important UPS devices, which support the hospital's systems. Once a year, it is verified that all the UPS devices are in working order. Proactive maintenance increases the service life of UPS devices and reduces the overall costs of power supply security.

"After all," Puustinen concludes, "our goal is to make sure that everyone - the patient receiving healthcare as well as the user of the device - can rely completely on the technology."