

Case Study

NHS Scotland Teaching Hospital

Comark's RF500 Solution Alleviates Temperature Monitoring Concerns



Organisation

A 900-bed teaching hospital operated by one of NHS Scotland's 14 regional health boards that serves a population of more than 600,000 people and offers most medical specialities.

Business issue

As part of its mission to deliver high-quality healthcare, the hospital must safely warehouse a variety of life-saving but temperature sensitive inventory – like blood samples, pathology samples, free agents, and prescription medication – across a number of facilities and appliances. The temperatures at which that inventory must be maintained ranges from room temperature to many degrees below zero. In addition to its life-saving qualities, this inventory also represents a high financial value. Spoiled inventory, even in a single refrigerator, can result in thousands of pounds in lost revenue.

Further, the hospital must maintain its accreditations with the United Kingdom Accreditation Services (UKAS) and Medicine and Healthcare Products Regulatory Agency (MHRA). A comprehensive regimen of temperature

monitoring and accurate record-keeping is key to the compliance strategy for every hospital or healthcare facility to become fully compliant with all national regulatory bodies, including MHRA, FDA, and NHS. Temperature monitoring protocols must deliver full compliance spanning all clinical disciplines, whether pharmacy, blood, plasma, or laboratories such as Pathology or Biochemistry.

Although the hospital had a temperature monitoring system in place, it did not have 24/7 web-based management and reporting capabilities. The system was also managed by a single desktop computer – and if that computer became disabled for any reason, the system itself became disabled. Adding yet another layer of complexity, the hospital's in-house staff calibrated the system. Not only was this practice potentially imprecise, it had the potential to open up challenges with regulatory agencies that had strict calibration guidelines and protocol.

Eventually, the single computer that managed the entire temperature-monitoring system became permanently disabled, and the system was rendered useless.

Case Study

NHS Scotland Teaching Hospital

900-bed hospital

- Industry sector:
Healthcare
- Geography:
Scotland
- Service solution:
RF500A Wireless Temperature
Monitoring
- Project size:
120 Devices



Comark Instruments

52 Hurricane Way
Norwich, Norfolk, NR6 6JB
United Kingdom
Tel: +44 (0) 207 942 0712
Fax: +44 (0) 207 942 0714
Email: sales@comarkinstruments.com

Comark Instruments

P.O. Box 500
Beaverton, OR97077, USA
Tel: +1 (503) 643 5204
Toll Free: (800) 555 6658
Fax: +1 (503) 627 5311
Email: sales@comarkusa.com



Solution

After reviewing its options, the hospital installed Comark's RF500A solution across its temperature-critical points, including laboratories, refrigerators, freezers, deep freezers, cabinets, appliances, rooms, incubators and other areas. The RF500A wireless monitoring system automatically and continuously monitors both temperature and humidity readings. It is highly flexible and can be configured to meet the needs of a multi-fixture, multi-site organisation right down to one freezer. When the system identifies a predetermined change in those levels, it alerts key staff in real time via email, text message, or voice to computers, smart phones, and other mobile devices.

Comark's RF500A solution exceeds the requirements of regulatory bodies, reduces errors, provides an audit trail and ensures complete records are maintained. Its robust, feature-rich software also enables instant access to data that takes new standards and regulations into account.

And because it's a web-based system, the hospital no longer had to worry about the performance of one computer. If the user has authorised rights, temperature data can now be accessed from any computer within the hospital and remotely to view live data and temperature events.

Business Benefits

The hospital now operates with more confidence over its temperature-monitoring system. Because the Comark solution sends an alert, for example, when the temperature in a refrigerator begins to rise because the door is not closed properly, staff respond in a timely manner that follows the hospital's own set of processes and protocol. In essence, because the RF500A system operates in real-time, it establishes a higher sense of urgency for staff to react in certain situations.

Comark's ability to calibrate the temperature-monitoring probes has proved to be a crucial business benefit to the hospital. Because Comark is ISO 17025 accredited, it meets UKAS' general requirements to carry out calibration. It also ensures temperature readings are correct over time, as temperatures are consistently measured against the same standard.

The system also continuously guards the hospital's highly valuable inventory. Before the Comark RF500 system had been installed the hospital operated a very large walk-in refrigerated unit but the incumbent system failed to alert the increase in temperature due to a power outage. The entire stock had to be destroyed because the hospital could not guarantee its quality. These types of instances can cost huge sums of money in lost inventory not just in terms of lost inventory – but also in the cost to replace it. And some types of inventory, like patient samples, may also require patients to undergo another round of tests when their samples are destroyed. The implementation of Comark's system helps to alleviate these types of issues and instils a sense of timeliness to react regardless of the hour at which an incident occurs.

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