

Emergency alarm system saves lives at hospital



Facts & Figures

The Customer

- The Central Regional Hospital, Karlstad
- 450 beds, 30 wards
- 3000 full-time employees

The Ascom Solution

- Alarm Management Server, AMS
- telePROTECT U922 alarm transmitters
- teleCOURIER 912D pagers

The Benefits

- Simplifies emergency alarm management
- Speeds up response time for crash teams
- Alerts emergency staff automatically
- Improves emergency patient care
- Increases staff security

The Central Regional Hospital in Karlstad, Sweden has chosen to install the new emergency alarm system from Ascom. With some 700 emergency alarms each year, the hospital decided to install the new alarm system, which includes alarm boxes and confirmation units, in four departments: the delivery unit, intensive care unit, paediatric intensive care unit, and emergency room.

Time is crucial in any emergency, and risks must be kept to a minimum. Jan Rogstadius is the initiator and driving force behind the project. With a background as an anaesthesiology nurse and previous experience as attending officer for emergencies, he is very familiar with the hospital's requirements for handling emergencies. This valuable experience, together with Ascom's telecommunication expertise, led to the final choice of emergency alarm system for the Central Regional Hospital. The system also provides an important personal security alarm for personnel, who often have to walk through isolated corridors above and below ground.

Alarm confirmation increases security and saves time

The purpose of the emergency alarm system is to ensure that the right crash team members are present at any emergency. "Acknowledgement is the key," says Mr Rogstadius. Fixed alarm points have been installed in the paediatric and general intensive care units (ICUs), the delivery unit and emergency room (ER). If, for instance, a patient in ER suffers a cardiac arrest, a button marked "cardiac arrest" is pressed on an alarm box to summon the right crash team. The team members receive a message showing the type and location of the alarm.

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- 1 Alarm boxes and confirmation units are placed side by side to give an immediate picture of the situation.**



Photo: Nils Almgren

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2 The Central Regional Hospital in Karlstad, Sweden.

3 Jan Rogstadius, initiator of the project.

To silence the alarm they press the OK button on the pager, which sends an automatic confirmation. All confirmations are shown on a special confirmation unit next to the alarm box. Flashing lights shows which members of the crash team have been paged. Steady lights show which members have confirmed the alarm. This means that the staff who page the crash team can immediately see if any member of the team is missing, and can quickly call for back-up.

Pager alarm and WinPage software

Previously used emergency alarm routines have now changed completely since the introduction of the Ascom emergency alarm system. The hospital departments that do not have alarm buttons signal an emergency by calling the switchboard on the emergency number, 112. The operator, using WinPage software, immediately sends a text message to the pagers of the crash team. The members confirm the alarm and this confirmation is shown in WinPage. The ER also uses 112 to alert if several casualties are arriving, or to let members know that the ambulance will take more than 15 minutes to arrive. The crash team receives the alarm and reads a message on their pagers that they will be needed in 25 minutes, for example. This gives them time to finish what they are doing and still be ready when the patient comes in. Other emergency alarms are signalled using the alarm boxes in ER.

Customised alarm solutions for different applications

The alarm boxes are customised to suit the needs of the various departments. In the delivery unit, for example, one button is reserved for emergency calls to the paediatrician. Another button is used to call the team to perform immediate caesarean sections. Barbro Eråker, the midwife in charge of the delivery unit, is very satisfied. "The system works perfectly. Now there are fewer things that can go wrong."

"The new emergency alarm system saves precious minutes when a patient arrives in the ER. There is no longer any doubt about whether or not the required specialists will be able to attend life-threatening emergency situations," says Jan Rogstadius. "The personal alarm functionality also give our staff added security at work," he adds. "You never know what to expect in the ER and in connecting corridors below ground in the evenings and at night."

The emergency alarm system has a range of security features such as repeat paging to persons who have not confirmed receipt of a message. The system also uses the permanent information displays in some departments to inform other staff when an alarm has been signalled. Various safety features together with proven technology have significantly improved the level of care in life-threatening emergency situations at the Central Regional Hospital in Karlstad.

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