Life Beacon Bay Hospital

Increased security and protection in the hospital's maternity ward

In search of a way to improve safety and security of its maternity and neonatal wards, the recently built Life Beacon Bay Hospital chose Elpas BabyMatch Infant Protection solution in order to avoid baby abductions and unintentional mismatches. The BabyMatch solution is based on Active RFID & RTLS technology.

CASE SUMMARY

Location:
East London, South Africa

Systems Installed:
Elpas BabyMatch Infant Protection

Access Control, Video, Location-Based Tracking and Intrusion. UNIFIED.

Introduction

Life Beacon Bay Hospital is a 141 bed hospital located in East London, South Africa. The hospital has a 36 bed maternity unit with a VIP suite, six labor rooms and a state-of-the-art neonatal intensive care unit.

The hospital was looking to install a fully automated system to prevent potential baby mismatches or baby abduction, while at the same time integrating with their existing security system.

Challenges

Hospital management looked for a system that would provide alerts and alarms, while avoiding sirens and buzzers in the maternity ward. They wanted to cover the entry/exit areas and the fire escapes, and include monitoring at the nurse stations.

Solution

Life Beacon Bay Hospital opted for the Elpas BabyMatch Infant Protection Solution, the only system that met the hospital's specific demands. The system was installed by the company Hybrid Systems, which is located in Botswana and specializes in the installation of unique security system projects. With the Elpas BabyMatch system, Active RFID (Radio Frequency Identification) bracelets are placed on the infant at the time of birth. Placing the tag on the baby allows maternity staff to know where the baby is located at all times, via the BabyMatch software. Any attempt to tamper with the baby's tag or remove the baby through a secured exit will trigger an alert or alarm.

Life Beacon Bay Hospital also installed the mother-baby matching feature that enables hospital staff and parents to know that the right baby is with the right mother. To support this feature, the mother is given an Active RFID wrist tag that was paired with her infant's. Throughout their stay at the hospital, the maternity staff and parents are able to confirm that the baby is with the correct mother by carrying out a match test with both mother and baby RFID bracelets. The same match test is carried out prior to discharge; once a positive match is confirmed, the tags may be removed from the mother and baby. This BabyMatch feature provides parents and hospital staff with peace of mind knowing that the mother is going home with the right baby.

To allow for easy operation and not burden the staff with extra tasks, the system is configured to feature multiple automatic activities. Prior to delivery, the mother tag is given to the mother and, after delivery, the paired baby tag is placed on the newborn. Once the tag is placed on the baby, the protective feature is automatically activated.

Other automatic activities include "auto suspend" and "auto active upon return." The "auto suspend" feature allows the baby to be taken out of the maternity ward as long as a certainsystem condition is met. When the system recognizes the condition the infant can be removed. The same applies for the "auto active upon return." When the baby is returned to the maternity unit, the system automatically reactivates. These automatic features make Elpas very user friendly and was quickly adopted by the hospital staff.

The BabyMatch system also provides reporting capabilities. The system records with a time and date stame, the infant's movement from location to location and any alerts that have been sounded as a result of unauthorized movement of the baby from one place to another.

Installation and commissioning at Life Beacon Bay Hospital was quick due to the use of the hospital LAN as an infrastructure for the Elpas system. The small size and attractive design of the Elpas RF and IR readers allowed them to be integrated well into the overall design of this modern hospital.

What is BabyMatch?

BabyMatch is an Active RFID/RTLS Safety, Security and Visibility Solution that helps hospitals prevent baby abductions and unintentional baby mismatching in maternity units. BabyMatch provides continuous supervision of each baby by automatically tracking the real-time location of the infant from the time of delivery to the time of discharge.

Technology and how it works

Elpas Triple-Technology is recognized as the optimal, approach to RTLS that best delivers precise real-time location awareness with the accuracy and flexibility that today's healthcare facilities require. Elpas' best-of-breed RTLS methodology employs continuous Radio Frequency (RF) communication for cost-effective real-time zone location, infrared (IR) communication for explicit room and sub-room tracking accuracy

and user adjustable Low Frequency (LF) for instant doorway and pinpoint locations. Only Elpas' field-proven Triple-Technology ensures reliable, accurate real-time location awareness in challenging healthcare environments.

At the time of birth the infant is issued an Elpas Active RFID Infant Protection Bracelet, which is placed on the baby's ankle and can later be adjusted should the baby lose weight before discharge. The tag emits real-time ID and location tracking data about the infant down to explicit bed-level precision without causing EMF interference to hospital equipment. Should an attempt occur to move the protected infant from the secured area without approval or an authorized escort, the bracelet will trigger the BabyMatch system to alert personnel of the security threat.

Elpas BabyMatch provides a mother-baby match confirmation feature. The mother is given an Elpas Active RFID wrist tag, which is paired with the infant's Active RFID bracelet provided at the time of birth. During the patient's stay and upon discharge, staff and parents can confirm a correct mother-baby match. The BabyMatch Solution also features flexible baby escort options, easy to use software and the option of matching multiple infant tags to one mother tag to accomodate multiple births.

The Solutions Provider – Elpas

Elpas is part of the Security Products business unit of Tyco (NYSE: TYC), the world's largest pure-play fire protection and security company. Elpas is a global provider of scalable Passive & Active RFID/RTLS Safety, Security and Visibility Solutions designed to meet the needs of Healthcare, Government, Commercial, Institutional and Industrial sectors. Elpas delivers a complete line of real-time location based security solutions that help enhance individual safety, reduce property shrinkage, streamline operational workflows, protect the vulnerable, lessen negligence litigation and facilitate industry guideline compliance.

The Integrator – Hybrid Systems

Hybrid Systems, a division of the e-Africa Group, supplies unique security systems solutions to governments, government institutions and private companies throughout Southern Africa. Hybrid Systems offers cutting edge security risk solutions such as intelligent local positioning, signalling networks and access control systems.