



## **Middlemore Hospital's ER Delivers Better, Faster Care with IT** *Orion System's software enables hospital to treat more patients in less time*

Auckland, New Zealand - May 22, 2002 - In Middlemore Hospital's emergency room, IT systems have been instrumental in providing better, quicker care to a continually growing patient population. Advanced technology from Orion Systems International has helped Middlemore become one of the largest, busiest and most efficient emergency departments in Australasia.

Quantifiable improvements in ER care include a:

- 59 percent increase in number of urgent patients attended to in the optimal timeframe
- 35 percent reduction in patient complaints
- 30 percent reduction in clinical administrative workload
- 35 percent increase in the volume of manageable patients

### **Coping with explosive growth**

Middlemore experienced a surge in ER admissions in the mid-1990s as a result of the region's population growth. Patient visits increased by 12.5 percent (63,000 to 72,000/year). Facing the challenge of managing this growth, the team devised plans to physically expand the department, and it quickly became apparent that IT would be vital to create a modern and efficient ER.

"We could see that demand for emergency services was increasing, and to cope with this growth we couldn't just expand, we had to work smarter as well," said David Clarke, former CEO of Middlemore. "This is the ER, where every minute counts. We needed a system to give clinicians instant, easy access to a patient's medical history and status."

Under the strategic plan, Middlemore implemented an integrated care system and an advanced electronic whiteboard, grew the ER from 32 beds to 96 beds, and placed accessible computers throughout the department.

"With new IT systems in place, we have been able to deal with each patient faster and more effectively, without increasing clinical staff numbers," said Clarke. "The electronic whiteboard was an integral part of our overall strategy, and it has helped us improve care for emergency admissions and overall efficiency in the department."

Orion's Soprano® Electronic Whiteboard, an electronic version of the traditional physical whiteboard, automatically updates itself with the latest patient information every 15 seconds. It provides ER staff with an on-screen, "at-a-glance" list of all patients, including their illness classification (triage category), admission details, attending clinician and location within the hospital, using a real-time patient locator map. The electronic whiteboard is linked to all hospital computer systems, and when new patient data from any system becomes available (for example, lab or x-ray results), a "flag" automatically appears to alert clinicians.

The software has helped reduce waiting times and bring quicker care to those who need it most. When admitted to the ER, patients are assigned a "triage category" based on the urgency of their condition. Each category has an optimal waiting time, in which the patient should be seen by a doctor. Triage Category 1 patients (urgent trauma cases) should be seen immediately upon arrival. Prior to the electronic whiteboard, 52 percent of urgent patients were seen within this timeframe. After installing the technology, the figure jumped to 83 percent.

"The improvements at Middlemore are a combination of smart people, processes and IT," said Dot McKean, Manager of Middlemore's Emergency Care Department. "Having rapid access to up-to-date patient information is absolutely vital in emergency care. With the electronic whiteboard, we are able to maintain high quality care given to a rapidly increasing number of patients."

### **Reducing paperwork**

The technology has reduced the amount of resources and paperwork required to handle patients. Nurses and doctors no longer have to waste time searching for a patient data...it's all integrated on their desktop and electronically available at their fingertips. To provide this "one-stop shop" for information, Middlemore installed Orion's Concerto® Medical Applications Portal. Concerto integrates all of a hospital's existing information systems to provide a comprehensive view of patient health, which clinicians can access from any network computer, 24 hours a day, with a single logon. Concerto has reduced administrative work by 30 percent, and doctors are seeing patients in one-third the amount of time per visit. More time, resource and effort can now put where it is needed most - caring for patients.

### **Reducing preventable ER admissions**

A large percent of Middlemore's ER patients were arriving with preventable conditions. With the new integrated system, providers throughout the community are connected online, enabling them to better coordinate and manage patient care in real time. Additional IT applications (i.e., electronic discharge summaries, disease management programs) have contributed to this success, as they allow providers to track patients throughout their care, immediately identify risk factors and ensure that patients get the right care at the right time. By caring for patients earlier on, Middlemore has reduced the number of preventable hospital admissions in the ER and is able to better care for those that truly need urgent attention.

"We're thrilled at the success the Electronic Whiteboard has demonstrated at Middlemore, as it has become an integral piece in the larger integrated care equation," said Eric Van der Sluis, Orion's New Zealand Sales Director. "Orion's suite of integration products has created a true integrated care network, which has helped to improve the coordination and management of patient care throughout the entire community."

Hospital-wide, the introduction of better information systems and improved access to data has been accompanied by a 35 percent reduction in patient complaints, reflecting improved patient satisfaction. The experience of Middlemore's ER demonstrates how a complete "integrated" approach to care can result in substantial improvements in efficiency, productivity and outcomes.

### **About Orion Systems International**

Orion Systems International is a global leader in information access and interfacing technologies for the health sector. Orion specializes in health integration with software that enhances healthcare systems by improving organizational efficiency and patient outcomes. Orion's new generation technology improves the communications and coordination of care among providers, enabling hospitals and clinical staff to securely access, update and exchange clinical information. Orion's products have been used and trusted around the world for nearly a decade by clients such as Abbott Laboratories, IBM, Harvard University, Philips Medical Systems and McKesson. More information can be found at [www.orionhealth.com](http://www.orionhealth.com).