Improving health care through technology

St John Ambulance WA

The need to modernise and increase efficiency in the recording of patient care records drove the need for change at St John Ambulance WA (SJA). Access to accurate, consistent and real-time transmission of patient records is critical to its service which relies on the integrity of those records for immediate response and continuity of patient care into hospitals and other facilities.

Ashley Morris, Technical Services Director, St John Ambulance WA said: “A mobile solution was sought to make the best use of limited resources and better support our 600 career ambulance officers and paramedics [and 2500 volunteer ambulance officers?] in the field by improving mandatory case and patient information record keeping processes.”
Challenge Background cont.

The new system required that patient care records could be submitted to the State office prior to an officer ending a shift and monitoring in real time. These records were to integrate with existing patient information systems at SJA. The tender also called for the structured storage of information to enable clinical analysis and reporting; the automatic incorporation of information for consistency between dispatch and care records; the capture of patient drug administration sign off; and an extranet portal for care centres and hospitals.

Mobile solution transforms the capture and processing of patient care records

The NEC developed Electronic Patient Care Record System (ePCR) is the first ambulance system in Australia to use an Apple iPad mobile application to transform the way ambulance officers capture and process patient care data in every case attended by St John Ambulance WA officers.

A key focus was the user experience for data entry on the iPads. Extensive design sessions were held with SJA team leaders and senior paramedics to create a system that would minimise the time between capture and transmission, supported by an efficient interface that was easy to use in field conditions.

The queuing system built into the application supports message consistency under constrained network conditions.

NEC also designed an extranet enabling hospitals and care centres to review case information, in real time, to better prepare for patient arrivals.

Award winning performance, security and impressive end user satisfaction

The user interface was built to facilitate rapid data entry. “When the paramedics are inputting incident information they are able to tap on an actual image of the patient to pinpoint the treatment area and select the medical issue from a drop down list. Similarly, for vehicle accidents, the paramedic can tap on the image of the car to indicate the site of the impact or position of the victim,” said Ashley Morris.

Patient record data is immediately and securely transmitted to St John Ambulance WA’s central service, ensuring staff there have a real time view of its patient record database. The online portal allows managers to review care records and send immediate requests to paramedics for clarification.

Further efficiencies are gained through the integration with the Computer Aided Despatch system where core data, such as patient name and address, is pre-filled in the forms to minimise dual entry.

The ePCR was designed to be cost effectively maintained and updated by SJA personnel. The data form is dynamic so, as data recording needs change over time, new fields can be easily added. It also complements existing ambulance tools and integrates seamlessly with SJA’s patient recording and billing systems.

Developed with the user experience in mind and rolled out with effective, relevant training: “There was no hesitation from ambulance officers in adopting the App and it has had an impressive rate of user satisfaction,” Ashley Morris said.

The system has proved to be consistently stable and reliable. NEC and SJA won the e-Health category of the WA State iAwards for the Electronic Patient Care Record System; a unique piece of intellectual property that has transformed workflow processes at St John Ambulance WA.

For more information, visit www.nec.com.au, email contactus@nec.com.au or call 131 632

About NEC Australia. NEC Australia is one of Australia’s leading ICT companies, delivering a complete portfolio of solutions and services to a wide range of enterprise and government customers, of all sizes, across multiple industry verticals, helping customers gain better business value from their ICT investments.

The Communications Solutions division provides a full range of communications solutions and associated support services in multi-vendor environments, including systems integration, specialist communications solutions, data networking, unified communications and collaboration, broadband access network, biometrics, digital signage and display solutions.

The IT Solutions division offers a full range of ICT services including consultancy, business process and project services, applications and solutions development, and infrastructure and applications managed services.