CANADIAN
Healthcare Technology

Automation improves hospital communication with transplant patients

BY NEIL ZEIDENBERG

Two hospitals in Toronto's downtown core are using intelligent automated telecommunications technology to keep in touch with their patients after an organ transplant.

Both the Hospital for Sick Children (HSC) and Toronto General Hospital are using Easy-Call from Mandexin Systems Corp. (www.mandexin.ca) – a developer of information and telecommunications technologies.

"Easy-Call reduces the time healthcare coordinators spend trying to connect with patients, while at the same time relieving stress levels for all concerned," said Lorrie Naylor, director of business development for Mandexin.

It also helps to tackle one of the toughest challenges faced by Toronto transplant coordinators today: the language barrier.

"Because Toronto is so multi-cultural, healthcare workers have difficulty communicating with patients whose first language is not English," Naylor explained. But Easy-Call's Interactive Voice Response (IVR) system supports multiple languages including French, Italian, Portuguese, Punjabi, Tamil, Mandarin and Vietnamese. This means that standard subjects and phrases can be recorded into different languages. When a client's language is set to Italian, the client will get instructions in Italian. Other languages can be added within two business days.

Due to the delicate nature of organ transplant, it's important that coordinators remain in close contact with their clients regarding test results, appointments, and changes to medication.

However, hospitals often spend considerable time playing telephone tag with clients. This leads to increased workload and higher costs. Easy-Call ensures that important information is passed on to the intended client with minimal effort – making staff more productive. Here's how it works.

When a patient is listed in the Easy-Call database, their record references their contact phone numbers including home, pager, cellular and business and when each may be used. It may also include phone numbers of the client's relatives. Importantly, the record identifies the patient's security PIN, and if necessary, a password.

Easy-Call is tenacious in that it will continue calling at regular intervals until the client actually responds. The system keeps track of when every attempt was made, the number dialed and the exact time the client responded. This data all becomes

Easy-Call is used by Gomatie Persaud, Transplant Coordinator at The Hospital For Sick Children.

part of the client's permanent record.

Easy-Call protects patient confidentiality. If someone other than the client picks up, potentially sensitive information will not be disclosed. A PIN must always be provided first. The automated voice heard during dial-out is normally only programmed to alert the client of an awaiting message, whereupon a client is expected to call in to retrieve it. For example, "there is an important message waiting. Please call your Easy-Call." The message itself is password protected and can only be retrieved by the client, or in the case of a child, by a parent or guardian granted access. This ensures patient confidentiality.

"Once the client is in, they are limited to their own messages," explained Michael Chan, project manager of information systems for HSC's transplant program.

The system was first implemented in 1996 at the transplant program of the University Health Network (UHN). Since then, its client database has grown from about 1,500 patients to more than 3,000 currently held in its centralized repository.

More recently, it was implemented at HSC in late January of 2003, and currently monitors 240 patients. According to Gomatie Persaud, coordinator of the HSC transplant program, Easy-Call makes better use of hospital staff, and helps them to communicate more effectively with patient's families.

"Many families don't have answering machines," she noted. In these cases, the consistent, automated calling of the system makes sure that the patient is reached. For those that do have answering devices, "We can leave messages at any time of the day, and they can pick it up at their convenience."

One of the most noticeable improvements is turnaround time. It used to take between four and five hours to connect with clients, but with Easy-Call, communication can often be made within an hour.

According to Naylor, Easy-Call is capable of coordinating the broadcast of urgent information to thousands of patients at a time, and can even be programmed to reach a specific audience. The technology's other unique features include:

• Multi-media interface/integration. It is said to integrate with most communication technologies, including pager, cellular and conventional phones.

• Auto-dial and locate. Assertively pursues recipients of critical information to ensure a response. Its active pursuit technology provides an architectural fail-safe, assuring communication even if phone or pager systems are down.