



## **e-KNOWLEDGE IS POWER**

Mitch Verde looks out his office window onto a lava field. "It's the most recent eruption in Canada, only 300 years old," he says. Mr. Verde is CEO of the Nisga'a Valley Health Authority, and he's on the phone to a southerner who wants to know how important an Electronic Medical Record (EMR) will be to the community. "Since the last Ice Age," Verde explains, "the Nisga'a have lived along the Nass River and its tributaries, from glacial headwaters to the ocean fjords." Verde paints a dramatic picture of a dramatic landscape, and it's meant, in part, to impress the listener with how isolated the Nisga'a homelands are, and how that negatively affects the quality of medical care. For the four physicians of the NVHA, a practice that covers a vast region presents challenges. Will Internet Technology shrink those distances? That's the idea. In fact, the EMR is already proving useful. But Verde admits to being cautious about celebrating too soon.

Verde remembers attending a conference on EMR, and being warned of inherent start-up problems. But the promise of an integrated information system was well worth the trouble. "The old charts were a hazard," Verde says. "Paper gets misplaced, even into someone else's file! With an EMR, that can't happen."

Reducing the 'human error' factor was an attractive proposition for the Nisga'a LISIMS Government. In 2003, they were already installing fibre optic cable to bring highspeed Internet to the 2500 people who live in the valley, so why not call in an expert to simultaneously set up an EMR? Marty McLeod flew in from Victoria and spent a year overseeing a total hardware rollover. According to McLeod, it wasn't just efficiency that was in jeopardy within the NVHA, but something more critical.

"Physicians were beginning to lose confidence," McLeod says. "If a patient in New Aiyansh moved to another village, a new chart would be started, leaving physicians struggling to make informed decisions. Now, all clinics and personnel are connected to a central server, which can be accessed anywhere."

McLeod explains that physicians are now using high-speed wireless to securely access patient records in exam rooms and emergency rooms, and during emergency call-outs, day and night. Appointment scheduling has been centralized, optimizing the physician's time in each village. And doctors can report to the Chronic Disease Management Toolkit using the secure high-speed Internet link.

Dr. Tom Arthur has recently returned from Alert Bay to take over as Chief Physician for the Nisga'a Valley Health Authority. He previously spent eleven years in New Aiyansh, but he's arrived back just in time to take advantage of the IT revolution.

"Good information on patient = good management = good outcome." That's the creed by which Dr. Arthur and his team operate, so he's relieved to be working in a wired world again. But knowing the Wolf software as intimately as he does, Dr. Arthur concurs with Mitch Verde that the system won't be completely up-and-running for a few months.

"It's a daily struggle to get it going," admits Dr. Arthur. "There's a large turn-over, and each new staff member needs IT training, as well as the usual orientation. And we don't have a large bank of info yet."

In spite of the problems, Dr. Arthur is happy to report that everybody sees the benefit of 'putting it in Wolf'. He's optimistic that patients and health care providers will appreciate how much chronic disease management will improve with timely and reliable medical information.

"Wolf tracks individuals who are late for tests," says CEO Mitch Verde, "or whose health is at risk for various reasons. The system allows for a more holistic approach to medicine." Verde cites his latest doctor visit as an example. He claims the EMR serves him as an educational tool. "I was able to look over my doctor's shoulder to his computer and examine my own record," says Verde. "It's taken the mystery out of health care."

Casting his mind not so far back in time, Dr. Arthur wonders how they managed. "We spent lots of overtime working on paper-based charts. Since there's no central clinic in the Nisga'a Valley, our medical records are scattered over four communities. We were forever searching what meds a patient was on. Some patients were triple-doctoring (for multiple prescriptions)."

"We can now access files from the other communities," says Donna Moore, one of two nurses at the Kincolith Health Centre. "No more duplication of medical histories." Moore is happy that her office is no longer papered yellow with Post-It Notes. "Doctors can leave us notes on this system," she says. "Urgent messages are right there for us to see. And lab requisitions can be printed up at the push of a button. It saves us so much time."

Dr. Arthur is now looking beyond the successful implementation of the EMR. He sees an integration of the Wolf Medical system with Procura, the home-care system. Chronic disease management will significantly improve again when a physician's EMR update can be picked up in the Home Care nurse's Procura system." There's still work to do in training staff and convincing them to be consistent in making entries in Wolf," says Dr. Arthur. "And for the Home Care workers to do the same. Ultimately we'll need to find the money for laptops for everyone, all connected into a wireless network."

Meanwhile, Dr. Tom Arthur has his eye on another small piece of technology. "I'm a two-fingered typist," he confesses. "What I really need is a digital dictator."