

Talk it up Victoria



Renfrew Victoria Hospital

Your Community Healthcare Centre

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The scope of computerization at RVH

The latest technological leap at RVH uses computerized bar codes to track the results of tests done in the laboratory. The technology gets lab results to doctors, nurses and other caregivers faster than ever before.

Under the new system, doctors' orders are printed out as labels that attach to the tubes of blood or urine to be tested. The results are recorded in computer barcodes. Lab staff then review and verify the information, which can be immediately sent to the appropriate hospital department, whether that's the operating room, emergency, oncology, dialysis or elsewhere in the hospital.

The automation is the result of an investment of more than \$300,000. The new system has been chosen to link with other facilities to share laboratory results in a seamless system that will eventually cover all of eastern Ontario.



Employees Kris Costello and Chris Campbell check out their new computer equipment with Rajesh Narendran of Sysware, the supplier of the technology.

The "firsts"

- We are the only site in eastern Ontario that has immediate and direct access to patient information from The Ottawa Hospital Regional Cancer Centre. Our caregivers have the same information they would have if they were on-site in Ottawa.
- RVH is one of the first four hospitals in eastern Ontario to pilot a system to share health information. We've helped develop unique identifier codes to ensure the shared information is accurate and complete. This network will eventually link 14 hospitals in eastern Ontario.
- RVH is among the first four sites in eastern Ontario to install a laboratory information system that will grow to allow seamless sharing of lab results for patients throughout eastern Ontario, no matter where their tests were performed or where they are receiving care.

The quick facts

The technology at RVH includes:

- 190 different devices – personal computers, servers, printers, etc. on the network
- nearly 100 e-mail accounts
- 54 different software applications
- 15 servers
- 9 different types of security to ensure protection of patient information.

Our internet access is provided by Smart Systems for Health, a system dedicated to computer technologies that provide health care professionals with secure and reliable electronic access to patient information. This makes us part of an emerging system that will connect 24,000 sites throughout Ontario and link more than 150,000 health service providers.

Technology continues to change the way we care

The investment in new technology can literally be counted in the millions of dollars at RVH in recent years.

The applications cover virtually every department in the hospital.

Software fees and support costs alone average more than \$100,000 each year. Capital costs go much higher, with individual pieces of equipment often costing tens or hundreds of thousands of dollars.

"It's a huge initiative with a focus on the patient," comments RVH CEO Randy Penney. "We need to keep up. These purchases are not optional in today's information age."

Hospital leaders are constantly monitoring the advances to decide where their shrewdest investments can be made.

"The bottom line is that it has to improve the care we give," concludes Hospital Chair Kent Tubman.

"We could spend our entire annual budget every day, and still not keep up with the market," he adds. "We depend on our team – the doctors, staff, administration and trustees – to help us make informed choices that will serve our patients well."

This issue of *Talk It Up Victoria* highlights some of the many technological developments now underway at RVH.

Expanding the knowledge and memory of caregivers

In areas such as the dialysis unit, computerization has become so well-used that it is actually seen as another set of eyes, ears and arms for the nurses caring for patients.

“We forget that it’s technology,” comments Janice Verch-Whittington, nurse manager of the unit.

Not only does the equipment monitor the care of patients within the unit at RVH, it also connects the dialysis team with the satellite unit in Barry’s Bay.

Dialysis is a treatment that cleanses the blood for patients whose kidneys are no longer up to the job. It requires precise flows of blood through cleansing machines, careful monitoring of blood chemistry and the flow through the access point back into the patient’s body, and a source of pure water.

From his headquarters at RVH, Dialysis Technologist Darwin Chevalier can keep a close eye on all of the equipment involved, including water quality reports in both Renfrew and Barry’s Bay.

“We can immediately respond if the readings change at either site,” says Verch-Whittington. “We also have an electronic record of each machine’s activities so that we can track exactly what is happening with each patient.”

“The ability to capture that information is phenomenal,” she notes.

“We’ve come so far in the last few years,” concludes Verch-Whittington. “Our patients are here all the time, so every advance in technology translates into a huge improvement in their quality of life. It really is an exciting time to be involved in dialysis care.”



Dialysis Nurse Cheryl MacDonald depends on technology to help her care for patients like Irvin Woermke.

“Real time” information keeps caregivers in the loop

When a cancer patient arrives on the second floor at RVH to receive chemotherapy, they can count on their caregivers having the information they need.

Two key systems provide patients with a “hospital without walls”. That means nurses in Renfrew have access to the latest test results and medical orders, whether the information is coming from a specialist’s office in Ottawa or the diagnostic imaging department on the ground floor at RVH.

“It’s awesome,” says Cindy McLennan, head of oncology nursing at RVH.

“We don’t have to go searching for a fax, or ask the patient to wait while we phone down to Ottawa and work our way through voicemail to verify a new chemo order,” she explains. “We just open up the records on our computer, and it’s all there, ready to go.”

She asserts that computerization has saved weeks of time for patients by eliminating the need to duplicate reports on critical tests such as MRIs, CT scans, and bone scans.

Just a few years ago, reports from such tests would have been copied in Ottawa and sent by courier to Renfrew. The first technological advance was when faxing became possible. While they did speed up the transfer of information, faxes were often difficult to read, causing some concern about the potential for misinterpretation.

“Now, we’re getting those reports first-hand in real time,” McLennan says, explaining that secure computer links make the test results available as soon as they are entered as part of a patient’s record.

“That is a huge impact in the way we can care for our patients,” she concludes.

RVH on the worldwide web

Would you like to know more about what’s happening at RVH?

The hospital website is yet another example of technology in action.

It provides a wide range of information on the hospital’s services, and includes the latest RVH publications such as this issue of *Talk It Up Victoria*, all of the Grand Rounds columns that have been published in the *Renfrew Weekender*, news releases and a photo gallery featuring various hospital-related activities.

The website also lists job opportunities at the hospital and can provide you with links to reputable sources of health information.

The RVH Foundation section includes the option of making on-line donations.

Please bookmark our site and visit it often to keep in touch with your hospital.

www.renfrewhosp.com

Electronic images provide speed and flexibility

The largest single investment in technology at RVH has been the purchase of a Picture Archiving and Communications System (PACS) for diagnostic imaging.

The system, which cost more than \$1 million, has eliminated the use of film for most x-rays, ultrasounds and other images taken in the diagnostic imaging department.

Patient care has been improved in a number of ways, not the least of which is the faster turn-around time for diagnostic reports.

“We don’t have to wait for film, we don’t have to have film duplicated, and we don’t have to store and retrieve film from previous tests,” says Diagnostic Imaging Lead Hand Phil Crozier. “Everything we need is at our fingertips.”

Electronic images and patient records have enhanced communications between caregivers within RVH and at other centres. Many of the diagnostic images taken at the hospital are now read by a team of radiologists who work out of Montreal. Their reports are often available within 24 hours of the images being taken.

Secure remote access to the system has also had impacts locally. Dr. David Lyons, medical director of diagnostic imaging at RVH, can now link in from his computer at home. The big advantage there is in on-call service. If an urgent report is required, Dr. Lyons can respond from home in minutes, providing rapid information to the caregiving team on site at the hospital.

The connections will be expanding later this spring, when St. Francis Memorial Hospital in Barry’s Bay hooks into the RVH PACS system.

As well as the advantages of extending the care network, PACS brings other benefits. The images can be manipulated to enhance detailed views, add or remove contrast, provide computerized measurements, or use other features to augment diagnostic capabilities.

The latest upgrade allows team members to apply “sticky notes” to the images in the system, allowing them to instantaneously share information such as the doctor’s preliminary interpretation or the technologist’s impression.

“It’s changed our world,” comments Crozier.



Members of the RVH diagnostic imaging team gather at the PACS station. From left, Suzie Campbell, Debbie Howes, Paul Brabant, Meredith Brabant and Amanda Struzycki.

Technology is an investment in safety in the operating room

Members of the RVH surgical team always enjoy hosting visits from their counterparts at other hospitals.

“They’re always blown away by what we have here,” comments Nurse Manager Cindy McLennan. “People see our OR and they say teaching hospitals like McMaster (University in Hamilton) don’t even have this.”

“From a teaching perspective, it’s phenomenal,” she adds. “From a patient safety perspective, it’s pretty unique in a small hospital.”

Technology’s role in the surgical suite begins before the patient even enters the room.

RVH recently became one of the first hospitals of its size to install a new biological monitor as part of its sterilization and infection control routine. The new equipment provides sterilization results in four hours, rather than the 48-hour turn-around that was previously available.

“This is a huge change in guaranteeing safety in the OR,” McLennan comments.

The hospital has also invested in new sterilization equipment to ensure that the scopes used in the operating room are fully sterilized.

“Those capital investments are enabling us to increase the level of care we give our patients,” McLennan declares.

Inside the OR itself, technology can be found at every turn. A computer station in the room provides instant access to patient information. If the team needs details on recent tests, for example, they can be immediately called up on the computer.

Even the surgical light is computerized, linked with a monitor that allows every member of the team to see what is happening at all times.

“We can all respond proactively,” McLennan explains. “It doesn’t matter where we are in that room, we’re seeing what the surgeon is seeing.”

The equipment has the capability to bring surgical specialists electronically into the RVH operating room. By linking through the SMART Systems for Health, images could be beamed from the local OR in real time to any other site, allowing for direct consultation with an expert in a particular surgical procedure.

“We haven’t actually used that application yet,” says McLennan. “But we’re there. The people of this area should know that our equipment is second to none and, in fact, is ahead of most.”

“It’s the latest of the latest,” agrees RVH Surgeon Dr. Lance Miller. “This is a very well-equipped OR.”

Information technology – the hospital’s computer emergency department

Doctors and nurses are not the only ones ready to respond on a moment’s notice when there is a cry for help at RVH.

Peter Payton and his information technology (IT) team are equally on call. Whether it’s a printer jam or a computer system failure, they need to be on the spot to keep things running for the caregivers and patients who depend on working technology.

“The day-to-day work is pretty much responding when the phone rings,” says Payton. “You just have to go.”

The calls usually total 25 to 30 each day and a portion of them are from St. Francis Memorial Hospital in Barry’s Bay, which shares the RVH IT services, or other off-site services such as the Alcohol, Drug and Gambling Assessment Referral Service.

The work is done by Payton, one other full-time staff member and a part-time co-worker.

Most of their time is spent with what they call the “power users” of technology – the lab, the registration desk, the financial office, diagnostic imaging and the clinics. The specialists who work at RVH often lead the way with new applications that give them quicker and more direct links to their base office.

The next big step in that direction will allow hospital computer users to link through the internet and access the computer applications they have at work, without downloading bulky software packages.

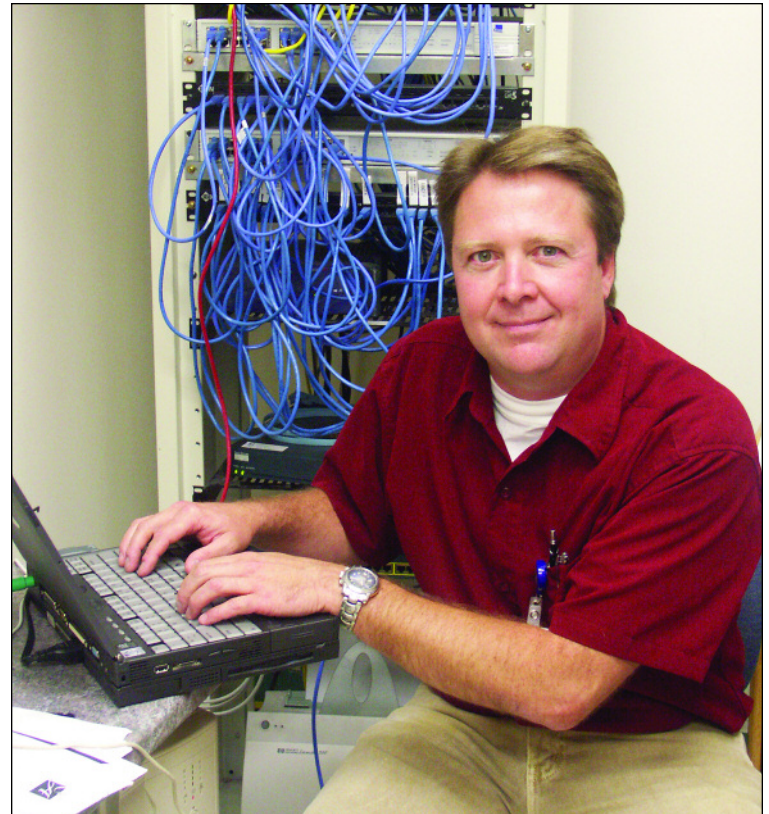
“We’re just testing that now,” Payton says. “It will give everyone a lot more flexibility, and will be another big change in how we all work,” he predicts.

Being aware of the newest technological developments is a big part of the IT job. The department provides advice on the purchase of everything from a new printer to a million-dollar suite of medical equipment.

“Information technology is a critical aspect of the care we provide,” comments RVH CEO Randy Penney. “It can be frustrating at times, because it is expensive and the investments

aren’t what we traditionally think of as direct patient care. However, medicine really is driven by the technology. We need to maintain and build our linkages with other facilities. We need to keep up.”

“The learning curve is huge and never-ending,” agrees Payton. “There’s always a new project or a new application. We need to know what’s out there and what will take us where we need to be.”



Peter Payton leads the information technology advances at RVH.

What will the future bring?

Predicting what the future holds is a nearly impossible venture in the world of medical technology.

A few years ago, we would have marvelled at the notion of electronic temperature readings, remote blood pressure monitoring, surgery performed through the tiniest slit in our skin, or equipment that can literally watch the blood course through our veins or our food progress through our digestive tract.

These are now standard procedures in most hospitals.

The next advances at RVH will continue to improve our ability to respond to patients’ needs, and build bridges with other caregivers beyond our walls:

- A number of local doctors are now testing the capabilities of voice recognition technology for medical dictation, which would eliminate the need for transcription and instantly provide typed text from medical dictations.

- Telehealth continues to grow, providing local caregivers with opportunities to “attend” conferences or classes, as well as to consult with specialists. Video links allow doctors from other centres to examine and interview patients from afar, and provide their expertise and advice to the local team.
- RVH is one of the very first rural hospitals in Ontario to link medical records with other facilities. The project is still in its pilot stage, and has now successfully developed a system to uniquely identify each patient. Once the first phase is complete, 14 hospitals in eastern Ontario will be linked, providing immediate access to patients’ full medical records, wherever they are being treated. Eventually, all of Ontario will be connected, providing secure access to x-rays, lab work and other records province-wide.

Talk it up Victoria - the Renfrew Victoria Hospital newsletter

Renfrew Victoria Hospital, 499 Raglan St. North, Renfrew, Ontario K7V 1P6 • www.renfrewhosp.com

CARING *for* TOMORROW

News from the Renfrew Victoria Hospital Foundation

If you would like to learn more about the various ways you can contribute to Renfrew Victoria Hospital, please contact us:

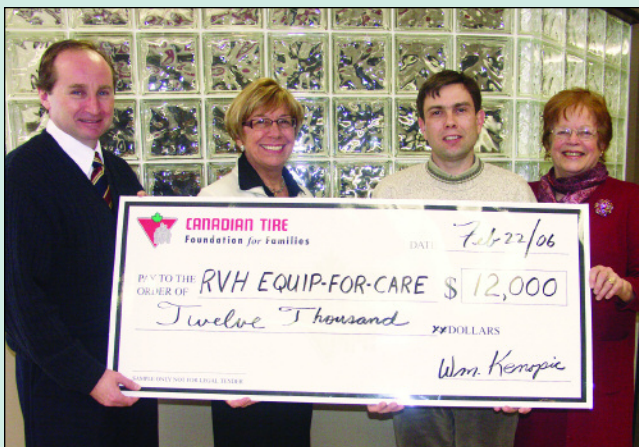
Renfrew Victoria Hospital Foundation, 499 Raglan Street North,

Renfrew, Ontario K7V 1P6

Phone: (613) 432-4851, ext. 263



Orange Lodge gets locals bowling for dollars



Among the recent donations received for the RVH Equip for Care campaign was a cheque for \$12,000 from the local Canadian Tire store and the Canadian Tire Foundation for Families presented by Richard Kenopic, third from left. On hand to accept the donation were Randy Penney, Nancy Kelly and Barbara Symington of RVH.

Bowlers from throughout the Ottawa Valley were at the Opeongo Bowlodrome on Sunday, March 19 for the annual "Bowl for Health" tournament organized by the Loyal Orange Lodge of Renfrew County. The RVH Auxiliary team included Janet Osborne, seen in action at left, and above, with her teammates Michael Osborne, Bev Welsh, Ann Brown, Heather Bird and Dee Dee Lepine. The event has raised \$76,500 for the RVH dialysis unit over the past 11 years.



The eighth annual Caring for Tomorrow Charity Golf Tournament will take place on Friday, June 9 at the Renfrew Golf Club.

One of our biggest fund-raising events of the year, this four-person team scramble always fills up early.

This event has raised more than \$175,000 to date in benefit of our hospital and our community. The funds support ongoing capital projects in the hospital.

Registration forms are available now at the RVH Foundation office or on the hospital website. The day includes lunch, 18 holes of golf, dinner and a chance to win prizes valued at \$7,500.

The registration deadline is May 5, so don't delay!

Sponsorships for this tournament are also welcome (see details below).

For more information, visit the RVH website at www.renfrewhosp.com, and click on news and events.

Dinner Sponsor – \$3000

- Tax receipt issued
- Recognition as the Dinner Sponsor in tournament literature
- Individual signage at the event
- Four (4) complimentary entry fees into the golf tournament (one team)

Lunch, Prize Table or Auction Sponsor – \$1500

- Tax receipt issued
- Recognition as the Lunch/Prize Table Sponsor in tournament literature
- Individual signage at the event
- Two (2) complimentary entry fees into the golf tournament (1/2 team)

Cart Sponsor – \$500

- Tax receipt issued
- Recognition as the Cart Sponsor in tournament literature
- Individual signage at the event

Hole Sponsor – \$250

- Tax receipt issued
- Recognition as a Hole Sponsor in tournament literature
- Individual signage at the event

Our on-line donation service is being well used by hospital supporters. The secure links allow people to make donations to our Foundation, no matter where or when the inspiration strikes. Visit www.renfrewhosp.com and click on "Foundation" and then "Donate Now" to learn more!



Make it a date!

Renfrew's Easter Monday tradition continues with the Amigos' community fund-raising dinner.

Everyone in town, as well as friends and neighbours from near and far, is invited to join in this ultimate community event.

Touched by cancer more than a decade ago, the Amigos – Janet Robertson, Annette Miller and JoAnn McGregor – have turned their tears into a positive force for our hospital.

Over the years, they've raised more than \$115,000 for mammography at RVH.

Please join the Amigos and their hundreds of friends at the Renfrew Armouries this Easter Monday for a great meal, a great time and a great cause! Dinner will be served from 4:30 to 7:00 p.m.

