Together we can

Diagnostic Radiology

It's a rare patient today who is treated in a leading health care setting like the university hospitals of Kingston without the benefit of imaging. From an X-ray of a broken bone to a CT (computerized tomography) scan of a blocked artery, to an ultrasound of an unborn baby, to an MRI (magnetic resonance imaging) of a newly discovered breast mass, imaging is the cornerstone of diagnostic services and a growing part of interventional therapy at Kingston General Hospital, Hotel Dieu Hospital and Providence Care.

The Department of Diagnostic Radiology's 16 specialists provide 24-hour, seven day-a-week diagnostic imaging consultative services to physicians in multiple clinical departments throughout the hospitals. Many are also trained in high demand sub-specialties including neuroradiology, mammography, obstetrical ultrasound, nuclear medicine, pediatric radiology, and cardio-thoracic radiology.

Three of the department's radiologists are interventional radiologists who are on the leading edge of a growing field that relies on high-tech, three-dimensional imaging as a proven alternative to some surgical procedures. More than 5,500 interventional radiology procedures last year contributed to health care efficiencies and improved patient care at Kingston's hospitals. For example, a cardio-thoracic radiologist can check a patient's cardiac arteries for calcification, without subjecting the patient to an invasive coronary angiogram, using a CT scan that provides a full set of images in less than a minute.

Government doesn't pay for all of our hospitals' equipment, research and education needs. That's why local support for our hospitals is critical if we want our community to have the very best health care services.

Equipment

Radiology is dependent on high-tech equipment. The university hospitals of Kingston place a top priority on ensuring every diagnostic and interventional imaging tool is as current as possible. In 2008, Hotel Dieu Hospital became North America's first and only demonstration site for a new digital mammography system used to diagnose breast cancer at its earliest and most curable stage.

This is just the beginning. As new and more precise technologies are introduced almost daily and current equipment approaches the end of its lifespan, Kingston's hospitals face an urgent and ongoing need for imaging equipment renewal. An ultrasound typically requires replacement after five years, the average CT scan requires replacement in five to eight, and MRIs become obsolete after 10 years.

A new MRI machine, valued at approximately $3.5 million, for example, will allow the hospital's radiologists and oncologists to better evaluate patients at risk for certain types of cancer. There is also an urgent need for software upgrades to existing diagnostics — MRI unit

software upgrades average $40,000 - $100,000 and it can cost up to $25,000 to update software in a single ultrasound machine. A single biopsy tool used in the diagnosis of cancerous tissues of the breast, prostate, lung, kidney and liver can cost approximately $1,800 each. At $3,000 each, blanket warmers are another critical means of ensuring patient comfort during diagnostic procedures.

Education

Every physician and staff member in the Department of Diagnostic Radiology is committed to ongoing education and training in the use of new technologies. The department has invested substantially over the years in education to support the hospitals' transition to a "filmless" imaging system. Today, physicians throughout KGH and Hotel Dieu Hospital can display digital images on their desktop computer while consulting by telephone with colleagues in multiple locations. PACS — Picture Archiving Communication System — has revolutionized the practice of radiology in Kingston and across Canada, and ensured more timely, quality care for patients.
Ongoing investments in education can help to prepare Kingston's radiologists and staff for the upgrade to a regional program. A skilled and knowledgeable team will have widespread benefits for patient care and the sharing of expertise among referring physicians across the region. A fund to provide relief time for technologist and nursing education, for example, will enable the program to replace staff when full-time team members are on conference, training or other educational events.

Research

Physicians within the Department of Diagnostic Radiology are actively involved in research through collaborations with clinicians hospital-wide. Radiologists are playing an important role in as many as 75 ongoing clinical trials, many involving patients at the Cancer Centre of Southeastern Ontario.
A current study of thyroid cancer, for example, includes efforts to establish criteria for ultrasound imaging that indicates when a nodule biopsy is required.
Not only a means for improved patient care, an active research program involving radiology is also an important factor in physician recruitment and retention. Radiologists and residents both cite the department's research collaborations as a criterion in their decision to work in Kingston's hospitals.

Opportunities for giving

- Unrestricted gifts to help the program
  No minimum
- Patient care equipment (list available)
  $1,000 - $175,000
- Send a technologist/nurse to a training session
  $500 - $3,000
- Support on-site training session for clinical staff
  $2,000 - $5,000
- Invest in local hospital research
  No minimum