NORTHUMBERLAND HILLS
HOSPITAL

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NEWS RELEASE – FOR IMMEDIATE RELEASE

New high definition CT scanner installed at NHH – radiation exposure cut in half thanks to new technology

NORTHUMBERLAND COUNTY, Thursday, March 5, 2009 – Northumberland Hills Hospital received delivery of its new CT (computed tomography) scanner on Monday, March 2. Work is now nearing completion on the CT scanner's installation and the new equipment is on schedule to begin patient service on Monday, March 9.

A replacement for the scanner purchased when the hospital moved into the 1000 DePalma Drive location in October 2003, the new model brings with it a wealth of immediate and longer-term improvements that will have a direct impact on the health of local residents. Doctors use CT to diagnose and screen for stroke, pulmonary embolism, most cancers, abdominal pain, and injuries resulting from serious trauma. CT is also used to diagnose coronary artery disease—the leading cause of death for Canadian men and women.

As described by Dr. Frank Marrocco, NHH's Chief of Radiology: "CT scanning has transformed the practice of medicine. Through the 1980s and 1990s CT made technological leap after leap. It became the standard of emergency room medicine. It replaced old tests like IVPs (intravenous pyelograms), barium enemas and diagnostic angiograms. It virtually eliminated exploratory surgeries. However, this amazing tool has one drawback: it exposes people to radiation."

GE Healthcare recognized the fundamental issue of radiation exposure, and went back to the drawing board in the early twenty-first century. They redesigned the whole CT scanner, from X-ray tube to X-ray detector to computer reconstruction technique. The scanner delivered to NHH this week is the result of those efforts, revolutionary because it has cut the patient's radiation dose in half, while at the same time improving the speed of delivery and the resolution of the pictures.

Dr. Marrocco describes the enthusiasm he and his colleagues at the hospital have for the new scanner as follows: “Imagine if you could buy a new car that had improved handling, but took half as much gas. Or if your digital camera could take photos faster with higher resolution but only needed half the light level. This is exactly what has happened with this new generation scanner, and thanks to the generosity of this community we’ve got it at NHH!”

Designed and built in North America using the unique molecular characteristics of real garnets, the CT installation at NHH is one of the very first in Canada. It was approved by Health Canada in December 2008 and NHH radiologists will have the opportunity to work with GE physicists to see just how low the X-ray dose can be driven while maintaining quality diagnostic images.

Looking forward into 2009, a further enhancement to NHH’s new CT scanner is scheduled. This upgrade, still in development by GE Healthcare, will issue in another technological breakthrough. X-rays are composed of a range of different frequencies, just like sunlight is made up of different frequencies (colours) of light. The different X-ray frequencies have different physical properties. Since the technique was developed in the late 1800s, X-ray exams have been done with the full spectrum of frequencies all mixed together. GE Healthcare has discovered a way to unlock the information inherent in the different frequencies, so that more diagnostic information can be gleaned from the same exposure.

Says Dr. Marrocco: “This ‘spectral imaging’ is going to take CT scanning into a whole new realm, and the advantages to patients are yet to be discovered. Every time the manufacturers design new technologies, radiologists quickly put it to use for the benefit of patients. But one thing is for sure—it will make more accurate pictures of the insides of hardened arteries!”

“The west Northumberland community has been remarkably generous in its financial support of NHH in general, and of the recent MR and CT projects in particular,” said Robert Biron, President and CEO of NHH. “With this week’s CT enhancement, NHH is realizing our vision of excelling as a community hospital.”

Together with the Magnetic Resonance (MR) imaging equipment installed in October 2007, payment for the new CT is a primary goal of the *Care Close to Home Diagnostic Imaging Equipment Campaign.* Launched in June 2008, the capital campaign is still underway under the leadership of the NHH Foundation and campaign Chair, Jan Boycott. In a recent update to the NHH Board on the status of the *Care Close to Home Campaign*, NHH Foundation Chair Julie Thompson proudly announced that the campaign is only $165,000 away from its goal of $6 million. Included in this current result are pledges brought forward prior to the campaign’s official launch by local municipalities committed to supporting the CT upgrade. Said Thompson: “The community can be confident that this new CT scanner, with its dramatic reduction in radiation exposure and improved image quality, is going to be well worth the investment!”

For more information please contact Jennifer Gillard at 905-377-7757 or jgillard@nhh.ca.

About Northumberland Hills Hospital – The Northumberland Hills Hospital (NHH) is located approximately 100 kilometres east of Toronto. The 137-bed acute care hospital delivers a broad range of services, including emergency and intensive care, medical/surgical care, complex/long-term care, rehabilitation, palliative care and obstetrical care. A variety of ambulatory care clinics are also offered at NHH. In addition to these, NHH also sponsors a Community Mental Health Centre and an Assertive Community Treatment Team. The hospital serves the catchment area of west Northumberland County. A mixed urban and rural population of approximately 60,000 residents, west Northumberland comprises the Town of Cobourg, the Municipality of Port Hope and the townships of Hamilton, Cramahe and Alnwick/Haldimand. NHH employs close to 600 people and relies on the additional support provided by physicians and volunteers. NHH is an active member of the Central East LHIN. For more information, please visit www.nhh.ca.

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