

# Diagnostic Imaging Program

The Diagnostic Imaging (DI) Program supports DI initiatives and systems such as the Picture Archiving and Communications System (PACS) and regional DI repositories (DI-r). These are secure computer systems that contain patient radiology reports and images such as hospital-based CT scans, ultrasounds, MRIs, mammograms and x-rays. The implementation of these systems has eliminated the need for film and paper diagnostic images.

DI gives health care providers important information to make better decisions about a patient's treatment. Authorized health care providers can share images and reports securely with other providers within their respective DI-rs. The diagnostic images and corresponding reports are stored in a regional repository from which they can be retrieved in digital format. This capability is reducing the need for patients to travel to see a specialist.

eHealth Ontario's DI program is part of the agency's overall strategy to improve patient care, safety and access. By putting in place a stable and standards-based technical infrastructure, it guarantees that health care providers have access to vital clinical activity information systems when they need it. eHealth Ontario coordinates the four DI-r projects covering all hospitals in Ontario and provides funding support and the ONE Network (see fact sheet) that gives providers access to the system. An initiative currently in the planning stages will incorporate diagnostic information obtained in Independent Health Facilities (i.e. private clinics).



## Benefits

The availability of DI is an ehealth success story and demonstrates the value of technology in improving patient care and clinician efficiency.

## Patient benefits:

- Eliminates unnecessary patient travel
- Reduces wait times and lengths of stay thanks to faster exam reports and clinical decisions by physicians and specialists
- Reduces duplicate and unnecessary exams
- Improves access to radiologists by 30 to 40 per cent for patients in remote areas
- Eliminates the need to physically transfer images or CDs to the specialist
- Eliminates unnecessary exposure to radiation

## Fact Sheet

### Physician benefits:

- Faster and easier access to images and reports 24/7
- Remote access to images for off-hours coverage
- Enhances remote reporting capabilities
- Real-time clinical collaboration, increasing access to a broader range of specialists

### Progress to date

The implementation of DI initiatives across the province is a major ehealth collaboration effort. Local Health Integration Networks (LHINs), hospitals, vendors, not-for-profit companies and eHealth Ontario's project team have been working together toward the common goal of accelerating the implementation of health information systems.

To date, the DI collaboration has resulted in all hospitals in Ontario accessing digital images instead of film as well as the following achievements:

- All 100 acute care centres are live with the Emergency Neuro Image Transfer System (ENITS). The number of neurosurgical referrals through CriteCall Ontario, where ENITS is consulted, was 4,361 between April 2010 and March 2011. The percentage of patients transferred in that same period was 38% compared to 51.6% of patients transferred just three years prior before ENITS was implemented. ENITS was the recipient of the Showcase Ontario 2011 Merit Award and the Showcase Ontario 2011 Award of Excellence, both in the "Innovation" category.
- The Southwest Ontario Diagnostic Imaging Network (SWODIN) has 65 of 68 hospital sites connected to its repository.
- The Hospital Diagnostic Imaging Repository Services (HDIRS) now has 34 of 37 hospital sites connected to the repository.
- The Northern and Eastern Ontario Diagnostic Imaging Network (NEODIN), including the Champlain, North East and North West LHINs, has 55 of 64 hospital sites connected to the repository.



- Implementation activities have begun for the GTA West DI-r covering 36 hospital sites in the GTA and North Simcoe Muskoka LHINs.
- The current state analysis for the DI images generated in the Independent Health Facilities (IHF's) is complete. Planning for the implementation of the technical applications to integrate the PACS enabled clinics is underway.

### Next steps

eHealth Ontario is working on developing the DI Common Service Project (provincial image exchange), ongoing security enhancements and future integration activities with independent health facilities (IHF's). In addition, the hospitals included in SWODIN and NEODIN will continue to integrate to their respective DI repositories. The Greater Toronto Area (GTA) West DI-r project will begin integration of its hospitals over the next year. By 2013, 100% of DI reports and images obtained in Ontario hospitals will be available for viewing and sharing within DI-rs.