



The Best Test First: the CAR Improving the Use of Imaging

The Canadian Association of Radiologists (CAR) is committed to providing solutions to the challenges in providing quality diagnostic imaging (DI) services to Canadians. These challenges include ensuring quality patient care, the best use of health human and equipment resources and a reduction in DI wait times.

Recognizing that healthcare professionals must assume responsibility for ensuring that the work they do is necessary and appropriate, the CAR developed a set of evidence-based guidelines (also called appropriateness criteria). These guidelines help physicians order the most appropriate imaging exam for the clinical problem. When physicians choose the *best test first* it results in more effective and efficient use of DI equipment and health human resources and fewer tests for patients, which in turn improves patient care and safety and reduces DI wait times.

The CAR clinical guidelines are available in booklet and PDF forms and on numerous physician websites. The CAR recognizes, however, that for maximal effect its guidelines must be made seamlessly available as part of the clinician's regular workflow. To achieve this, the CAR guidelines have also been integrated into a computerized order entry (CPOE) system for diagnostic imaging. We believe that this is the most effective way of implementing guidelines to ensure that diagnostic imaging is used appropriately and that the human resources dedicated to diagnostic imaging (radiologists, technologists and others) are being used effectively. This initiative can also serve as a prototype and the lessons learned can assist in the integration of other types of decision support into electronic health records, one of the 2015 priorities identified by Canada Health Infoway to "unlock additional quality and safety benefits by enabling decision support and communication across the care continuum" in its *Electronic Health Records: 2015 Canada's Next Generation of Healthcare at a Glance*.

Implementation Projects

The CAR has been testing the effectiveness of providing decision support through a computerized order entry (CPOE) system in two settings in Manitoba - a tertiary care children's hospital (Winnipeg; completed in 2007) and a rural family practice clinic (Steinbach; completed in May 2009).

Results indicate that in at least 20% of the cases where general practitioners receive advice (2% for specialists), the physicians may follow the advice to change their order, either cancelling it or ordering a more appropriate examination. We also know from the data available that there is significant variation among individual physicians in the appropriateness of their ordering and the degree of their compliance with the advice.

Guidelines Symposium

On April 23, 2009 the CAR held a symposium entitled *CAR Guidelines Symposium - Implementing Appropriateness Guidelines in Diagnostic Imaging: Pooling National Knowledge*. In addition to reviewing the work undertaken by the CAR in Manitoba, discussion took place on initiatives in other provinces where projects to implement CPOE's for diagnostic imaging with decision support are being undertaken or where there is interest in carrying out such projects, including Nova Scotia, Saskatchewan, British Columbia, Alberta and Ontario. With about 70 attendees representing areas of health policy, healthcare administration, health services research and clinical leadership from across Canada, it is clear that there is mounting interest in continuing to build on guidelines initiatives.

There was general agreement at the Symposium that we need to move beyond small demonstration projects with short timelines to larger scale projects across Canada with longer timelines. In this way we can refine this approach to controlling DI growth and ensuring its more appropriate use.

There is also mounting interest in guidelines use on the international stage, and the CAR is an internally-recognized leader in this area. In recent months, the CAR has presented its work on guidelines at the Taming of the Queue national conference in Ottawa, the European Congress of Radiology in Vienna, the National Institutes of Health in Washington, and the Guidelines International Network meeting in Helsinki.

The CAR looks to continue partnerships with governments and other organizations to achieve excellence and sustainability in healthcare.

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