

At A Glance

January 2006

Monthly highlights of ICES research findings for stakeholders

Paper discusses current challenges facing diagnostic imaging sector

Laupacis A, Evans W. Diagnostic imaging in Canada. *Healthc Pap.* 2005; 6 (1): 8-15.

Issue	Despite massive increases in the annual numbers of magnetic resonance imaging (MRI) and computerized tomography (CT) scans performed in Ontario, the public is increasingly concerned about wait times for diagnostic imaging, and politicians have made this one of their top priorities.
Study	Discusses the difficulties in determining the optimal imaging capacity need for a population, describes some factors that are "inappropriately" increasing the rate of imaging, and suggests some solutions.
Key Findings	Difficulties in determining optimal imaging capacity include the many reasons for ordering tests, the numerous indications for diagnostic tests, non-specific symptoms, and physician disagreement on the likelihood of disease. Inappropriate increases in imaging rates stem from increasing reliance on technology in medicine, a mistaken belief that tests are risk-free, limited access which paradoxically increases use of suboptimal tests, clinicians not knowing the most appropriate test to order, clinicians and radiologists working in "two solitudes", and suboptimal imaging and interpretation.
Implications	The current focus on diagnostic imaging by politicians, policymakers, clinicians, radiologists, and patients offers an important opportunity to move forward toward solving these problems through bridging the solitudes, expanding the focus of academic radiology, developing guidelines for diagnostic tests, audit and feedback, and public education.

More people with diabetes negates gains from reduced cardiovascular complications

Booth G, Kapral M, Fung K, Tu J. Recent trends in cardiovascular complications among men and women with and without diabetes. *Diabetes Care.* 2006; 29 (1): 32-37.

Issue	The last decade has seen tremendous advances in the treatment of heart disease risk factors, but no one has examined whether these advances have improved outcomes for people with diabetes, or how these outcomes compare to the population of people without diabetes.
Study	Identified over 670,000 Ontario adults with diabetes and more than nine million adults without diabetes between 1992 and 2000. Changes in the numbers of people admitted to hospital for heart attack and stroke, as well as changes in the numbers of people who died from heart attack, stroke and all causes, were compared between those with and without diabetes.
Key Findings	Over the study period, the rate of persons admitted to hospital for heart attack and stroke fell to a greater extent in the diabetic than in the non-diabetic population. Patients with diabetes experienced similar reductions in mortality rates related to heart attack and stroke relative to those without diabetes. Declines in all-cause mortality were also comparable in the two populations. Although heart disease and associated mortality rates fell, the overall number of cardiovascular events occurring in the Ontario population rose substantially because of the increase in diabetes cases.
Implications	A greater focus on diabetes prevention is necessary to avoid a further rise in the overall burden of heart disease on our health care system and society.

Metabolic problems increase risk of pregnancy complications

Ray J, Vermeulen M, Schull M, McDonald S, Redelmeier D. Metabolic syndrome and the risk of placental dysfunction. *J Obstet Gynaecol Can.* 2005; 27 (12): 1095-1101.

Issue	The relationship between metabolic syndrome and the future risk of placental dysfunction (PD) or fetal death is unknown.
Study	Categorized more than one million women in Ontario who had a first delivery between 1990 and 2002 as having zero, one, two, or three to four features of metabolic syndrome up to 24 months before their delivery hospitalization to characterize their future risk of PD.
Key Findings	Seven per cent of women experienced one or more features of metabolic syndrome. The more features of metabolic syndrome a woman had, the greater her risk of a placenta-related pregnancy complication.
Implications	Greater surveillance of women with several features of metabolic syndrome is recommended, including regular testing for high blood pressure and pre-eclampsia at all prenatal visits, and one or two ultrasounds in the third trimester of pregnancy.

Rural family medicine programs growing, but curriculums not adhering to guidelines

Krupa L, Chan B. Canadian rural family medicine training programs: growth and variation in recruitment. *Can Fam Physician*. 2005; 51 (June): 852-854.

Issue	Although interest in rural family medicine education is growing, the extent to which recommended standards from the College of Family Physicians of Canada (CFPC) have been followed has not been well documented, and questions remain about what constitutes a rural-focused training program.
Study	Conducted semi-structured telephone interviews with the directors of all family medicine residency-training programs in Canada operating in 2002 to examine the number of rural training programs and positions, months of rural exposure, degree of remoteness, and specialist support of rural communities within rural training programs.
Key Findings	Rural residency programs in Canada have proliferated in recent years. In 2002, there were 12 rural training programs, and the 144 rural residency positions represented 20% of all family medicine positions. Major variations in programs exist, and most program designs differ from those recommended by the CFPC in at least one aspect.
Implications	The variation among rural residency programs in Canada highlights the need to assess whether differences in program design influence physician recruitment, retention and preparedness for rural practice, and whether the different approaches to rural training could be beneficial, given the diversity of Canada's rural communities.

Women may require more information for stroke care decision-making

Kapral M, Devon J, Winter A-L, Wang J, Peters A, Bondy S. Gender differences in stroke care decision-making. *Med Care*. 2006; 44 (1): 70-80.

Issue	Women are less likely than men to receive some stroke care interventions. It is not known whether gender differences in patient preferences explain some of the observed variations in stroke care delivery.
Study	Recruited outpatients with and without a history of cerebrovascular disease from stroke, vascular and general internal medicine ambulatory clinics between September 2002 and October 2003. Patients were requested to complete a self-administered survey that described hypothetical scenarios and asked them whether they would accept thrombolysis for stroke or carotid endarterectomy for secondary stroke prevention. The surveys also included questions on sociodemographic factors and decision-making preferences.
Key Findings	A total of 586 patients (45% women) completed the survey. Women were less likely than men to accept thrombolysis (79% vs. 86%), but were equally likely to accept carotid endarterectomy (82% vs. 84%). Women were less confident in their decisions, more risk-averse, and would have preferred more information to assist them in their decision-making.
Implications	It is important for health care providers to be aware that, compared to men, women may be more concerned about risks and may require more information prior to making decisions regarding stroke care.

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