

## At A Glance

July/August 2008

### Monthly highlights of ICES research findings for stakeholders

#### More family physicians needed to reduce visits to Ontario's emergency departments

Glazier R, Moineddin R, Agha M, Zagorski B, Hall R, Manuel D, Sibley L, Kopp A. *The Impact of Not Having a Primary Care Physician Among People with Chronic Conditions. ICES Investigative Report*. Toronto: Institute for Clinical Evaluative Sciences; 2008.

<b>Issue</b>	Many patients with chronic diseases do not have a primary care physician. The impact of this care gap on Ontario's healthcare system is unknown.
<b>Study</b>	Analyzed data from the 2000-01 Canadian Community Health Survey along with a 20% random sample of Ontario's population in 2003-05 and linked this data to health care use in Ontario in 2005-06.
<b>Key Findings</b>	<ul style="list-style-type: none"><li>• Ninety-five percent of patients with chronic disease had a family physician, and at least 85% were getting an appropriate amount of contact with a primary care physician.</li><li>• Fifteen percent of Ontarians with at least one chronic condition received less care than they needed or had poor continuity of care, most likely reflecting problems accessing care and resulting in higher rates of emergency attendance and hospital admission.</li><li>• Annually, more than 118,000 excess emergency room visits and more than 17,000 excess hospital admissions involved patients without regular, continuous care by a physician.</li><li>• People in the youngest age group (20–44 years), males, those with the highest educational attainment, and rural residents were least likely to have a regular physician.</li></ul>
<b>Implications</b>	The implementation of further policies to address the current shortage of primary care physicians in Ontario should be seen as a top health system priority.

#### Study identifies hospital and patient variables associated with early vs. late stroke fatalities

Saposnik G, Hill M, O'Donnell M, Fang J, Hachinski V, Kapral M, on behalf of the investigators of the Registry of the Canadian Stroke Network for the SORCan Working Group. *Variables associated with 7-day, 30-day, and 1-year fatality after ischemic stroke. Stroke*. 2008 ; 39(8): 2318–2324.

<b>Issue</b>	Although stroke case fatality at 7, 30 and 365 days has been used as a proxy measure of hospital performance and quality of care, little is known about which variables are associated with stroke case fatality at these different points in time.
<b>Study</b>	Identified 3,631 consecutive patients with acute ischemic stroke admitted to 11 stroke centres in Ontario between July 2003 and March 2005 and analyzed all deaths occurring within 7, 30 and 365 days of hospital admission.
<b>Key Findings</b>	Rates of 7-day, 30-day and 1-year case fatality from stroke were 6.9%, 12.6% and 23.6%, respectively. Stroke severity, neurologic deterioration during hospitalization, nonuse of antithrombotic drugs at admission, and lack of assessment by a stroke team were the most consistent predictors of case fatality after stroke. Physician experience (stroke cases per year) was inversely associated with 7-day and 30-day mortality, whereas patient age, comorbid illness and pneumonia at admission were associated with 30-day and 1-year mortality.
<b>Implications</b>	This information may be useful for comparing risk-adjusted case-fatality rates among hospitals and for implementing strategies to improve the processes and quality of care in the acute phase of stroke.

#### Ethnic minorities with diabetes less likely to receive eye examinations in Ontario

Shah B. Utilization of physician services for diabetic patients from ethnic minorities. *J Public Health (Oxf)*. 2008 June 3; [Epub ahead of print].

<b>Issue</b>	Although variations in diabetes prevalence among ethnic groups are well known, variations in their use of physician services for diabetes care, particularly in publicly funded healthcare systems, are uncertain.
<b>Study</b>	Used population health surveys, physician billing claims and the Ontario Diabetes Database to determine diabetes prevalence as of December 31, 2001, for each ethnic group in Ontario and to compare their use of physician services for primary care, diabetes specialist care and eye examinations in 2002.
<b>Key Findings</b>	Of the 20,788 individuals analyzed, diabetes prevalence was elevated for the South Asian and Black populations (11.1% and 11.0%, respectively) compared with the White population (5.9%). Ethnic minorities with diabetes were less likely to receive an eye examination compared with White patients. The use of primary care and diabetes specialists did not differ.
<b>Implications</b>	Prevention programs targeting South Asian and Black populations are needed to reduce their burden of disease and prevent the complications of diabetes.

## Indications for and results of CT and MRI scans in Ontario examined

You J, Purdy I, Rothwell D, Przybysz R, Fang J, Laupacis A. Indications for and results of outpatient computed tomography and magnetic resonance imaging in Ontario. *Can Assoc Radiol J.* 2008; 59(3): 317–326.

<b>Issue</b>	In Ontario, between 1993 and 2003, the number of computed tomography (CT) scans increased three-fold and the number of magnetic resonance imaging (MRI) scans increased six-fold. Little is known about the indications for and results of these diagnostic imaging tests.
<b>Study</b>	Identified 200 outpatient scans performed consecutively on or after January 1, 2005, from each of 20 Ontario hospitals performing CT and 20 Ontario hospitals performing MRI. Hospitals were randomly selected and were eligible if they performed at least 3,000 CT scans or 1,000 MRI scans in 2004/05. Regions of interest for CT scans included the abdomen/pelvis, brain or chest; and for MRI scans, the brain, spine or extremities. Emergency department and inpatient scans were ineligible, as were scans performed on patients under 18 years of age.
<b>Key Findings</b>	In total, 11,824 CT scans and 11,867 MRI scans were reviewed. There was considerable variation between institutions in test-ordering patterns, with as much as a 70-fold difference between hospitals in the frequency of scans ordered for a specific indication. Headache was the most frequent indication for CT of the brain, but less than 2% of these scans found abnormalities that could explain the headache. Back pain and radiculopathy were the most frequent indications for MRI of the spine. While over 90% of MRI scans were abnormal, the clinical importance of the abnormalities was unclear.
<b>Implications</b>	These data are a starting point for discussion about appropriateness. Further information will be obtained by examining individual indications more closely, and linking these data to administrative databases to evaluate the impact of these imaging tests on clinical practice.

## Many elderly Ontarians with atherosclerosis not receiving necessary statin therapy

Al-Omran M, Mamdani M, Lindsay T, Melo M, Juurlink D, Verma, for the Systematic Assessment of Vascular Risk (SAVR) Investigators. Suboptimal use of statin therapy in elderly patients with atherosclerosis: a population-based study. *J Vasc Surg.* 2008 Jul 1; [Epub ahead of print].

<b>Issue</b>	Evidence suggests that statin use improves adverse cardiovascular outcomes in patients with atherosclerosis, a disease characterized by the accumulation of plaque in the arteries. Limited population-based data are available on the use of statin therapy on these patients in Canada.
<b>Study</b>	Used linked healthcare administrative databases to identify Ontario residents aged 65 years and older with a history of coronary artery disease (CAD), cerebrovascular disease (CVD) or peripheral artery disease (PAD), and tracked their statin use over 36 three-month intervals from April 1995 to March 2004.
<b>Key Findings</b>	Of 343,154 patients examined, 68.7% had CAD, 33.5% had CVD and 7.0% had PAD. About 46% of patients were women, and the average patient age was 77 years. During the 10-year study period, the percentage of patients treated with a statin in each group increased considerably, from 9.8% to 55.3% in all atherosclerotic patients, from 11.8% to 61.2% in CAD patients, from 5.3% to 41.2% in CVD patients, and from 6.8% to 43.3% in PAD patients.
<b>Implications</b>	Although the use of statin therapy in elderly patients with atherosclerosis has increased substantially over the past decade, many patients remain untreated. These findings may be useful for guiding targeted interventions, such as self-audit of practice and focused continuing medical education programs.