

## At A Glance

May 2005

### Monthly highlights of ICES research findings for stakeholders

#### **New cholesterol guidelines will cost health care system millions in unnecessary prescriptions**

Manuel D, Tanuseputro P, Mustard C, Schultz S, Anderson G, Ardal S, Alter D, Laupacis A. The 2003 Canadian recommendations for dyslipidemia management: revisions are needed. *CMAJ*. 2005; 172 (8): 1027-1031.

<b>Issue</b>	There are concerns that the 2003 Canadian guidelines for the management and treatment of dyslipidemia will result in more people being screened and prescribed statin drug therapy, with only very small overall benefits for patients, and very significant costs to the health care system.
<b>Study</b>	Estimated how the 2003 guideline revisions would affect the Canadian population in terms of people screened and recommended for statin therapy and the potential benefit from these drugs for those at low, moderate and high risk of coronary artery disease (CAD).
<b>Key Findings</b>	The 2003 guidelines increase the number of people recommended for statin therapy by 27%, from 2 million to 2.53 million. If this 27% increase were added to the \$1.1 billion spent on statins in 2000, it would result in an extra \$250 million in drug costs per year. Almost all of the recommended increases in statin therapy would be for people at low or moderate risk of CAD, with the guidelines failing to recommend statin treatment for 13% of the highest risk Canadians.
<b>Implications</b>	Revisions to the guidelines should be considered. Thought needs to be given to costs, benefits and potential harms of statins so that physicians, patients and policy-makers can make informed decisions about these drugs.

#### **Hospital type and delays to surgery impact outcomes for hip fracture patients**

Weller I, Wai E, Jaglal S, Kreder H. The effect of hospital type and surgical delay on mortality after surgery for hip fracture. *J Bone Joint Surg Br*. 2005; 87 (3): 361-366.

<b>Issue</b>	There is little research on how hospital type and surgical delay impact mortality rates for hip fracture patients in Ontario.
<b>Study</b>	Identified individuals 50 years of age and older admitted to an Ontario hospital between 1993 and 1999 for surgical treatment of hip fracture to examine how hospital type and surgical delay impacted mortality following surgery.
<b>Key Findings</b>	Patients treated in teaching hospitals had a decreased risk of in-hospital mortality compared with those treated in urban community institutions. There was a trend toward increased mortality in patients treated in rural, rather than urban community hospitals. In-hospital mortality increased as the surgical delay increased. The increased risk of death was greatest for patients younger than 70 years of age with no comorbidities, and was independent of hospital status.
<b>Implications</b>	Every effort should be made to avoid delays in operative treatment, especially in the medically stable patient with a hip fracture. As well, there is a need to understand which factors associated with teaching hospital status lead to better outcomes for these patients.

#### **More neighbourhood fast-food restaurants associated with more heart disease and deaths**

Alter D, Eny K. The relationship between the supply of fast-food chains and cardiovascular outcomes. *Can J Pub Health*. 2005; 96 (3): 173-177.

<b>Issue</b>	No study has specifically examined the relationship between variations in mortality and the supply of fast-food restaurants in neighbourhoods in Ontario.
<b>Study</b>	Calculated the per capita rate of fast-food outlets, using the top nine fast food chains in 2001, for each of 380 neighbourhoods in Ontario. This information was then compared to neighbourhood per capita mortality rates, and hospitalizations for acute coronary syndromes (i.e. chest pain and heart attacks).
<b>Key Findings</b>	Relative to neighbourhoods with the lowest number of fast-food outlets (9 or less): <ul style="list-style-type: none"><li>• Intermediate intensity neighbourhoods (10-19 outlets/100,000 people) had 35 more deaths and 28 more hospitalizations for heart attacks and chest pain per 100,000 people.</li><li>• High intensity neighbourhoods (20 or more outlets/100,000 people) had 62 more deaths and 47 more hospitalizations for heart attacks and chest pain per 100,000 people.</li></ul>
<b>Implications</b>	While not a cause and effect relationship, the above noted association calls for targeted health promotion and prevention strategies in areas with the poorest health profiles and lifestyle behaviours.

**Certain Ontarians with diabetes still experience high complication rates, despite overall decline**

Booth G, Hux J, Fang J, Chan B. Time trends and geographic disparities in acute complications of diabetes in Ontario, Canada. *Diabetes Care*. 2005; 28 (5): 1045-1050.

<b>Issue</b>	There is a need to explore whether the quality of diabetes care, as reflected in rates of acute complications, has improved over time in Ontario, and to examine the consistency of these trends in all areas of the province.
<b>Study</b>	Identified all Ontario adults aged 20 years of age and older to examine hospitalizations for hyperglycemia and hypoglycemia, as well as emergency department visits related to diabetes.
<b>Key Findings</b>	Between 1994 and 1999, hospitalizations for hyperglycemia and hypoglycemia decreased by 33% and 77%, respectively, while related emergency department visits fell by 24%. People with diabetes living in rural areas or aboriginal communities were nearly twice as likely to have an acute complication, while those residing in remote areas of the province were nearly three times as likely to experience an event.
<b>Implications</b>	Policy and clinical practice measures to improve access to timely and effective outpatient care may further reduce rates of acute complications among people with diabetes.

**Dementia drugs may cause increased prescribing of incontinence medications to the elderly**

Gill S, Mamdani M, Naglie G, Streiner D, Bronskill S, Kopp A, Shulman K, Lee P, Rochon P. A prescribing cascade involving cholinesterase inhibitors and anticholinergic drugs. *Arch Intern Med*. 2005; 165 (7): 808-813.

<b>Issue</b>	A "prescribing cascade" involves the misinterpretation of an adverse reaction to one drug and the subsequent, potentially inappropriate prescribing of a second drug. It is possible that the urinary incontinence associated with the use of cholinesterase inhibitors in elderly dementia patients causes a prescribing cascade of anticholinergic drugs to treat the urinary incontinence.
<b>Study</b>	Examined 44,884 older adults with dementia in Ontario (20,491 dispensed a cholinesterase inhibitor and 24,393 not dispensed a cholinesterase inhibitor) between 1999 and 2002 to track the number that also received an anticholinergic drug to manage urinary incontinence.
<b>Key Findings</b>	Older adults with dementia who were dispensed cholinesterase inhibitors had an increased risk of subsequently receiving an anticholinergic drug, relative to those not receiving cholinesterase inhibitors (4.5% vs. 3.1%).
<b>Implications</b>	Clinicians should consider the prescribing cascade model and possible contributing role of cholinesterase inhibitors when evaluating dementia patients with urinary incontinence. The potential risks of co-prescribing cholinesterase inhibitors and anticholinergic drugs to these patients should be carefully assessed.

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