

## At A Glance

March 2007

### Monthly highlights of ICES research findings for stakeholders

#### Ophthalmologists who perform more cataract surgeries have better patient outcomes

Bell C, Hatch W, Cernat G, Urbach D. Surgeon volumes and selected patient outcomes in cataract surgery: a population-based analysis. *Ophthalmology*. 2007; 114 (3): 405-410.

<b>Issue</b>	There are few volume-outcome studies in the field of ophthalmology compared with other surgical specialties, despite the relatively large surgical volume of ophthalmologists.
<b>Study</b>	Between April 2001 and March 2004, identified Ontarians 20 years of age and older who underwent cataract surgery, as well as ophthalmologists who performed more than 50 cataract surgeries annually. Examined whether there was an association between the number of cataract surgeries performed and the rate of post-operative complications within the first two weeks following surgery.
<b>Key Findings</b>	For each year of the study period, less than one in 200 patients experienced a complication. The rate of complications varied between eight per 1,000 patients treated by surgeons who performed 50 to 250 cataract surgeries per year, to one per 1,000 patients treated by surgeons who performed more than 1,000 cataract surgeries per year.
<b>Implications</b>	These findings describe a general trend and may not be applicable to some individual surgeons. However, the results may be helpful to professional organizations and policy makers to formulate recommendations about the appropriate number of cataract surgeries required for surgeons to maintain a high level of proficiency.

#### Study examines upper GI bleeding following COX-2 inhibitor use in Ontario versus B.C.

Mamdani M, Warren L, Kopp A, Paterson M, Laupacis A, Bassett K, Anderson G. Changes in rates of upper gastrointestinal hemorrhage after the introduction of cyclooxygenase-2 inhibitors in British Columbia and Ontario. *CMAJ*. 2006; 175 (12): 1535-1538.

<b>Issue</b>	Population rates of upper gastrointestinal (GI) hemorrhage have been observed to increase with the introduction and rapid uptake of selective cyclooxygenase-2 (COX-2) inhibitors, a newer group of non-steroidal anti-inflammatory drugs (NSAIDs). Changes in COX-2 inhibitor use and GI bleeding rates in regions with relatively restrictive drug policies (e.g., British Columbia) have not been compared with changes in regions with relatively less restrictive drug policies (e.g., Ontario).
<b>Study</b>	Tracked 1.4 million people aged 66 years and older in B.C. and Ontario, between January 1996 and November 2002, to examine changes in the prevalence of NSAID use and admissions to hospital for upper GI hemorrhage in both provinces.
<b>Key Findings</b>	The prevalence of NSAID use in B.C.'s population of older people increased by 25%, as compared with a 51% increase in Ontario. Hospital admissions for upper GI hemorrhage increased significantly in Ontario by about 16% on average, or about two admissions per 10,000 elderly people, which is above expected values. A similar increase was not observed in B.C.
<b>Implications</b>	More restrictive drug policies, although limiting access to drugs and their potential benefits, may protect the population from adverse drug effects.

#### Calcium channel blockers may improve patient outcomes following stroke

Dowlatshahi D, Fang J, Kawaja M, Hakim A. Use of calcium channel blockers after stroke is not associated with poor outcome: a cohort from the registry of the Canadian stroke network. *J Neurol*. 2006; 253 (11): 1478-1483.

<b>Issue</b>	Although several trials have assessed the role of calcium channel blockers (CCBs) in acute stroke, few studies address the safety and efficacy of CCBs in secondary prevention.
<b>Study</b>	Tracked 1,545 patients from the Registry of the Canadian Stroke Network to assess the effect of CCB treatment following stroke on functional recovery and mortality.
<b>Key Findings</b>	Patients discharged on CCBs had a six-month mortality rate of 2.5% compared with 5.5% in those who were not on CCBs at discharge. Patients that were admitted on CCBs had improved functional recovery at six months if they were also discharged on CCBs, as compared with patients who had their CCBs discontinued.
<b>Implications</b>	Following a stroke, CCB treatment at the time of discharge does not impede functional recovery and is associated with reduced mortality and improved functional outcomes at six months.

## Parkinson's patients still receiving older, typical antipsychotics, despite recommendations

Marras C, Kopp A, Qiu F, Lang A, Sykora K, Shulman K, Rochon P. Antipsychotic use in older adults with Parkinson's disease. *Mov Disord.* 2007; 22 (3): 319-323.

<b>Issue</b>	There has been little information about how often antipsychotics are used in Parkinson's patients or how antipsychotic prescribing practices have changed since safer, atypical agents were introduced and funded in 1998, and since these were widely recommended over older, typical agents.
<b>Study</b>	Between 1998 and 2003, tracked Ontarians 66 years of age and older with Parkinson's disease who had been prescribed, for the first time, medications to treat parkinsonism. Subsequent antipsychotic medications prescribed to these patients were then identified.
<b>Key Findings</b>	Just over 1,900 of the more than 10,000 older adults that were newly treated with medications for parkinsonism were dispensed at least one antipsychotic by December 31, 2004. Within the first year of receiving medications for Parkinsonism, about five per cent of patients were started on an antipsychotic. The estimated risk of requiring an antipsychotic at seven years was 35%. Approximately one in ten 'first-time' antipsychotics dispensed to elderly individuals on medications to treat parkinsonism were still the older, typical antipsychotics.
<b>Implications</b>	Non-drug approaches should always be explored before starting antipsychotic therapy. If drug therapy is required, atypical antipsychotics at the lowest dose possible is recommended. Clinicians should also be aware of the risk of psychosis in Parkinson's disease patients, and the risks following treatment with both atypical and typical antipsychotics. Interventions are required to help understand and improve the way antipsychotics are prescribed for patients with Parkinson's disease.

## People with diabetes are being under treated for coronary risk

Shah B, Hux J, Austin P. Diabetes is not treated as a coronary artery disease risk equivalent. *Diabetes Care.* 2007; 30 (2): 381-383.

<b>Issue</b>	Although clinical practice guidelines recommend that blood pressure and cholesterol targets be the same or lower for people with diabetes than for secondary prevention in patients following a heart attack, it is not known whether this occurs in practice.
<b>Study</b>	Tracked Ontarians 65 years of age and older with no history of heart attack or diabetes, and among these individuals, assembled two groups of patients: those who had a first heart attack between 2000 and 2002, and those who were first diagnosed with diabetes during the same time period. The study then assessed whether patients received prescriptions for antihypertensive and lipid-lowering drugs before and after either the heart attack or the diabetes diagnosis.
<b>Key Findings</b>	Patients who developed diabetes were more likely to have been taking antihypertensive or lipid-lowering medications before diagnosis, while patients who had a heart attack were less likely to have been taking these medications prior to the heart attack. However, after a heart attack, 96% of patients were prescribed antihypertensive drugs, versus 75% of people after a diagnosis of diabetes. Lipid-lowering drug use rose to 70% in heart attack patients, versus only 41% in diabetes patients. This difference persisted, although it narrowed over time.
<b>Implications</b>	The under treatment of coronary risk for patients with diabetes is an important gap that should be addressed in the quality of care provided to these high-risk patients.

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