

At A Glance

October 2003

Monthly highlights of ICES research findings for stakeholders

Canadian hospitalization rates for cardiovascular conditions increasing

Hall R, Tu J, for the Canadian Cardiovascular Outcomes Research Team (CCORT). Hospitalization rates and length of stay for cardiovascular conditions in Canada, 1994 to 1999. *Can J Cardiol.* 2003; 19 (10):1123–1131.

Issue	Heart disease accounts for a significant proportion of hospital admissions in Canada, and this rate is expected to increase with the aging population and improved survival for heart disease patients.
Study	Examined the number of hospitalizations and length of stay for all Canadians hospitalized for heart attack, heart failure, angina and chest pain between 1994/95 and 1999/2000.
Key Findings	Hospitalization rates increased for heart attack (6%), angina (8%) and chest pain (11%). Heart failure hospitalizations decreased by 7%. There was wide regional variation in hospitalization rates, with variation greatest for heart failure, chest pain, angina and least for heart attacks. Lengths of stay for all conditions were shorter in Western Canada and Ontario, compared to Quebec and the eastern provinces.
Implications	Policymakers must be aware that as more patients with heart disease are kept alive with effective therapies, population-wide hospitalization rates will likely continue to increase. Additional data should be collected to better understand the regional variation observed in this study.

Emergency department “gridlock” results in delays for patients with chest pain

Schull M, Morrison L, Vermeulen M, Redelmeier D. Emergency department gridlock and out-of-hospital delays for cardiac patients. *Acad Emerg Med.* 2003; 10 (7): 709–716.

Issue	Ambulance diversion from overcrowded emergency departments (EDs) becomes an even greater problem when it occurs at multiple EDs at the same time, known as “gridlock”. Some patients, such as those who have suffered a heart attack, may be particularly vulnerable to these delays.
Study	Analyzed the effect of ED gridlock on pre-hospital transport delays, between 1998 and 1999, for patients with chest pain.
Key Findings	Ambulance diversion was associated with transport delays only on days when gridlock occurred. Almost 40% of chest pain patients were transported during gridlock days. The transport interval for those patients was about 2 minutes (or 11%) longer than for patients not exposed to gridlock.
Implications	Policies that prohibit all EDs within a given community from diverting ambulances simultaneously will address the issue of pre-hospital transport delays resulting from gridlock.

Polysporin® ointment reduces infections and mortality in dialysis patients

Lok C, Stanley K, Hux J, Richardson R, Tobe S, Conly J. Hemodialysis infection prevention with Polysporin ointment. *J Am Soc Nephrol.* 2003; 14 (1):169–179.

Issue	Infection is the most common cause of illness and the second most common cause of death in hemodialysis (HD) patients. Those who rely on venous catheters for HD are at greatest risk. The optimal strategy to prevent infections has not been identified.
Study	A total of 169 HD patients were randomly selected to receive Polysporin antibiotic ointment (which has been shown to be effective against most skin infections) or a placebo on their catheter insertion area, every two weeks. The rate of skin infections and death was observed over a six-month period.
Key Findings	34% of HD patients in the placebo group developed infection vs. only 12% of those in the Polysporin group. There were 13 deaths in the placebo group vs. only three deaths in the polysporin group. Seven of the 13 patients who died in the placebo group had infections before death.
Implications	Given Polysporin ointment’s simplicity, low cost and potential to dramatically reduce infectious complications in HD patients, while decreasing related health care costs, its application for treatment of permanent HD catheters should be considered.

Parkinson's patients not receiving adequate access to specialists

Guttman M, Slaughter P, Theriault M, DeBoer D, Naylor D. Parkinsonism in Ontario: physician utilization. *Can J Neurol Sci.* 2002; 29 (3):221–226.

- Issue** Parkinson's disease (PD) patients receive care from neurologists specifically trained to deal with PD, as well as from family physicians (FPs), general practitioners (GPs) and internists. However, the exact proportion of these medical professionals that are treating PD patients has not been thoroughly investigated.
- Study** Over 15,000 Ontario PD patients were matched by age and sex with 30,000 people without PD as a control group. These groups were assessed annually between 1993 and 1999 to evaluate the number of patients who had seen a neurologist, FP/GP, or internist.
- Key Findings**
- Only 45% of PD patients saw a neurologist at least once a year, and only 59% of PD patients saw a neurologist even once over the study period.
 - 97% of PD patients saw FPs and 50% saw internists each year.
 - Only 37% of PD patients 65 and older saw neurologists each year compared with 73% for those under 65.
- Implications** Efforts must be made to increase the availability of neurological services to patients with advanced PD.

HOPE trial's effect on ramipril prescribing unprecedented

Tu K, Mamdani M, Jacka R, Forde N, Rothwell D, Tu J. The striking effect of the Heart Outcomes Prevention Evaluation (HOPE) on ramipril prescribing in Ontario. *CMAJ.* 2003; 168 (5):553–557.

- Issue** Current clinical practice guidelines do not recommend specific angiotensin-converting-enzyme (ACE) inhibitors, but, rather, the whole drug class. As well, no ACE inhibitor has proven to be superior for all indications.
- Study** Changes in ACE inhibitor prescribing, generally, and ramipril (an ACE inhibitor) prescribing, specifically, were measured to assess the impact of the Heart Outcomes Prevention Evaluation (HOPE) trial, which demonstrated the effectiveness of ramipril in the secondary prevention of cardiovascular disease.
- Key Findings** The HOPE trial led to a striking and unprecedented increase of over 400% in ramipril prescribing to elderly Ontario residents, including those not eligible for the trial. Many physicians are now prescribing ramipril for patients with diabetes or congestive heart failure.
- Implications** A well-publicized large clinical study can have a significant impact on medication prescribing and utilization.

For more information contact:

Paula McColgan, Director, Policy and External Relations, ICES
(416) 480-6190 or paula.mccolgan@ices.on.ca