

At A Glance

March 2008

Monthly highlights of ICES research findings for stakeholders

Scientists estimate expected survival time for patients suffering from heart failure

Ko D, Alter D, Austin P, You J, Lee D, Qiu F, Stukel T, Tu J. Life expectancy after an index hospitalization for heart failure patients: a population-based study. *Am Heart J*. 2008; 155 (2): 324–331.

Issue	Heart failure is the leading cause of hospitalization in North America. Limited data currently exist to predict expected survival among hospitalized patients with heart failure.
Study	Identified almost 10,000 patients between 20 and 105 years of age newly hospitalized with heart failure in Ontario between April 1999 and March 2001. Patients were stratified into five risk categories and were followed over a six-year period.
Key Findings	The average patient age was 75.8 years, and 50.4% of the patients were female. Hospitalized patients had a one-year mortality of 33.1% and a five-year mortality of 68.7%, and the average survival was 2.4 years. Survival varied substantially across risk groups—the average survival was eight months for patients in the high-risk group and three months in the very high-risk group.
Implications	This life expectancy data may assist in guiding more informed and difficult treatment decisions by identifying patients who may not be suitable for invasive treatment and may benefit from palliative or end-of-life care.

Study suggests women with vulvar cancer may not be receiving optimal care

Barbera L, Thomas G, Elit L, Covens A, Fyles A, Osborne R, Yun L. Treating vulvar cancer in the new millennium: Are patients receiving optimal care? *Gynecol Oncol*. 2008 Jan 28; Epub ahead of print.

Issue	Vulvar cancer, seen most commonly in women aged 60 years and older, is a relatively rare cancer that is curable with early detection and proper treatment. No studies to date have examined patterns of vulvar cancer care in Ontario.
Study	Used the Ontario Cancer Registry to identify cases of vulvar cancer diagnosed between 1994 and 2003. These cases were linked to physician billing claims and hospital discharge records to identify surgical treatment given in the first year after diagnosis, most specifically groin node dissection (GND).
Key Findings	The annual incidence of vulvar cancer was 0.29 cases per 10,000 adult women. Median age at diagnosis was 68 years. The incidence of vulvar cancer remained stable over time. Of the 978 women identified with vulvar cancer, 85% had at least one surgical procedure and 62% of these had a GND. A GND was more likely in those who were treated by a gynecologic oncologist or who had less co-existing illness.
Implications	A seemingly low proportion of patients receive a GND. As proper management is critical for patients with vulvar cancer, these initial findings raises concerns about the quality of treatment received by patients. Further investigation is warranted.

Heart attack survivors who don't fill prescriptions have increased risk of one-year mortality

Jackevicius C, Li P, Tu J. Prevalence, predictors, and outcomes of primary nonadherence after acute myocardial infarction. *Circulation*. 2008; 117 (8): 1028–1036.

Issue	The impact on outcomes of patients not filling their first prescription at the start of therapy following an initial acute myocardial infarction (AMI) has not been studied.
Study	Identified 4,591 Ontarians aged 66 years and older at the time of hospital discharge after AMI between 1999 and 2001, and the resulting 12,832 prescriptions for cardiac discharge medications. The primary outcome was one-year mortality and drug adherence was analyzed by linking to the Ontario Drug Benefit claims database.
Key Findings	<ul style="list-style-type: none">• One in five of all prescriptions was not filled after AMI patients left the hospital.• One in four patients did not fill all of their discharge prescriptions by 120 days after an AMI and they had an 80% higher risk of death at one year compared to those who filled all their prescriptions.• Those who filled only some of their prescriptions had a 44% higher risk of death at one year.• Patients who were educated about their prescriptions in the hospital were more likely to fill them.
Implications	Physicians, nurses and pharmacists may need to reinforce their medication counselling efforts to increase the initial filling rate of medications after AMI. Strategies such as follow-up telephone calls to remind patients to fill their prescriptions and take their medications should also be considered.

Drug history profiles based solely on provincial drug benefit claims likely to be incomplete

Paterson M, Suleiman A, Hux J, Bell C. How complete are drug history profiles that are based on public drug benefit claims? *Can J Clin Pharmacol*. 2008; 15 (1): e108–e116.

Issue	In Canada, programs are being developed to supply emergency physicians and family doctors with electronic access to their patients' drug history profiles. Some of these programs access databases that capture information about all outpatient prescriptions dispensed, regardless of payer. Others rely solely upon claims paid by their provincial drug benefit plans. The completeness of these latter drug profiles is unknown.
Study	Examined Ontario Drug Benefit (ODB) claims and private drug insurance claims for Ontario residents aged 65 years and older from January 2000 to December 2005. The percentage of residents who used private insurance was estimated, and the kinds of medications for which private insurance was used were described.
Key Findings	<ul style="list-style-type: none">• Approximately 95% of Ontario's seniors filled at least one prescription paid by the ODB Program.• Approximately 15–20% filled a prescription paid by a private insurer for which data would not be available in the electronic access system.• During the study period, the number of ODB claimants grew by approximately 12% compared to nearly 70% for those with private drug insurance.• Compared to the 20 drugs most frequently prescribed by the ODB Program, the top privately-purchased drugs were more diverse: eight had ODB full benefit status; four had ODB limited use status; three required prior ODB authorization; and five were ODB non-benefits.
Implications	While drug profile initiatives that use public drug benefit claims are important, profile users need to be reminded that the drug profiles are potentially incomplete, and that non-benefit, new and restricted drugs are the ones most likely to be missing. A database that captures all prescriptions regardless of payer would be a preferable option. The advantages of such systems extend beyond the potential safety and efficacy gains of drug history profiles to improved coordination of health insurance benefits and better evidence regarding the population health impacts of drugs and drug formulary policies.

Prescription cost-sharing adversely affects children's use of asthma medication

Ungar W, Kozyrskij A, Paterson M, Ahmad F. Effect of cost-sharing on use of asthma medication in children. *Arch Pediatr Adolesc Med*. 2008; 162 (2): 104–110.

Issue	Children with asthma may require treatment with multiple medications, including controllers and relievers, to achieve optimal asthma control. The effect of cost-sharing on children's use of prescription asthma medications is unknown.
Study	Analyzed the insurance claims for just over 17,000 Ontario children with asthma enrolled in private drug plans. Data on out-of-pocket expenses and reimbursement for medications were used to classify children as having zero, low (<20%) or high (≥20%) levels of cost-sharing.
Key Findings	The annual number of asthma medication claims per child was significantly lower in the high cost-sharing group (6.6) compared with the zero (7.0) and low (7.2) cost-sharing groups. Children in the high cost-sharing group were less likely to use bronchodilators, inhaled corticosteroids and leukotriene receptor antagonists compared with the low cost-sharing group.
Implications	Drug plan managers should consider the effects that cost-sharing levels may have on medication use and health outcomes in children with asthma. Family asthma education and asthma disease management programs should be better integrated with the children's drug therapy regime to promote optimal asthma control.