

At A Glance

March 2011

Monthly highlights of ICES research findings for stakeholders

Heart attack patients with depression less likely to receive priority care in emergency rooms

Atzema C, Schull M, Tu J. The effect of a charted history of depression on emergency department triage and outcomes in patients with acute myocardial infarction. *CMAJ*. 2011 Mar 7 [Epub ahead of print].

Issue	Do patients with acute myocardial infarction (AMI) receive poorer quality of care in the emergency department (ED) if they also suffer from depression?
Study	Analyzed ED data for patients admitted to 96 acute care hospitals in Ontario for AMI from April 2004 to March 2005. Determined patients' charted history of depression, ED triage score, and time from arrival in the ED to: electrocardiogram (door-to-ECG time); fibrinolysis infusion to dissolve a clot (door-to-needle time); and balloon inflation to dilate a blocked coronary artery (door-to-balloon time).
Key Findings	Of 6,874 patients, 10.0% had a history of depression. Of these, 39.1% were assigned a low-priority triage score compared with 32.7% of those without depression. For those with depression, the median door-to-ECG time was 20 minutes (vs. 17 minutes for the non-depressed), the median door-to-needle time was 53 minutes (vs. 37), and the median door-to-balloon time was 251 minutes (vs. 110).
Implications	A history of depression should not be assumed to be the cause of presenting symptoms in emergency department patients with possible cardiac ischemia.

Long-term use of osteoporosis drugs linked to rare fractures of the thigh bone

Park-Wyllie L, Mamdani M, Juurlink D, Hawker G, Gunraj N, Austin P, Whelan D, Weiler P, Laupacis A. Bisphosphonate use and the risk of subtrochanteric or femoral shaft fractures in older women. *JAMA*. 2011; 305(8):783-9.

Issue	Oral bisphosphonates are a common treatment for osteoporosis and have been shown to prevent osteoporotic fractures. Is prolonged bisphosphonate therapy associated with certain types of rare fractures?
Study	Identified women aged 68 and older who began therapy with an oral bisphosphonate in Ontario between April 2002 and March 2008, and followed those who were hospitalized with a subtrochanteric or femoral shaft fracture until March 2009.
Key Findings	Of 205,456 women treated with a bisphosphonate, 716 (0.35%) were hospitalized with a fracture of the femoral shaft. Women taking bisphosphonates for five years or more (totaling 52,595) were 2.7 times more likely to sustain these fractures compared with women who took the drugs for less than 100 days. The absolute risk of fracture was low, about one in 1,000.
Implications	Women with osteoporosis who are at high risk for osteoporotic fracture should not discontinue treatment because the benefit to them outweighs the risk of the drug. Long-term use may warrant reconsideration for women who are at low risk of osteoporosis.

Painkiller prescribing rates and outcomes vary among Ontario family physicians

Dhalla I, Mamdani M, Gomes T, Juurlink D. Clustering of opioid prescribing and opioid-related mortality among family physicians in Ontario. *Can Fam Physician*. 2011; 57(3):e92-6.

Issue	Is there an association between rates of opioid prescribing by family physicians and opioid-related mortality in Ontario?
Study	Categorized 9,892 family physicians into quintiles according to their rate of opioid prescribing to public drug plan beneficiaries aged 15 to 64 in 2006. From coroner's records, identified 408 deaths in 2006 associated with opioid use, and linked each death to the family physician who wrote the final opioid prescription before the patient's death.
Key Findings	Family physicians in the uppermost quintile had an average opioid-prescribing rate of 931.5 per 1,000 eligible patients, compared to 16.7 per 1,000 patients for physicians in the lowermost quintile (a 55-fold difference). Family physicians who prescribed opioids most frequently also wrote the final opioid prescription before death for 62.7% of public drug plan beneficiaries whose deaths were related to opioids. Physician characteristics associated with greater opioid prescribing were male sex, older age and a greater number of years in practice.
Implications	Strategies to reduce opioid-related harm should include efforts focusing on family physicians who prescribe opioids frequently.

Study finds significant variation in rates of lung cancer incidence and surgical care in Ontario

Bendzsak A, Nenshi R, Darling G, Schultz S, Gunraj N, Wilton A, Simunovic M, Jacob B, Urbach D. Overview of lung cancer surgery in Ontario. *Ann Thorac Surg.* 2011; 91(12):361–6.

Issue	The distribution of lung cancer incidence and surgical care in Ontario has not been documented.
Study	Identified patients aged 20 or older first diagnosed with lung cancer in Ontario between April 2003 and March 2004. Compared incidence rates and surgical procedures by age group, sex, Local Health Integration Network (LHIN), neighbourhood income level and community size.
Key Findings	<ul style="list-style-type: none"> • Lung cancer incidence was highest in lower income neighbourhoods (90.2 cases per 100,000 vs. 55.6 in the highest income neighbourhoods) and in small communities (87.1 cases per 100,000 in communities of less than 100,000 vs. 56.3 in cities of greater than 1.25 million). • Surgical interventions were most common in younger patients (47.4% among those aged 20 to 54 vs. 30.5% for those aged 75 and older) and in wealthier neighbourhoods (43.4% in the highest income neighbourhoods vs. 35.8% in the lowest). • Lung cancer incidence varied substantially among the LHINs, ranging from 50.3 per 100,000 in LHIN 5 to 96.2 per 100,000 in LHIN 13. • Thoracic surgeons and general surgeons (5.4% and 17.4% of providers, respectively) provided 44.3% and 15.8% of all surgical procedures, respectively. • Sixty percent of all patients newly diagnosed with lung cancer did not undergo any surgical procedures of any kind within a year of diagnosis.
Implications	Further investigation into the causes of these disparities, as well as an evaluation of outcomes for lung cancer, is required to better understand and address these imbalances.

Majority of colonoscopy-related adverse events detectable within 14 days of procedure

Rabeneck L, Saskin R, Paszat L. Onset and clinical course of bleeding perforation after outpatient colonoscopy: a population-based study. *Gastrointest Endosc.* 2011;75(3):520–3.

Issue	Over what time period is monitoring needed to detect colonoscopy-related perforation and bleeding?
Study	Identified patients aged 50 to 75 who underwent an outpatient colonoscopy in Ontario between April 2002 and March 2003, and measured the time to hospital admission for a related perforation or bleeding.
Key Findings	Of 67,632 patients, 37 were hospitalized for perforation and 83 for bleeding within 30 days. For patients with a perforation, 92% were admitted within two days and 100% within five days. For those with a bleeding, 36% were admitted within two days and 96% within 14 days.
Implications	A 14-day period after outpatient colonoscopy is adequate to capture all perforations and at least 95% of bleeds.