Enhancing the effectiveness of health care for Ontarians through research

ICES Institute for Clinical Evaluative Sciences

At A Glance

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Monthly highlights of ICES research findings for stakeholders

Influenza vaccine safe for patients with myasthenia gravis

Zinman L, Thoma J, Kwong J, Kopp A, Stukel T, Juurlink D. Safety of influenza vaccination in patients with myasthenia gravis: a population-based study. *Muscle Nerve* 2009; 40(6):947–51.

Issue Myasthenia gravis (MG) is an autoimmune disorder that causes weakening of the muscles. There are no reliable data to inform decisions regarding the safety of influenza vaccine in patients with MG.

Study Identified patients 18 years and older with established MG who were hospitalized for MG within 42 weeks of influenza vaccination between January 1992 and March 2006 in Ontario. Each patient's follow-up was divided into seven six-week intervals; the first of which was defined as the primary risk interval (when admission for MG might reflect a consequence of vaccination) and the last four combined as the control interval (when remoteness precluded an association with the vaccine).

Key Findings Of 3,667 hospital admissions for MG, 513 occurred within 42 weeks following vaccination. The rate of MG hospitalizations during the primary risk interval was not significantly different from the control period. Hospitalizations were distributed with relative uniformity throughout the calendar year and displayed no obvious seasonal trend.

Implications Although vaccines, like all drugs, are not devoid of risk, these data should reassure clinicians and patients that influenza vaccination is safe for the majority of patients with MG.

Less than half of Ontarians with depression see a doctor for treatment: POWER Study

Lin E, Diaz-Grandos N, Stewart D, Rhodes A, Yeritsyan N, Johns A, Duong-Hua M, Bierman A. Depression. In: Bierman A, editor. *Project for an Ontario Women's Health Evidence-based Report: Vol. 1.* Toronto: St. Michael's Hospital; 2009.

Issue There is a need for comprehensive information on how access to care and health outcomes differ by the gender, age, place of residence and socioeconomic status of Ontarians with depression.

Study Analyzed demographic, socioeconomic and health-related data drawn from routinely collected administrative health care databases, population health surveys and vital statistics datasets.

Key Findings Less than 50% of women and men with probable depression visited a doctor for their condition. Thirty-three percent of those discharged from hospital with severe depression did not see a doctor for a follow-up visit within 30 days. Seventeen percent visited an emergency department within 30 days of discharge from hospital, while 7.6% were re-admitted to hospital. Many older adults who were prescribed an anti-depressant medication did not receive the recommended number of follow-up visits to manage their condition.

Implications The lack of coordinated care for patients suggests the need for a collaborative care model. This would involve a team of health care professionals, including mental health specialists and primary care providers, in both community and hospital settings.

Study identifies hospital markers linked to improved survival rates for heart attack patients

Stukel T, Alter D, Schull M, Ko D, Li P. Association between hospital cardiac management and outcomes for acute myocardial infarction patients. *Med Care* 2009 Nov 18; [Epub ahead of print].

Issue Which hospital management markers are associated with improved outcomes in cardiac patients?

Study Identified 98,115 patients aged 20 to 100 years hospitalized with a first episode of acute myocardial infarction (AMI) from April 2000 to March 2006 in 77 hospitals with more than 50 annual admissions for AMI. Rates of 30-day and one-year mortality, readmissions for AMI or death, and major cardiac readmissions within six months were measured.

Key Findings Thirty-day mortality ranged from 7 to 17%, and six-month cardiac readmission ranged from 18 to 36% across hospitals. Three factors predicted better patient outcomes: appropriate initial emergency department (ED) assessment, high rates of cardiac revascularization to urgent patients, and high levels of cardiac drug prescribing at patient discharge. Patients admitted to hospitals with the highest rates of the three factors combined had 16% lower rates of 30-day mortality and 35% lower rates of six-month cardiac readmissions.

Implications In the face of unwarranted variations in outcomes across hospitals, strategies that promote better ED and inpatient management of AMI patients are needed.

Youth with diabetes likely to be hospitalized while transitioning to adult care

Nakhla M, Daneman D, To T, Paradis G, Guttmann A. Transition to adult care for youths with diabetes mellitus: findings from a universal health care system. *Pediatrics* 2009; 124(6):e1134–41.

Issue

Adherence to medical supervision around the time of transition to adult health care services for youths with diabetes mellitus (DM) is not optimal. Little is known about the impact of this nonadherence on DM-related hospitalizations and eye examinations for retinopathy.

Study

Identified 1,507 16-year-old Ontarians who had DM for five or more years between April 1996 and March 2002 and tracked them to age 20. Rates of DM-related hospitalizations and eye examinations were examined.

Key Findings

- DM-related hospitalization rates increased from 7.6 to 9.5 cases per 100 patient-years in the two years after transition to adult care.
- Previous DM-related hospitalizations, lower income, female sex and living in areas with low physician supply were associated with higher hospital admission rates.
- Individuals who were transferred to a new allied health care team with no change in physician were 77% less likely to be hospitalized after the transition than were those transferred to a new physician with either a new or no allied health care team.
- Rates of eye examinations were stable across the transition to adult care.

Implications

Programs, such as those in children's hospitals, that do not provide service beyond age 18, should consider implementing transition care programs that involve some continuity with the pediatric physician or earlier integration of the adult team into care.

One in four Ontario hospitals change cardiac care policies after public report cards released

Tu J, Donovan L, Lee D, Wang J, Austin P, Alter D, Ko D. Effectiveness of public report cards for improving the quality of cardiac care: the EFFECT study: a randomized trial. *JAMA* 2009; 302(21):2330–7.

Issue

Public report cards on hospital performance are increasingly common, but are they an effective method for improving the quality of cardiac care for patients?

Study

Analyzed the degree to which cardiac quality of care improved when 81 Ontario hospital corporations were randomly divided into two groups: 42 that received early publication (January 2004) of a public report card containing information on their baseline performance between April 1999 and March 2001 on a set of 18 process-of-care quality indicators, and 39 that received delayed publication (September 2005) of the same information. The indicators—12 for heart attacks and six for heart failure—included whether patients got appropriate diagnostic tests and life-saving medication in a timely manner. The hospitals' performances were re-evaluated up to March 2005.

Key Findings

- Ten of 42 hospitals (23.8%) in the early feedback group and two of 39 (5.1%) in the delayed feedback group reported changing their policies to allow emergency department physicians to give patients anti-blood-clotting drugs for heart attack rather than waiting for a specialist consultation.
- Hospitals in the early feedback group were significantly more likely to report undertaking quality improvement activities to improve heart attack care than hospitals in the delayed feedback group (73% and 47%, respectively).
- In the follow-up period, the average 30-day hospital mortality rates for heart attack were 2.5% lower in the early feedback group. Mortality rates for congestive heart failure were not significantly different between feedback groups.

Implications

Policy makers and clinicians may wish to consider these findings in the design and evaluation of future public reporting initiatives. Greater attention to developing common strategies for addressing report card results might enhance the systemwide effectiveness of future report cards.