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

Over one in 10 elderly hypertensive Ontarians being prescribed beta blockers as initial therapy

Tu K, Campbell N, Chen Z, McAlister F. Use of beta-blockers for uncomplicated hypertension in the elderly: a cause for concern. *J Hum Hypertens*. 2007; 21 (4): 271–275.

Issue In 1993, guidelines were established in Canada recommending against using beta blockers (BBs) as first line therapy for uncomplicated hypertension in the elderly. The prevalence and predictors of prescribing BBs in elderly Ontarians have not been examined.

Study Identified Ontario residents aged 66 years and older who received a new prescription for an antihypertensive drug between July 1994 and March 2002, and correlated the prescription rate with age, gender, presence of diabetes, socioeconomic status and long-term care status.

Key Findings Of 194,761 patients, 13% were prescribed a BB as their first antihypertensive agent. Prescribing rates for BBs increased 27% between 1994 and 2002. BBs were prescribed more often as initial therapy in elderly uncomplicated hypertensive patients who were men, in long-term care facilities, of lower socioeconomic status and who did not have diabetes.

Implications The use of BBs in elderly patients without specific indications for these drugs will likely result in poorer outcomes than patients treated with other more effective drugs. Better strategies to promote guideline-directed therapy for hypertension in the elderly are required.

Low colorectal cancer detection rates support the need for an organized screening program

Taylor C, Schultz S, Paszat L, Bondy S, Rabeneck L. Prevalence of screening in patients newly diagnosed with colorectal cancer in Ontario. *Can J Gastroenterol*. 2007; 21 (12): 805–808.

Issue Cancer screening involves testing people who have no symptoms, so it can often detect disease at an earlier stage when treatment is more effective. The proportion of Ontarians with a new diagnosis of colorectal cancer (CRC) that was detected by screening, the stage of the cancer at detection, and the motive for the procedure in patients who received their first colonoscopy have not been investigated.

Study Examined the hospital charts of 152 patients, aged 50 to 74 years, with a new diagnosis of CRC and 184 patients of the same age range who had a first colonoscopy in Ontario in 2000, to determine whether the testing was in response to symptoms or for screening.

Key Findings Of the 133 patients in whom screening status could be determined from their chart, cancer was screen-detected in only 6%. Of the 99 patients in whom stage could be determined, 43% had advanced disease. The most common reason for diagnostic colonoscopy was rectal bleeding, which was reported in 55% of patients.

Implications It will be important to be able to determine whether the new Ontario-wide CRC screening program is delivering anticipated benefits of early cancer detection. An automated monitoring and reporting system that identifies which individuals have had their CRCs detected by screening, records the cancer stage of all CRCs at diagnosis, and monitors resource use over time would be useful.

Elderly COPD patients benefit significantly from combined generalist and specialist care

Nie J, Wang L, Upshur R. Mortality of elderly patients in Ontario after hospital admission for chronic obstructive pulmonary disease. *Can Respiratory J*. 2007; 14 (8): 485–489.

Issue Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in Canada. The mortality of elderly patients admitted to hospital for COPD in Ontario has not been examined.

Study Identified 32,181 patients aged 65 years and older who were discharged from hospital in Ontario between April 2000 and March 2004 with a diagnosis of chronic bronchitis, emphysema or chronic airway obstruction. The association between patient age, sex, socioeconomic status, mortality rate and type of attending physician was examined.

Key Findings Mortality rates were 8.8, 12.1, 14.5 and 27.7 per 100 COPD hospital admissions at 30, 60, 90 and 365 days after discharge, respectively. Male gender and increasing age significantly increased mortality. No significant differences in mortality rates were found between different socioeconomic groups. Patients who were cared for by both a family physician or general practitioner and a specialist had approximately one-half the mortality rate of patients with only one physician.

Implications The higher mortality rate among those cared for by only one type of physician indicates a strong need for better management strategies for COPD and possibly the introduction of a standard of shared care among physicians to improve continuity and coordination of patient care.

Long-term statin use may be associated with decreased risk of bleeding in warfarin users

Douketis J, Melo M, Bell C, Mamdani M. Does statin therapy decrease the risk for bleeding in patients who are receiving warfarin? *Am J Med*. 2007; 120 (4): 369.e9–369.e.14.

Issue

Recent observations suggest that statin use may be associated with a decreased risk for bleeding in patients who are receiving oral anticoagulant therapy. Given that statins have properties that would tend to promote bleeding, the reason for these observations is unclear.

Study

Tracked Ontario residents aged 66 years and older with atrial fibrillation who were prescribed the anticoagulant warfarin between April 1994 and December 2001 until hospitalization for upper gastrointestinal or intracranial bleeding, discontinuation of warfarin, patient death or study end (March 2002), whichever came first. Warfarin use was correlated with the use of a statin as follows: recent users (less than six months of warfarin or statin use), long-term users (at least six months of warfarin or statin use), and any users (had at least one claim for warfarin or a statin, included both recent and long-term users).

Key Findings

- Of the 79,207 warfarin users identified, 52% were women; the mean patient age was 79 years.
- Hospital admissions for upper gastrointestinal bleeding (1,201) were more common than for intercranial bleeding (319).
- Those prescribed warfarin and who were on long-term statins had a statistically significant reduced risk for upper gastrointestinal or intracranial bleeding.
- A statistically significant reduced risk was also found in long-term warfarin and statin users.

Implications

The protective effect of long-term statin use may be related to a "healthy user effect" — long-term users or their physicians may be more attentive to health risks and more likely to have better warfarin anticoagulation control than statin non-users. The lack of a biologically plausible explanation for this outcome suggests that an association between statin use and bleeding should be interpreted with caution and further investigation is needed.

Study reveals inequities among Ontario ICD recipients

Udell J, Juurlink D, Kopp A, Lee D, Tu J, Mamdani M. Inequitable distribution of implantable cardioverter defibrillators in Ontario. *Int J Technol Assess Health Care.* 2007; 23 (3): 354–361.

Issue

Relatively little is known about the equity of current patterns of implantable cardioverter defibrillator (ICD) utilization among patients at risk for sudden death by heart failure.

Study

Identified 48,426 patients hospitalized for heart failure in Ontario between January 1993 and March 2004, following an earlier admission for myocardial infarction or unstable angina. Associations between ICD implantation and age, gender, place of residence and socioeconomic status were evaluated.

Key Findings

- Less than one percent (440) of the patients studied received an ICD during the hospital admission or within a year following discharge.
- Men were four times more likely to receive an ICD than women.
- Patients younger than 65 years of age were twice as likely to receive an ICD as older patients.
- Urban-dwelling patients were significantly more likely to receive an ICD than those who lived in a rural area.
- Higher income patients were more likely than lower income patients to receive an ICD.
- There was a gradual 30-fold increase in the implantation rate over the study period.

Implications

Because ICDs are very expensive, governments will have to find methods to screen patients in a manner that will control the explosive potential costs of widespread ICD use, while still getting these devices to those in greatest need, regardless of gender, age, income and geography.