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

Short-acting beta-blockers associated with less cardiac protection for surgery patients

Redelmeier D, Scales D, Kopp A. Beta-blockers for elective surgery in the elderly: population-based, retrospective cohort study. *BMJ*. 2005; 331 (7522): 932-934.

Issue Beta-blockers are one medical therapy that may reduce the post-operative cardiac risk associated with surgery. However, there has been little comparison of the relative effectiveness of different beta-blockers.

Study Tracked patients aged 65 years and older admitted to Ontario acute care hospitals between 1992 and 2002 for elective surgery, without symptomatic coronary disease, to test whether atenolol (a long-acting beta-blocker) and metoprolol (a short-acting beta-blocker) are associated with equivalent reductions in heart attacks and death for these patients.

Key Findings A total of 37,151 patients were receiving atenolol or metoprolol prior to surgery, and 1,038 had a heart attack or died. The rate of a heart attack or death was lower for those receiving atenolol than metoprolol (2.5% vs. 3.2%).

Implications Physicians may wish to consider switching high-risk patients from short- to long-acting beta-blockers. As well, anesthesiologists who initiate short-acting beta-blockers during surgery should provide explicit mention in the patient's chart so that the risk of subsequent beta-blocker withdrawal is minimized.

Outcomes improving for colorectal cancer surgery patients

Davila J, Rabeneck L, Berger D, El-Serag H. Postoperative 30-day mortality following surgical resection for colorectal cancer in veterans: changes in the right direction. *Dig Dis Sci.* 2005; 50 (9): 1722-1728.

Issue Over the past decade, there have been several changes in surgical techniques for colorectal cancer (CRC) patients, as well as in preoperative and postoperative care. However, it has not been determined whether changes in processes of care have resulted in a reduction in 30-day postoperative mortality.

Study Used U.S. National Veterans' Administration (VA) data to identify patients with CRC, between 1987 and 2000, that received surgical resection. Temporal changes in 30-day postoperative mortality were examined, as well as changes in preoperative and postoperative disorders that could contribute to 30-day mortality.

Key Findings A total of 32,621 CRC patients were identified. The 30-day postoperative mortality from surgical resection declined from 4.7% during 1987-1988 to 3.9% during 1998-2000. Significant declines were also observed among many preoperative and postoperative disorders that could contribute to 30-day mortality.

Implications Declining preoperative and postoperative disorders, as well as improvements in surgical care, have helped to improve short-term mortality for CRC surgery patients in this study group. Other hospital systems should examine whether their outcomes have improved at a similar rate.

Social policy changes should better evaluate potential health effects

Steele L, Glazier R, Lin E, Austin P, Mustard C. Measuring the effect of a large reduction in welfare payments on mental health service use in welfare-dependent neighborhoods. *Med Care*. 2005; 43 (9): 885-891.

Issue Major social policy changes have been implemented in Canada over the last decade with few efforts to examine their potential health effects.

Study Examined census, provincial health insurance plan, and municipal welfare data in Toronto, Ontario to compare ambulatory mental health service use by level of neighbourhood welfare dependency before and after a 21.6% reduction in welfare payments.

Key Findings There were no long-term relative differences by welfare dependency in mental health service use before versus after the welfare payment policy change. However, there was a marked gradient in mental health service use, with low welfare dependency areas having significantly higher rates of mental health service use than high welfare dependency areas.

Implications This study uncovered an important mismatch between the known need for mental health services and use of these services. To better examine need vs. use, social policy changes with potential health effects should include planned, integrated evaluations at the time of policy implementation.

Breast cancer screening less likely in women with diabetes

Lipscombe L, Hux J, Booth G. Reduced screening mammography among women with diabetes. *Arch Intern Med*. 2005; 165 (18): 2090-2095.

Issue Previous research has not examined whether the presence of diabetes mellitus (DM) affects mammography use in a Canadian setting, where there is universal access to health care.

Study Between 1999 and 2002, women aged 50 to 67 (the target age for breast cancer screening) who were free of breast cancer were tracked, until they received their first mammogram in a two-year period. Mammography rates were compared between 69,168 women who had DM and 663,519 women without DM to examine whether the presence of DM affects mammography use to screen for breast cancer.

Key Findings Overall, only 46.5% of women had at least one screening mammogram. Approximately one-third fewer women with diabetes had a mammogram than women without diabetes. In addition, the odds of having a mammogram remained significantly reduced for women with diabetes even after taking into account age, income, geographical location of residence, additional illnesses, frequency of primary care visits, specialist care, and the presence of a regular care provider.

Implications These results suggest that, because of the complexity of diabetes care, routine preventative care, such as cancer screening, is often neglected. There is a need for better organized primary care services for patients with chronic diseases and standardized strategies to ensure that comprehensive care, including long-term disease prevention, is provided.

Newer atypical antispychotics can also cause parkinsonism

Rochon P, Stukel T, Sykora K, Gill S, Garfinkel S, Anderson G, Normand S-L, Mamdani M, Lee P, Li P, Bronskill S, Marras C, Gurwitz J. Atypical antipsychotics and parkinsonism. *Arch Intern Med*. 2005; 165 (16): 1882-1888.

Issue Atypical antipsychotic agents are thought to be less likely than older typical agents to produce parkinsonism, however, this has not been well documented.

Study Tracked 57,838 Ontarians aged 66 years and older (11,571 who were prescribed *atypical* antipsychotics, 14,198 who were given *typical* antipsychotics, and 32,069 on neither agent) between 1997 and 2001 to examine the association between the type and dose of antipsychotics dispensed and the development of parkinsonism during one year of follow-up.

Key Findings Elderly patients who were prescribed high-dose atypical antipsychotics were more than twice as likely to develop parkinsonism, relative to those given low-dose atypical antipsychotics. As well, older adults who were dispensed high-dose atypical antipsychotics had a similar risk of developing parkinsonism to those dispensed typical antipsychotics. The overall rate of parkinsonism was almost three times higher in those dispensed atypical antipsychotics, relative to those who did not take any sort of antipsychotic at all.

Implications Non-drug approaches should always be explored before starting antipsychotic therapy. If antipsychotics are used, physicians should start their patients on the lowest dose possible and continually re-evaluate them to assess whether ongoing therapy is needed.

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