

At A Glance

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Monthly highlights of ICES research findings for stakeholders

Use of anti-inflammatory drugs associated with greater risk of hospitalization for heart failure

Mamdani M, Juurlink D, Lee D, Rochon P, Kopp A, Naglie G, Austin P, Laupacis A, Stukel T. Cyclo-oxygenase-2 versus non-selective non-steroidal anti-inflammatory drugs and congestive heart failure outcomes in elderly patients: a population-based cohort study. *Lancet*. 2004; 363 (9423) 1751-1756.

- Issue** Since their recent introduction, cyclo-oxygenase inhibitors (COX-2s) have rapidly gained acceptance in clinical practice because of a lower risk of gastrointestinal bleeding than traditional non-steroidal anti-inflammatory drugs (NSAIDs). However, recent research has begun to challenge the cardiovascular safety of COX-2s and traditional NSAIDs.
- Study** Assessed the risk of hospitalization for heart failure in over 45,000 elderly Ontarians newly prescribed COX-2s or traditional NSAIDs, compared to a randomly selected control group of 100,000 elderly patients who did not use these drugs.
- Key Findings** Compared to the control group, patients on the COX-2 rofecoxib had an 80% increase in hospital admissions for heart failure, and people using traditional NSAIDs had a 40% increase in admissions. Users of the COX-2 celecoxib had the same rate of hospital admission for heart failure as those not using NSAIDs. Although absolute risks for heart failure are less than 1%, these findings are significant given that more than 20% of elderly Ontarians take these medications.
- Implications** There must be careful monitoring of the cardiovascular effects of patients taking COX-2s and traditional NSAIDs. As well, large head-to-head trials of these medications should be conducted to better understand the outcomes of this study.

Patients should see hospital physicians after discharge

Van Walraven C, Mamdani M, Fang J, Austin P. Continuity of care and patient outcomes after hospital discharge. *J Gen Intern Med*. 2004; 19 (6): 624-631.

- Issue** Understanding of the effect of continuity of care by hospital physicians upon early patient outcomes is increasingly important because family physicians are less likely to treat hospitalized patients.
- Study** Followed over 938,000 adults discharged from Ontario hospitals between 1995 and 2000 to examine differences in mortality and 30-day readmission rates for patients seen by hospital physicians, community physicians, and specialists following discharge from hospital.
- Key Findings** Of the patients studied, 7.7% died or were readmitted to hospital. The risk of hospital readmission or death was reduced to 7.3%, 7.0%, and 6.7% if patients had 1, 2, or 3 visits, respectively, with a hospital physician rather than a community physician.
- Implications** Patient outcomes can be improved with each additional post-discharge visit to a hospital physician, as these physicians are more familiar with the patient's experience during hospitalization. This improved continuity of care could improve outcomes for thousands of patients.

Leading causes of global death and disability not being studied in clinical trials

Rochon P, Mashari A, Cohen A, Misra A, Laxer D, Steiner D, Dergal J, Clark J, Gold J, Binns M. Relation between randomized controlled trials published in leading general medical journals and the global burden of disease. *CMAJ*. 2004; 170 (11): 1673-1677.

- Issue** It has been estimated that less than 10% of health research spending is directed toward diseases or conditions that account for 90% of the global burden of disease.
- Study** Conducted a MEDLINE search of randomized controlled trials (RCTs) published in six international peer-reviewed general medical journals in 1999.
- Key Findings** Fewer than half (43%) of the studies addressed one of the 35 leading causes of the global burden of disease and only 32% studied one of the top 10 causes. Almost one quarter (21%) focused on the three most common conditions – ischemic heart disease, HIV/AIDS and cerebrovascular disease.
- Implications** Solutions should include increased emphasis on providing physicians and researchers in developing countries with the skills and training to conduct their own RCTs based on practical, cost-effective therapeutic strategies. As well, more studies focusing on the global burden of disease should be published in major medical journals so that these are accessible around the world.

Many common illnesses increase risk of suicide in elderly

Juurink D, Herrmann N, Szalai J, Kopp A, Redelmeier D. Medical illness and the risk of suicide in the elderly. *Arch Intern Med.* 2004; 164 (11): 1179-1184.

- Issue** Suicide in the elderly receives less attention than suicide in young adults, despite the fact that the rates of suicide in the elderly are higher.
- Study** Tracked all suicides between 1992 and 2000 committed by Ontarians 66 years of age and older. Compared the prescription records of these individuals in the months preceding their suicide to living controls to determine the presence or absence of 17 illnesses potentially associated with suicide.
- Key Findings** Among the 1,329 elderly people who committed suicide, the most common methods involved firearms (28%), hanging (24%), and self-poisoning (21%). Depression, bipolar disorder (manic-depressive illness), and severe pain were associated with the largest increases in suicide risk. Several other chronic illnesses including seizure disorder, congestive heart failure, and chronic lung disease, were also associated with an increased risk of suicide. Treatment for multiple illnesses was strongly related to an increased risk of suicide, and most of the patients who committed suicide visited a physician in the month before death, about half of them during the preceding week.
- Implications** Physicians who care for patients with painful conditions should be alert to the potential for suicide as a means of escape from suffering. As well, health care providers need to recognize the possible threat of suicide in elderly patients with chronic illnesses.

Most deaths in men with prostate cancer not due to prostate cancer

Lu-Yao G, Stukel T, Yao S-L. Changing patterns in competing causes of death in men with prostate cancer: a population based study. *J Urol.* 2004; 171 (6 Pt 1): 2285-2290.

- Issue** Although substantial efforts have been devoted to the prevention, detection and treatment of prostate cancer, more insight is needed into how overall health challenges have changed in men with this condition.
- Study** Examined over 180,000 patients with prostate cancer in the 1979 to 1996 U.S. Surveillance, Epidemiology and End Results cancer registry, and over 450,000 hospital admissions in the 1987 to 1996 U.S. Surveillance, Epidemiology and End Results-Medicare linked database. Data were analyzed to assess trends in mortality and hospitalization, as well as proportions of deaths due to various causes in different years.
- Key Findings** In men with prostate cancer, the risk of death from prostate cancer was 40% lower in 1995/96 than in 1979/80. Mortality from other causes combined increased by 65% and exceeded mortality due to prostate cancer. By 1995/96 the proportion of prostate cancer deaths was similar to that of cardiovascular disorders and substantially less than that of all other sources combined. Similar effects were observed for hospitalizations.
- Implications** In addition to cancer management in men with prostate cancer, medical resources must be focused on the prevention, screening, and treatment of other commonly noted medical disorders.

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