

At A Glance

January 2004

Monthly highlights of ICES research findings for stakeholders

New approach needed for drug evaluation in Canada

Laupacis A, Paterson M, Mamdani M, Rostom A, Anderson G. Gaps in the evaluation and monitoring of new pharmaceuticals: proposal for a different approach. *CMAJ*. 2003; 169 (11): 1167-1170.

Issue	A new approach to drug evaluation in Canada is needed to manage the marked increase in drug spending, while ensuring access to beneficial medications.
Study	Proposed a model for optimal drug evaluation in Canada.
Key Findings	The recommendations included: <ul style="list-style-type: none">• Performing more evaluations of the real world use and outcomes of drugs, and using this information to influence drug reimbursement decisions.• Developing a national research infrastructure to allow researchers from a Centre of Excellence in Pharmacosurveillance (CEIP) in one province to access data from other provinces, and to evaluate the impact of different provincial drug funding strategies on outcomes. The national network of CEIPs would collaborate with similar networks in other countries.
Implications	Increased use of real world data will lead to more regular re-evaluation of drug reimbursement decisions, thereby ensuring more cost-effective use of drugs. Collaboration among CEIPs will promote high quality analysis, and increase the ability to detect rare but important outcomes.

Chest pain patients in higher SES neighbourhoods have shorter ambulance transport times

Govindarajan A, Schull M. Effect of socioeconomic status on out-of-hospital transport delays of patients with chest pain. *Ann Emerg Med*. 2003; 41 (4): 481-490.

Issue	Emergency medical services (EMS) provide a disproportionate amount of care to patients of low socioeconomic status (SES), yet few studies have examined whether SES affects EMS care.
Study	Examined the time from: 911 call until ambulance arrival; scene arrival to departure; scene departure to emergency department (ED) arrival, and the total time from the 911 call to ED arrival for all unscheduled EMS ambulance transports originating in Toronto between January and December 1999 for chest pain patients.
Key Findings	Chest pain patients from the highest SES neighbourhoods had ambulance response and transport intervals that were 5% and 12% shorter, respectively, than patients from lower SES neighbourhoods. Independent of SES, transport intervals were also 7% longer for females and 2% longer for every 10-year increase in age.
Implications	In the absence of data to suggest that the above noted response and transport differences are appropriate and justifiable, system level interventions should be instituted to reduce delays.

Elderly men in the U.S. are receiving excessive screening for prostate cancer

Lu-Yao G, Stukel T, Yao S-L. Prostate-specific antigen screening in elderly men. *J Natl Cancer Inst*. 2003; 95 (23): 1792-1797.

Issue	While it is not recommended that men 75+ years of age have a prostate specific antigen (PSA) test to screen for prostate cancer, evidence is needed to determine the prevalence of PSA screening in this group.
Study	Used a nationally representative sample of nearly 8,000 men who had completed the year 2000 U.S. National Health Interview Survey (NHIS). Data was analyzed to determine the rates of PSA screening, the percentage of tests initiated by physicians and the percentage of tests preceded by a discussion about the risks and benefits of the test.
Key Findings	Approximately 33% of U.S. men 75+ years of age (1.47M) had a PSA test. Among those screened, 88% reported that their doctor suggested screening and 67% reported having had a discussion regarding the test.
Implications	The results from this study show that strategies are needed to increase understanding of the risks and benefits of PSA screening among elderly men.

Heart failure index can help doctors predict risk of death

Lee D, Austin P, Rouleau J, Liu P, Naimark D, Tu J. Predicting mortality among patients hospitalized for heart failure. *JAMA*. 2003; 290 (19): 2581-2587.

Issue	Although heart failure is a common, serious condition treated by both generalist and specialist physicians, few methods exist to help estimate prognosis.
Study	Examined over 4,000 heart failure patients admitted to 34 Ontario teaching and community hospitals between 1997 and 2001 to create a risk scoring system based on the physiological factors and chronic diseases which impact heart failure mortality.
Key Findings	<ul style="list-style-type: none">• Physiological predictors of both 30-day and one-year heart failure mortality included older age, lower blood pressure, higher respiratory rate, higher urea nitrogen level, and hyponatremia.• Chronic diseases associated with 30-day and one-year heart failure mortality included stroke, dementia, chronic obstructive pulmonary disease, cirrhosis, and cancer.• Heart failure patients with low scores on the mortality index had a mortality rate of 0.4% at 30 days and 8.0% at one year, while high-risk patients had a mortality rate of 59.0% at 30 days and 78.8% at one year.
Implications	Specific uses for the mortality index could include discussing prognosis and providing evidence to support rational decision-making about end of life care. This tool could also be used to help make decisions about when to admit a patient to a regular hospital ward versus an intensive or cardiac care unit, which would improve patient care and assist with more effective use of scarce resources.

Dementia patients use more resources, but in a similar pattern to patients without dementia

Tranmer J, Croxford R, Coyte P. Dementia in Ontario: prevalence and health services utilization. *Can J Aging*. 2003; 22 (4):

Issue	As the role of unpaid caregivers, home care and long-term care facilities for patients with dementia increases, there is a need to examine the disease prevalence and rates of health services utilization for people with this condition.
Study	Compared the use of hospital, physician, home and long-term care services and prescription medications, in Ontarians with dementia aged 70 years and older to a sample of individuals aged 70 years and older without dementia.
Key Findings	<ul style="list-style-type: none">• From 1999-2000, the prevalence of dementia was 11.6% in people 70+ years of age.• More than 95% of people with dementia received one or more physician services, compared with a rate of 89% for non-dementia patients.• On average, 47% of individuals with dementia were residing in long-term care facilities, compared to only 12% of non-dementia patients.• Individuals with dementia generally received a greater number of prescriptions and their drug expenditures were, on average, 50% higher.
Implications	Individuals with dementia used health services in a pattern similar to that of patients without dementia, although at a higher level. Future research needs to build on these findings, recognizing that the growing elderly population will increase the prevalence of dementia, and subsequently the need for health care resources.

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