

## At A Glance

March 2004

### Monthly highlights of ICES research findings for stakeholders

#### Nearly one quarter of hospital patients experienced an adverse event after discharge

Forster A, Clark H, Menard A, Dupuis N, Chemish R, Chandok N, Khan A, van Walraven C. Adverse events among medical patients after discharge from hospital. *CMAJ*. 2004; 170 (3): 345-349.

<b>Issue</b>	In recent years, the issue of patient safety has gained considerable momentum. Research on adverse events (AEs) has focused on those occurring before or during hospital hospitalization. Few studies have examined AEs that take place after hospital discharge.
<b>Study</b>	Examined 328 patients discharged from a general internal medicine service in an Ontario teaching hospital during a 14-week interval in 2002 to determine the incidence, the level of severity, and the degree to which AEs could have been prevented or minimized.
<b>Key Findings</b>	Nearly one quarter (23%) of the patients experienced at least one AE. Severity ranged from symptoms only (68%), to symptoms associated with a non-permanent disability (25%), to permanent disability (3%), to death (3%). The most common AEs were adverse drug events (72%), therapeutic errors (16%) and hospital acquired infections (11%). Half of the AEs could have been prevented or minimized.
<b>Implications</b>	Methods to improve patient safety after discharge should be investigated, and other patient populations, such as surgical patients, should be studied for similar risks.

#### Consumer expectations vs. health system sustainability: can a balance be achieved?

Alter D, Iron K, Austin P, Naylor D. Socioeconomic status, service patterns, and perceptions of care among survivors of acute myocardial infarction in Canada. *JAMA*. 2004; 291 (9): 1100-1107.

<b>Issue</b>	To what degree should consumer expectations be permitted to drive planning for a sustainable Medicare system?
<b>Study</b>	Surveyed over 2,200 Ontario heart attack patients 30 days following heart attack to determine whether demands for, use of, and satisfaction with health care differed between the wealthiest 20% and the poorest 20% of patients.
<b>Key Findings</b>	Wealthier, better-educated patients wanted more cardiac care and received more care, yet were twice as likely to be dissatisfied with access to care, and the care received. Despite being more ill, less affluent, less educated patients had fewer expectations, received fewer cardiac services, and were more satisfied with access and care provided.
<b>Implications</b>	Achieving a balance between meeting ever-growing consumer expectations and sustaining Medicare will be a growing challenge in the future. If we are to sustain the system and keep pace with advances in medicine (e.g. technologies), there will need to be societal debate regarding policy options, namely: added funding, system rationing and privately funded services.

#### Obesity and asthma unrelated in children

To T, Vydykhan T, Dell S, Tassoudji M, Harris J. Is obesity associated with asthma in young children? *J Peds*. 2004; 144 (2): 162-168.

<b>Issue</b>	Due to the fact that increases in asthma and obesity have coincided, studies have suggested a possible causal relationship. However, the results of such studies in children have been inconsistent.
<b>Study</b>	Examined the association between asthma and obesity in a population-based sample of over 11,000 Canadian children between four and 11 years of age.
<b>Key Findings</b>	The prevalence of asthma was 10%. Maternal history of asthma was a risk factor for asthma among all children. Single child status and maternal depression were risk factors for girls. There was no association between asthma and obesity in four to 11 year olds.
<b>Implications</b>	Research should be conducted to determine whether a relationship exists between asthma and obesity in children beyond 11 years of age.

## Thousands more Ontarians should be screened for colorectal cancer

Vinden C, Schultz S, Rabeneck L. *Use of Large Bowel Procedures in Ontario: An ICES Research Atlas*. Feb. 2004

<b>Issue</b>	Colorectal cancer (CRC), which is largely preventable through regular screening, is the leading cause of death from cancer in non-smokers in Ontario and the third most common cancer among Canadians. Although clinical evidence indicates that the most promising method for increasing screening uptake is through a population-based screening program, no such program exists anywhere in Canada.
<b>Study</b>	Examined colonic evaluation procedure rates at population, regional and hospital levels between 1992 and 2001 and provided policy options to improve colonic evaluation rates.
<b>Key Findings</b>	<ul style="list-style-type: none"><li>• Only 7% of people who should have been screened had any form of invasive colonic evaluation procedure during the study period.</li><li>• The number of colonoscopies nearly tripled from over 63,000 in 1992 to more than 172,000 in 2001, the latter of which represents a mere 4% of the screen-eligible population.</li><li>• Sigmoidoscopy and barium enema rates have fallen by 40% and 30%, respectively.</li><li>• Fecal occult blood testing (FOBT) rates for those who should be screened remain very low, despite recommendations that this test should be carried out annually or biennially.</li><li>• Some Ontario counties had procedure rates 2.5 times higher than counties with the lowest rates.</li><li>• Relative to total hospital volume, colonoscopies were performed at twice the rate in small hospitals compared to teaching hospitals.</li></ul>
<b>Implications</b>	In addition to developing an organized screening program, new ways to provide, fund and organize the delivery of colonic evaluation procedures need to be found.

## ALLHAT trial shows that physicians' prescribing patterns change in response to new evidence

Austin P, Mamdani M, Tu K, Zwarenstein M. *Changes in prescribing patterns following publication of the ALLHAT trial*. *JAMA*. 2004; 291 (1): 44-45.

<b>Issue</b>	As drug costs continue to soar, it is important to assess the role of evidence relative to marketing in changing physicians' prescribing patterns.
<b>Study</b>	Examined trends in the use of each of the four antihypertensive drug classes before and after the release of the ALLHAT (Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack) trial. Published in December 2002, the trial concluded that thiazide-type diuretics should be the initial therapy, over angiotensin converting enzyme inhibitors (ACEIs) and calcium channel blockers in treating hypertension.
<b>Key Findings</b>	In the month following publication of the ALLHAT trial, the market share of thiazide-type diuretics and ACEIs/angiotensin receptor blockers (ARBs) went from 16% and 44% respectively, to 27% and 35%, respectively. The market-share of thiazide-type diuretics continued to increase in the four months following the trial, while the market share of ACEIs/ARBs decreased.
<b>Implications</b>	A large, well-publicized trial resulted in a significant shift in market share in favour of lower cost drugs over newer, more expensive alternatives, indicating that physicians do change prescribing patterns based on new evidence.

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