At A Glance

December 2006

Monthly highlights of ICES research findings for stakeholders

ACE inhibitors associated with reduced risk of ruptured abdominal aortic aneurysm

Hackam D, Thiruchelvam D, Redelmeier D. Angiotensin-converting enzyme inhibitors and aortic rupture: a population-based case-control study. *Lancet*. 2006; 368 (9536): 659-665.

Issue Angiotensin-converting enzyme (ACE) inhibitors have been shown to prevent the expansion and rupture of abdominal aortic aneurysms (AAA) in animals. However, it is unclear if this effect extends to humans.

Study Tracked over 15,000 patients 66 years of age and older admitted to hospital with a primary diagnosis of ruptured or intact AAA between April 1, 1992 and April 1, 2002, in order to investigate any association between patients taking ACE inhibitors and aortic rupture. Also looked at whether the findings with ACE inhibitors were unique or shared with other medications.

Key Findings Patients receiving ACE inhibitors had 18% lower odds of aortic rupture than patients not receiving ACE inhibitors. Conversely, such protective associations were not observed for beta blockers, calcium channel blockers, alpha blockers, angiotensin receptor blockers, or thiazide diuretics.

Implications Patients with established AAA who are not candidates for repair might benefit from treatment with ACE inhibitors. Since patients with AAA have a high incidence of unrelated diseases, these findings may also have consequences for health promotion and prevention of illness. And finally, as no proven medical treatment exists for this disease, the results provide substantial motivation for clinical trials.

Continuity of physician care is not likely to reduce the volume of lab tests

van Walraven C, Cernat G, Austin P. Effect of provider continuity on test repetition. *Clin Chem*. 2006 Oct. 19; [Epub ahead of print].

Issue The influence of continuity of care on repeat laboratory testing is an area that requires clarification.

Study Tracked over 881,000 adults in eastern Ontario who had seven common laboratory tests between September 1999 and September 2000. Determined whether the probability of test repetition changed if the follow-up physician also ordered the initial lab test.

Key Findings Among approximately 1.5 million initial laboratory tests and 7.6 million follow-up physician visits, the odds that tests were repeated were 2.2 to 6.1 times higher when patients were seen in follow-up by the physician who had ordered the initial test.

Implications Increased continuity of care alone will likely not decrease test utilization. Going forward, it should be determined whether these results extend to other patient populations and for other investigations.

Recommendations for establishing an Ontario Citizens' Council to guide drug policy

Jeyanathan T, Dhalla I, Culyer T, Levinson W, Laupacis A, Martin D, Sullivan T, Evans W. *Recommendations for Establishing a Citizens' Council to Guide Drug Policy in Ontario*. Toronto: Institute for Clinical Evaluative Sciences; 2006.

Issue The Ontario legislature recently passed Bill 102, the *Transparent Drug System for Patients Act*, which mandates the establishment of a Citizens' Council. However, a framework for this Council has not been developed.

Study Describes theoretical and practical issues related to establishing a Citizens' Council; presents approaches used in other jurisdictions; and, recommends options for the Citizens' Council proposed in the *Transparent Drug System for Patients Act*.

Key Findings Key elements to consider in establishing the Council include: membership eligibility; methods of recruitment and selection; number of members; remuneration; duration of membership; conflicts of interest; training and orientation of members; organizer of meetings; questions for debate; meeting content, outcomes, frequency, duration, and location; and, assessment and evaluation.

Implications Recommendations include: establishing a Council that is arm's length from decision-makers, with local ownership; proper choice of topics; enthusiastic, motivated, respectful participants; quality chairing; a strong commitment from policymakers; and, transparency and openness to public scrutiny. As well, there need to be clear timelines; a clear definition of the evidence that can be presented; use of in-camera sessions when needed; time for reflection; appropriate technical and administrative support; and, member compensation.

Restrictions on elective hospital admissions may be insufficient to meet demand in pandemic

Schull M, Stukel T, Vermeulen M, Guttmann A, Zwarenstein M. Surge capacity associated with restrictions on nonurgent hospital utilization and expected admissions during an influenza pandemic: lessons from the Toronto severe acute respiratory syndrome outbreak. *Acad Emerg Med*. 2006; 13 (11): 1228-1231.

Issue One proposed strategy to provide hospitals with the capacity to accommodate the large number of influenza-related hospital admissions expected during a possible flu pandemic is to restrict elective hospitalizations. However, the degree to which this measure would meet the anticipated need is unknown.

Study Examined the Ontario Ministry of Health and Long-Term Care's estimates of influenza-related hospitalizations in the first eight weeks of a mild, moderate, or severe pandemic in Toronto. Compared those with the actual reduction in the number of hospital admissions in the first eight weeks of the widespread restrictions instituted on non-urgent hospital admissions during the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak in Toronto.

Key Findings It is estimated that there will be 4,819 influenza-related admissions in the first eight weeks of a mild pandemic, but that this would rise to 8,032 or 11,245 in the first eight weeks of a moderate or severe pandemic, respectively. In the first eight weeks of SARS-related hospital admission restrictions in Toronto, hospitalizations were reduced by 3,654. Therefore, influenza-related admissions could exceed the reduction in admissions resulting from restricted hospital utilization by 1,165 to 7,591, or 4% to 25% of current capacity, over the first eight weeks of a pandemic, depending on its severity.

Implications Additional measures to provide hospital capacity could involve more rigorous implementation of hospital restrictions to further reduce elective admissions, such as developing uniform guidelines to determine which patients can be safely deferred for elective surgeries.

ICES Primary Care Atlas most comprehensive report of its kind in Ontario

Jaakkimainen L, Upshur R, Klein-Geltink J, Leong A, Maaten S, Schultz S, Wang L, editors. *Primary Care in Ontario: ICES Atlas.* Toronto: Institute for Clinical Evaluative Sciences; 2006.

Issue Although primary care is by far the largest component of the health care system in Ontario, no in-depth studies have been undertaken.

Study This third and final installment of the *ICES Atlas: Primary Care in Ontario* examined the supply of physicians providing primary care, their practice locations, workloads, services provided, and patient characteristics, as well as the factors which influence preventive, chronic and acute disease management in primary care. Parts one and two of the Atlas examined current trends in primary care for women during pregnancy, labour and childbirth; the care of children and adults; patterns in preventive health care; and, services to people with cancer, respiratory diseases, congestive heart failure, and mental health problems, as well as care to disadvantaged populations. The study examined the time period between 1993/94 to 2003/04.

Key Findings Approximately 140,000 people visit a general practitioner/family physician (GP/FP) each day in Ontario. Despite Ontario's growing and aging population, there was no change in the overall number of visits to GP/FPs. In 2003/04, approximately 30% of Ontario GP/FPs were purely in solo practice, with no formal group affiliations. Just under 60% of women between 20 and 39 years of age received at least one Pap test (which can screen for cervical cancer), and only 17% of Ontarians between 50 and 69 years of age underwent colorectal cancer screening. In children, over 70% had received at least five vaccinations by age two. The proportion of adults having high continuity of care was just under 40%.

Implications Due to the central role of GP/FPs, policymakers need to consider how changes to the primary care system will affect both the lives of Ontarians and the overall health care system. Essential areas of focus should include: creating stronger incentives to attract students to primary care medicine; ensuring that the current system does not penalize physicians for sharing patient care; and, identifying and addressing populations who do not have equitable access to services.

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