

At A Glance

June 2005

Monthly highlights of ICES research findings for stakeholders

Ontario facing critical shortage of neurosurgery specialists

Tepper J, Jaigobin C, Wang C. *Health human resources for neurosurgical services in Ontario. ICES investigative report.* Toronto: Institute for Clinical Evaluative Sciences; 2005.

Issue	There are urgent issues regarding Ontario's delivery of neurosurgical services that need to be addressed to avoid a severe shortage of neurosurgical specialists in the near future.
Study	Used a variety of data sources to identify staffing and technology issues that impact access to the following neurosurgical specialties: neurosurgery (NS), complex spinal surgery (CS), and interventional neuroradiology (IN).
Key Findings	<ul style="list-style-type: none">• Neurosurgeons have among the greatest on-call hours of service of all physician groups and work 73 to 81 hours per week;• Although six new neurosurgeons graduate in Ontario each year, only one or two begin to practice here due, at least in part, to a lack of opportunities in Ontario hospitals. Previous research has shown that five years following graduation, approximately 50% of Ontario NS graduates have left to practice in other provinces or the U.S.;• There are large and growing waiting lists for even a first assessment for CS;• Timely access to IN is limited because of the low number of centres providing the service;• Expanding need for CS and IN will be difficult to meet with current physician numbers and resources; and,• There are variations in access to care for CS and IN across the province.
Implications	There is an urgent need to address the above findings now in order to sustain and strengthen this critical provincial resource for the future.

Stopping warfarin therapy after major trauma may increase risk of blood clots in the elderly

Hackam D, Kopp A, Redelmeier D. *Prognostic implications of warfarin cessation after major trauma: a population-based cohort analysis. Circulation.* 2005; 111 (17): 2250-2256.

Issue	The medical literature offers little evidence to guide physicians about resuming a long-term oral anticoagulation therapy, such as warfarin, in patients who survive a major trauma.
Study	Examined 8,450 elderly Ontarians, 66 years of age and older, between 1992 and 2001 who survived an incident of major trauma and were receiving warfarin before their injury to study whether stopping warfarin after trauma is associated with a higher risk of subsequent adverse cardiovascular events.
Key Findings	Warfarin cessation was not associated with an increased risk of subsequent stroke or heart attack, but was associated with a lower risk of major hemorrhage and a higher risk of blood clots.
Implications	Physicians who prescribe long-term warfarin in patients with a history of trauma should carefully weigh the potential benefits with the competing risks of hemorrhage and blood clots.

Introduction of laparoscopic cholecystectomy has lowered incidence of severe gallstone disease

Urbach D, Stukel T. *Rate of elective cholecystectomy and the incidence of severe gallstone disease. CMAJ.* 2005; 172 (8): 1015-1019.

Issue	Previous studies have not investigated whether the increase in the rate of elective laparoscopic cholecystectomy has resulted in a reduction in the incidence of severe complications of gallstone disease (i.e. acute cholecystitis, pancreatitis, or cholangitis).
Study	Examined rates of severe gallstone disease from 1988 to 2000 in Ontarians 18 years of age and older to assess the effects of the large increase in elective cholecystectomy rates after 1991, when laparoscopic cholecystectomy was introduced.
Key Findings	Overall, the annual rate of severe gallstone disease declined by 10% between 1992 and 2000, compared with 1988 to 1991. This decline was entirely due to an 18% reduction in the rate of acute cholecystitis.
Implications	A higher rate of elective cholecystectomy appears to have a net public health benefit.

Alternative funding arrangements (AFAs) have not led to big changes in ED physician workforce

Schull M, Vermeulen M. Ontario's alternate funding arrangements for emergency departments: the impact on the emergency physician workforce. *Can J Emerg Med.* 2005; 7 (2): 100-106.

Issue	In 1999, the Ontario Ministry of Health and Long-Term Care introduced a new emergency department (ED) remuneration scheme known as alternate funding arrangements (AFAs) to aid with difficulties in maintaining adequate physician staffing and around-the-clock access to emergency services. There is a need to analyze the impact of these AFAs on physician staffing and practice patterns.
Study	Obtained records for all physician services provided in EDs one year before and one year after implementation of an ED AFA. For each hospital type, and all hospitals combined, data were used to compare the pre- and post-AFA periods in terms of the number of physicians working regularly in the ED and their workload, as well as physician involvement in primary care.
Key Findings	Overall, 76% of eligible hospitals adopted an ED AFA. There was a 1% overall increase in the ED physician workforce in the post-AFA period. This change varied by hospital type, with a 5.8% increase in teaching hospitals, a 4.6% increase in small hospitals, and a 2.2% decrease in community hospitals. ED physicians working a moderate number of days per month (5-10) increased by 3.2%, while there were fewer physicians working many (more than 10) and few (less than 5) days per month. The number of physicians working in EDs who also provided primary care services decreased by 1.7%.
Implications	ED AFAs have been widely adopted, but have not led to substantial changes in the overall physician workforce. However, trends toward increased physician numbers were seen in small and teaching hospitals, which may represent an AFA-related stabilization of the ED physician workforce in the short-term for these hospital types. The AFA program appears to be least appealing to physicians in community hospitals.

Socioeconomic status not associated with mortality in elderly pneumonia patients

Vrbova L, Mamdani M, Moineddin R, Jaakimainen L, Upshur R. Does socioeconomic status affect mortality subsequent to hospital admission for community-acquired pneumonia among older persons? *J Negat Results Biomed.* 2005; 4 (1): 4.

Issue	There are few published studies investigating the association between socioeconomic status (SES) and mortality subsequent to hospitalization for community-acquired pneumonia (CAP).
Study	Tracked 60,457 Ontarians 66 years of age and older admitted to hospital with CAP between April 1995 and March 2001 to measure which factors contribute the most to 30-day and one-year mortality subsequent to hospital admission for CAP.
Key Findings	Increasing age, male gender and high co-morbidity increased the risk for mortality from CAP at 30 days and one year. However, SES was not a factor in increasing the risk of death subsequent to hospital admission for CAP.
Implications	Despite increasing evidence that low SES is associated with adverse health outcomes, this study's results indicate that it is not a factor in mortality in the elderly following hospitalization for CAP.

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