Enhancing the effectiveness of health care for Ontarians through research

ICES Institute for Clinical Evaluative Sciences

At A Glance

December 2004

Monthly highlights of ICES research findings for stakeholders

ED overcrowding causing heart attack patients to have dangerous waits for drugs

Schull M, Vermeulen M, Slaughter G, Morrison L, Daly P. Emergency department crowding and thrombolysis delays in acute myocardial infarction. *Ann Emerg Med.* 2004; 44 (6): 577-585.

Issue No study has examined how emergency department (ED) overcrowding affects the "door-to-needle time" (DNT) for heart attack patients to receive "clot-busting drugs", known as thrombolytics.

Study Examined ED overcrowding and delays in the time from when a suspected heart attack patient arrives at the ED until they receive clot-busting medications (the DNT), for patients from 25 Ontario community and teaching hospitals between 1998 and 2000. EDs located close together and sharing a common ambulance diversion system were grouped into "networks" of 2 to 5 hospitals each.

Key Findings

- Over a third (34.9%) of patients suffered a major delay of over an hour in their DNT.
- Patients treated in an ED network with high network crowding were 40% more likely to experience a major delay of more than an hour in getting the clot-busting drugs.
- The median DNT was 3.0 minutes longer for patients treated in moderate network crowding and 5.8 minutes longer for patients treated in high network crowding.
- Heart attack treatment delays increased when more EDs within a network were overcrowded.

Implications Efforts to reduce ED overcrowding must be coordinated across hospital networks, as opposed to only in individual hospitals. Solutions should include improving primary and ambulatory care services for elderly patients with chronic illnesses, and increasing capacity and efficiency across neighbouring hospitals for patients admitted from EDs.

High volume surgeons better for patients with abdominal aortic aneurysms

Dueck A, Kucey D, Johnston W, Alter D, Laupacis A. Survival after ruptured abdominal aortic aneurysm: effect of patient, surgeon and hospital factors. *J Vasc Surg.* 2004; 39 (6): 1253-1260.

Issue The potential impact of regionalizing the repair of ruptured abdominal aortic aneurysms (AAA) to high volume surgeons and hospitals has not been well studied.

Study Examined patient, surgeon and hospital characteristics for all patients who had surgery for either an elective or ruptured AAA repair between 1992 and 2001 in Ontario.

Key Findings For both ruptured and elective AAA repair, patients of surgeons with higher annual volumes of the procedure were more likely to survive after surgery.

Implications Although the results of this report support regionalizing AAA to high volume surgeons, further research is required in order to determine the length of patient transfer delays, and the magnitude of these delays on survival.

ICES report presents framework for Ontario's first balanced scorecard for public health

Woodward G, Manuel D, Goel V. Developing a balanced scorecard for public health. ICES, Toronto, Ontario, 2004.

Issue Recent reports regarding Ontario's public health system have called for increased public health accountability and performance reporting. However, there is no template for a public health performance report in Ontario.

Study Review of the literature and consultations with numerous public health representatives were carried out to develop a framework for undertaking Ontario's first report card on public health performance.

Key Findings A modified version of the balanced scorecard used by many other health care sectors could be used to measure public health performance in four quadrants: health determinants and status; community engagement; resources and services; and integration and responsiveness.

Implications The Ontario Ministry of Health and Long-Term Care (MOHLTC) should allocate funding for the independent development of a system-level public health balanced scorecard by the end of 2005. The scorecard should be developed using a process similar to that of the hospital report series, led by a collaboration of the Ontario Public Health Association, the Association of Public Health Agencies, and the MOHLTC.

Report outlines ICES' experiences with privacy and data protection

Slaughter P, Leman K, McGill P, Varney C. The costs of safeguarding privacy: one research organization's experience. *Healthc Manage Forum*. 2004; 17 (3): 23-26.

Issue One of the most important information needs for research organizations is estimating the costs of implementing privacy protections and maintaining the anticipated standards.

Study Outlined the various privacy activities undertaken at ICES between November 2000 and March 2004, along with time estimates and associated costs.

Key Findings The estimated time and approximate costs of ICES' privacy and data security practices during the report period totaled 2,252 hours and $163,920. These initiatives included various activities: developing data security/privacy policies and procedures; instituting a web-based privacy orientation for staff; a privacy impact assessment (PIA); an internal PC audit; purchase of encryption software; staff educational conferences; legal fees; and other costs.

Implications The funding and staff requirements for privacy diligence must be built into the costs and human resource policies of research organizations.

Nursing home residents less likely to get inappropriate drugs

Lane C, Bronskill S, Sykora K, Dhalla I, Anderson G, Mamdani M, Gill S, Gurwitz J, Rochon P. Potentially inappropriate prescribing in Ontario community-dwelling older adults and nursing home residents. *J Am Geriatr Soc*. 2004; 52 (6): 861-866.

Issue The relative rates of inappropriate prescribing in older adults living in the community and in nursing homes are not known.

Study Examined over 1,216,900 community-dwelling older adults and 58,719 nursing home residents aged 66 years and older in Ontario in 2001 to compare inappropriate prescribing of drug therapies that should *always be avoided* and are *rarely appropriate* in the elderly.

Key Findings Community-dwelling older adults were significantly more likely to be dispensed at least one drug therapy in the *always avoid* or *rarely appropriate* category relative to nursing home residents. Nursing home residents were close to 50% less likely to be dispensed one of these potentially inappropriate drug therapies relative to community-dwelling older adults.

Implications Clinical pharmacist services, which are mandated in the nursing home setting, may be responsible for these differences. Community-dwelling older adults may also benefit from a regular review of their drug therapy by a clinical pharmacist working in conjunction with their primary care physician.

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