

At A Glance

June 2003

Monthly Highlights of ICES Research Findings for Stakeholders

Pre-operative chest X-ray and ECG are often unnecessary

Hux, J., Garfinkle, S. *ICES Report: Utilization of routine preoperative diagnostic services in Ontario*. May 2003.

- Issue** Evidence shows that, for low- to intermediate-risk procedures, the majority of pre-op chest X-rays are not warranted, and most pre-op ECGs are likely unnecessary.
- Study** Assessed the rate of routine pre-op testing (chest X-rays and ECGs) in patients who underwent a variety of common low-risk and intermediate-risk procedures.
- Key Findings** For a given procedure, there was dramatic variation in pre-op testing rates between hospitals and between physicians within the same hospital. Differing testing rates were not explained by patient age, sex, co-morbidity, or institution type (teaching vs. community). Hospitals with higher pre-op testing rates did not achieve better clinical outcomes.
- Implications** The patient experience could be improved by eliminating unnecessary testing. Strategies to promote more rational testing patterns within and between hospitals should be developed.

New baby in home increases risk of iron poisoning in young children

Juurink D., Tenenbein M., Koren G., Redelmeier D. Iron poisoning in young children: association with the birth of a sibling. *CMAJ*. 2003; 168 (12): 1539–1542.

- Issue** Accidental iron poisoning in young children is more likely to occur around the time of the birth of a sibling.
- Study** The relationship between iron poisoning in young children and the birth of a sibling was examined by reviewing the hospital records of mothers whose children (under age three) were admitted for iron poisoning and those whose children were not.
- Key Findings** There is a strong correlation between iron poisoning in young children and the birth of a sibling, with:
- 43% of iron poisonings occurring within one year of a sibling's birth
 - A fourfold increase in the risk of iron poisoning during the first month after a sibling's birth and double the risk within six months
- Implications** Young children are attracted to this highly toxic medication because the tablets look like candies. Physicians and pharmacists can help prevent childhood iron poisonings by reminding parents about the drug's toxicity. Parents, distracted by the needs of a newborn, must be vigilant in ensuring that toddlers cannot access perinatal iron supplements.

Low screening rates for diabetic eye disease may be due to changes in OHIP coverage

Hux, J., Booth, G., Slaughter, P., Laupacis, A. *Diabetes in Ontario: An ICES Practice Atlas*, Chapter 10. June 2003.

- Issue** In 1999, there was a 5% reduction in the rate of eye exams in people with diabetes mellitus (DM). This drop in rate coincided with restrictions to the frequency of eye exams reimbursed by OHIP, a policy from which persons with DM are exempt.
- Study** Examined the frequency of eye exams in people newly diagnosed with DM and 5 years after diagnosis.
- Key Findings** Although regular eye exams are proven to prevent vision loss in people with DM:
- 57% of people newly diagnosed had not received the recommended exams
 - Five years after diagnosis, 12% of those aged 30 and older had still not had an exam
- Implications** There is an urgent need to educate people with DM regarding the importance of regular eye exams. Effective communication must also be undertaken to ensure that patients and care providers recognize that related OHIP restrictions do not apply to people with DM.

Surgery in high-volume hospitals prevents few post-operative deaths

Urbach D., Bell C., Austin P. Differences in operative mortality in high and low-volume in Ontario for 5 major surgical procedures: estimating the number of lives potentially saved through regionalization. *CMAJ*. 2003; 168 (11): 1409–1414.

Issue	High volume is not always a significant predictor of improved outcome.
Study	To determine whether patients treated in low-volume hospitals would have benefited from having had surgery in high-volume hospitals, the 30-day post-operative mortality rate was examined for each of the following major surgical procedures: <ul style="list-style-type: none">• Esophagectomy (<i>removal of a portion of the esophagus</i>)• Colon or rectal resection• Pancreaticoduodenectomy (<i>removal of the head of the pancreas</i>)• Pulmonary lobectomy (<i>partial lung removal</i>) or pneumonectomy (<i>full lung removal</i>)• Unruptured abdominal aortic aneurysm repair
Key Findings	Of the 31,000 surgical admissions examined between 1994 and 1999: Outcome was not tied to volume for colon or rectal resection, as no deaths would have been prevented by having all patients treated in high-volume hospitals For each of the other 4 procedures noted above, 1–14 deaths/year could have been prevented if all patients were treated in high-volume hospitals
Implications	The impact of volume on patient outcome is condition-specific. Policy initiatives and planning for volume-based service delivery should be evidence-based.

ICES Cardiovascular Atlas provides stimulus for improvement

Tu J., Cameron C. Impact of an acute myocardial infarction report card in Ontario, Canada. *International Journal for Quality in Health Care*. 2003; 15 (2): 131–137.

Issue	With accountability and performance measurement continuing to gain momentum, and resources being dedicated to the development of report cards in health care, it is important that the utility and impact of such reports be evaluated.
Study	The ICES Cardiovascular Atlas, Ontario's first hospital-specific report card on cardiac care, was evaluated in terms of the: <ul style="list-style-type: none">• Utility of its performance measures in assessing and improving quality of care• Types of quality initiatives launched in hospitals in response to the Atlas• Concept and limitations of reporting hospital-specific AMI mortality data
Key Finding:	With 52% of physicians having responded, the survey found that: <ul style="list-style-type: none">• 54% reported having launched one or more quality of care initiatives at their hospital in response to the release of the Atlas.• 65% of physicians supported the public release of hospital-specific AMI mortality data• Process of care measures were most useful (e.g. post-AMI drug use and cardiac procedure waiting times)• Outcome measures were least useful (e.g. 30-day and 1-year mortality rates)
Implications	While outcome measures support accountability exercises, performance measures focused on 'process of care' are useful for quality improvement. An enhanced focus on process of care measures may increase acceptance and use of such measures by the medical community.

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