

At A Glance

July/August 2003

Monthly highlights of ICES research findings for stakeholders

Standardized data collection is a prerequisite to managing access to MRI services

Iron K., Przybysz R., Laupacis A. Access to MRI in Ontario: Addressing the information gap. *ICES Report*. March 2003

- Issue** Due to the absence of standardized and routine data collection across MRI centers (hospital-based and independent), Ontario is currently unable to fully assess, manage or publicly report on MRI waiting times, utilization or appropriateness of use.
- Study** Efforts were undertaken to examine MRI wait times. However, the analysis was limited by the significant gap in data.
- Key Findings** Outpatient data revealed:
- Significant province-wide variation in access to MRI services
 - A 50% increase in the frequency of MRI scans performed since 1999
 - Repeat MRI scans, within 2 years, in 15% of patients
 - A greater than 700% increase in OHIP billings related to MRI (~ \$3 million in 1992 to \$23 million in 2001)
- Implications** The use of MRIs has grown rapidly and this trend is likely to continue as the technology evolves and is found to be useful in diagnosing a broader range of conditions. This knowledge intensifies the need for standardized and routine data collection in MRI centers, if future demand is to be effectively planned for and managed.

Estrogen replacement therapy use dropped dramatically after landmark study

Austin P., Mamdani M., Tu K., Jaakkimainen L. Prescriptions for estrogen replacement therapy in Ontario before and after publication of the Women's Health Initiative study. *JAMA*. 2003; 289: 3241-3242.

- Issue** The Women's Health Initiative (WHI) study in July 2002 demonstrated that the overall health risks of estrogen replacement therapy (ERT) exceeded the benefits, for healthy postmenopausal women and for primary prevention of coronary heart disease.
- Study** The impact of the WHI study on the use of ERT in Ontario was examined by tracking relevant prescriptions filled by women aged 65 and over, between 1992 and 2002.
- Key Findings** Following the publication of the WHI study, ERT use in the last quarter of 2002 dropped by approximately 1/3, relative to the same quarter in the previous year.
- Implications** A well-publicized clinical study can have a very significant impact on physician prescribing patterns and utilization. This outcome should be considered, as strategies are developed to manage limited health care resources.

Treatment by cardiologists does improve outcomes for heart failure patients

Jong, P., Gong, Y., Liu, P., Austin, P., Lee D, Tu J. Care and outcomes of patients newly hospitalized for heart failure in the community treated by cardiologists compared with other specialists. *Circulation*. 2003; 107 (26): 108-115.

- Issue** Previous research has not shown that cardiologist care results in improved outcomes for heart failure patients because these studies have focused on large teaching hospitals where specialized care is available.
- Study** 38,000 heart failure admissions to small and teaching hospitals were examined to assess the variation in patient outcomes and physician practice patterns.
- Key Findings** Patients treated by cardiologists had lower one-year mortality rates (MR= 28%) than those treated by other physicians (MR= 36%). Cardiologists were more likely to prescribe heart failure medications on discharge, resulting in fewer readmissions. The majority these patients (86%) were treated by non-cardiologists.
- Implications** Although specialized cardiac training is advantageous, physicians providing care to the majority of heart failure patients (86%) can improve outcomes by using the latest evidence-based therapies.

Implantable defibrillators can prevent sudden cardiac death better than medications alone

Lee D.S., Green L.D., Liu P.P., Dorian P., Newman D.M., Grant F.C., Tu J.V., Alter D.A. Effectiveness of implantable defibrillators for preventing arrhythmic events and death. *Journal of the American College of Cardiology*. 2003; 41 (9): 1573-1582.

Issue	Implantable cardioverter defibrillators (ICDs) have been shown to offer a significant advantage over medications alone in preventing sudden cardiac death. However, ICDs are associated with substantial cost and therefore, precise estimates of their effectiveness are required.
Study	Reviewed 14 studies from nine clinical trials that compared the use of ICDs in combination with drug therapy, as opposed to drug therapy alone. Five trials focused on primary prevention in patients at increased risk of sudden cardiac death, but who had not experienced cardiac arrest. The other four trials focused on secondary prevention in patients resuscitated from sudden cardiac death.
Key Findings	For preventing sudden cardiac death, there was a: <ul style="list-style-type: none">• 57% risk reduction with the ICD when looking at all nine clinical trials• 66% risk reduction in the primary prevention studies• 50% risk reduction in the secondary prevention studies
Implications	ICDs are highly effective in reducing the risk of arrhythmic death. However, to improve survival rates and be cost-effective, these devices must be used on those at highest risk of life-threatening arrhythmias. Further research is needed to assess the impact of implantation strategies from a health policy perspective.

Diabetes increases the risk of developing and dying from infectious diseases

Shah B., Hux J. Quantifying the risk of infectious diseases for people with diabetes. *Diabetes Care*. 2003; 26(2): 51-513.

Issue	While some infectious diseases are known to be more common in people with diabetes mellitus (DM), many frequently encountered infections have not been formally evaluated in this population.
Study	Compared all Ontarians with DM on April 1, 1999 to a matched population without DM to determine the variation in risk of contracting an infectious disease.
Key Findings	People with DM are at least 20% more likely to contract an infectious disease, when compared to those without DM. Nearly half (46%) of all people with DM had at least one hospitalization or physician visit for an infectious disease, compared to 38% in the non-DM population. While infectious disease-related mortality is rare for both populations, deaths attributable to infectious disease in people with DM exceeded that seen in people without DM by over 80%.
Implications	All infectious diseases need to be considered a complication of DM. Clinicians must be vigilant in detecting and treating these complications.

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