

## Telemedicine today



Alan King

New information and communications technologies boost the potential to reduce the barrier of physical distance between patient and health care provider. Risto Roine and coauthors systematically reviewed the literature from 1966 to 2000 to identify studies that evaluated the clinical outcomes and cost-effectiveness of telemedicine. Of the 1124 studies identified, only 34 assessed clinical outcomes and 16 were principally economic analyses. Many of the studies referred only to pilot projects and, in general, were judged to be of low quality. Clinical effectiveness was demonstrated in the areas of teleradiology, teleneurosurgery, telepsychiatry, transmission of echocardiograms, and electronic referrals allowing consultations by email and video conferencing.

It was found that the use of teleradiology, especially transmission of CT images, can be cost-effective. The authors point to the need for further investigations to supply scientific evidence of the effectiveness of these technologies. In a related commentary, Ellen Einterz writes from Africa that telemedicine, although full of promise, will do little to assist health care in that continent. In another related article, emergency physician Gordon Wallace comments on current and future trends in telemedicine that are changing the nature of health care and education.

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## Suicide in northern Quebec

Suicide rates are increasing among the Inuit in northern Quebec. To identify the antecedents and correlates of suicide, Lucy Boothroyd and colleagues conducted a case-control study of completed suicides in Nunavik between 1982 and 1996. They reviewed the medical, psychiatric, social and family histories of 71



case subjects and of 71 control subjects matched for sex, community of residence and age within 1 year. Most of the case subjects were single males aged 15 to 24. The 2 most common methods of suicide were hanging (in 39 cases [54.9%]) and gunshot (in 21 cases [29.6%]). The case subjects were more likely than the control subjects to have had a history of psychiatric symptoms, disorder or treatment (odds ratio [OR] 3.5, 95% confidence interval [CI] 1.4–8.7). They were also more likely than the control subjects to have had contact with health care services in the year before the death of the case subject ( $p = 0.03$ ). The authors suggest that training primary care providers to identify people at high risk for suicide can complement community-based prevention strategies in the region.

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## Fibrinolytic therapy for acute myocardial infarction

“Time is muscle” for patients with a myocardial infarction who are waiting for thrombolytic therapy. As part of our series on managing acute coronary syndromes, Paul Armstrong reviews the use of fibrinolytic agents to treat acute ST-segment elevation MI. He discusses the clinical applications of streptokinase and recombinant tissue plasminogen activator (rtPA), as well as newer agents including reteplase and tenecteplase. Educational material is provided for patients who may be receiving “clot-busting” therapy.



Christine Kenney

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## CABG in elderly patients

Does old age affect the outcome of coronary artery bypass grafting (CABG)? In a retrospective review of 1034 elderly patients who underwent CABG, Kelly Smith and colleagues compared the clinical outcomes of octogenarians with young (aged 70–74) and old (aged 75–79) septuagenarians. The 3 groups had similar cardiac risk profiles, although the young septuagenarian group had a lower mean urgency rating score at referral than either of the other 2 groups ( $p = 0.02$ ). After CABG, the 3 groups did not differ significantly in the rates of all complications combined, stroke, myocardial infarction or death, or in the mean length of hospital stay. In addition, the total cost of CABG per patient was similar in the 3 groups. In a related commentary, William Ghali and Michelle Graham find mounting evidence that the risks of CABG in elderly patients may be lower than originally proposed, and they call for more randomized controlled trials of CABG as a treatment option in this age group.

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