



Impact of new technologies in medicine: progress and pitfalls

Caralee E. Caplan, MD; John Hoey, MD

Several months ago, the editors of almost 100 medical journals around the world, including *CMAJ*, were asked to help in choosing the theme for the 1999 global theme issue. When we learned that participating journals would devote one issue to the impact of new technologies in medicine, we discovered how difficult it was to define “technology.” The word evoked a dazzling array of images: a family of cloned sheep, a rainbow of designer drugs, a worldwide network of linked computers flashing information to millions, the chest wall of a patient after cardiac surgery without the telltale midline scar, a patient lying still in the rotating tunnel of an MRI scanner, a geneticist poring over gels and test tubes in an attempt to unravel the deepest mysteries of life.

The images were also coloured by some of our strongest hopes and fears. We imagined the fortunate patient strolling home equipped with a shiny new artificial heart, but also the unfortunate one kept alive by tubes and pumps with no hope for recovery. We thought about the DNA revolution and the opportunity to prevent genetic diseases, but wondered where prevention ends and an Orwellian state begins. Physicians and patients alike revel in the dawn of information technology, but many argue that a medium with such a tremendous capacity to inform has a similar capacity to misinform. It is not always clear who drives the development of new technologies, who benefits from them, when they ought to be introduced, and how they ought to be used and disseminated, considering the limits of evidence and resources. Along with new solutions and opportunities, technology inevitably brings its share of new ethical, social, political and economic challenges.

We invite researchers in all medical specialties — enthusiasts and sceptics alike — to submit their best work for consideration for *CMAJ*'s global theme issue, to be

published in November 1999. We are particularly interested in original research evaluating the clinical uses of new technologies and their impact on decision-making by physicians and patients. We are also interested in the perspectives of the many users of technology: the rural family doctor, the university-based specialist, the patient. Increasingly, patients are learning about their health through the Internet and presenting this information — on topics as diverse as St. John's wort and experimental therapies for cancer — to their family physicians. We are therefore eager to publish two essays, one by a physician and one by a patient, describing what happens in this type of encounter. Essays on other personal “technological” experiences and thoughtful editorials exploring the ethics, politics and economics of emerging technologies are also encouraged.

Manuscripts received by May 1, 1999, have the best chance of being included in this year's global theme issue. Submitted manuscripts will undergo the usual peer review and editorial evaluation, and those not selected for publication in the global theme issue may be considered for other issues of *CMAJ*. For information on manuscript preparation and submission, please see “Writing for *CMAJ*” (page 1171 of the Nov. 3, 1998, issue or www.cma.ca/cmaj/author.htm).

Dr. Caplan is CMAJ's Editorial Fellow, and Dr. Hoey is the Editor-in-Chief of CMAJ.

Essay challenge

We invite patients and physicians to describe their real experiences in the following situation: A patient enters a family physician's office clutching reams of paper printed from the Internet with information relating to a health problem. The patient wishes to discuss this information with the physician.