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Seminars in Cutaneous Medicine and Surgery

Introduction

THIS IS AN EXCITING TIME in medicine, in general, and in dermatology in particular. Technologic innovations have kept pace with an exponentially increasing demand for delivery of healthcare information, offering a breadth, depth, and speed of medical information transfer that was unimaginable 20 years ago. Teledermatology, the personal digital assistant, electronic medical records, voice recognition systems, and computer-aided image analysis have evolved from science fiction gadgetry into tools of mainstream dermatology practice.

Just 10 years ago, many physicians, dermatologists included, seemed at best ambivalent about, and at worst, openly opposed to many computer technologies in the clinical setting. Computers were bulky, complicated to use, and worst of all, they often broke. Computers are still bulky, complicated to use, and they often break. What has changed? The barriers to adopting these new technologies in our practices are being overcome.

The prevalent barriers to adopting new information technologies in dermatologic practice fall into 4 basic categories¹: situational, cognitive, legal, and attitudinal. Situational barriers include the economic realities and external environmental factors that impede our adoption of new technologies. Time and financial pressures, an unproven return on investment of time or money, and lack of access to the basic hardware, software, and personnel are examples of these situational barriers. Cognitive barriers to adoption of new technology arise from our real or perceived lack of skills with new systems. Legal barriers comprise important and valid liability and patient confidentiality concerns. Finally, there are attitudinal barriers to adopting any new technology, ranging from the fundamental fear of change to a more philosophical antagonism toward computer technologies, distancing ourselves from each other and from our patients.

Overcoming these barriers has proven to be a slow and ongoing process.² Incentives from our patients as well as third-party payers, improved access to stable, standardized, and less expensive technologies, and hands-on education from early adopters of these technical innovations have set the stage for dermatologists to embrace these technologies on a more widespread basis.³

Information and computer technology continues to advance ever more rapidly. Our investment in this process will never be a single occurrence, but rather must represent an ongoing commitment to incorporating these new tools into our clinical practice. For example, robotic surgery at a

distance and noninvasive imaging on the microscopic level are technologies that are not discussed in this issue because they are not at an advanced, sophisticated stage of development when they might easily be incorporated into dermatologic practice. There may come a time, in the not so distant future, when even these futuristic technologies will become a part of our mainstream general dermatology practice, touching the lives of every one of us and our patients.

I hope that this issue of *Seminars in Cutaneous*

Medicine and Surgery will be a stimulating one, as we work together to find optimal uses for these new technologies. I am pleased to have had so many experts, "early-adopters," and advocates of these systems willing to show their commitment to educating dermatologists about the current state of the art and what the near future might bring.

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Guest Editor

REFERENCES

1. Johnson KB: Barriers that impede the adoption of pediatric information technology. *Arch Pediatr Adolesc Med* 155: 1374-1379, 2001
2. Rotman BL, Sullivan AN, McDonald TW, et al: A randomized controlled trial of a computer-based physician workstation in an outpatient setting: Implementation barriers to outcome evaluation. *J Am Med Inform Assoc* 3:340-348, 1996
3. Jadad AR: Promoting partnerships: Challenges for the internet age. *BMJ* 319:761-764, 1999