

Reading my palm: adventures in medicine

A phenomenon is sweeping over clinics and physicians' offices here in the USA. Increasingly clinicians are using their hand-held computers as an assistant in delivering health services and accessing health information.

Hand-held computers allow convenient data and fact availability in a flexible format.

Patient data can be recorded and beamed to the next resident or attendant on call, and the bulk of information can be stored on a PC when the information is no longer of current use. Information can be beamed across the table from one hand-held to another. When everything else seems to be going wrong I can quickly check my biorhythms and that of my colleagues to see why we're having a bad day. I can check geography, world maps, and world time so when I call Martin Bax in London from Philadelphia I can instantly recognize that he is probably already asleep. When I call my colleagues in Australia, I can be easily reminded of the time-zone changes. I am able to throw out all those little pieces of paper that held demographic information. Currently on my hand-held, I have a store of names, addresses, e-mail addresses, and even some birth dates of 500 of my closest and not so close friends. I could organize my life to remember to send a card a week ahead of time. (Mom, don't be looking for any new habits.) I can set off an alarm for anytime I want. This can be useful for breaking out of too lengthy meetings.

Presumably I could download the Embden-Meyerhof pathways, the Krebs cycle, calcium/phosphorus tables, and all those other difficult-to-remember facts that created an opportunity for hours of memorization in medical school. In the future I could anticipate chronicling previous experience. Now I can call forth a list on any subject recorded, in my palm. For instance, I can look up in a jiffy all of the gastrocnemius lengthenings I have done since I began using this organization system, which would include the names of the patients and the dates. Through ePocrates.com and other web sites I can access medication information. There are indications, contra-indications, and dosages as well as prices. Synchronizing this with my computer allows frequent updates of the information. I have snapshot descriptions of pathologic systems downloaded from medical texts. As my brain ages, I can see myself relying more heavily on this organization system to counter the outflow of information remembered.

What can be anticipated in the future for hand-helds as related to patient care? It is only a matter of time before this scenario occurs in our office: a new patient arrives, she beams insurance information to the front desk computer, then beams clinical information to the physician as she walks into the room. At the end of the day I could download the information to a more powerful storage-based computer that doesn't fit

into my pocket.

Maybe, you say, we should worry that our hand-helds will become the doctors. What are its limitations? It has no experience. It cannot do a physical examination. The hand-held can't form a personal relationship between the doctor and the patient. It's not a book, and it's not a journal. Between my computer and my hand-held, in the future I could predict downloading larger pieces of information. In the future it could give you more visual bites. Perhaps it will be our access to the Index Medicus in the future.

Currently as I am writing this, my 'Developmental Medicine Child & Neurology' back issues sit sprawled around me giving me a certain comfort zone around my desk. I enter each issue of DMCN with a motive, in my case to seek out the orthopaedic articles. I note that the editor has cleverly placed this among non-orthopaedic articles which tease me to venture into them. Hence in this journal I jump into the comparison of three ankle-foot orthoses in an article by Cathleen Buckon and colleagues. Then I move quickly to scan and look in depth at some of the other articles. I am interested in the outcome of the evaluation of the upper-limb function in children wearing lycra garments. My patients have been asking me about it. With Nicholson's review, we can give an educated opinion regarding its efficacy. Next my eye moves to the Liptak article regarding the health status of children with moderate to severe cerebral palsy. I'm interested to know how medicine has improved health status since I first started practicing many years ago.

Medical learning is a lifelong process through medical school, clinical experience, and continuing our education with reading texts and journals. Frequently we meet for face-to-face conferences to share ideas both formally and informally. We keep in touch with our colleagues for feedback regarding pearls of patient care. Through all of this we have PCs for referencing the literature, surfing the net under the guise of science, and other forms of desk recess. We have the continued inflow of journals to broaden our medical horizons. Most of us have a PC on our desk, and now perhaps we are more likely to throw our hand-held into our briefcase when we go home than a laptop. But while we will continue to deal with the comfort and permanence of paper, we'll also continue to explore and utilize the wonder that a small instrument the size of our palm can bring to us. In the future I can see the hand-held computer as a tool and a help. It is never going to be a replacement though for a multidiscipline approach to complicated conditions, the details of which are chronicled in our journals. But could it be where we'll read our journals?

Helen Horstmann