▶ Letter to the Editor

Dear Dr. Guerriere,
I am quite interested in moving forward with electronic technology for physicians (I am President Elect of the Ontario College of Family Physicians.) and so Mr. Hart has sent me a copy of the new publication *Electronic-Healthcare* with your article in it.

I have been using an electronic medical record for the past four years. Prior to selecting that I had been chair of the Computer Software Salon, a.k.a. CyberDoc Cafe, at the Ontario College meetings. I had an opportunity to see several systems over the years. I had started in 1985 with an IBM (XT) based system which I kept for 18 months for billing and a few other functions. It rarely performed as expected. In October of 1986 I had an opportunity to try the Macintosh Plus computer with the MacMedical program on it. It was so simple and yet so sophisticated compared to what I had. It has continued to be much much more user friendly while accomplishing what I want. The same is true of the EMR program, MacMedical Records.

Clearly your understanding of the breadth of uses of computers in clinical practice goes well beyond mine but I thought I would comment on the questions in your article. You suggest that systems that give physicians the tools that they need are not being provided in the marketplace. You mention CT and MRI. Both of these are paid for by the public purse. Computer systems are largely paid for by the practitioner, especially the family physician who makes up 50% of the physician population. A surgeon's tools are paid for by the hospital. He/she has no investment and no negative impact on his/her wallet by embracing these tools. That is not so for the family physician. In today's medical environment the family physician, as with many specialists, is in short supply and consequently is run off his/her feet. It is daunting to think of spending $20,000 on new technology with new training requirements. Since the average age of physicians is not far from retirement they are not enthusiastic about these changes and impacts on their time and finances near retirement.

Nonetheless, some of us, even relatively near retirement, have embraced these systems with delight.

How does this system change clinical practice? I don't really see many more patients in a day, maybe one or two, but I don't have a pile of charts that need completing at the end of the day like I used to. When I want to refer a patient to a consultant, it takes only a few key strokes to complete an extensive letter with significant background information and attach a summary of imaging data and a table of chronological lab data. This improves the communication with the consultant considerably. It also should decrease the need for more lab data. Therefore a consultant visit might occur only on one date instead of two or three visits while investigations are ordered and reported if not lost. Unfortunately there is no electronic connection outside my office at the present time but this should change in the not too distant future.

It has been stated that 99% of patient care occurs in the community and 1% in the hospital. What a huge database of information! If this is not tapped into we are ignoring the most significant component in modifying population health that exists.

How will this change the patient's experience? I can search my records for anything I wish in an instant as compared to digging through piles of paper. Graphing of lab results is built in with two keystrokes which is extremely helpful in patient education of their conditions, e.g., diabetes, or blood pressure. My patients are very impressed that I have gone to the effort to get the best system possible to help in their health care.

How will we measure that expected change has occurred once the system is implemented? I don't stop to think about that. I just use this new tool I have and find it gratifying. I have no doubt that I am giving better care with less stress on me to accomplish it, but measuring it as in a research project has not occurred as it might in

an institutional setting or a management project. Comments from consultants and patients encourage me to believe that I am impacting on patient health. The ability to track their medication much better while producing legible prescriptions as well as tracking immunizations, pap smears, PSAs and mammograms can only be helpful.

There are many more components needed to enhance the program such as drug interaction (coming, I am told), reference module and, of course, interconnectivity with all my colleagues, institutions and allied health care providers. It is not a fully robust system yet but waiting until it is perfect would deny my patients the benefit of what already can enhance their health care. As my patient's health is monitored and modified better now it is also building a data base that will be available when other components of interconnectivity are completed. This database will not be lost even if it is moved to a web-based location.

Incentives are needed to move physicians to embracing these systems now.

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▶The Author Responds

I was delighted to read Dr. Riddle's letter. He is living proof that physicians are willing to go to extraordinary lengths to improve patient care, even when it is not economically advantageous to do so. As the clinical utility of these systems improves, the participation rate of physicians will climb accordingly.

I realize, however, that I may have inadvertently suggested that insufficient clinical functionality is the only barrier to physician use of clinical systems. This is definitely not the case, as Dr. Riddle points out in his letter. I was trying to suggest that even in cases where systems are provided at no cost (such as in the hospital setting), it is difficult to get physicians to use the systems. This is the phenomenon I was relating to a lack of clinical benefits for patients.

I also note that some provinces are attempting to address the cost of physician office automation through direct subsidies to cover the costs of clinical records systems. Alberta we//net has reached an agreement with the Alberta Medical Association to cover the annual cost of clinical records systems in GP offices that meet provincial standards. It will be interesting to see how effective this strategy proves to be in increasing the prevalence of electronic patient records in the community setting.