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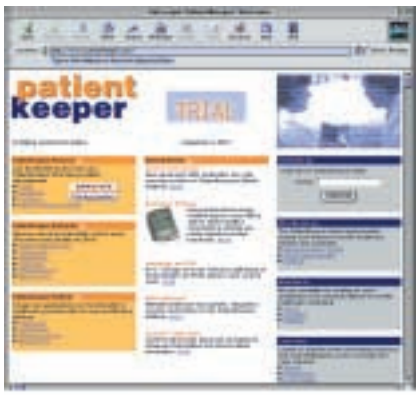
ON THE NET

PDAs and medicine

As with many new technologies, the question of improved efficacy and efficiency is often overlooked or simply assumed when it comes to the increasing use of personal digital assistants (PDAs). Now, a small US study has determined that these small hand-held devices can help improve the delivery of medical care.

The study was conducted by Dr. David Rich, a pediatric resident at the Children's Hospital in Columbus, Ohio (**www.childrenscolumbus.org**). Results were presented last spring at the 2001 annual meeting of the Pediatric Academic Societies.



"Living in the information age, it only makes sense that physicians take advantage of the current technology to increase their efficiency and devote more time to direct patient care," says Rich.

His study subjects were 19 interns who arrived at the hospital for the 2000/2001 year. Each was equipped with a Palm V*x* and trained in its use. Each device came with a number of standard programs, including PatientKeeper (**www.patientkeeper.com**) and Pedsdrugs (**www.skyscape.com**). After 3 months, the interns were surveyed to see how they were actually using their PDAs. Results were encouraging: almost half (47%) of respondents reported that tracking patients on their PDAs was more useful than existing methods.

Members of this cohort logged many more procedures using their PDAs than interns from the 2 previous years — 187, compared with 94 and 128. And nearly half of the participating interns said PDA training would have positively influenced their choice of residency programs. The hospital has responded by expanding the use of PDAs to its entire residency program.

Although this study is only a preliminary look at the ways PDAs are being used, Rich sees great promise in their future potential. As the capabilities of PDAs expand and their use increases, he foresees physicians being able to receive information from the hospital's lab and patient information systems and to transmit their orders — all from the patient's bedside. — *Michael OReilly*, mike@oreilly.net

Femoral head alert

Health Canada has warned the country's surgeons not to implant zirconia ceramic femoral heads until the source of manufacture can be ascertained. The warning involves ceramic heads made by a French company, Saint-Gobain Advanced Ceramics Desmarquest, since 1998. It was issued because of an increased rate of spontaneous fracture after implantation. Femoral heads made by other companies are not affected by the recall. Physicians are asked to report any cases involving this type of fracture to the Medical Devices Problem Reporting Hotline, 800 267-9675. — *CMAJ*

Drug advisory: the interaction between warfarin and vaginal miconazole

The problem: The US Food and Drug Administration (FDA) and Health Canada have issued warnings that prothrombin times can increase for patients receiving anticoagulation therapy who also use vaginal miconazole. The warnings were posted after adverse events affected 2 patients in the US and 1 in Canada; they were reported to have increased INRs and associated bleeding tendencies (including bruising, gingival bleeding and nosebleeds).

The drugs: Interactions between warfarin, an anticoagulant, and systemic miconazole, used in prescription and over-the-counter formulations to counter yeast infections, have previously been documented in warfarin's product monograph. Studies have shown that minimal amounts of vaginal miconazole are absorbed systemically in healthy women of child-bearing age (Daneshmend TK. Systemic absorption of miconazole from the vagina. *J Antimicrob Chemother* 1986;18:507-11).

It is hypothesized that vaginal atrophy may in part be responsible for altered systemic uptake of miconazole, leading to the interaction (Murty M. Miconazole–warfarin interaction: increased INR. *Can Adverse Drug React Newsl* 2001;11[3]:1-2. [Also in *CMAJ* 2001;165(1):81-2]).

Health Canada and the FDA are asking manufacturers of vaginal miconazole products to add a warning to the product monograph and label informing patients who take anticoagulants that they should consult their physician before using the product.

Miconazole is marketed in Canada under several names — Miconazole, Monazole, Miconazole Nitrate Vaginal Cream, Micozole and Monistat — and in several different formulations.

What to do: The adverse interaction between these 2 drugs is uncommon, but physicians and women receiving anticoagulants should be aware of it. If miconazole is to be used vaginally, the patient's INR should be monitored and patients should be urged to report any adverse symptoms. No recommendations have yet been made regarding the concurrent use of warfarin and topical miconazole used for the treatment of skin fungi. — *Eric Wooltorton*, CMAJ