Computers provide guideline advice at two Winnipeg hospitals

Jane Stewart

Résumé : Deux hôpitaux de Winnipeg sont les premiers hôpitaux du Canada à utiliser un logiciel qui explique des lignes directrices chirurgicales à l'égard de plus de 80 interventions et diagnostics différents. Mis au point par Health Resource Management Inc., de Minneapolis, *Quality*FIRST est un programme qui fournit de l'information médicale de pointe sur des interventions chirurgicales précises. Le programme est mis à jour régulièrement à la suite de revues des publications médicales.

A computer software program that outlines surgical guidelines for more than 80 different diagnoses and procedures has been put to use in two Winnipeg hospitals.

In 1991, Seven Oaks General Hospital became the first Canadian hospital to use the *Quality*FIRST program, which was developed by Health Resource Management Inc. of Minneapolis. Last summer, Misericordia General Hospital also went on-line. The software program, whose start-up costs total about $35 000, with an additional cost of about $12 per case, provides the latest medical information on specific surgical procedures. It is updated regularly through reviews of expert opinion and the medical literature.

"Our major focus is to address bed utility," commented Dr. Alan Lipson, medical vice-president at the Misericordia. The hospital had already taken steps to reduce lengths of stay — one is to use doctors on a part-time basis to manage beds and assist in discharge planning — and Lipson said the *Quality*FIRST software provides further assistance.

Medical information about patients with appropriate conditions is entered in the computer at the time of admission. The program assesses the appropriateness of the diagnosis, suggests a treatment option and estimates the length of the hospital stay required.

"The guidelines are not always realistic," Lipson acknowledged. For example, the length of stay for a patient requiring a total hip replacement in Minneapolis is much shorter than the average stay for a similar patient in a Winnipeg hospital because certain medical-rehabilitation services are unavailable in Winnipeg, where the patient will remain in hospital until ready to return home. Similarly, a patient awaiting an angiogram would likely have a much shorter hospital stay in the US because testing is usually done much more quickly there.

The Misericordia is focusing particular attention on the pace of treatment once patients have been admitted. Lipson said that a review of the lengths of stay for patients receiving cholecystectomies showed discrepancies not only when treatment patterns were compared with the computer guidelines, but also when treatments by different doctors were compared. By reviewing the individual records, Lipson could identify discrepancies and discuss them with the attending physicians.

"This information hasn't been

The software program assesses the appropriateness of the diagnosis, suggests a treatment option and estimates the length of the hospital stay required.

Jane Stewart is a freelance writer living in Winnipeg.

available so easily in the past," he added. "The Manitoba Health data were available, but the turnaround time to get the data was [long]." The information is now available in a few minutes.

It is too soon to determine whether use of the guidelines will lead to cost savings. "If we shorten the lengths of stay, doctors can see more patients and do more procedures," Lipson said. Patients' waiting time for procedures such as hip and knee replacements could be reduced. However, "if no waiting list builds up for the procedures, there is a potential for empty beds, which could [then] be closed down, and there could be a cost saving."

The reactions of physicians has been quite positive, Lipson added. Most felt that literature-based guidelines concerning length of stay had been lacking, save for a few procedures.

"[Few people have] the time or resources to do a massive literature search so [*Quality*FIRST] is handy because someone has already done the research. It's not perfect, [but we can] adjust the guidelines as we see fit for the circumstances."

If the length of stay or even the recommended treatment is not appropriate for the patient, hospital or available community services, the physician records this in the program.

"The program isn't meant to dictate treatment," Lipson noted. "The doctor can pick an alternative treatment and the software will ask why. Occasionally there is no good reason, and we will discuss this. But this is unusual — the doctor usually can justify the alternative treatment."

Across town at the Seven Oaks General Hospital, *Quality*FIRST has been in use for a longer time, but with a slightly different objective. Hospital president Nick Kalansky hopes the software will educate physicians, create an awareness of the guidelines and ultimately lead to consistency in treatment.

"A positive impact on quality of care should be the first practical reason why we use the guidelines," Kalansky said. "Otherwise we shouldn't do it. What follows [from using the guidelines] is efficiency."

Some physicians at Seven Oaks wondered if the guidelines were simply "cookbook" medicine, but Kalansky said most recognize that the guidelines provide the most up-to-date information on diagnosis and case management to help improve quality of care.

At Seven Oaks Hospital, President Nick Kalansky hopes the software will educate physicians, create an awareness of the guidelines and ultimately lead to consistency in treatment.

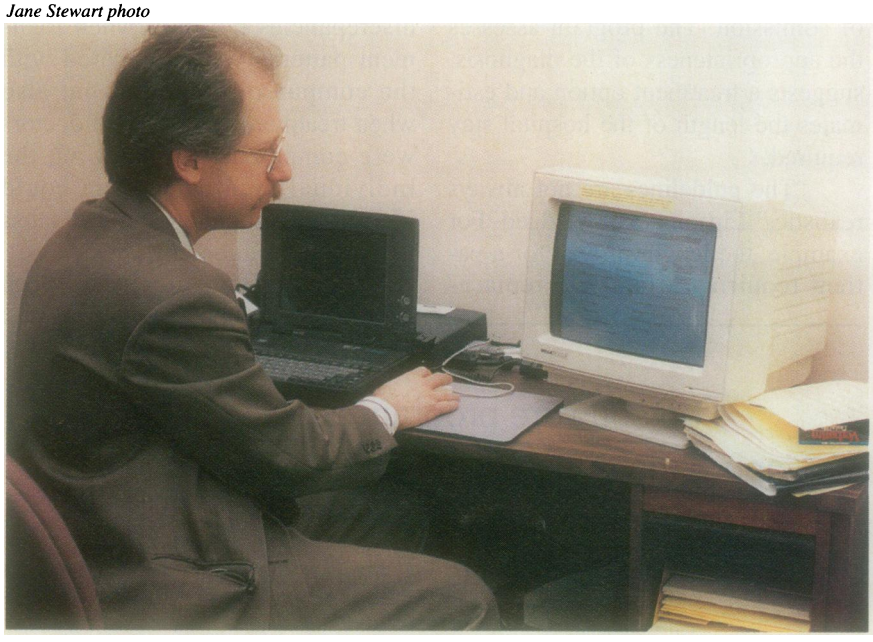
If there are problems in discharge planning, the hospital and attending physician also can turn to the guidelines for direction. Kalansky noted that in the US, the guidelines have been used to support physicians in some malpractice suits.

While the guidelines are useful, Kalansky emphasized that physicians do the "hands-on" work with patients and if their judgement suggests an approach that is different from that recommended by the computer program, they should follow their own direction.

"We will review the cases retrospectively to see if the guidelines are adequate to cover [these cases] or if they should be changed," explained Kalansky.

Alexander Gourley, president of Health Resource Management Ltd., the Canadian subsidiary of the Minneapolis-based firm, said a number of hospitals in Ontario, Alberta and British Columbia have expressed interest in the software. Currently, *Quality*FIRST is available for use only in hospitals, but ways of bringing the system to physicians' offices are being explored. ■

Jane Stewart photo



Dr. Alan Lipson entering data via the *Quality*FIRST program