

Electronic Tracking Could Improve Diabetes Care

BY PATRICE WENDLING
Chicago Bureau

QUEBEC CITY — Canadian researchers think they've found a way to improve the difficult task of diabetes management by using a Web-based, real-time tracking system linked to patients' electronic medical records.

Diabetes care is often suboptimal because of the need to monitor multiple variables with evolving targets and the difficulty in promoting patient self-care, Lisa Dolovich, Pharm.D., reported at the annual meeting of the North American Primary Care Research Group.

The Computerization of Medical Practices for the Enhancement of Therapeutic Effectiveness study's COMPETE II diabetes tracker is available to both patients and physicians and electronically displays 13 standardized variables, including blood

Both patients and physicians surveyed rated the benefits of computerization as outweighing the potential risks to health care information privacy.

glucose, hemoglobin A_{1c} levels, blood pressure, blood lipid levels, urinary albumin-creatinine ratios, and the most recent foot and eye examinations.

The color-coded chart compares the data with the patients' specific target goals

and signals with clock icons which variables are on target and which need further attention.

There are also short advice messages and links to current best evidence on diabetes targets and strategies to obtain them.

Physicians' versions are linked to patients' electronic medical records. Patients are also linked to an automated telephone-reminder system for medication refills, lab tests, and visits, and to transmit information back to their clinicians.

Dr. Dolovich presented data from the COMPETE II study, in which 511 patients with type 2 diabetes under the care of 48 community-based primary care physicians were randomized to the tracker or usual care.

The study's primary outcome was the change from baseline to 6 months in the quality of monitoring 8 of the 13 variables, compared with targets for each patient. A composite score was assigned each patient, with a maximum of 11 points.

At a mean follow-up of 8.5 months, the mean composite score significantly improved in the intervention group, compared with the control group (change of 2.35 vs. 0.80).

Actual blood pressure and hemoglobin A_{1c} values also significantly improved in the intervention group, compared with the control group. Compared with the control group, diastolic blood pressure was reduced by 2.62 mm Hg, systolic blood pressure by 4.09 mm Hg, and hemoglobin A_{1c} by 0.2% in the intervention group.

Despite being repeatedly nudged by telephone reminders, 192 (76%) of 253 inter-

vention patients said they were as satisfied or more satisfied with their care as a result of the intervention, and 63% opted to continue receiving automated reminders.

Both patients and physicians rated the benefits of computerization as outweighing the potential health information-privacy risks, reported Dr. Dolovich and Dr. Anne Holbrook, lead author, both of the Centre for Evaluation of Medicines and McMaster University, Hamilton, Ont.

Patients enjoyed having access to their

own information and receiving customized advice, whereas the tracker streamlined care for physicians by ensuring that patients' lab tests were done before their office visits.

However, a significant number of older adults in the study never use a computer and preferred a printed version of the tracker. In addition, there were some initial glitches with the technology, and at times, data had to be updated by staff after interviews with patients, Dr. Dolovich said.

Audience members suggested that the tracker required too much effort for such small clinical improvements.

The improvements in clinical outcomes were statistically significant, and there was a trend toward overall improved diabetes outcomes in a short follow-up period, she said.

A larger randomized controlled trial involving 1,100 participants is underway, and a vascular tracker is currently being evaluated. ■



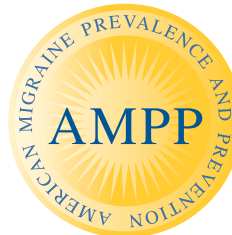
"Headache outcomes would most likely improve if appropriately selected patients were treated with preventive treatment."¹

RICHARD B. LIPTON, MD

From the departments of neurology, epidemiology, and social medicine at the Albert Einstein College of Medicine, Bronx, New York; Innovative Medical Research, Stamford, Connecticut and Hunt Valley, Maryland

MIGRAINE VIEWPOINTS

A landmark study concludes **migraine prevention** is underutilized



The American Migraine Prevalence and Prevention study is a landmark study of 162,576 individuals* that was sponsored by the National Headache Foundation.^{2,3†} It is the largest study of migraine sufferers ever conducted and can be utilized as migraine research advances in an effort to help patients in need.³ Results of this study concluded that migraine, which affects more than 29 million Americans, is a prevalent and disruptive condition.^{2,3} Yet only 13% of all migraine sufferers currently receive prevention.²

AMPP study insights—how to identify migraine prevention candidates

Expert consensus by key opinion leaders recommends prevention based on BOTH^{2,4}:

Frequency of migraine

Degree of impairment

		Migraine Frequency (days/month)					
		0-1	2	3	4-5	6-10	11+
Degree of Impairment	Function Normally				■	■	■
	Some Impairment		■	■	■	■	■
	Severe Impairment		■	■	■	■	■

■ Offer prevention ■ Consider prevention ■ Not required

Consider prevention^{2,4,5}

- If patients' lives are disrupted, even with a lower frequency of migraine - or -
- If acute treatment has not been sufficient

Offer prevention