

## Message from the President of AAWC Summer/Fall 2007

### EVIDENCE-BASED MEDICINE AND THE GPS

On a recent vacation in France, my wife and I rented a car equipped with an English-speaking GPS mounted in the dashboard. I assured my wife that this extra expense was the one modern piece of equipment that would lead us through the complexities of foreign travel. My silent message was, "As a medical professional, I know how important it is to be guided by facts and not by a hunch." Upon reaching the rental car, we studied the handbook, written in multiple languages. We didn't understand all the bells and whistles, but because a map is a map, we believed we were the ultimate, modern travelers.

With reassurance to my wife that I was in control, we began our journey. The route to our destination was not a simple major city-to-major city route. Soon I began to realize that the directions in the travel guide that I had studied, the national map that I had carefully reviewed, and the options being offered by the GPS all seemed to indicate multiple ways of getting to our destination. Relief set in when we heard the authoritative voice of the speaking guide coming from the GPS for the first time. Certainly, we now had the exact outline for travel, developed by the government, based on years of evaluation and revision. We were convinced that the GPS was the recognized authority showing us the way, unlike the man behind the wheel, hindered by fallible one-on-one decisions — a man who resents asking for directions. Rather, the soft voice from the GPS was like a professor whispering instructions into the ear of the chief surgical resident as he explored a gunshot wound to the chest!

And so, we drove, confidently, into the French countryside as the GPS spoke.

*"Bear right in 400 meters."*

*"Leave the National Route at the second right in 2 kilometers."*

*"Make a U-turn in 200 meters."*

*"Keep to the left at the fork in the road coming up in 2 kilometers."*

Confusion started to set in. We were following the directions, but our instincts knew something was amiss.

*"Dear, does 'deviation' mean the same thing as 'detour?'"*

*"I have a hunch that we need to turn around and go in the other direction."*

*"Well, if the GPS says to make a hard left turn, make a hard left turn!"*

*"Oh my, you just entered an underground parking garage!"*

So much for the GPS.

Perhaps there is a lesson here for medical professionals and wound care professionals in particular. How does a responsible clinician balance the obligations of individual patient care with the current pressures of evidence-based medicine (EBM)? In 1992, EBM advocates announced a "new paradigm," in which evidence from healthcare research is the best basis for decisions for individual patients and health systems in general. Some argued that EBM could replace traditional medicine — the historical tradition in which much medical knowledge is derived from clinical experience and is based on pathophysiologic rationale. Others suggested that EBM could decrease the effect of expert opinion and deny payment for untested treatment. In fact, some things cannot be tested in randomized trials and some things are so obvious that a randomized, controlled trial is not needed. Compression hose in the prevention of recurrent venous ulcers and offloading neuropathic ulcers are 2 examples that come to mind.

Without question, the overall effect of EBM for clinical medicine has been positive. We are better clinicians today because of it, and in general, the majority of patients have benefited. But “majority” doesn’t necessarily count with that individual statistic of 1 — that 1 who is before you on the examination table and seeks advice for the “hole in the leg.” Like the GPS, EBM can be a reference that, if relied upon exclusively, could lead your patient to that “underground garage!”

I believe in the critical importance of EBM, and my message should not be misconstrued. However, we must all be aware that, at times, the transfer of research findings into clinical practice is based on incomplete evidence from selected groups, who sometimes experience only a marginal benefit from expensive technology. This calls to question generalizing the findings and who will be able to afford these new innovations.

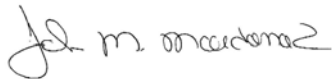
“Empirical evidence,” the knowledge gained from clinical research, is not all that is necessary to practice excellent medicine. Clinicians need to incorporate knowledge from distinct areas into each medical decision:

1. Empirical evidence
2. Experiential evidence
3. Physiologic principles
4. Patient and professional values
5. Medical system realities.<sup>1</sup>

Underlying all decisions is the eternal admonition, “First, do no harm.”

1. Tonelli MR. Integrating evidence into clinical practice: an alternative to evidence-based approaches. *J Eval Clin Pract.* 2006;12(3):248–256.

Regards,

A handwritten signature in cursive script, appearing to read "John M. Macdonald".

John M. Macdonald, MD, FACS