Evidence-based Medicine in Wound Care: In Support of the Renaissance

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As an individual (not a representative of any organization), I am concerned that misconceptions about evidence-based medicine (EBM) are confusing wound care professionals. Most importantly, this confusion has the potential to reduce the credibility of wound care as a specialty, the status of related professional societies, and the quality of care provided.

Evidence-based medicine has been well defined; these definitions and criteria have been adopted by all medical, nursing, and allied health specialties as well as regulatory, accreditation, and reimbursement entities. So why would EBM have to be redefined to suit wound care? Evidence-based medicine seems ideally suited to serve wound care professionals and patients. It supplements professional expertise with the best available evidence of what is safe, works well, and is acceptable to patients. It encourages creativity and innovation (opinions) that, in turn, can be verified through scientific study and potentially become knowledge. As Hippocrates observed so long ago, “There are in fact two things: science and opinion; the former begets knowledge, the latter ignorance.”

Similarly, hierarchical criteria for levels of evidence are accepted in all scientific disciplines. What we learn from events in a petri dish may, or may not, mean anything for human beings. As a result, that evidence generally receives less “weight” than the results of observations in a clinical setting. Yet, in wound care it is argued that a nonhierarchical model of evidence quality should be used. What makes a wound diagnosis so different from, for example, asthma? Both are part-and-parcel of humans and their overall health status.

Why would it be unacceptable to use “expert opinion” for asthma management yet perfectly acceptable for persons with wounds?

Some have argued that because most wound care products, including gauze, are not pharmaceutical products, justifying related large-scale studies is not practical. Fortunately for our patients, using the gauze argument to support (or discredit) the value of multiple studies is not valid. Systematic reviews and meta-analyses of randomized controlled clinical trials (RCTs) on acute and chronic wounds already have concluded that moist wound healing with at least one form of dressing (ie, hydrocolloids) improves healing, infection rates, or pain compared to gauze. If these studies had not been conducted, we would still be using wet-to-dry dressings and gauze.

While it is well known that the overall quality of RCTs in wound care is poor, this is hardly an argument for dumbing-down wound care-related EBM. Similarly, just because wound care studies’ outcomes frequently do not include patient-centered variables such as pain, odor, or quality of life, this does not mean we should abandon the entire process. These limitations in the literature should be an impetus to improve the quality of our studies and include patient-centered outcomes. To suppose that wound care is more complicated than perhaps cancer or cardiovascular care or that other medical areas need not consider the whole patient incorrectly isolates the profession of wound management from the rest of medical practice and healthcare.

Last, but not least, I have frequently heard the argument that RCTs are “not relevant” to clinical practice

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because so many “real life” patients are not eligible for enrollment. This argument misses the point and purpose of RCTs entirely. An RCT is the only method available in science to determine if one approach or treatment works better with respect to the outcome of interest than the other (efficacy). Once this has been determined, we can safely expand the study and use of a new treatment to ascertain if it is effective in patients not included in the original study design. Only then will we know if it is worth our while to spend our finite resources doing something that may, in fact, not be any better than what we are currently doing.

Why would wound care professionals abandon science and science-based practice (ie, EBM) that has lifted so many areas of healthcare out of the dark ages when patients were bled or purged to death? We owe our patients and our profession the benefits of knowledge based on the highest quality science available. We are tentatively perched on the brink of a renaissance in wound care that has the potential to elevate wound management to the status afforded other medical fields — a status that will help improve quality of care and patient outcomes. To question the value of EBM is to risk losing the hard-gained positive momentum necessary to tell the hole/whole story. - OWM

References
3. Hippocrates. Law. Book IV.

CORRECTIONS
In the article Girouard K, Harrison MB, VanDenKerkof E. The symptom of pain with pressure ulcers: a review of the literature. Ostomy Wound Manage. 2008;54(5):30–42, the first author’s name was inadvertently omitted from the bio. The information should read Dr. Girouard is a Professor of Nursing, Cambrian College. Also, Reference 20 (and its citation in Table 3) should read Moberg S. Hoffman L. Grennert ML. Holst A. A randomized trial of cadexomer iodine in decubitus ulcers. J Geriatr Soc. 1983;31(8):462-465. The Editors sincerely regret the errors.