Method or madness: A Methodology section in *CJEM*?

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Methodology! The word alone is enough to scatter guests at a cocktail party. So why would *CJEM* launch a section with such a moniker and what could it possibly have to do with the practice of emergency medicine?

The subtitle says it all: "the Science of Emergency Medicine." The principles of methodology and epidemiology are the foundation of clinical medicine. Increasingly we are called upon to investigate our patients' complaints in a scientifically appropriate manner, evaluate the evidence for new therapies or against old ones, and be aware of both the cost and cost-effectiveness of what we do. To practise EM in such a manner requires both dedication and knowledge we may have never acquired or long forgotten.

The pages of *CJEM* are a testimony to the increasing breadth and depth of Canadian EM research. Producing quality research, however, is only half the equation. Each of us is, in a sense, a *consumer* of research and must possess and apply tools to evaluate evidence and the generalizability of research findings, while maintaining realistic and balanced expectations. To not do so is to run the risk of adopting one of two extreme positions: "reflex acceptance" or "cynical nihilism." Either position is both easy to drift into and detrimental to our attitudes and ultimately our patients.

The history of medicine abounds with examples of detrimental reflex acceptance of research results. Numerous factors can influence the findings and conclusions of a study, including design flaws, bias, incorrect or multiple statistical tests, chance, industry sponsorship, investigator zealousness, or even asking the wrong question in the first place. Similarly, our own anecdotal experiences or approaches, while part of the art of medicine, should never be automatically accepted or perpetuated. Taken to an extreme, however, these cautions can easily lead to cynical nihilism, an almost evangelical conviction that nothing we do makes any difference and nobody out there is interested in anything beyond profit or personal glory. Applied to research findings, the responses of the cynical nihilist are simple: if it was an industry sponsored study then it's automatically rejected; if it was a positive study then it was too big and any statistical difference really isn't clinically significant; if it was a negative study then it was too small and underpowered to detect a difference that really exists. While each of these responses is sometimes appropriate, none are invariably so.

The challenge is to find an appropriate middle ground between the *yin* and *yang* of reflex acceptance and cynical nihilism. Beyond knowing what to reject or accept, we need the ability to both assess the influence of weaknesses in good studies, and extract the gems that may still exist in bad studies. The Methodology section was developed with this challenge in mind. Here we plan to present papers on such topics as diagnostic testing, basic statistical concepts, research design issues, developing research studies or programs, and evaluating the medical literature. A prerequisite for publication will be that discussions are both practical and directly relevant to EM. The two papers[1,2] presented in this inaugural section meet these goals.

We welcome Methodology submissions. If you have an idea still in its infancy, we encourage you to contact us to discuss whether it would be of interest to our readership and what direction to take. Only with your support will this section be the success we know it can become.

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References

1. Gray JD. The problem of consent in emergency medicine research. CJEM 2001;3(3):213-8.
2. Worster A, Rowe BH. Measures of association: an overview with examples from Canadian emergency medicine research. CJEM 2001;3(3):219-23.

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