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EBM a Challenge for International Medical Graduates

To the Editor:

Evidence-based medicine (EBM) is encouraged in postgraduate education, but many curricula lack key elements such as evaluation, access to resources, faculty development, or training regarding pre-appraised summarized evidence-based resources.¹

In 2005, early in the development of a new EBM curriculum in the University of Alberta (U of A) Family Medicine Residency Program, we hoped to identify the residents' perceptions, skills, and barriers to EBM, particularly the influence of their medical school of graduation. We separated the residents into three groups based on medical school of graduation: graduates of U of A, Canadian graduates not from U of A, and international medical graduates (IMGs). We developed a survey based in part on previous questionnaires,^{2,3} pilot tested with three residents, modified for clarity, and distributed to residents at their Academic Half-Day. The study received ethical approval from the Health Research Ethics Board, U of A.

Of 92 available residents, 62 (67.4%) responded. Most (70%) residents reported a positive attitude toward EBM, and 73% felt it improved patient care. EBM was

felt to be practical, faculty members were considered supportive, and time was not a substantial barrier for the majority of respondents. There was no relationship between the demographic variables of gender, age, and program (rural/combined) and the responses ratings of any questions. Unfortunately, more than 50% felt that EBM training in medical school was inadequate in quantity and quality. Residents who graduated from Canadian medical schools other than the U of A rated EBM training in medical school higher for quantity (Kruskal Wallis 15.4, $P < .001$) and quality (Kruskal Wallis 12.5, $P = .002$) than graduates from U of A or IMGs. IMGs were more likely to report basic computer skills as a barrier to EBM practice (Kruskal Wallis 6.059, $P = .048$).

The study findings reveal that many of the residents, particularly IMGs and those from U of A, felt that EBM education in medical school was inadequate in quantity and quality. The limitations in undergraduate EBM education at the U of A are known and presently being addressed by the Undergraduate Committee. The situation for IMGs is unlikely to change soon. Studies in non-Western countries suggest that there are significant barriers to EBM education, including negative attitudes among faculty⁴ and only 40% of clinicians having heard of the EBM concept.⁵ Unfortunately, there are no studies directly comparing the EBM education of international graduates and graduates of Western countries. However, a recent US study of practicing clinicians found that international graduates were less likely to practice evidence-based preventive care.⁶

While graduates of Canadian medical schools are not limited by their computer skills, IMGs are. No study has specifically reported computer skills as a possible barrier to EBM. However, poor access to the Internet and evidence-based resources in other countries, as

described by clinicians in Saudi Arabia⁵ and trainees in China,⁴ may be contributing to limitations in computer skills among IMGs. Another possible factor may be the older average age of IMGs.⁷

This small study suggests that IMGs have limited EBM training before residency, and computer skills are a barrier to their EBM practice. More research is required to determine if this is a concern for other training programs. Since many programs include graduates from a wide variety of backgrounds, it may be prudent to include some basic education in EBM and computer skills early in residency.

Acknowledgments: The rough data has been presented at the (Canadian) Western Departments of Family Medicine Annual Meeting on May 5, 2006, and the University of Alberta Family Medicine Residents Research Day on June 9, 2006. Both are small, local-level meetings.

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