- how can placebo effects make inert therapies appear effective?
- · how can doctors recognize pseudoscience (including that seen in peer-reviewed journals) and the way it is used to promote sham therapies?

If the authors believe that teaching about CAM in UME is justified by the weight of the supportive efficacy trials, it would be most appropriate for those therapies to be clearly identified and the alleged evidence offered for the consideration of the academic community. Such therapies could then be included in the appropriate parts of the UME curriculum just as all effective therapies are. Calls for nonjudgmental integration and teaching of CAM are akin to writing a blank cheque to be cashed to the detriment of our intellectual integrity.

> —Lloyd Oppel, MD, MHSC, CCFP(EM) —Barry Beyerstein, PHD —Dale Hoshizaki, MD —Marley Sutter, мр, рнр Vancouver, BC by e-mail

## References

- 1. Oppel L, Hoshizaki D, Mathias R, Sutter M, Beyerstien B. Introducing medical students to CAM [letter]. Can Fam Physician 2004;50:1495.
- 2. Verhoef M, Brundin-Mather R, Jones A, Boon H, Epstein M. Complementary and alternative medicine in undergraduate medical education, Associate deans' perspectives, Can Fam Physician 2004;50:847-9 (Eng), 853-5 (Fr).
- 3. Verhoef MJ, Epstein M, Brundin-Mather R. Developing a national vision for complementary and alternative medicine in undergraduate medical education: report on an invitational workshop. J Complement Integrative Med 2004;1:article 5.
- 4. Veroef M, Epstein M, Brundin-Mather R, Boon H, Jones A. Introducing medical students to CAM: response to Oppel et al [letter]. Can Fam Physician 2005;51:191-2.
- 5. Verhoef M, Findlay B. Maturation of complementary and alternative healthcare in Canada. Healthc Pap 2003;3(5):56-61, discussion 72-7.
- 6. Verhoef MJ, Casebeer AL, Hilsden RJ. Assessing efficacy of complementary medicine: adding qualitative research methods to the "gold standard". J Altern Complement Med 2002;8(3):275-81.
- 7. Mulkins A, Verhoef M, Eng J, Findlay B, Ramsum D. Evaluation of the Tzu Chi Institute for Complementary and Alternative Medicine's Integrative Care Program. J Altern Complement Med 2003;9(4):585-92.
- 8. Welsh S, Kelner M, Wellman B, Boon H. Moving forward? Complementary and alternative practitioners seeking self-regulation. Sociol Health Illn 2004;26(2):216-41.
- 9. Boon H. Regulation of complementary/alternative medicine: a Canadian perspective. Complement Ther Med 2002;10(1):14-9.
- 10. Boon H, Verhoef M, O'Hara D, Findlay B. From parallel practice to integrative health care: a conceptual framework. BMC Health Serv Res 2004;4(1):15.
- 11. Boon H, Verhoef M, O'Hara D, Findlay B, Majid N. Integrative healthcare: arriving at a working definition. Altern Ther Health Med 2004;10(5):48-56.
- 12. Linde K, Clausius N, Ramirez G, Melchart D, Eitel F, Hedges LV, et al. Are the clinical effects of homeopathy placebo effects? A meta-analysis of placebo-controlled trials. Lancet 1997;350(9081):834-43.
- 13. Elden H, Ladfors L, Olsen MF, Ostgaard HC, Hagberg H. Effects of acupuncture and stabilising exercises as adjunct to standard treatment in pregnant women with pelvic girdle pain: randomised single blind controlled trial. BMJ 2005;330(7494):761.
- 14. Byrd RC. Positive therapeutic effects of intercessory prayer in a coronary care unit population. South Med J 1988;81(7):826-9.

15. Taleyarkhan RP, West CD, Cho JS, Lahey RT Jr, Nigmatulin RI, Block RC. Evidence for nuclear emissions during acoustic cavitation. Science 2002;295(5561):1868-73.

## Safety of metformin use during the first trimester

Te read Dr Kelly and colleagues' article along with Dr Harris's editorial<sup>2</sup> with great interest and considered it prudent to present data from a recent meta-analysis conducted by the Motherisk Program at the Hospital for Sick Children in Toronto, Ont.

Our data, presented at the 2005 annual meeting of the Canadian Society for Clinical Pharmacology, are encouraging with respect to the safety of metformin use in the first trimester of pregnancy. In performing a meta-analytic summary, which included eight studies (only five of which could be analyzed statistically), we found an odds ratio of 0.50. Examining the numbers showed three malformed babies among the 172 cases in the exposed group. There were 17 among 236 in the control group. Examining all the data available on pregnancy outcomes (including those not included in the meta-analysis due to lack of controls), we arrived at an overall malformation rate of 1.01% in 496 first-trimester exposures, which is well within what we would expect to find in the general population.

Our results also present the possibility of a protective effect of metformin during the first trimester. It is biologically possible that, by reversing insulin resistance, metformin does protect against malformation. Although our data are encouraging, it is important to note that we examined only major malformations. This being said, our study does encourage future research into the safety of metformin during the first trimester of pregnancy.

> —Cameron J. Gilbert, мsc —Gideon Koren, MD Motherisk Program, Hospital for Sick Children Toronto, Ont by e-mail