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Authors' Response:

We acknowledge the concerns expressed by Drs Larimore, Stanford, and Kahlenborn regarding the definition of abortifacient and the mechanism of action of emergency contraception (EC). The American College of Obstetrics and Gynecology states that implantation is a necessary step in the establishment of a pregnancy and that abortifacient refers to the disruption of an implanted pregnancy.¹ According to this definition, which is shared by the Food and Drug Administration, the National Institutes of Health, and the majority of the gynecologic literature, EC is not an abortifacient. We acknowledge that some providers may have alternate definitions and therefore may contest the correct answer to one of our survey questions.

Regarding mechanism, the exact actions of EC on the fertilized oocyte are still being studied. Most current research suggests that the majority of the time, EC acts before fertilization.^{2,3} However, under certain circumstances, particularly when there is delay in initiating EC, a postfertilization but preimplantation mechanism may occur. The relevance of this possibility to our female patients who are considering use of EC is uncertain and could be a question worthy of future research.

What is certain is that we as family physicians need to go beyond medical terminology when discuss-

ing EC with our patients. We must have open and honest conversations in layman's terms regarding EC, its benefits, and its potential consequences and let the patient make her own decision. The first step in fostering these important discussions is to ensure residents have adequate knowledge and training regarding provision of EC.

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New Research

Family Physicians' Beliefs About Genetic Testing

To the Editor:

Since the inception of the Human Genome Project (HGP) in 1989, appropriate concern has arisen about how awareness of an increased genetic predisposition to a dreaded disease might impact such individuals' overall quality of life. The personal beliefs that clinicians hold about this important issue is likely to influence their enthusiasm for this emerging field, and exposure to the cutting-edge genetic discoveries in medical school is likely to catalyze the development of such beliefs. We examined whether the beliefs held by the cohort of family physicians who received formal medical school training since the

human genome era began differ from those who trained earlier. The direction of any effect might represent a trend that will have impact on the early uptake of genetics in family medicine.

In 2002, we completed a mailed survey of all 693 members of the Massachusetts Academy of Family Practice (MAFP) and attained a 43% response rate. The MAFP represents approximately 80% of the family physicians practicing in Massachusetts and demonstrates a diverse population as measured by age (range=30–86 years, mean/standard deviation [SD]=45.8/7.8) and sex (40% female).

We provided the physicians with the following scenario: "Consider your patients who have a family history of cancer. Assume that they underwent genetic testing and learned that they had a high risk of developing that cancer sometime in the future." We then asked them whether their patients "in general" would be more or less likely to "experience an improved quality of life." Response options included a 4-point scale containing "much more likely," "somewhat more likely," "somewhat less likely," and "much less likely." They were also given the option of "I can't guess" positioned separate from the other response options. For examination of optimistic bias, responses were dichotomized to "more likely" versus all else. Medical school training period was dichotomized at a graduation year of 1993 to allow for a medical school start year of 1989 to coincide with the HGP. We used standard chi-square to investigate crude difference in optimistic bias by training period. We stratified these results on sex and age to identify possible confounding or effect modification of our crude association. Ultimately, we used logistic regression analysis to adjust for the confounding effect of age by strata of sex on the association between training period and optimistic bias. We used SPSS Version 11.0[®] for all

analyses. The Boston University School of Medicine Institutional Review Board approved this study.

Nearly one third of respondents expected improvement in QOL and training during the HGP was associated with such optimism after controlling for age (odds ratio [OR]= 2.31, 95% confidence interval [CI] [1.16, 4.6]). The association, controlling for age, was significantly stronger in women (OR=3.31, 95% CI [1.2, 8.6]) than men (OR=1.19, 95% CI [0.35, 3.6]). We speculate that such an association might reflect the attention that BRCA predictive testing for

breast cancer risk has received since early in the HGP.

Interestingly, one third of our respondents suspended their opinion about the impact of testing on high-risk patients. We feel this represents a true sense of their position rather than a default choice of the central response option because we opted to place "I can't guess" clearly apart from the other 4-point Likert scale. Given the importance that family physicians ascribe to perceptions of patient centeredness and quality of life in their practice patterns and clinical recommendations, dissemination of research on patient-cen-

tered outcomes such as QOL will be important for family physicians to assess the role that predictive genetics will have in their practice of medicine.

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