

resources required for all aspects of such a program are available.

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I was excited to read that the apparent sensitivity of triple-marker screening had been improved to the point that it had a rate of false-positive results of only 3.7%. This rate is supported in a table describing the results of four different studies of triple-marker screening.<sup>1-4</sup> Since I have been an opponent of this test, precisely because of its high rate of false-positive results, I decided to critically appraise and present this article to the local journal club.

Since the stated rate of false-positive results contradicted my own experience, I reviewed the four references that served as the basis for the rate cited. In fact, the rates cited were not the results of the triple-marker test alone but of the triple-marker test in conjunction with some form of confirmation of gestational age, most commonly a subsequent ultrasonographic examination. The rate of false-positive results before further evaluation in each of these studies was approximately double the rate after ultrasonographic confirmation. These findings are more consistent with the previously published data.

Although the article by Dick and the task force was published under the rubric of clinical practice guidelines, the abstract specifically states that "the economic issues involved are complex and were not considered." How can a practice guideline be considered useful if the economic aspects involved are not considered? This would be like suggesting that

every patient with a headache undergo a computed tomography scan so that the risk of missing a brain tumour is reduced. It makes the Ottawa ankle rules practically irrelevant!

I am concerned about the impact of this guideline as published. I believe that it provides false credibility for a test that has serious limitations.

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#### References

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#### [The author responds:]

Although the letters from Dr. Farrell and associates and Dr. Viner represent different perspectives on screening with the use of maternal serum markers, they both raise questions about the programmatic aspects of prenatal screening for Down syndrome. There also seems to be a misunderstanding of the role of the task force guidelines. Rather than being a practical guide to local prenatal ser-

VICES or programs, the recommendations should be viewed as a guide to the evidence supporting and effectiveness of these interventions according to the literature.

Viner questions the task force's recommendations for triple-marker screening involving maternal serum levels of  $\alpha$ -fetoprotein,  $\beta$  human chorionic gonadotropin and unconjugated estriol. He differentiates between the rate of false-positive results when the markers are used with and without confirmation of gestational age. As he notes, earlier studies of maternal serum markers without confirmation of gestational age reported higher rates of false-positive results. However, the task force used only the four recent studies for estimates of screening effectiveness.<sup>1-4</sup> These studies met the criteria for level II evidence and constituted the best available evidence.<sup>5</sup> The triple-marker screening in these studies included an ultrasonographic examination for confirmation of gestational age. Thus, the estimates cited in the task force recommendations reflect the screening intervention *in toto* (i.e., maternal serum markers with confirmation of gestational age), as delivered in a comprehensive screening program.

Farrell and associates suggest that the use of the term "triple-marker screening" is inaccurate. They correctly point out that screening with the use of maternal serum markers is evolving. However, they miss the point that triple-marker screening is the most effective combination to have undergone widespread evaluation in clinical trials. In keeping with the task force's emphasis on published evidence, the focus on triple-marker screening was deliberate and the use of the term accurate.

Farrell and associates believe that age should not be used as screening test. It is unclear, however, whether they are suggesting that there is no role for maternal age in counselling women concerning their options. It