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■ *Reply:* We thank Morley and Harper for their thoughtful letter, although we take issue with some of the points they have raised. We apologize for citing the incorrect number of hospitals participating in the Cleveland Health Quality Choice program.

All physicians know that no diagnostic test is 100% accurate, but there clearly are degrees of inaccuracy beyond which a test becomes useless. As in the case of risk-adjustment technologies, there are well accepted measures of the accuracy of diagnostic tests, eg sensitivity, specificity, predictive value, and correlation coefficients. I am unaware of any useful laboratory test with a correlation coefficient (R^2) as low as 0.35 (equivalent to 35% "accuracy" in this context), as was the case with the Cleveland Health Quality Choice data. Such assays have gone the way of the thymol turbidity test and the basal metabolism test. They yield misleading data and have been appropriately discarded. The fact that the outcomes measures in the Cleveland Health Quality Choice project perform as well or better than those in similar projects elsewhere may only indicate that it is among the best in a group of methodologies that all perform at an unacceptable level.

It is reassuring that gaming has not been found in the Cleveland Health Quality Choice Project so far. However, we still believe that the potential for gaming exists, and that such gaming may not be easy to detect.

Morley and Harper state that Cleveland Health Quality Choice regularly releases risk-adjustment variables and coefficients to participating hospitals for independent review. While now true, this release of information was agreed to belatedly and reluctantly, and the hospitals are sworn to secrecy, thus retaining the "black box" characteristic for everyone but the hospitals.

Claims of great savings and improved outcomes resulting from the project cannot be substantiated, since similar savings occurred not only in Cleveland, but throughout the country. These savings began appearing before the Cleveland project started and have continued throughout its existence. Rather than these cost savings being the result of outcomes reporting, it is more likely the savings were the result of improving technology and increasing market pressure to contain costs.

Employers in Cleveland have paid only a small portion of the true costs of the project. Most of the project's true costs reside in additional personnel hired by hospitals to extract data retrospectively from clinical records. These expenses become part of the cost of doing business for hospitals and get passed to consumers as increased health care costs. Furthermore, Cleveland employers have recently withdrawn their financial support for the project.

Finally, we do not believe there is anything pejorative in the articles; the facts speak for themselves.

JOHN D. CLOUGH, MD
Editor-in-Chief

HANDGUNS

■ *To the Editor:* Please permit me to take violent exception to a statement that you made regarding the public health risk of the "ready availability of handguns" in your editorial "An ounce of prevention" (May/June 1996).[1] Please be advised that

handguns themselves are not the cause of damage they do. The responsibility in that area lies with our criminal justice system which has completely failed in addressing the root cause, which is crime in which a tool, eg, a handgun, is used.

Although I find the rest of the content of the *Journal* interesting for the most part, I regret to see such a prominent journal in effect openly advocating total disregard for the second amendment to the United States Constitution.

C.T. STONE, JR., MDE
Galveston, Tex

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SHARK CARTILAGE AND CANCER

■ *To the Editor:* I enjoyed reading Markman's review of the shark cartilage craze (May/June 1996).[1]

As he states, the fascination with shark cartilage stems partly from the notion that sharks do not get cancer.

Markman and your readers will be interested, but not surprised, to know that sharks do indeed get cancer. Stoskopf gives a detailed list of reported cancers in sharks in Chapter 101 of his book *Fish Medicine*.[2]

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THE INTERNET AND MEDICAL JOURNALS

■ *To the Editor:* I found your editorial (July/August 1996)[1] very interesting. I have been "curling up in bed with a laptop computer...tethered to a phone" for years. You may ask my wife to verify this! It has been easy to sell electronic media and notebook computers short, especially before today's powerful, colorful and relatively small notebook computers. I do prefer a magazine or journal, but I am limited to only a handful at any one time. Not so with a World Wide Web/Internet link. There, I can move about as the subject requires or as my own curiosity demands. For this advantage the notebook computer is only a minor inconvenience compared to the printed page. And it is indeed very portable.

In my case, I came to medicine with an undergraduate degree in engineering, so my experience reflects that natural to an early adopter of this technology. However, I see nothing that prevents its widespread adoption. Indeed the newness and gadgetry is attractive to many, although it is seen as an encumbrance to others.

Though the fundamental computer technology was here yesterday, it is now finally reaching a critical mass of adoption. You are to be congratulated in moving forward with this leading wave.

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