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In Reply:—Ghouri and Feinstein raise important points about the relationship between the prevalence of malignant hypothermia (MH)-susceptibility and the negative predictive value [P(D−|T−)] of a negative caffeine halothane contracture test (CHCT). Although sensitivity and specificity are stable properties of any test, and are not affected by disease prevalence, positive and negative predictive values do vary with prevalence. The sensitivity and specificity [P(T−|D−)] of the CHCT have been estimated in swine, where sensitivity = 100% and specificity = 95%.[1] The prevalence of MH-susceptibility [P(D+)], *i.e.*, the pretest probability, can be estimated in many patients who undergo MH testing. Therefore, the negative predictive value can be easily calculated, using the equation[2] quoted by Ghouri and Feinstein. For the purpose of these calculations, we will assume that the sensitivity = 95%, *i.e.*, a false-negative rate [P(T−|D+)] of 5%, since few tests in medicine are 100% sensitive. In the swine we tested,[1] the prevalence of MH-susceptibility was 45%. The negative predictive value would be 96%.

The prevalence of MH-susceptibility from a number of biopsy centers ranges from 28 to 52%.[3-5] In our center it is 45%. Thus, the negative predictive value of a negative CHCT would be greater than 99%. A patient with an MH-susceptible (MHS) first-degree relative has 50% risk of being MHS. Similarly, a child with a history of masseter muscle rigidity (MMR) also has a 50% risk of being MHS.[6] An adult with previous MMR has a 25% risk of MH-susceptibility.[7] A patient tested for MH because of perioperative temperature elevation has a 15% risk of MH-susceptibility.* In all of these instances the negative predictive value of the CHCT would be over 99%.

What is the negative predictive value of a negative CHCT in a patient with no personal or family history of MH? As prevalence falls, the negative predictive value increases. Therefore, if one assumes a prevalence of 1 in 40,000,[8] the negative predictive value of the CHCT would be 99.9%. The patients in our study did not have a pretest probability of 1 in 40,000 but rather 45% overall.

Ghouri and Feinstein have arbitrarily chosen their values for sensitivity, specificity, and prevalence to make their point. However, these values are artificial, and are not supported in the literature. We made note of the small sample size of our study, and suggested cautious interpretation of the results. Indeed, we concluded in the abstract that "until the anesthetic experience of larger numbers of MH(−) patients is known, these results should be interpreted cautiously" and that "these results suggest that 'triggering' anesthetics may be safely administered to patients who test MH(−) by *in vitro* contracture testing."

Our study was based on more than 300 referrals for diagnosis over 3 yr. To increase the sample size would require cooperation among several centers (perhaps through the North American MH Registry). We encourage such efforts so that the utility of the CHCT can be evaluated objectively.

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* Unpublished observation.

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Microinfusers: Stopcock Usage for Efficiency and Asepsis

To the Editor:—Pumps currently available for infusion of Alfentanil and other medications include the Harvard Mini Infuser 900 (Bard, North Reading, MA) and the programmable Baxter Model AS 20GH, (Baxter Health Care Corporation, Hooksett, NH) pumps.

The Bard calculates and administers drugs based on the patient's body weight and the stock concentration by either bolus or continuous infusion rates. The Baxter pump operates in a similar manner except that the patient's body weight and the drugs used can be programmed into the machine.

Refilling the infusion syringe during the procedure is tedious and time-consuming. The infusion must be stopped, and the syringe removed to draw up the drug and then replaced on the pump. Moreover, interruption of continuous inotropic support by using the parent syringe to reload the system may create unwanted hemodynamic changes.

Placement of a three-way stopcock (Cobe, Lakewood, CO) with male luer locks on the infusion syringe allows for uninterrupted refilling of the 60-ml parent syringe with decreased risk of contamination of the system (fig. 1). The stopcock is placed between the parent syringe and