Abbreviated Methacholine Challenge
How Safe Are Short Procedures?

To the Editor:

Increased nonspecific bronchial hyperresponsiveness to pharmacologic agents such as methacholine is a hallmark of asthma. The measurement of airway reactivity is quite sensitive, but testing is tedious and time consuming. It is not surprising to find in the literature many attempts aimed to design the shortest possible yet safe inhalation challenge protocol. While there is an abundance of such rapid protocols set for epidemiologic studies of randomized, largely healthy populations, there are only a few recommendations for short protocols that may be applicable in the population seen in a lung function referral center. The work of Juniper et al4 should be mentioned in particular, as it was objective criterion to large variability between practicing centers. We feel that our miologic studies.

positive responders (32%), close to results obtained from epidemio-
al8 yielded indeed 60% positive responders. The study of Cock-

cockcroft et al10 suggested a fourfold increase as compared to our tripling concentration steps. It is intuitively obvious that our algorithm is more conservative and hence safer. Cockcroft et al10 cut this risk by falling back to the doubling concentration protocol when a response of \( \Delta FEV_1 \) ≥ 5% was observed. We feel that such a small change in FEV1 falls within test variability and will impose unnecessary spurious recordings. Instead, our algorithm calls for falling back when a \( \Delta FEV_1 > 10% \) is observed.

In summary, both algorithms9,10 are successful in shortening the test to an average of about 30 min while keeping it as safe as the standard test (ie, 3 to 4% occurrence rate of severe responses). Our algorithm appears to be safer in our group of patients, and it is quite possible that outcome depends on patient com-

posite. As was correctly pointed out in the editorial adjoining this publication,11 the use of methacholine challenge testing is highly recommended and abbreviated algorithms will bring about the needed wider use of it. However, a more careful look at suggested protocols is needed before the final verdict is reached.

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