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FEV₁/FEV₆ May Misdiagnose Patients With COPD—Reply

In reply:

We thank Ruppel and colleagues for their thoughtful letter and excellent points regarding the possibility of misdiagnosing COPD using the fixed ratio. We are in clear agreement that FEV₁/FEV₆, as well as FEV₁/FVC, may overdiagnose COPD. In fact, we were always concerned about the agreement between the Global Initiative for Chronic Obstructive Lung Disease (GOLD) standard and the lower limit of normal standard for the diagnosis of COPD. In another study,¹ we focused on the difference between GOLD and lower limit of normal. The results showed that the 2 criteria were both effective and consistent for detecting COPD in subjects age 40–69 y. Subjects >70 y old were overdiagnosed by GOLD standards. However, subjects age 40–69 y were the main target population. Furthermore, the final diagnosis was not made in the primary care unit but required further confirmation in the superior hospital.

COPD has become a major disease in China because most people smoke; however, it still does not arouse enough people's attention. Our other study showed that 68.1% of asymptomatic participants were undiagnosed by GOLD standards.² Underdiagnosis of COPD in many countries was also found to be substantial, ranging from 5 to 60%.^{3,4} The main problem related to COPD in China is underdiagnosis, not overdiagnosis. Overdiagnosis provides possible benefits, by improving lifestyle, because our people do not regularly receive health checks.

As for the reference equation, it was indeed a problem we did not address. The study showed that there was a difference in reference values from 6 areas in China.⁵ This geographic factor may be a possible cause of COPD overdiagnosis in our study. However, spirometry with Chinese reference values is not common and does not suit our population. This issue needs further study to obtain reference equations suitable for people in China. In summary, early detection of COPD is very critical in the pri-

mary unit, and the final diagnosis of COPD requires the combination of history, physical signs and symptoms, and lung function tests.

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