(3 of 88) rather than the discriminatory value of fluorodeoxyglucose positron emission tomography (FDG-PET). Even a test without any discriminatory value (which would classify all patients as having a CMR) would have an excellent NPV of 96.6% (85 of 88) in that scenario. Thus, the FDG-PET results have only minor additional value. Of note, in diffuse large B-cell lymphoma, which is known to have a worse prognosis than PMBCL, the NPV of end-of-treatment FDG-PET diminishes drastically (3). One study even showed that patients with high-risk diffuse large B-cell lymphoma have a very dismal progression-free survival of only 38.5% despite attaining a CMR (4, 5). The failure of FDG-PET to exclude residual disease results from its low spatial resolution (6). Also, the positive predictive value in the study by Ceriani et al (1) was only 30% (3 of 10) when the Lugano criteria were applied. Because biopsy confirmation before salvage therapy was not reported, even these 3 cases of residual disease might be questionable. In addition, post-therapy FDG-PET scans have a high (biopsy-proven) false-positive rate (7), and death can result from erroneously initiated toxic high-dose therapies rather than persistent lymphoma. However, despite early (presumed) identification of refractory disease, 3 of 3 patients died, which confirms the results of previous studies that early (asymptomatic) residual disease detection does not improve outcomes (8).

In conclusion, the NPV of post-therapy FDG-PET is highly influenced by the low incidence of disease relapse in PMBCL. Furthermore, early detection of residual disease in PMBCL using the Lugano criteria is not feasible, considering the low positive predictive value of FDG-PET in this setting and that early residual disease detection does not improve patient outcomes.

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In Reply to Adams and Kwee

To the Editor: Biologic and clinical particularities to primary mediastinal B-cell lymphoma (PMBCL) exist that confound the assertions in the letter from Adams and Kwee (1, 2). They did not consider that nearly all patients will have a bulky mediastinal mass at diagnosis and similarly will have significant residual lesions visible on computed tomography scans after therapy, whether successful or not. Moreover, despite the excellent outcomes for most patients, the few who develop recurrent disease are extremely difficult to salvage with second-line therapy, making optimization of first-line therapy the dominant priority.

Although the high success rate of therapy results in a high negative predictive value for fluoro-deoxyglucose positron emission tomography (FDG-PET), it remains the best discriminator of the outcome and is certainly greatly superior to computed tomography alone. The suggestion that FDG-PET scanning cannot wholly exclude the presence of residual disease owing to its low resolution, although theoretically possible, has simply not been borne out by our data for PMBCL, which showed that the FDG-PET findings are a valid surrogate of long-term outcomes (1, 3, 4).

The essential clinical need is to know whether the post-treatment complete metabolic response predicts long-term remission. In this context, PET-computed tomography will be superior to other imaging methods. Also, in PMBCL, owing to the intrinsic characteristics of the disease and the efficacy of available therapies, FDG-PET will perform much better than in other diffuse large B-cell lymphomas.

The assertion that early identification of relapse has no effect on outcome is also flawed, because it was determined

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from data from patients with other types of diffuse large B-cell lymphoma in complete remission. We would support the need for repeat biopsy wherever possible to confirm the true PET-positive findings. However, mediastinal biopsy of small residual lesions can be technically difficult, and it is often necessary to begin treatment of overt clinical and radiologic progression without delay.

Of the 3 patients who died in our series, progressive disease was confirmed by clinical and imaging follow-up studies, and all the deaths were related to the lymphoma.

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