clinical sequelae and support a higher threshold for “meaningful” desaturation such as $\text{SpO}_2 < 90\%$.

It would be useful to know whether milder desaturation to this level can predict the development of symptoms during flight, and consideration could be given to reanalyzing the study’s results to find out. This may reinforce and broaden the authors’ conclusions—perhaps clinically significant hypoxemia is even more common than reported, and evaluation for supplementary in-flight oxygen should be even more widely advocated.

**Response**

To the Editor:

We thank Dr Smith for his thoughtful comments regarding our recent publication in CHEST (October 2012). We took great interest in his recently published findings demonstrating an increase in estimated pulmonary artery pressures in healthy air passengers without hypoxemia.

In our study, we used an a priori-defined oxygen desaturation value of pulse oxygen saturation ($\text{SpO}_2$) $< 85\%$ (corresponding to partial pressure of oxygen in the blood of approximately 50 mm Hg at sea level). We chose this value to maintain a high specificity for oxygen desaturation events, consistent with this being the recommended threshold for prescribing in-flight supplemental oxygen in individuals based on altitude simulation testing.

We agree that a more sensitive threshold for oxygen desaturation may correlate better with flight symptoms and/or pulmonary vasoconstriction events. Using our original threshold of $\text{SpO}_2$ $< 90\%$, we did not find a significant association between desaturation events and flight symptoms ($P = .25$). However, we did find that the oxygen saturation nadir was lower in individuals with flight symptoms compared with those without symptoms ($\text{SpO}_2$, 85% vs 89%; $P = .03$). Notably, even when using this more restrictive cutoff for $\text{SpO}_2$ of 85%, there were four subjects who remained asymptomatic despite desaturation events.

Using a more sensitive threshold of oxygen desaturation ($\text{SpO}_2 < 85\%$), we found a significant association with flight symp-
toms ($P < .01$) and a similar number of individuals with asymptomatic oxygen desaturation. When the threshold was further increased ($\text{SpO}_2 < 90\%$), we saw an even stronger association with flight symptoms, but there was also a substantial increase in the number of individuals with asymptomatic oxygen desaturation by this definition. Therefore, a cutpoint of $\text{SpO}_2 < 85\%$ appeared to have the best performance characteristics with respect to reported symptoms.

Dr Smith’s findings, taken together with our study results, imply that even under mildly hypoxic conditions, individuals with underlying pulmonary vascular disease may experience symptoms as a result of elevations in pulmonary artery pressure. Further studies are needed to better understand the relationship between changes in pulmonary artery pressures, symptoms, and desaturation events during flight, and their implications with regard to air travel safety for patients with pulmonary vascular disease.

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**References**


Chest Ultrasonography as a Replacement for Chest Radiography for Community-Acquired Pneumonia

To the Editor:

The recently published prospective study by Reissig et al in CHEST (October 2012) has suggested the use of lung ultrasound (LUS) for diagnosis and follow-up of community-acquired pneumonia. This is an innovative study with achievement of very good specificity and sensitivity by highly trained sonographers. Clearly, there are advantages to the use of LUS over chest radiography.