## Reply to Meira e Cruz *et al.*

*From the Authors*:

We thank Meira e Cruz and colleagues for their comments on our recent report on the prospective associations between sleep-disordered breathing (SDB) and insomnia with incident hypertension and diabetes (1). We fully agree that it is important to examine the comorbid insomnia and sleep apnea (COMISA) phenotype as it relates to cardiometabolic risk given the potential for each disorder to cause synergistic physiological stressors or for this phenotype to potentially identify a sleep apnea endotype characterized by low arousal threshold and autonomic reactivity. Prior research has shown that SDB and insomnia frequently cooccur, and COMISA has been associated with impairments to daytime functioning and quality of life (2–4). Accordingly, in sensitivity analyses reported in our paper, we explored whether a phenotype described by both insomnia and objectively assessed SDB differed from either SDB or insomnia alone in its association with incident hypertension or diabetes. In our analytic sample, almost 10% of individuals had comorbid SDB and insomnia at baseline. Results showed that the COMISA group had increased odds of both incident hypertension and diabetes compared with those with neither SDB nor insomnia. As reported in Table E3 in the online supplement of Reference 1, we found some evidence for a stronger association for COMISA and incident hypertension in our fully adjusted models (odds ratio [OR], 2.09; 95% confidence interval [CI], 1.45–3.00) compared with SDB alone (OR, 1.55; 95% CI, 1.14–2.09) or insomnia alone (OR, 1.37; 95% CI, 1.04–1.81). However, no statistical interaction was demonstrated between SDB and insomnia for incident hypertension. For incident diabetes, we did not *see* evidence for a stronger association for the combined phenotype compared with the individual phenotypes, which differed from Meira e Cruz and colleagues' reported cross-sectional association. There are many reasons for potential study differences, including population and study design differences such as the use of cross-sectional versus longitudinal analyses, covariate adjustments, and use of objective versus questionnaire-based measures of SDB. Taken together, Meira e Cruz and colleagues' and our findings suggest that COMISA is both cross-sectionally and prospectively associated with increased cardiometabolic risk, although the magnitude of risk of the combined conditions compared with individual conditions is unclear. There is a need to better define subsets of patients with SDB at highest risk for incident cardiometabolic disease. It is biologically plausible that the physiological disturbances resulting from the cooccurrence of insomnia and SDB may amplify the risk for adverse cardiometabolic health. There is also growing evidence that SDB is a heterogeneous disorder (5). In any given patient, disease may be caused by a different combination of pathophysiological mechanisms (low arousal threshold, elevated loop gain, increased pharyngeal collapsibility, and reduced neuromuscular compensation) that results in differences in cardiometabolic risk. Future efforts are warranted to examine whether COMISA represents the cooccurrence of two common disorders and/or a unique endotype that increases cardiometabolic risk. Improved disease definitions may further clarify which patients with SDB (and insomnia) are at most risk and inform mechanistically informed treatment approaches. ■



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**Author disclosures** are available with the text of this letter at www.atsjournals.org.

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Community Health Study/Study of Latinos. *Am J Respir Crit Care Med* 2021;203:356–365.
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## Erratum: A Note on Common Apathy versus Hypoactive Delirium in Critical Illness

There are errors in the letter by Schieveld and colleagues (1), published in the April 1, 2021, issue of the *Journal*. Two references were omitted from the published version of the article:

Hermus IP, Willems SJ, Bogman AC, Brabers L, Schieveld JN. "Delirium" is no delirium: on type specifying and drug response. *Crit Care Med* 2015;43:e589.

Park SY, Lee HB. Prevention and management of delirium in critically ill adult patients in the intensive care unit: a review based on the 2018 PADIS guidelines. *Acute Crit Care* 2019;34:117–125.

These should have appeared as Reference 8 and 10, respectively. The *Journal* has replaced the online version of the letter with a corrected version in which the in-text citation numbers have been corrected throughout. ■

### Reference

1. Schieveld JNM, Strik JJMH. A note on common apathy versus hypoactive delirium in critical illness [letter]. *Am J Respir Crit Care Med* 2021;203:921–923.





## Erratum: Positive End-Expiratory Pressure, Pleural Pressure, and Regional Compliance during Pronation: An Experimental Study

Because of an error by the compositor, the print version of the article by Katira and colleagues (1), published in the May 15, 2021, issue of the *Journal*, contains some incorrect author affiliations. The errors were restricted to the listing of the participating units associated with the University of Toronto. Here is the corrected listing:

[2]Interdepartmental Division of Critical Care Medicine, [4]The Institute of Medical Science, [5]Department of Physiology, [14]Department of Medicine, [15]Institute for Health Policy, Management, and Evaluation, [17]Department of Critical Care Medicine, Hospital for Sick Children, and [18]Department of Anesthesia, Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada.

These affiliations are listed correctly in the article as published online, which is the version of record. ■

### Reference

1. Katira BH, Osada K, Engelberts D, Bastia L, Damiani LF, Li X, Chen H, Yoshida T, Amato MBP, Ferguson ND, Post M, Kavanagh BP, Brochard LJ. Positive end-expiratory pressure, pleural pressure, and regional compliance during pronation: an experimental study. *Am J Respir Crit Care Med* 2021;203:1266–1274.





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