enhance the long-term management, but we did not necessarily address this in our original statement.³

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REFERENCES

- 1 Tulaimat A, Littleton S. Defining obesity hypoventilation syndrome. *Thorax* 2014;**69**:491.
- 2 Hart N, Mandal S, Manuel A, et al. Obesity hypoventilation syndrome: does the current definition need revisiting? *Thorax* 2014;**69**:83–4.
- 3 Mandal S, Hart N. Respiratory complications of obesity. *Clin Med* 2012;**12**:75–8.

Rebuttal: 'Obesity hypoventilation syndrome (OHS): does the current definition need revisiting?'

In response to the comments by Tulaimat and Littleton,¹ we will clarify our original statement on 'Obesity hypoventilation syndrome (OHS): does the current definition need revisiting?'² The two issues that these authors raise are curious and indeed re-enforce the statement we made previously, and we wholly appreciate this. We highlighted that the use of 'calculated arterial standard bicarbonate (HCO_3^-) level from a conventional blood gas machine, in the absence of another influence on metabolic acid-base status' should be considered, and this is supported by Tulaimat and Littleton's comments. Additionally, we did not suggest removing obstructive sleep apnoea (OSA) from the definition of OHS, but rather, we wished to extend the definition, with a $\text{PaCO}_2 \geq 45$ mm Hg (6 kPa) OR an arterial base excess >3 mmol/L OR a standard $\text{HCO}_3^- >27$ mmol/L (in the absence of another cause for a metabolic alkalosis). We agree that the phenotyping of such patients into OSA, combined OSA-OHS, and lone OHS, would be clinically useful and