Bronchopulmonary dysplasia and carbon dioxide retention
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Objective
To determine the pre-discharge carbon dioxide (CO2) levels of preterm neonates with bronchopulmonary dysplasia (BPD) requiring home subnasal oxygen (SNO2).

Methods
Retrospective cohort of infants born <30 weeks gestational age (GA) at ≥36 weeks corrected GA who had established BPD requiring home SNO2. Neonates were born and admitted between May 2014 and Dec 2018. Demographic data at the time of birth and at the time of the last blood gas sampled was collected.

Results
116 neonates with median GA 26.1 weeks and birth weight 771 g. Median (IQR) CO2 level was 54 (48-58) mmHg. 108 (93%) had CO2 levels exceeding the normal range. 97 (84%) had a CO2 between 45-65 mmHg.

Conclusion
93% of neonates <30 weeks GA at ≥36 weeks corrected GA who had established BPD requiring home SNO2 have CO2 levels outside of normocapnia, with 84% of neonates having carbon dioxide levels between 45-65 mmHg.

The majority of preterm neonates requiring home oxygen for chronic lung disease have carbon dioxide levels outside of normocapnia, with 84% of neonates having carbon dioxide levels between 45-65 mmHg.