## REFERENCES

- Shigeoka J. Demand valves for oxygen therapy: your mileage may vary (editorial). Respir Care 2004;(49)2:156–157.
- Heimlich HJ. Respiratory rehabilitation with transtracheal oxygen system. Ann Otol Rhino Laryngol 1982;91(6 Pt 1):643–647.
- Christopher KL, Spofford BT, Petrun MD, McCarty DC, Goodman JR, Petty TL. A program for transtracheal oxygen delivery: assessment of safety and efficacy. Ann Intern Med 1987;107(6):802–808.
- Hoffman LA, Wesmiller SW, Sciurba FC, Johnson JT, Ferson PF, Zullo TG, Dauber JH. Nasal cannula and transtracheal oxygen delivery: a comparison of patient response after 6 months of each technique. Am Rev Respir Dis 1992;145(4 Pt 1):827–831.
- Kampelmacher MJ, Deenstra M, van Kesteren RG, Melissant CF, Douze JM, Lammers JWJ. Transtracheal oxygen therapy: an effective and safe alternative to nasal oxygen administration. Eur Resp J 1997; 10(4):828–833.
- Benditt J, Pollock M, Roa J, Celli B. Transtracheal delivery of gas decreases the oxygen cost of breathing. Am Rev Respir Dis 1993;147(5):1207–1210.
- Yaeger ES, Goodman S, Hoddes E, Christopher KL. Oxygen therapy using pulse and continuous flow with a transtracheal catheter and a nasal cannula. Chest 1994;106(3); 854–860.
- 8. Bloom BS, Daniel JM, Wiseman M, Knorr RS, Cebul R, Kissick WL. Transtracheal

- oxygen delivery and patients with chronic obstructive pulmonary disease. Respir Med 1989;83(4):281–288.
- Christopher KL, VanHooser DT, Jorgenson SJ, Winslett L, Diehl SS, Young DA, et al. Preliminary observations of transtracheal augmented ventilation for chronic severe respiratory disease. Respir Care 2001; 46(1):15–25.
- Farney RJ, Walker JM, Elmer JC, Viscomi VA, Ord RJ. Transtracheal oxygen, nasal CPAP and nasal oxygen in five patients with obstructive sleep apnea. Chest 1992; 101(5):1228–1235.
- Schneider H, O'Hearn DJ, Leblanc K, Smith PL, O'Donnell CP, Eisele DW, et al. Highflow transtracheal insufflation treats obstructive sleep apnea: a pilot study. Am J Respir Crit Care Med 2000;161(6):1869– 1876.
- 12. Christopher KL, Yaeger, ES, Shapiro H, Hamel UA, Petty TL. Comparison of transtracheal augmented ventilation to conventional methods of liberation from prolonged long-term ventilation (abstract). Chest 2002;122:156S.

*The author responds:* 

I would like to thank Mr Goodman for informing the readers of RESPIRATORY CARE and me about the success of the transtracheal oxygen catheter, which was considered a decade ago, along with the reservoir

cannula and demand oxygen valve, to be a novel way to deliver oxygen. The *fourth* novel strategy was *combined* demand-flow and transtracheal therapy. However, the study by Bliss et al<sup>2</sup> concerned demand valves that delivered oxygen to the *nasal* airway (see the Methods section). That study was the focus of my editorial.<sup>3</sup>

My sightings of the transtracheal catheter are rare. This may be supported by Mr Goodman's map that shows his company has much less market penetration in Utah than in Colorado.

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## REFERENCES

- Hoffman LA. Novel strategies for delivering oxygen: reservoir cannula, demand flow, and transtracheal oxygen administration. Respir Care 1994;39(4):363–377.
- Bliss PL, McCoy RW, Adams AB. Characteristics of demand oxygen delivery systems: maximum output and setting recommendations. Respir Care 2004;49(2):160–165.
- Shigeoka JW. Demand valves for oxygen therapy: your mileage may vary. Respir Care 2004;49(2):156–157.