

Targeted lung denervation using catheter ablation in chronic obstructive pulmonary disease¹



EXTRACT

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¹ Translation of the key statement of rapid report N25-09 *Gezielte Lungendenervierung durch Katheterablation bei chronisch obstruktiver Lungenerkrankung* (Version 1.0; Status: 15 May 2026). Please note: This translation is provided as a service by IQWiG to English-language readers. However, solely the German original text is absolutely authoritative and legally binding.

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Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen
Siegburger Str. 237
50679 Köln
Germany

Phone: +49 221 35685-0

Fax: +49 221 35685-1

E-mail: info@iqwig.de

Internet: www.iqwig.de

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This rapid report was prepared in collaboration with external experts.

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External expert

- Matthias Hecker, University Hospital Gießen und Marburg, Gießen, Germany

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IQWiG employees

- Simone Ohlwein
- Daniel Fleer
- Charlotte Guddat
- Katharina Hirsch
- Tatjana Hermanns
- Ulrike Paschen

Key statement

Research question

The aim of this investigation is

- to assess the benefit of treatment involving targeted lung denervation (TLD) using catheter ablation in addition to guideline-based therapy compared with guideline-based therapy alone

in patients with moderate to severe chronic obstructive pulmonary disease (COPD) who cannot be treated, or cannot be adequately treated, with medication.

Conclusion

Through the various stages of the literature search, a total of 2 relevant randomized controlled trials were identified (AIRFLOW-2 and -3), both of which were already known from previous assessments. An overall review of the results shows no hint of benefit for TLD using catheter ablation in addition to guideline-based therapy compared with guideline-based therapy alone, in patients with moderate to severe COPD who cannot be treated, or cannot be adequately treated, with medication. This finding can be assumed to be largely transferable to the German healthcare context with regard to guideline-based care using long-acting anticholinergics, long-acting beta-2 sympathomimetics and inhaled corticosteroids (and roflumilast), whereas this was only partially the case for further treatment escalations.

It is considered unlikely that the ongoing AIRFLOW-4 study will be able to provide meaningful insights into the benefit of the method. The AIRFLOW-4 population represents only a subset of the population relevant to the research question, namely those with a residual volume $\geq 175\%$ of the predicted value and an emphysema proportion $\leq 20\%$. According to the AIRFLOW-3 study, this sub-population is expected to account for approximately 25% of all patients with moderate to severe COPD. To demonstrate a statistically significant between-group difference in exacerbation-related outcomes with the planned sample size of 200 patients, only about half as many patients in the TLD group would likely need to experience an event as in the control group. A smaller difference between the treatment groups cannot be demonstrated with this sample size. Furthermore, the certainty of the results is limited by the open-label study design.

The full rapid report (German version) is published under

<https://www.iqwig.de/projekte/n25-09.html>