

LIBRA JOURNAL CLUB 4-11 OCTOBER 2026

Our legal office confirmed that articles NOT OPEN ACCESS cannot be distributed to the members of the list. Thus, we will transmit only the titles of articles.

ABSTRACTS of almost all these articles are available from PubMed, and full papers can be obtained through your institutions' library.

OPEN ACCESS articles are available by accessing the articles from PubMed using just the PMID for the search (eg PMID: 35514131 without . at the end)

(copd OR "Pulmonary Disease, Chronic Obstructive"[Mesh])

1

Review

Eur Respir J

-
-
-

. 2026 Oct 9;68(4):2600289.

doi: 10.1183/13993003.00289-2026. Print 2026 Oct.

[Preclinical models of COPD: a state of the art review](#)

[Francesca Polverino](#)¹, [Kambez H Benam](#)^{2 3 4}, [Suzanne M Cloonan](#)⁵, [Jeffrey L Curtis](#)⁶, [Amit Gaggar](#)⁷, [Farrah Kheradmand](#)^{8 9 10}, [Mareike Lehmann](#)^{11 12 13}, [Enid Neptune](#)¹⁴, [S Vamsee Raju](#)^{7 15 16}, [Joselyn Rojas-Quintero](#)⁸, [Maor Sauler](#)¹⁷, [Yohannes Tesfaiqi](#)¹⁸, [Ali Önder Yildirim](#)^{13 19}, [Anny Xiaobo Zhou](#)²⁰, [Don D Sin](#)²¹

Affiliations Expand

- PMID: 42562589
- DOI: [10.1183/13993003.00289-2026](#)

Free article

Abstract

COPD is a progressive and heterogeneous condition characterised by varying combinations of emphysema, small airway disease, chronic bronchitis and exacerbations. Although multiple symptomatic therapies exist, no disease-modifying treatments are available. This gap highlights the need for improved preclinical models with greater translational relevance. Large human cohorts and single-cell/multi-omics studies have informed the development of current COPD models. We provide a state of the art review of the major experimental platforms: *in*

vivo (small and large animals, genetic and injury models, environmental exposures), *ex vivo* (precision-cut lung slices, organoids, co-cultures, lung-on-a-chip systems) and *in silico* (aerosol dispersion and computational tools). While each approach has yielded important mechanistic insights, none fully captures the complexity of COPD progression, comorbidities, gene-environment interactions or heterogeneous clinical endotypes. Future progress will depend on the development of more integrated, human-relevant modelling systems, alongside advanced exposure platforms and artificial intelligence-driven multi-omics integration to identify biologically meaningful endotypes and speed the creation of phenotype-specific therapies. We propose a phenotype-driven, cross-platform framework in which hypotheses emerging from human clinical and omics data are validated in *in vitro* and *ex vivo* systems, evaluated in phenotype-specific *in vivo* models, and ultimately confirmed through clinical studies.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: F. Polverino reports grants from Sanofi-Regeneron, Victory Houston, National Heart, Lung, and Blood Institute (NHLBI) and Alpha-1 Foundation; consultancy fees from Amgen, AstraZeneca, Chiesi, Apogee Therapeutics, GlaxoSmithKline, Genentech, Verona Pharma-Merck, Sanofi-Regeneron, Aerogen and Windward Bio; and leadership roles with the American Lung Association and European Respiratory Journal. K.H. Benam reports patents planned, issued or pending (Organs-on-Chips) and stock (or stock options) with Pneumax. S.M. Cloonan has nothing to disclose. J.L. Curtis reports grants from NHLBI, the COPD Foundation, the Department of Veterans Affairs and the Department of Defense; support for attending meetings from the European Respiratory Society; participation on a data safety monitoring board or advisory board with Genentech; and a leadership role with the American Thoracic Society. D.D. Sin reports payment or honoraria for lectures, presentations, manuscript writing or educational events from AstraZeneca and GSK and is Deputy Chief Editor of the European Respiratory Journal. The remaining authors have no potential conflicts of interest to disclose.

Supplementary info

Publication types, MeSH termsExpand

Full text links



[Proceed to details](#)

Cite

2

Microbiol Spectr

-
-

•

. 2026 Oct 6;14(10):e0135826.

doi: 10.1128/spectrum.01358-26. Epub 2026 Aug 20.

Genomic and phenotypic adaptation of imipenem-resistant *Pseudomonas aeruginosa* during chronic infection in a COPD patient

Lvxin Qian^{#1}, Yi Yan^{#1}, Shuai Sun¹, Junren Zeng¹, Furong Zhang², Li Xiang¹, Huan Chen¹, Luhua Zhang¹, Ying Li¹

Affiliations Expand

- PMID: 42622415
- DOI: [10.1128/spectrum.01358-26](https://doi.org/10.1128/spectrum.01358-26)

Free article

Abstract

Pseudomonas aeruginosa airway colonization and infection are major drivers of chronic obstructive pulmonary disease (COPD) acute exacerbations, yet its adaptive evolution in the COPD airway remains poorly understood. Here, six serial *P. aeruginosa* strains were isolated over a 5-month interval from a single COPD patient: two initial isolates (SCPa03-1 and SCPa03-2) from one sputum sample and four subsequent isolates (SCPa12-1, SCPa12-2, SCPa12-3, and SCPa12-4) from another. Of them, SCPa03-1, SCPa12-1, and SCPa12-2 exhibited a non-mucoid phenotype, while SCPa03-2, SCPa12-3, and SCPa12-4 were mucoid. All isolates were resistant to most β -lactam antibiotics, including imipenem, but susceptible to amikacin and gentamicin. Notably, three mucoid strains were susceptible to meropenem. Genomic and phylogenetic analysis revealed that all isolates were clonally related, belonged to ST274, and were closely related to the globally prevalent high-risk ST274 clone. Sequence analysis and qRT-PCR suggested that their imipenem resistance may be associated with *ampC* overexpression and *oprD* mutations, while reduced ciprofloxacin susceptibility likely stemmed from *gyrA/gyrB* mutations and acquisition of *crpP*-harboring ICEs. Despite a shared *mucA* frameshift mutation, secondary mutations in *prc* (SCPa03-1) and *algU* (SCPa12-1, SCPa12-2) likely accounted for the non-mucoid phenotype. Relative to PAO1, all isolates showed reduced growth, diminished pyoverdine, attenuated *Galleria mellonella* virulence, and increased pyocyanin. Besides, three mucoid strains exhibited slower growth, reduced serum resistance, and attenuated virulence compared with non-mucoid counterparts, suggesting adaptive trade-off during host adaptation. Four late-stage isolates showed enhanced pyoverdine production and improved growth under iron limitation, indicating progressive airway adaptation to the iron-restricted airway niche. **IMPORTANCE** *Pseudomonas aeruginosa* is a leading cause of chronic airway infection and poses a severe clinical threat when it develops carbapenem resistance. While the adaptive evolution of *P. aeruginosa* has been well characterized in cystic fibrosis, its evolutionary patterns during chronic infection in patients with chronic obstructive pulmonary disease (COPD) remain poorly understood. Here, we analyzed six imipenem-resistant *P. aeruginosa* isolates sequentially recovered from a single COPD patient. Integrated genomic and phenotypic analyses demonstrated that the

high-risk clone ST274 diversified extensively within the host, with genetic variations strongly associated with enhanced airway persistence. These findings advance our understanding of how carbapenem-resistant *P. aeruginosa* adapts during chronic COPD infection and provide new insights into resistance evolution and adaptive strategies that may inform the control of drug-resistant chronic respiratory infections.

Keywords: *P. aeruginosa*; adaptive; imipenem-resistant; mucoid; non-mucoid.

Conflict of interest statement

The authors declare no conflict of interest.

Supplementary info

MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

3

Eur Respir J

-
-
-

. 2026 Oct 9;68(4):2600950.

doi: 10.1183/13993003.00950-2026. Print 2026 Oct.

[Expression of HDAC2 and HDAC8 in the airways of COPD patients is associated with responsiveness to ICS: insights from the HISTORIC study](#)

[Eleni Papakonstantinou](#)^{1,2}, [Marta Nowak](#)³, [Spasenija Savic Prince](#)⁴, [Daniel Soriano](#)^{1,2}, [Leticia Grize](#)^{1,2}, [Björn Christian Frye](#)^{1,2}, [Sebastian Fähndrich](#)^{1,2}, [Viktor H Koelzer](#)^{3,4}, [Daiana Stolz](#)^{5,2}

Affiliations Expand

- PMID: 42660606
- DOI: [10.1183/13993003.00950-2026](#)

Free article

No abstract available

Conflict of interest statement

Conflict of interest: E. Papakonstantinou reports no conflict of interest. M. Nowak reports no conflict of interest. S. Savic Prince reports grants from AbbVie AG and Gilead Sciences, and participation on a data safety monitoring board or advisory board with MSD AG and AstraZeneca. D. Soriano reports payment or honoraria for lectures, presentations, manuscript writing or educational events from Boehringer Ingelheim, and support for attending meetings from Chiesi, AstraZeneca and CSL Behring. L. Grize reports no conflict of interest. B.C. Frye reports grants from Bristol-Myers Squibb and Advita Lifescience, consultancy fees from Advita Lifescience, payment or honoraria for lectures, presentations, manuscript writing or educational events from AstraZeneca, Boehringer Ingelheim, Vifor, Roche, Novartis, Actelion and GSK, support for attending meetings from Boehringer Ingelheim, patents planned, issued or pending (WO2020225246A1 and WO2021152119A1), and participation on a data safety monitoring board or advisory board with Boehringer Ingelheim, AstraZeneca and GSK. S. Fährndrich reports grants from BMBF and EU (ERDERA and ISIDORE), payment or honoraria for lectures, presentations, manuscript writing or educational events from Grifols, CSL-Behring and AstraZeneca, support for attending meetings from AstraZeneca, and patents planned, issued or pending for the nebulisation of E64d. V.H. Koelzer reports support for the present study from University of Zurich, University of Basel and Promedica Foundation, consultancy fees from Takeda and Roche, payment or honoraria for presentations, manuscript writing or educational events from Swiss Federal Institute of Technology, Sharing Progress in Cancer Care and Indica Labs, payment for expert testimony from Takeda and Roche, support for attending meetings from Indica Labs, and patents planned, issued or pending for the assessment of cancer immunotherapy biomarkers by digital pathology and multimodal deep learning for the prediction of recurrence risk in cancer patients and predicting the efficacy of cancer treatment using deep learning. D. Stolz reports support for the present study from AstraZeneca and University Hospital Basel, payment or honoraria for lectures, presentations, manuscript writing or educational events from CSL Behring, Berlin-Chemie Menarini, Novartis, GlaxoSmithKline, AstraZeneca, Vifor, Merck, Chiesi and Sanofi, participation on a data safety monitoring board or advisory board with GlaxoSmithKline and CSL Behring, and is an Associate Editor for the European Respiratory Journal.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

4

Respir Med

-
-

•

. 2026 Oct 5:109195.

doi: 10.1016/j.rmed.2026.109195. Online ahead of print.

Early versus late escalation to extrafine BDP/FF/GB single-inhaler triple therapy in COPD: a real-world subgroup analysis by disease duration since diagnosis

Paola Rogliani¹, Guy Brusselle², Daiana Stolz³, Alessio Piraino⁴, Laura Franzini⁴, Luca Di Palma⁴, Elena Nudo⁴, Petros Bakakos⁵

Affiliations Expand

- PMID: 42833477
- DOI: [10.1016/j.rmed.2026.109195](https://doi.org/10.1016/j.rmed.2026.109195)

Abstract

Background: The optimal timing for escalation to triple therapy in chronic obstructive pulmonary disease (COPD) remains undefined, often resulting in delayed treatment. Consequently, evidence on the effectiveness of early initiation is limited.

Methods: This subgroup analysis used pooled patient-level data from six observational studies to evaluate the real-world effectiveness of beclomethasone dipropionate/formoterol fumarate/glycopyrronium bromide single-inhaler triple therapy (SITT) in COPD according to disease duration. Patients were stratified into three subgroups: ≤ 48 months (short), 49-96 months (intermediate), and ≥ 97 months (long-standing). Outcomes assessed at 3, 6, and 12 months post-SITT initiation included mean number of exacerbations, proportion of patients experiencing ≥ 1 exacerbation, and proportion achieving disease stability and control.

Results: Mean number of exacerbations decreased from the year prior to SITT initiation at all post-treatment time points across all subgroups, with the largest reductions observed in short disease patients, particularly at 12 months. Similarly, the proportion of patients experiencing ≥ 1 exacerbation decreased in all subgroups, with the lowest proportions observed in short disease patients. No differences between subgroups were observed at 3 and 6 months in the proportion of patients achieving disease stability and control; conversely, at 12 months the short disease subgroup showed significantly higher rates of disease stability and control compared with longer disease duration subgroups, suggesting that earlier SITT initiation may provide more sustained benefits.

Conclusion: Early escalation to SITT in COPD may result in more durable sustained clinical benefits compared with later intervention, reducing exacerbations and maintaining disease stability and control up to 12 months.

Keywords: BDP/FF/GB; COPD control; COPD duration; COPD stability; exacerbation; single-inhaler triple therapy.

Copyright © 2026. Published by Elsevier Ltd.

Conflict of interest statement

Declaration of Competing Interest ☑ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Paola Rogliani reports financial support was provided by Chiesi Pharmaceuticals SpA. Guy Brusselle reports financial support was provided by Chiesi Pharmaceuticals SpA. Daiana Stolz reports financial support was provided by Chiesi Pharmaceuticals SpA. Petros Bakakos reports financial support was provided by Chiesi Pharmaceuticals SpA. Paola Rogliani reports a relationship with Arcede Pharma, AstraZeneca, Boehringer Ingelheim, Chiesi Farmaceutici, Sanofi, Verona Pharma and Zambon that includes: funding grants. Paola Rogliani reports a relationship with AstraZeneca, Boehringer Ingelheim, Chiesi Farmaceutici, GlaxoSmithKline, Menarini Group, Novartis, Pfizer, Recipharm, Regeneron, Roche and Sanofi that includes: consulting or advisory. Daiana Stolz reports a relationship with AstraZeneca, Berline-Chemie-Menarini, Boehringer Ingelheim, Chiesi, CSL Behring, GSK, Merck, MSD, Novartis, Sanofi, Vifor and Roche that includes: speaking and lecture fees. Daiana Stolz reports a relationship with AstraZeneca, Berlin-Chemie- Menarini, Boehringer Ingelheim, Chiesi, CSL Behring, GSK, Merck, MSD, Roche, Novartis, Sanofi and Vifor that includes: consulting or advisory. Guy Brusselle reports a relationship with AstraZeneca, Boehringer-Ingelheim, Chiesi, Glaxo Smith Kline, Merck Sharp & Dohme, Novartis, Sanofi and Regeneron that includes: consulting or advisory and speaking and lecture fees. Petros Bakakos reports a relationship with Menarini, GSK, AstraZeneca, Guidotti, and Chiesi that includes: consulting or advisory and speaking and lecture fees. Alessio Piraino, Laura Franzini, Elena Nudo, Luca Di Palma reports a relationship with Chiesi Pharmaceuticals SpA that includes: employment. DS is the GOLD representative for Switzerland; PB is unpaid member of the Hellenic Thoracic Society If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Full text links



[Proceed to details](#)

Cite

5

Respir Med

-
-
-

. 2026 Oct 6:109134.

doi: 10.1016/j.rmed.2026.109134. Online ahead of print.

[Pulmonary arterial volume and mortality in smokers without chronic obstructive pulmonary disease](#)

[Shanshan Wang¹](#), [Mehran Azimbagirad²](#), [Daryl O Cheng³](#), [Tanya Patrick⁴](#), [Amy Bhamani⁵](#), [Robert Chapman⁶](#), [Daisuke Yamada⁷](#), [Arjun Nair⁸](#), [Gabrielle Baxter⁹](#), [Ashkan Pakzad¹⁰](#), [Adam Szmul¹¹](#), [Bojidar Rangelov¹²](#), [Jason Lim¹³](#), [Vichayasit Tantayapong¹⁴](#), [David A Lynch¹⁵](#), [Gregory L Kinney¹⁶](#), [Joanna Pepke-Zaba¹⁷](#), [Hakim Ghani¹⁸](#), [Caitlin Fermoye¹⁹](#), [Daniel C Alexander²⁰](#); [SUMMIT Consortium](#); [Sam M Janes⁴²](#), [John R Hurst⁴³](#), [Joseph Jacob⁴⁴](#)

Collaborators, Affiliations Expand

- PMID: 42838239
- DOI: [10.1016/j.rmed.2026.109134](https://doi.org/10.1016/j.rmed.2026.109134)

Abstract

Background: Pulmonary vascular remodelling is a recognised consequence of chronic tobacco exposure and may have prognostic associations even without airway obstruction. The association between the extraparenchymal pulmonary artery (ePA) and all-cause mortality in current and ex-smokers without COPD has not been demonstrated and replicated in large cohort studies.

Study design and methods: Retrospective analysis of prospective data from the COPDGene cohort, with validation in the SUMMIT lung cancer screening trial. ePA volume and lung volume were measured on chest CT using automated deep learning-based segmentation. All-cause mortality risk was estimated using Cox proportional hazards models, adjusted for age, gender, body mass index, smoking status, pack-years, emphysema extent, Charlson Comorbidity Index, ILA presence, and FEV₁.

Results: 4,719 participants without COPD were included in the discovery COPDGene cohort (median age 56 [51-63] years, 50% male) and 3,391 in the SUMMIT validation cohort (median age 64 [59-69] years, 61% male). There were 600 deaths (13%; 39,531 person-years) in COPDGene and 214 deaths (6.3%; 16,629 person-years) in SUMMIT. Each one-standard-deviation (~25mL) increase in ePA volume was independently associated with all-cause mortality in COPDGene (aHR 1.42 [1.25-1.60], p<0.001) and SUMMIT (aHR 1.23 [1.07-1.42], p=0.003). A parsimonious, ridge-regularised multivariable model developed in COPDGene showed good discrimination (C-index 0.70 [0.65-0.74]) and calibration (integrated calibration index 2.1% [1.3-6.4]) when validated in SUMMIT.

Interpretation: Increasing ePA volume in current and ex-smokers without COPD is associated with all-cause mortality and could represent a candidate imaging marker for cohort enrichment in studies of pulmonary vasculopathy, although this requires prospective validation.

Trial registration: N/A.

Copyright © 2026. Published by Elsevier Ltd.

Conflict of interest statement

Declaration of Competing Interest ☒ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: JJ declares consultancy fees from Boehringer Ingelheim, F. Hoffmann-La

Roche, GlaxoSmithKline, NHSX; fees from advisory Boards for Boehringer Ingelheim, F. Hoffmann-La Roche; lecture fees from Boehringer Ingelheim, F. Hoffmann-La Roche, Takeda; grant funding from GlaxoSmithKline, Wellcome Trust, Microsoft Research, Gilead Sciences, Chan Zuckerberg Initiative and UK patent application numbers: 2113765.8 and GB2211487.0. This research was supported by the Rosetrees Trust (PGL25-Full/100046, CF-2023-M-2\105) and the Robert Luff Foundation (PGL25-Full/100046). SMJ is supported by CRUK programme grant (EDDCPGM\100002), and MRC Programme grant (MR/W025051/1). SMJ receives support from the CRUK Lung Cancer Centre of Excellence (C11496/ A30025) and the CRUK City of London Centre, the Rosetrees Trust, the Roy Castle Lung Cancer foundation, the Longfonds BREATH Consortia, MRC UKRMP2 Consortia, the Garfield Weston Trust and University College London Hospitals Charitable Foundation. SMJ's work is supported by a Stand Up To Cancer-LUNGevity-American Lung Association Lung Cancer Interception Dream Team Translational Research Grant and Johnson and Johnson (grant number: SU2C-AACR-DT23-17 to S.M. Dubinett and A.E. Spira). Stand Up To Cancer is a division of the Entertainment Industry Foundation. Research grants are administered by the American Association for Cancer Research, the Scientific Partner of SU2C. This work was partly undertaken at UCLH/UCL who received a proportion of funding from the Department of Health's NIHR Biomedical Research Centre's funding scheme. SMJ has received fees for advisory board membership in the last three years from Bard1 Lifescience. He has received grant income from GRAIL Inc. He is an unpaid member of a GRAIL advisory board. He has received lecture fees for academic meetings from Chiesi and Astra Zeneca. His wife works for Astra Zeneca. JRH has received grant support, and payment for educational and advisory work, personally and to his institution from AstraZeneca, Boehringer Ingelheim, Chiesi, GlaxoSmithKline, Sanofi, Sanofi-Regeneron, Takeda. AN has received a consultation fee from MSD and honoraria speaking engagements from Mevis Medical Solutions. AN is an Honorary Executive Committee member for the British Society of Thoracic Imaging, Co-chair of the British Thoracic Society Pulmonary Nodule Guideline Development Group, Lung Taskforce member for the British Lung Foundation and clinical lead for the NHS England Targeted Lung Health Checks Program. DA is Director and a shareholder of Queen Square Analytics. Competing interest declaration: "All authors have completed the Unified Competing Interest form at www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare that (1) no authors have support from a company for the submitted work; (2) SJ, JJ, JH, AN have specified relationships with one or more of: AstraZeneca, Boehringer Ingelheim, Chiesi, GlaxoSmithKline, F. Hoffmann-La Roche, Gilead Sciences, Sanofi, Sanofi-Regeneron, Microsoft Research, Johnson and Johnson, Bard1 Lifescience, GRAIL, Mevis Medical Solutions, MSD, Queen Square Analytics, Takeda that might have an interest in the submitted work in the previous 3 years; (3) SJ's spouse works for AstraZeneca, but no other coauthors spouses, partners, or children have financial relationships that may be relevant to the submitted work; and (4) All authors have no non-financial interests that may be relevant to the submitted work." Role of study sponsors: The study sponsors did not have a role in design or in the collection, analysis, and interpretation of data. Other declarations: The investigators were independent from the funders; JJ had full access to the data and can take responsibility for the integrity of the data and the accuracy of the data analysis; JJ (the manuscript's guarantor) affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any

discrepancies from the study as planned (and, if relevant, registered) have been explained; Data sharing: no additional data available.

Full text links



[Proceed to details](#)

Cite

6

Chest

-
-
-

. 2026 Oct 6:S0012-3692(26)06790-5.

doi: 10.1016/j.chest.2026.09.099. Online ahead of print.

[Changes in small airway function following Dupilumab initiation for type 2 COPD - a prospective multicenter study](#)

[Ophir Freund](#)¹, [Frederik Trinkmann](#)², [Shahar Koppelman](#)³, [Konstantina Kontogianni](#)⁴, [Inbar Yacoby Halevi](#)³, [Doron Cohn-Schwartz](#)³, [Nimrod Urtreger](#)³, [Ariel Malloul](#)³, [Eyal Kleinhendler](#)³, [Amir Bar-Shai](#)³

Affiliations Expand

- PMID: 42838277
- DOI: [10.1016/j.chest.2026.09.099](#)

No abstract available

Keywords: Area of Reactance; dupilumab; frequency dependence of resistance; real-world study; small airway dysfunction; type 2 inflammation.

Full text links



[Proceed to details](#)

Cite

7

Observational Study

Respir Res

-
-
-

. 2026 Oct 6;27(1):386.

doi: 10.1186/s12931-026-03940-8.

[Real-world effectiveness of dupilumab in COPD: a German multicenter analysis](#)

[Mustafa Abdo](#)¹, [Dirk Skowasch](#)², [Timm Greulich](#)^{3,4}, [Nora Drick](#)⁵, [Marek Lommatzsch](#)⁶, [Ralf-Harto Hübner](#)⁷, [Frederik Trinkmann](#)⁸, [Katrin Milger](#)⁹, [Jessica Rademacher](#)⁵, [Konstantina Kontogianni](#)⁸, [Maria Aetou](#)¹⁰, [Michael Dreher](#)¹⁰, [Peter Alter](#)^{3,4}, [Eva Pappe](#)⁷, [Leonie Biener](#)², [Sebastian Sander](#)⁶, [Jan Heyckendorf](#)¹¹, [Kathrin Kahnert](#)¹², [Jeremias Götschke](#)¹², [Claus Neurohr](#)¹³, [Daiana Stolz](#)¹⁴, [Vera Veith](#)¹⁵, [Henrik Watz](#)¹⁶, [Benjamin Waschki](#)¹⁵, [Pontus Mertsch](#)¹²

Affiliations Expand

- PMID: 42839285
- PMCID: [PMC13640210](#)
- DOI: [10.1186/s12931-026-03940-8](#)

Abstract

Background: Dupilumab reduced exacerbations in patients with COPD and type 2 inflammation in clinical trials; however, multicenter real-world data remain limited.

Methods: We performed a multicenter analysis of patients with COPD treated with dupilumab across centers in Germany. Patients with comorbid asthma were included to compare outcomes between COPD-only patients and those with comorbid asthma, as well as between patients with and without chronic bronchitis (CB). The primary endpoint was change in the annualized rate of moderate-to-severe exacerbations. Changes in lung function and CAT score were also assessed.

Results: A total of 99 patients were included (60% male, mean age 66 years, FEV₁ 37% predicted, DLCO 41% predicted, 45% comorbid asthma, 58% CB, 7% current smokers). Over a median follow-up of 11 months [IQR 8-14], dupilumab reduced the annualized moderate-to-severe exacerbation rate from 3.52 (95% CI 2.94-4.09) at baseline to 1.04 (95% CI 0.71-1.37) during follow-up, corresponding to a 70% reduction. Reductions in exacerbation rates were consistent irrespective of exacerbation severity, comorbid asthma, CB, or emphysema severity. CAT improved by a mean of 4.5 points. FEV₁ improved by 50 mL (p = 0.077), while greater improvements were observed for residual volume (- 150 mL; p = 0.071) and total airway resistance (- 12.6%; p < 0.001). Eight patients were non-responders and had no reduction in exacerbation under treatment.

Conclusion: In this real-world multicenter cohort, dupilumab effectively reduced exacerbation burden in patients with COPD and type 2 inflammation. Exploratory subgroup analyses suggested consistent treatment effects across different clinical phenotypes, although these findings require confirmation in larger studies. The

high baseline exacerbation burden may partly explain the marked treatment response.

Keywords: Air trapping; COPD; Dupilumab; Exacerbation; Lung function; Real-world.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethics approval: The study was approved by the ethics committee at the University of Lübeck School of Medicine (Lübeck, Germany; Az. 2026-085). **Consent to participate:** The requirement for informed consent was waived by the responsible ethics committee because this retrospective study was based on electronic medical records and met the criteria for a waiver of informed consent under applicable regulations. **Consent for publication:** Not applicable. **Disclosure:** The authors meet criteria for authorship as recommended by the International Committee of Medical Journal Editors (ICMJE). **Generative AI and AI-assisted technologies in the manuscript preparation process:** During the preparation of this work the author(s) used ChatGPT in order to check for writing, grammar, and formulation of language. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article. **Competing interests:** The authors declare no competing interests.

- [26 references](#)
- [3 figures](#)

Supplementary info

Publication types, MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

8

Eur J Cardiothorac Surg

-
-
-

. 2026 Oct 7:ezag226.

doi: 10.1093/ejcts/ezag226. Online ahead of print.

[EACTS Expert Consensus Document on Lung Volume Reduction for Emphysema](#)

[David Waller](#)¹, [Vasileios Kouritas](#)², [Ben Shanahan](#)³, [Claudio Caviezel](#)⁴, [Ruxandra-Iulia Milos](#)^{5,6}, [Sara BATTERY](#)⁷, [Paula Browne](#)⁸, [Samuel V Kemp](#)⁹, [Thomas Egenod](#)^{10,11}, [Laurens J Ceulemans](#)^{12,13}, [Korkut Bostanci](#)¹⁴; [EACTS Scientific Document Group](#)

Collaborators, Affiliations Expand

- PMID: 42839647
- DOI: [10.1093/ejcts/ezag226](https://doi.org/10.1093/ejcts/ezag226)

Abstract

Emphysema is a major burden for health care, both in terms of use of hospital resources and of community services. Medical therapies are limited and may only palliate symptoms, whereas lung volume reduction (LVR) has been shown to provide further benefit for those on maximal medical therapy who meet the selection criteria. However, LVR remains a considerably underutilized intervention partly due to a paucity of practice guidelines. Lung volume reduction can be obtained by 2 main methods: Lung volume reduction surgery (LVRS) and endobronchial lung volume reduction (EBLVR). There have been expert statements on EBLVR, but this is the first multidisciplinary statement also to consider lung volume reduction surgery (LVRS). In a comprehensive, literature-based review, all aspects of LVR are considered. Selection criteria for both LVR methods are simplified as far as possible, and advice is given to aid multidisciplinary decision-making. Each technique is individually examined with technical points and practice advice, and the factors determining when either is used are explained. Where no clear comparative evidence is available, the pros and cons of each debate are clearly illustrated. The inter-relationship with a lung transplant is explored in a constructive, collaborative way. The benefits of LVR are detailed, but importantly, so are the perioperative risks. Clear management plans are outlined utilizing the multidisciplinary team. Finally, the importance of and recommendations for follow-up protocols are stated. This unique initiative brings together experts from across the disciplines involved in offering lung volume reduction, and a consensus has been achieved in all aspects, indicating the widespread implications for the statements.

Keywords: Emphysema; collateral ventilation; endobronchial lung volume reduction; lung volume reduction; lung volume reduction surgery; multidisciplinary team.

© The Author(s) 2026. Published by Oxford University Press on behalf of the European Association for Cardio-Thoracic Surgery. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site—for further information please contact journals.permissions@oup.com.

Full text links



[Proceed to details](#)

Cite

9

Observational Study

Pulmonology

-
-
-

. 2026 Dec;32(1):2742748.

doi: 10.1080/25310429.2026.2742748. Epub 2026 Oct 7.

[Monitoring symptoms and performance in rehabilitation: Can we detect COPD exacerbation?](#)

[Margaux Machefert^{1,2}, Yann Combret^{1,2}, Bertrand Selleron³, Guillaume Galliou^{4,5}, Mathieu Delorme^{6,7}, Claire Dubois¹, Bouchra Lamia^{8,9}, Roger Hilfiker¹⁰, Guillaume Prieur^{1,2}, Clément Medrinal^{1,8}](#)

Affiliations Expand

- PMID: 42841793
- DOI: [10.1080/25310429.2026.2742748](#)

Free article

Abstract

Background: In patients with COPD, exacerbations mark disease progression, with significant reduction in quality of life and impact on mortality. Early detection is crucial to mitigate their consequences. The aim of this study was to investigate whether monitoring symptoms and exercise endurance at each pulmonary rehabilitation maintenance session could predict severe exacerbations of COPD.

Study design and methods: Prospective multicentre study including 128 stable COPD patients in maintenance pulmonary rehabilitation programmes, in 21 French rehabilitation centres ([NCT05492149](#)). At each session, symptoms with COPD Assessment Test (CAT), perceived dyspnoea (mBorg scale) and endurance exercise performance (in MET.minutes) were recorded. We evaluated whether these parameters could predict severe exacerbations using baseline and lagged logistic regression models, and explored temporal relationships with cross-lagged correlation analyses.

Results: Over one year and 4,200 recorded sessions (33 ± 25 per patient), 19 out of 128 participants experienced a severe exacerbation (a prevalence of 14.8%). Prediction models using isolated clinical markers such as CAT, mBorg or performance showed limited predictive accuracy (AUCs 0.45-0.58; all $p > 0.1$). Cross-lagged analyses revealed weak, short-term associations between symptoms (CAT score), perceived dyspnoea (mBorg scale) and exercise performance.

Conclusion: This study showed that nearly 15% of patients with COPD included in a maintenance rehabilitation programme experienced severe exacerbations during long-term follow-up. In this real-world maintenance pulmonary rehabilitation setting, routine clinical and isolated exercise data were insufficient to reliably predict severe COPD exacerbations. These findings highlight the complexity of severe exacerbations in COPD and emphasise the importance of developing more integrated research and digital monitoring strategies, using multimodal approaches that combine physiological, biological, behavioural, and environmental data.

Keywords: COPD exacerbation; Chronic obstructive pulmonary disease; early detection; pulmonary rehabilitation.

Supplementary info

Publication types, MeSH termsExpand

Full text links



[Proceed to details](#)

Cite

10

Eur Radiol

-
-
-

. 2026 Oct 7.

doi: 10.1007/s00330-026-12911-y. Online ahead of print.

[CT-based pulmonary vascular pruning and emphysema: clinical correlations and prognostic impacts in COPD](#)

[Nobuyasu Wakazono](#)¹, [Shotaro Chubachi](#)², [Kaoruko Shimizu](#)³, [Naoya Tanabe](#)⁴, [Shiro Otake](#)², [Yusuke Shiraishi](#)⁴, [Hironi Makita](#)⁵, [Kazufumi Okada](#)⁶, [Sae Akiyama](#)¹, [Akane Mita](#)¹, [Miho Wakazono](#)¹, [Hiroki Nishimura](#)¹, [Yuichi Kojima](#)¹, [Munehiro Matsumoto](#)¹, [Akira Oguma](#)¹, [Ayako Igarashi-Sugimoto](#)¹, [Nozomu Takei](#)¹, [Hirokazu Kimura](#)¹, [Houman Goudarzi](#)¹, [Ichizo Tsujino](#)¹, [Susumu Sato](#)⁴, [Hidetoshi Nakamura](#)⁷, [Koichiro Asano](#)⁸, [Masaharu Nishimura](#)^{1,5}, [Koichi Fukunaga](#)², [Satoshi Konno](#)¹

Affiliations Expand

- PMID: 42841936
- DOI: [10.1007/s00330-026-12911-y](#)

Abstract

Objectives: Despite evidence of vascular remodeling in emphysematous lungs in chronic obstructive pulmonary disease (COPD), its natural history and clinical course across phenotypes are not fully understood. We aimed to determine the effect of pruning and emphysema co-occurrence on hemodynamics in the Keio COPD Comorbidity Research (K-CCR) and quality of life (QoL), airflow/diffusion decline, and mortality in the Hokkaido COPD Cohort Study.

Materials and methods: Pruning was defined as a low blood vessel volume of $< 5 \text{ mm}^2$ in the lungs relative to total blood vessel volume (BV5/TBV). Within each cohort, participants were classified into four groups using cohort-specific median dichotomization of BV5/TBV and the percentage of low-attenuation volume. Hemodynamics were assessed using echocardiography-derived estimated systolic pulmonary artery pressure (eSPAP).

Results: Participants from the K-CCR (N = 115) and Hokkaido COPD Cohort Study (N = 96) were evaluated. In the K-CCR, the pruning/severe-emphysema group was associated with poorer QoL and higher eSPAP. In the Hokkaido COPD Cohort Study, the pruning/severe-emphysema group had worse QoL, faster decline in forced expiratory volume in 1 s, and lower carbon monoxide transfer coefficient than the no-pruning/mild-emphysema group. Ten-year survival rates were 80%, 70%, 61%, and 36% for no-pruning/mild-emphysema, no-pruning/severe-emphysema, pruning/mild-emphysema, and pruning/severe-emphysema groups, respectively. In analyses using continuous variables, the percentage of low-attenuation volume was significantly associated with mortality, whereas BV5/TBV was not.

Conclusion: Pulmonary vascular pruning may be a CT-derived potential biomarker for subtyping patients with poor outcomes, such as impaired hemodynamics and accelerated airflow/diffusion decline, particularly in patients with severe emphysema, requiring further validation.

Key points: Question Does CT-based pulmonary vascular pruning provide additive prognostic information beyond emphysema severity for predicting pulmonary hemodynamics and longitudinal outcomes in COPD? Findings Categorical analyses suggested that low BV5/TBV was associated with poorer survival, worse hemodynamics, and greater ventilation/diffusion decline in patients with severe emphysema. Clinical relevance CT-derived BV5/TBV may help identify a vascular phenotype associated with worse pulmonary hemodynamics, impaired lung function, reduced quality of life, and adverse long-term outcomes, particularly in patients with severe emphysema, and may contribute to imaging-based phenotyping of COPD.

Keywords: Chronic obstructive pulmonary disease; Computed tomography; Emphysema; Pulmonary vascular pruning; Respiratory medicine.

© 2026. The Author(s), under exclusive licence to European Society of Radiology.

Conflict of interest statement

Compliance with ethical standards. Guarantor: The scientific guarantor of this publication is Kaoruko Shimizu. **Conflict of interest:** The authors have reported the following to European Radiology: K.S. received honoraria from AstraZeneca K.K., outside the submitted work. Na.T. was supported by grants from FUJIFILM Co., Ltd., and Daiichi Sankyo Company, Ltd., received honoraria from AstraZeneca K.K.,

outside the submitted work. A.I.S. was supported by grants from Bayer Yakuhin, Ltd., and Hokkaido Heart Association, outside the submitted work. I.T. was supported by grants from Mochida Pharmaceuticals K.K., Nippon Shinyaku Co., Ltd., Nippon Boehringer Ingelheim Co., Ltd., Medical System Network Co., Ltd., Kaneka Corp., and Takeyama Co., Ltd., and received honoraria from Nippon Shinyaku Co., Ltd., and Janssen Pharmaceutical K.K., outside the submitted work. S.S. was supported by grants from Nippon Boehringer Ingelheim Co., Philips-Respironics, Fukuda Denshi, Fukuda Lifetec Keiji, and ResMed, outside the submitted work. K.A. received honoraria from AstraZeneca K.K. and Nippon Boehringer Ingelheim Co., Ltd., outside the submitted work. K.F. received honoraria from Novartis, Sanofi, GlaxoSmithKline K.K., AstraZeneca, and KYORIN Pharmaceutical, outside the submitted work. S.K. was supported by grants from Mochida Pharmaceuticals K.K., Nippon Shinyaku Co., Ltd., Nippon Boehringer Ingelheim Co., Ltd., Medical System Network Co., Ltd., Kaneka Corp., Takeyama Co., Ltd., and Novartis, and received honoraria from AstraZeneca K.K., and KYORIN Pharmaceutical, outside the submitted work. None of these companies played a role in the design or analysis of the study or in the writing of the manuscript. N.W., S.C., S.O., Y.S., H.M., K.O., S.A., A.M., M.W., HirokiN., Y.K., M.M., A.O., No.T., H.K., H.G., HidetoshiN., and M.N. declare no conflicts of interest. Statistics and biometry: One of the authors (K.O.) has significant statistical expertise. Informed consent: Prior to the commencement of the study, all participants in the cohort provided either written or oral informed consent. Ethical approval: This study was conducted according to the principles of the Declaration of Helsinki and the Ethical Guidelines for Medical and Health Research Involving Human Subjects (Japanese Ministry of Health, Labor and Welfare). The K-CCR was approved by the Ethics Committees of Keio University (No. 20090008). The Hokkaido COPD cohort study was approved by the Institutional Review Board of Hokkaido University Hospital (reference numbers: 018-0394 and 022-0007). Study subjects or cohorts overlap: Some participants in the K-CCR and Hokkaido COPD Cohort Study have been included in previous publications; however, the present analyses focusing on CT-based pulmonary vascular pruning and its prognostic implications are novel and have not been previously reported. Methodology: Retrospective Multicenter Observational

- [33 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

11

Case Reports

Neurol Sci

-

-
-

. 2026 Oct 7;47(11):849.

doi: 10.1007/s10072-026-09467-6.

Clinical features of cough syncope: a systematic review

Yanqin Fan^{#1,2}, Meng Hou³, Haili Wang⁴, Jingke Le⁵, Liming Cao^{#6,7}

Affiliations Expand

- PMID: 42842052
- PMCID: [PMC13645981](#)
- DOI: [10.1007/s10072-026-09467-6](#)

Abstract

Background: Cough syncope (CS) is a rare subtype of syncope that remains underrepresented in evidence-based medicine. We aimed to characterize the clinical features of CS, with the aim of improving recognition and optimizing management strategies.

Methods: We present five cases of CS alongside a systematic review of its clinical characteristics based on published literature to improve recognition and optimize management. Reports of eligible patients were screened, and demographic, clinical, diagnostic, treatment, and outcome data were analyzed.

Results: This study included 60 patients with a mean age of 56 ± 15 years, 91% of whom were male. The most common underlying triggers were respiratory diseases, including pulmonary infections (35%) and bronchitis (22%). Common comorbidities included hypertension (26%), bronchial asthma (18%), and diabetes mellitus (15%). CS episodes were directly triggered by severe coughing in 93% (26/28) of patients. Episodes occurred at least twice daily in 20% of patients, and limb convulsions accompanied syncope in 22%. Symptoms improved after treatment in 98% of cases. After a median follow-up of 3.75 months (Interquartile Range: 2-12 months), the recurrence rate of syncope was 11%. CS, predominantly triggered by severe coughing, primarily affected middle-aged and older men.

Conclusions: CS predominantly affects middle-aged and older men and is frequently associated with pulmonary infections. Acute pulmonary infections serve as a common underlying trigger for CS, and patients are at risk of recurrent syncope and falls. Disease management should be focused on treating chronic airway disease, particularly chronic obstructive pulmonary disease.

Keywords: Anti-infective therapy; Cough syncope; Pulmonary infection; Reflex syncope; Severe cough.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethical approval: The protocol was approved by the Ethics Committee of Shenzhen Second People's Hospital (No.2025-652-01PJ) in accordance with the Declaration of Helsinki. All participants provided informed consent before participating in the study. **Conflict of interest:** The authors have no relevant financial or non-financial interests to disclose.

- [71 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

12

Review

Microb Pathog

-
-
-

. 2026 Oct 7:221:108866.

doi: 10.1016/j.micpath.2026.108866. Online ahead of print.

[Respiratory viruses and pulmonary diseases: Mechanisms, therapies, and metabolic reprogramming](#)

[Mengwei Zhang](#)¹, [Conghui Tan](#)², [Yalan Tang](#)³, [Jiahui Cao](#)⁴, [Wei Li](#)⁵, [Peng Liu](#)⁶

Affiliations Expand

- PMID: 42843657
- DOI: [10.1016/j.micpath.2026.108866](#)

Abstract

Respiratory viral infections constitute a substantial global health challenge, extending their impact beyond acute inflammation to encompass long-term pulmonary sequelae. Recent evidence highlights that respiratory viruses such as influenza, respiratory syncytial virus (RSV), and SARS-CoV-2 reprogram host metabolism to facilitate their replication, with significant alterations in glucose metabolism playing a critical role. This metabolic reprogramming augments glucose

metabolism via activation of core signaling pathways including PI3K/Akt/mTOR, HIF-1 α , and c-Myc. Beyond facilitating viral proliferation, these metabolic changes crosstalk with oncogenic signaling. By triggering chronic inflammation, oxidative stress and genomic damage, they disrupt the pulmonary immune microenvironment and ultimately promote the pathogenesis of lung cancer and chronic obstructive pulmonary disease (COPD). The pathogenesis of these symptoms is multifactorial and is influenced by genetic susceptibility, environmental exposure, and key interactions between persistent viral infection and the host's immune system. In this review, we synthesize recent advancements on the molecular mechanisms linking virus-induced metabolic alterations to the progression of pulmonary diseases. Furthermore, we discuss novel therapeutic strategies aimed at targeting these metabolic vulnerabilities to mitigate the long-term risks associated with respiratory infections.

Keywords: COPD; Glucose metabolism; Lung cancer; Respiratory viruses.

Copyright © 2026 Elsevier Ltd. All rights reserved.

Conflict of interest statement

Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

13

Review

Eur Respir Rev

-
-
-

. 2026 Oct 7;35(182):260213.

doi: 10.1183/16000617.0213-2026. Print 2026 Oct.

[The dipeptidyl peptidase 1 inhibition landscape in bronchiectasis and its future direction](#)

[James D Chalmers](#)¹, [Raksha Jain](#)², [Anne E O'Donnell](#)³, [Marcus A Mall](#)^{4 5 6 7}, [Patrick A Flume](#)⁸

Affiliations Expand

- PMID: 42843847
- PMCID: [PMC13643495](#)
- DOI: [10.1183/16000617.0213-2026](#)

Abstract

Bronchiectasis (BE) is a heterogeneous lung disease characterised by chronic neutrophilic inflammation. A "vicious vortex" develops through the interactions between neutrophilic inflammation, infection and impaired mucociliary clearance, leading to progressive structural lung damage and worsening lung function. As part of this neutrophilic inflammation, neutrophil serine proteases (NSPs) overwhelm their natural inhibitors, with high NSP levels being associated with pulmonary exacerbations in people with BE. NSPs, activated by dipeptidyl peptidase 1 (DPP1) during neutrophil maturation in the bone marrow, are released from neutrophils at sites of inflammation. Pharmacological inhibition of DPP1 is a compelling approach to reduce neutrophilic inflammation in BE. Three DPP1 inhibitors have had favourable results in clinical studies for BE, namely brensocatib, florensocatib and verducatib, with recent approval of brensocatib, a first-in-class DPP1 inhibitor, in the US and Europe, providing a promising treatment option for people with BE. Many questions about DPP1 inhibition remain, including long-term efficacy and safety, and efficacy in people with cystic fibrosis, primary COPD and immunodeficiencies, who were generally excluded from prior large studies. Despite the availability of cystic fibrosis transmembrane conductance regulator modulator therapy, many people with cystic fibrosis continue to have pulmonary exacerbations. The inclusion of a broad population with a range of aetiologies is key in the development of DPP1 inhibitors to support access to treatment for all those who could benefit. This review explores the current DPP1 inhibition landscape, discussing the clinical studies to date for these three novel DPP1 inhibitors and the evolution of DPP1 studies in BE.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: J.D. Chalmers reports support for the present publication from Boehringer Ingelheim; grants or contracts from AstraZeneca, Boehringer Ingelheim, Genentech, Gilead Sciences, GlaxoSmithKline, Grifols, Insmed, and Trudell Medical Group; consulting fees from Antabio, AstraZeneca, Boehringer Ingelheim, Chiesi Farmaceutici, CSL Behring, Expedition Therapeutics, Enterprise Therapeutics, GlaxoSmithKline, Grifols, Insmed, Melodia, Pfizer, Trudell Medical Group, UCB, Vast Therapeutics, and Zambon; and is the current Chief Editor of the European Respiratory Journal. R. Jain reports support for the present publication from Boehringer Ingelheim; consulting fees from Boehringer Ingelheim; payment or honoraria from Vertex Pharmaceuticals for a grant review committee; and participation on a data safety monitoring board for Advarra and an advisory board for Insmed. A.E. O'Donnell reports support for the present publication from Boehringer Ingelheim; grants or contracts from AN2, Armata, Boehringer Ingelheim,

Insmed, Paratek, Renovion, Spero, and Zambon; consultancy fees from Boehringer Ingelheim and Insmed; payment or honoraria for lectures, presentations, speaker bureaus, manuscript writing, or educational events from Academic CME, New York University School of Medicine, PeerView Institute, and Vinidico; and a leadership or fiduciary role on the US Bronchiectasis and NTM Research Registry steering committee. M.A. Mall reports support for the present publication from Boehringer Ingelheim; grants or contracts from Boehringer Ingelheim, Enterprise Therapeutics, Vertex Pharmaceuticals, German Innovation Fund, German Federal Ministry of Research, Technology and Space (BMFTR), and German Research Foundation (DFG), with payments made to the institution; consulting fees from Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, PARI, SpliSense, and Vertex Pharmaceuticals; payment or honoraria for lectures from Boehringer Ingelheim and Vertex Pharmaceuticals; travel reimbursement received for participation in advisory board meetings for Boehringer Ingelheim and Vertex Pharmaceuticals; and fees for participation on an advisory board from Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, PARI, SpliSense, and Vertex Pharmaceuticals. He also reports that he is inventor on an issued patent filed by the University of North Carolina at Chapel Hill, describing the Scnn1b-transgenic mouse. He is also an unpaid fellow of ERS. P.A. Flume reports support for the present publication from Boehringer Ingelheim; grants or contracts from Boehringer Ingelheim and Insmed; and consulting fees from Boehringer Ingelheim and Insmed.

- [99 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

14

Monaldi Arch Chest Dis

-
-
-

. 2026 Oct 7.

doi: 10.4081/monaldi.2026.4012. Online ahead of print.

[Appropriateness/inappropriateness of access to an in-hospital rehabilitation program for patients with respiratory disease](#)

[Sabrina Fenaroli¹](#), [Mara Paneroni¹](#), [Mauro Maniscalco²](#), [Antonio Spanevello³](#), [Mauro Carone⁴](#), [Giuseppina Cassetti⁵](#), [Cinzia Lastoria⁶](#), [Rodolfo Murgia⁷](#), [Michele Vitacca¹](#)

Affiliations Expand

- PMID: 42845064
- DOI: [10.4081/monaldi.2026.4012](#)

Free article

Abstract

There are no descriptions of the "ideal candidate" or validated indices to justify admitting respiratory patients to hospital-based rehabilitation. This study aimed to quantify appropriate/inappropriate admissions to in-hospital rehabilitation programs among respiratory patients. We analyzed hospitalization records from the ICS Maugeri repository (01 January 2015 - 31 December 2024) across seven Italian ICS Maugeri centers. Patients were categorized as chronic respiratory failure (CRF; 45.70%), chronic obstructive pulmonary disease (COPD; 22.76%), asthma (0.07%), obstructive sleep apnea (OSAS; 10.89%), and miscellaneous dyspnea not related to COPD (19.84%). Anthropometric, Cumulative Illness Rating Scale, Medical Research Council (MRC) scale, Barthel dyspnea, COPD Assessment Test (CAT), 6-minute walk test (6MWT), and Short Physical Performance Battery (SPPB) were collected. Appropriateness of hospital admission was defined according to literature-based severity cut-offs for all disability items, while inappropriateness was computed on four contemporary items (excluding MRC). The cohort was predominantly male, aged 60-70 years, with CRF (46%) and multiple comorbidities; most (84%) were admitted from home, while >95% of patients returned home. High overall appropriateness in the whole group was 73-87% across items, with the highest % for 6MWT predicted across all TPs (74% OSAS-94% CRF) and lower for SPPB (60% OSAS-78% CRF) and for the MRC dyspnea score (75% OSAS-89% CRF). The CRF group demonstrated very high appropriateness (>78% in all items), COPD presented strong appropriateness for deconditioning (6MWT: 83%) dyspnea (MRC: 84%), asthma patients showed a lower CAT appropriateness (64%). The OSAS subgroup had the lowest entry appropriateness (55-74%). The dyspnea group exhibited high appropriateness for deconditioning (6MWT: 83%) and for dyspnea (MRC: 81%, Barthel dyspnea: 81%). Among 6086 complete cases, only 2.8% were deemed to be inappropriate admissions. The highest inappropriateness was in the dyspnea subgroup (6%), while the lowest was for CRF (0.7%). Entry appropriateness was high or very high for overall items, showing 6MWT the best rate and CAT and SPPB the worst. CRF patients showed the highest appropriateness, while the rate of inappropriateness was overall low, with dyspnea and OSAS subgroups the worst and CRF the best. Future strategies must focus on developing standardized, multifaceted evaluation tools to objectively guide inpatient rehabilitation referrals.

Keywords: Appropriateness; hospital rehabilitation; treatable traits.

- [31 references](#)

Full text links

[Proceed to details](#)

Cite

15

Arch Bronconeumol

-
-
-

. 2026 Oct 8:S0300-2896(26)00368-6.

doi: 10.1016/j.arbres.2026.09.015. Online ahead of print.

[Lung Hyperinflation Beyond COPD is Associated with Proxies of Systemic Fluid Overload and Functional Impairment in Patients with Chronic Heart Failure](#)

[Article in English, Spanish]

[Qingqing Shan](#)¹

Affiliations Expand

- PMID: 42850115
- DOI: [10.1016/j.arbres.2026.09.015](#)

No abstract available

Supplementary info

Publication typesExpand

Full text links

[Proceed to details](#)

Cite

16

Diagn Progn Res

-
-
-

. 2026 Oct 8;10(1):27.

doi: 10.1186/s41512-026-00242-x.

ACCEPT 3.0: Recalibrating ACute COPD Exacerbation Prediction Tool (ACCEPT) for global use

Laura Huey Mien Lim^{1 2 3}, Jeenat Mehareen⁴, Amin Adibi⁴, Christer Janson⁵, Pierre-Régis Burgel^{6 7}, Tae Yoon Lee⁸, Hana Müllerová⁹, Della Varghese¹⁰, Jonathan Marshall¹¹, Surya P Bhatt¹², Don Sin^{13 14}, Wenjia Chen¹⁵, Mohsen Sadatsafavi^{4 13 14}, NOVELTY Scientific Community and NOVELTY study investigators

Affiliations Expand

- PMID: 42850639
- DOI: [10.1186/s41512-026-00242-x](https://doi.org/10.1186/s41512-026-00242-x)

Abstract

Background: The ACute COPD Exacerbation Prediction Tool (ACCEPT) is an algorithm for predicting 12-month risk of chronic obstructive pulmonary disease (COPD) exacerbations. To make it suitable for international use, we externally validated and recalibrated ACCEPT 2.0 to incorporate country-specific background exacerbation risk, using multi-country data from NOVELTY (a NOVEL observational longiTudinal study).

Methods: Our study cohort included patients aged [Formula: see text]40 years with physician-diagnosed COPD and [Formula: see text]30 days of follow-up. We predicted the occurrence of any moderate-to-severe (primary endpoint) and severe (secondary) exacerbations at 12 months, using country-level random effects to account for between-country differences in background exacerbation risks unexplained by predictor effects. We assessed model performance via discrimination, calibration, and net benefit.

Results: The analysis sample comprised 5,181 patients (59.4% male, mean age at baseline 66.5 years) from 18 countries, with a mean follow-up of 357 days. 12-month risks ranged between 0.11 and 0.46 (mean = 0.26) for moderate-to-severe and 0.03-0.21 (mean = 0.08) for severe exacerbations. Without country-level adjustment, ACCEPT 2.0's area under the receiver operating characteristic curve (AUROC) was 0.73 (95% CI 0.72-0.75) and 0.76 (95% CI 0.73-0.78) for moderate-to-severe and severe exacerbations, respectively. However, ACCEPT 2.0 consistently overpredicted risks (observed-to-expected [O/E] risk ratio = 0.57 [95% CI 0.54-0.60] and 0.51 [95% CI 0.46-0.56]). After country-level recalibration, ACCEPT 3.0 showed similar AUROCs (0.75 and 0.76) but substantially improved calibration (O/E ratios: 0.99 [95% CI 0.94-1.05] and 0.99 [95% CI 0.90-1.09]). The net benefit of ACCEPT 3.0 exceeded ACCEPT 2.0 across treatment thresholds of 5%-20%.

Conclusion: Recalibrating ACCEPT 2.0 with country-level effects significantly improved calibration of COPD exacerbation risks. The resulting ACCEPT 3.0 is expected to provide higher clinical utility across a range of treatment thresholds.

Keywords: COPD; Country variation; Exacerbation; Risk prediction.

Conflict of interest statement

Declarations. Ethics approval and consent to participate: Ethics approval for this study was obtained from the University of British Columbia's Human Ethics Board (H11-00786). The NOVELTY study (a NOVEL observational longiTudinal studY) received approval from the institutional review boards of each participating institution, and written informed consent was obtained from all patient subjects. This study was conducted in accordance with the Declaration of Helsinki, and the Transparent Reporting of a multivariable prediction model for Individual Prognosis Or Diagnosis (TRIPOD + AI [artificial intelligence]) statement was used for reporting this study. **Consent for publication:** The NOVELTY study (a NOVEL observational longiTudinal studY) obtained written informed consent from all patient subjects. **Competing interests:** LHML receives the Mitacs Globalink Research Award and a student stipend from AstraZeneca for this work. AA receives salary support from Legacy for Airway Health and the University of British Columbia (UBC) 4-Year Fellowship and research grant from UBC Public Scholars Initiative, and is an advisory board member of the Global Lung Function Initiative. CJ receives honoraria for educational activities and lectures from AstraZeneca, Boehringer Ingelheim, Chiesi, GlaxoSmithKline, Orion, Novartis and Sanofi outside this work. PRB receives consulting fees from AstraZeneca, Boehringer Ingelheim, Chiesi, GlaxoSmithKline, Inmed, MSD, Pfizer, Vertex and Viatris, and support for attending meetings and/or travel from AstraZeneca and Chiesi. HM, DV and JMarshall are employees of AstraZeneca and own shares and stock options of AstraZeneca. SPB receives grants from NIH, Nuaira, Sanofi/Regeneron, Genentech, COPD Foundation, Apreo, Uniquity, Connect Biopharma; royalties from Springer; consulting fees from Apreo, AstraZeneca, Boehringer Ingelheim, Chiesi, Genentech, Connect Biopharma, GSK, Merck, Polarean, Regeneron, Sanofi, Uniquity and Verona Pharma; honoraria from Horizon CME, Illuminate Health, Integrity Communications, IntegrityCE, Medscape, and he is an advisory board member of NIH, and the Chair of Clinical Problems Assembly, American Thoracic Society. DS is the deputy chief editor of the ERJ and receives a small honoraria from AstraZeneca and GSK for giving a talk on COPD, and chairs a DSMB for a clinical trial sponsored by NHLBI. WC receives grants from Illumina. MS receives peer-reviewed grant funding from the Canadian Institutes of Health Research directly to his research account at UBC for this work, grants from AstraZeneca directly to his research account at UBC for unrelated work, honorarium from AstraZeneca for his role as a member of the scientific committee of the NOVELTY study, which did not include time spent on this project; travel support from AstraZeneca and GlaxoSmithKline to attend meetings unrelated to this project. The rest of the authors declared no conflict of interest.

- [41 references](#)

Full text links



[Proceed to details](#)

Cite

Chronic Obstr Pulm Dis

-
-
-

. 2026 Oct 6.

doi: 10.15326/jcopdf.2026.0805. Online ahead of print.

[A Phase 2b Randomized Trial of Belimumab to Reduce Atherogenic Autoantibodies in COPD Patients](#)

[R Chad Wade^{1,2}](#), [Sarah Robison^{1,2}](#), [J Michael Wells^{1,2}](#), [Takudzwa Mkorombindo¹](#), [Maida Chaudhry¹](#), [Mohamed Kheder Aly Awad¹](#), [Young-Il Kim¹](#), [Kaiyu Yuan¹](#), [Mohamed Mohsen Abdalla¹](#), [Mark T Dransfield¹](#), [Steven R Duncan¹](#)

Affiliations Expand

- PMID: 42852906
- DOI: [10.15326/jcopdf.2026.0805](#)

Abstract

Background: We hypothesized autoantibodies with specificity for glucose-regulated protein 78 (anti-GRP78), a ubiquitous heat shock protein and key component of the unfolded protein response (UPR), are associated with development of cardiovascular disease (CVD) in chronic obstructive pulmonary disease (COPD) patients. Treatments focused on the underlying autoimmune processes reduce CVD events in those afflicted with connective tissue diseases, but analogous therapies have not yet been tested in COPD patients, in whom atherosclerotic disease is a significant cause of mortality.

Methods: Plasma anti-GRP78 IgG was measured by ELISA in two independent cohorts of COPD subjects who had coronary artery calcium (CAC) determinations by chest CT. Another COPD cohort was randomized to belimumab (10 mg/kg i.v. every two weeks x 3, followed by five monthly infusions) (n=10) or placebo (n=6). The primary endpoint was changes of circulating anti-GRP78 levels.

Results: Anti-GRP78 levels in COPD patients (n=37) were highly correlated with CAC scores ($r_s=0.56$, $p<0.001$). Autoantibody concentrations were reduced by ~17% (from 0.50 ± 0.11 to 0.40 ± 0.09 OD units, $p=0.02$) but unchanged by placebo ($p=0.75$), and the reductions were proportionate to pre-treatment autoantibody levels ($r_s=-0.65$, $p=0.05$). There were no reductions of protective anti-pneumococcal antibody levels or serious adverse events definitively attributable to belimumab treatment.

Conclusion: Belimumab therapy reduces circulating anti-GRP78 autoantibodies, which have been linked to CVD and other COPD comorbidities. Autoantibody reduction may be a novel approach to mitigate COPD-associated. These findings support a larger trial to thoroughly assess efficacy and safety of belimumab, or other specific autoimmune-targeted therapies, in COPD patients with CVD.

Keywords: autoimmunity; coronary artery disease; glucose regulated protein 78.

JCOPDF © 2026.

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

18

Review

Nitric Oxide

-
-
-

. 2026 Oct 9:S1089-8603(26)00164-3.

doi: 10.1016/j.niox.2026.10.001. Online ahead of print.

[Pulsed administration of inhaled nitric oxide: Development, clinical applications, and future perspectives](#)

[Jonathan Thein](#)¹, [Hatus Wanderley](#)², [Andrea Bolchini](#)³, [Andrew C Bittner](#)⁴, [Lorenzo Berra](#)⁵, [Stefano Gianni](#)⁶

Affiliations Expand

- PMID: 42855003
- DOI: [10.1016/j.niox.2026.10.001](#)

Abstract

Nitric oxide (NO) gas continues to be a widely studied and versatile treatment given its broad spectrum of physiological effects such as pulmonary vasodilation, improvement of oxygenation, anti-inflammatory, and antimicrobial effects. The idea of administering a pulsed dose of inhaled NO (PiNO) at the beginning of inhalation was developed in the last 20 years as an alternative to continuous inhalation of NO (CiNO) through the respiratory cycle. Across multiple studies, PiNO has repeatedly demonstrated similarly efficacious pulmonary vasodilation and oxygenation improvement as CiNO administration while consistently reducing total NO exposure and nitrogen dioxide (NO₂) formation. PiNO has proven to be an effective adjunctive treatment for patients with primary pulmonary hypertension among spontaneously breathing patients. In patients with chronic obstructive pulmonary disease (COPD),

PiNO reduced pulmonary vascular resistance (PVR) in the short term, though further research remains necessary to demonstrate long-term benefits. Similarly, PiNO use in patients with interstitial lung disease has been associated with subjective improvements in exercise tolerance and quality of life. The effect of PiNO on PVR was also confirmed in mechanically ventilated subjects. In this setting, PiNO reduced anesthesia-associated hypoxemia and improved shunt fraction and oxygenation. Overall, the scientific body of evidence surrounding PiNO supports it as a safe, effective, and efficient alternative to CiNO delivery that can be utilized in a wide range of clinical settings. Future research may continue to expand the application of PiNO to different clinical settings.

Keywords: Anesthesia; Inhaled Nitric Oxide; Interstitial Lung Disease; Nitric Oxide; Pulmonary Hypertension; Pulsed Therapy.

Copyright © 2026. Published by Elsevier Inc.

Conflict of interest statement

Declaration of Competing Interest ☒ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Given his role as Associate Editor, Lorenzo Berra had no involvement in the peer review of this article and had no access to information regarding its peer review. Full responsibility for the editorial process for this article was delegated to another journal editor. Lorenzo Berra and Stefano Gianni are coinventors on a filed patent (no. US2023/0201514A1) entitled “Systems and methods for nitric oxide generation and treatment.” The other authors declare that they have no competing interests. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

19

Allergy

-
-
-

. 2026 Oct 10.

doi: 10.1111/all.70538. Online ahead of print.

Not Just Th2: Eosinophil-Associated Proteomic Networks Reveal Fundamental Differences Between COPD and Asthma

Xiaojie Wu¹, Jingjing Fan¹, Huiyuan Ding^{2,3}, Shiwen Li¹, Rui Ye¹, Honghao Yang^{2,3}, Zheng Ma^{2,3}, Chao Ji^{2,3}, Qing Chang^{2,3}, Yuhong Zhao^{2,3}, Chuming Zhou¹, Li Zhao¹, Yang Xia^{2,3}

Affiliations Expand

- PMID: 42856088
- DOI: [10.1111/all.70538](https://doi.org/10.1111/all.70538)

Abstract

Introduction: While eosinophils are established pathogenic drivers and therapeutic targets in asthma, their role in chronic obstructive pulmonary disease (COPD) remains conflicting. This study aimed to investigate the bidirectional associations of eosinophils with COPD and asthma, and to elucidate the potential distinct underlying mechanisms.

Methods: In 302,370 UK Biobank participants, multivariable-adjusted Cox proportional hazards models assessed associations between blood eosinophil counts and incident COPD, asthma, and asthma COPD overlap (ACO). Bidirectional two-sample Mendelian randomization (MR) tested causality. Among 32,121 participants with available baseline Olink proteomic data, proteomic profiling characterized eosinophil-associated plasma protein signatures and their associations with disease risk.

Results: During approximately 13.5 years of follow-up, elevated blood eosinophils were associated with increased risks of COPD, asthma, and ACO. Unlike asthma, pre-existing COPD did not predict subsequent eosinophil elevation. MR indicated a unidirectional effect of eosinophils on COPD but bidirectional causality for asthma. Proteomics revealed a broader protein interaction network in COPD (378 proteins) than in asthma (70 proteins). Exploratory mediation analyses, assuming an eosinophil-to-protein direction, estimated that the eosinophil-associated proteomic signature statistically accounted for 87.8% of the association with COPD ($p = 0.076$) and 59.1% of the association with asthma ($p < 0.001$). Among these proteins, COPD-associated mediators were linked to a broad and intricately woven inflammatory network, in contrast to the more streamlined network that is mainly confined to Type 2 inflammation seen in asthma.

Conclusion: Although elevated eosinophil levels are associated with increased COPD risk, their pathogenic role-embedded within a complex inflammatory network-differs fundamentally from the Th2-centric inflammatory pathway characteristic of asthma. This observational study suggests that eosinophilic COPD is not simply a surrogate for asthma-like Type 2 inflammation.

Keywords: asthma; chronic obstructive pulmonary disease; eosinophils; mendelian randomization; proteomics.

© 2026 European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd.

- [40 references](#)

Supplementary info

Grants and fundingExpand

"Multimorbidity"[Mesh Terms] OR Multimorbidity[Text Word]

1

AIDS Behav

-
-
-

. 2026 Oct 6.

doi: 10.1007/s10461-026-05319-8. Online ahead of print.

[Patient Perspectives on Leveraging Long-Acting Injectable Antiretroviral Therapy Visits to Improve Chronic Disease Care](#)

[Emily D Niehaus](#)¹, [Megan E Hansen](#)², [Kevin McKenna](#)³, [Charles Muiruri](#)^{3,4}, [Amy Corneli](#)^{2,3}, [Nwora Lance Okeke](#)^{2,3}

Affiliations Expand

- PMID: 42834312
- DOI: [10.1007/s10461-026-05319-8](#)

Abstract

Long-acting injectable (LAI) antiretroviral therapy (ART) for treatment of HIV requires more frequent healthcare interactions than standard care, offering opportunities to enhance monitoring and management of comorbid chronic conditions among people with HIV (PWH). We conducted in-depth interviews with PWH to explore perspectives on LAI-ART uptake and readiness to switch from oral ART, as well as opportunities to integrate chronic disease care into routine LAI-ART visits. Participants who were virally suppressed and had one or more chronic medical conditions were eligible. Transcripts were analyzed using applied thematic analysis, and readiness for LAI-ART was characterized using the Transtheoretical Model. Twenty-four PWH were interviewed (8 on LAI-ART and 16 on oral ART). Perceived advantages of LAI-ART included logistical convenience and relief from pill-related emotional burden, while disadvantages included dislike of injections and increased visit frequency. Provider guidance played a central role in decision-making, and satisfaction with current regimens reduced interest in LAI-ART. All participants receiving LAI-ART intended to continue this regimen, and readiness to switch among those receiving oral ART ranged from little interest to actively planning a transition. Despite varied views on LAI-ART as a personal treatment choice, most participants viewed integrating chronic disease management into LAI-

ART visits as acceptable and beneficial, particularly for cardiovascular risk assessments, mental health, and social needs. Some participants on oral ART reported that access to integrated services could increase openness to initiating LAI-ART. Overall, LAI-ART visits were viewed as a potentially valuable platform for integrating chronic disease management that aligns with patient priorities.

Keywords: Aging among people with HIV; Comorbidity care; Long-acting injectable antiretroviral therapy; Multimorbidity among people with HIV; Touchpoints for care.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Conflict of interest: CM is a cofounder of YOJO LLC, a software platform company. YOJO LLC did not support any work reported in this article. NLO has received consulting fees from ViiV Healthcare and Gilead Sciences. All other coauthors declare that they have no conflicts of interest. **Research Involving Human Participants:** This study was reviewed by the Duke University Institutional Review Board and was determined to be exempt from further review. **Informed Consent:** Verbal informed consent was obtained from all participants prior to participation, including consent for interview and audio recording, as approved by the IRB.

- [44 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

2

BMJ Open

-
-
-

. 2026 Oct 7;16(10):e118211.

doi: 10.1136/bmjopen-2026-118211.

[Preoperative pathways in adults with multiple long-term conditions undergoing major surgery: a systematic review](#)

[Nataysia Maria Mikula-Noble¹](#), [Stella Arakelyan²](#), [Rose Penfold³](#), [Sivesh Kathir Kamarajah⁴](#), [Ewen Harrison⁵](#)

Affiliations Expand

- PMID: 42843878
- PMCID: [PMC13646985](#)
- DOI: [10.1136/bmjopen-2026-118211](#)

Abstract

Objectives: Adults with multiple long-term conditions (MLTCs) undergoing surgery have a higher risk of postoperative complications compared with adults without MLTCs. No preoperative care interventions, pathways or protocols exist to specifically support people with MLTCs. Our aims were to: (i) summarise current preoperative interventions targeted at people with MLTCs, (ii) report outcomes of preoperative interventions specifically designed for MLTC populations and (iii) identify future research into interventions resulting in better surgical outcomes for this population.

Design: Systematic review was performed to identify studies reporting on preoperative interventions, pathways and protocols for adults with MLTCs undergoing surgery. Quality was evaluated using the Quality Assessment Tool for Quantitative Studies.

Data sources: MEDLINE, Embase, Scopus, Web of Science Core Collection and CINAHL were searched from 1 January 2013 to 17 December 2025.

Data extraction and synthesis: Two independent reviewers (NMN, SKK) used standardised methods to search and screen for included studies within the databases, and disagreements were resolved by the third reviewer (EH). The included full papers were retrieved, read and data extraction was undertaken independently by two reviewers (NMN, SKK).

Results: Of 138 studies that identified adult cohorts with MLTCs undergoing major surgery, 34 were included. Findings included the following: (i) six (18%) studies discussed preoperative interventions for mixed cohorts of MLTC and non-MLTC patients, and (ii) three (9%) reported the use of preoperative interventions designed for the general surgical population on patients with MLTCs.

Conclusion: There is a paucity of data specifically pertaining to surgical interventions specifically identified for patients with MLTCs. The existing literature neither supports the existence of specific preoperative interventions nor the establishment of new interventions specifically designed for this population. However, this study found that several studies showed existing interventions designed for the general surgical population may improve outcomes for patients with MLTCs. The lack of heterogeneity regarding the definition of multimorbidity may result in an under-identification of surgical interventions designed for patients with MLTCs. We recommend future research should identify whether the current preoperative interventions, pathways and protocols developed for the general population are applicable to MLTC populations, or whether completely new actions need to be developed to cater to the specific complications of people with MLTCs.

Prospero registration number: CRD42023445506.

Keywords: Clinical Protocols; Multimorbidity; SURGERY.

© Author(s) (or their employer(s)) 2026. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ Group.

Conflict of interest statement

Competing interests: None declared.

- [59 references](#)
- [4 figures](#)

Supplementary info

Publication types, MeSH termsExpand

Full text links



[Proceed to details](#)

Cite

3

Am J Respir Crit Care Med

-
-
-

. 2026 Oct 8:aamag542.

doi: 10.1093/ajrccm/aamag542. Online ahead of print.

[2026 Global Initiative for Asthma \(GINA\) Strategy Report: Executive Summary and Key Changes](#)

[Helen K Reddel](#)¹, [Keith Allan](#)², [Leonard B Bacharier](#)³, [Matteo Bonini](#)⁴, [Arnaud Bourdin](#)⁵, [Christopher Brightling](#)⁶, [Roland Buhl](#)⁷, [Jeremiah Chakaya](#)⁸, [Alvaro A Cruz](#)⁹, [Francine M Ducharme](#)¹⁰, [Liesbeth Duijts](#)¹¹, [Louise Fleming](#)¹², [Hiromasa Inoue](#)¹³, [Alan Kaplan](#)¹⁴, [Fanny Wai San Ko](#)¹⁵, [Jerry A Krishnan](#)¹⁶, [Mark L Levy](#)¹⁷, [Refiloe Masekela](#)¹⁸, [Paulo Marcio Pitrez](#)¹⁹, [Sundeep Salvi](#)²⁰, [Arzu Yorgancioğlu](#)²¹, [Min Zhang](#)²², [Guy Brusselle](#)²³

Affiliations Expand

- PMID: 42847657
- DOI: [10.1093/ajrccm/aamag542](#)

Abstract

The Global Initiative for Asthma (GINA) Strategy Report provides a comprehensive, annually updated evidence-based approach to asthma diagnosis, assessment,

treatment, and prevention across the lifespan. Its central approach is personalized, iterative care based on the Assess-Adjust-Review cycle for both symptom control and reduction of future risk (including severe exacerbations, persistent airflow limitation, and treatment-related harm). GINA emphasizes objective confirmation of diagnosis wherever possible, and regular assessment of lung function, inhaler technique, adherence, multimorbidity, risk factors (including Type-2 biomarkers), and patient goals and preferences. GINA strongly recommends that all adults, adolescents, children and most preschoolers with asthma should receive inhaled corticosteroid (ICS)-containing treatment. GINA recommends against short-acting beta2-agonist (SABA)-only treatment. For adults/adolescents, GINA Track 1 using low-dose ICS-formoterol, an anti-inflammatory reliever (AIR), either as-needed-only (AIR-only) or as maintenance-and-reliever therapy (MART), is preferred because of its substantial reduction in severe exacerbations compared with SABA-based regimens, and its simplicity. Age-specific treatment pathways in children also emphasize ICS-containing therapy and exacerbation prevention. For difficult-to-treat and severe asthma, GINA provides structured guidance, emphasizing diagnostic verification, optimization of modifiable factors, inflammatory phenotyping, biologic therapy selection, and (as for all patients) systemic corticosteroid stewardship. Acute exacerbation care incorporates long-term preventive treatment, including post-discharge reassessment of management and action plan. Key 2026 updates include expanded AIR options for adults and children, revised guidance on severe asthma and selection of biologic treatment, and substantial updates to acute asthma management. GINA integrates evidence-based management with shared decision-making, self-management education, implementation, and global advocacy to reduce preventable asthma morbidity and mortality.

Keywords: Asthma; GINA; anti-inflammatory reliever; exacerbations; guidelines.

© The Author(s) 2026. Published by Oxford University Press on behalf of the American Thoracic Society.

Full text links



[Proceed to details](#)

Cite

4

J Diabetes Investig

-
-
-

. 2026 Oct 9.

doi: 10.1111/jdi.70462. Online ahead of print.

The cholesterol, high-density lipoprotein, and glucose index and its derivatives related to obesity and inflammation as novel metabolic markers for predicting new-onset cardiovascular-liver-metabolic multimorbidity: A prospective cohort study

Zhonghua Sun¹, Aikeliyaer Ainiwaer², Yameng Xu³, Ge Zhang⁴, Xiangyu Sun⁵, Xinliang Peng⁵, Yuanhui Dai⁵, Kaisaierjiang Kadier⁵

Affiliations Expand

- PMID: 42852842
- DOI: [10.1111/jdi.70462](https://doi.org/10.1111/jdi.70462)

Abstract

Background: Cardiovascular-liver-metabolic multimorbidity (CLMM), defined as the co-occurrence of at least two of cardiovascular disease, type 2 diabetes, and metabolic dysfunction-associated steatotic liver disease, is an increasing health burden. We evaluated the cholesterol, high-density lipoprotein, and glucose (CHG) index and its obesity- and inflammation-derived variants for predicting incident CLMM.

Methods: This prospective cohort included 6,534 adults aged ≥ 45 years from the China Health and Retirement Longitudinal Study. CHG, eight obesity-derived indices, and CHG-CRP were assessed, with the triglyceride-glucose index and TG/HDL-C ratio as comparators. Associations with incident CLMM were evaluated using logistic regression, restricted cubic splines, and threshold analysis. Predictive performance was compared using receiver operating characteristic analysis, the integrated discrimination improvement (IDI), and the net reclassification improvement (NRI), with additional joint-effect, interaction, subgroup, and sensitivity analyses.

Results: At the 2015 follow-up, 406 participants (6.2%) met the criteria for CLMM. Higher CHG was linearly associated with incident CLMM (highest vs lowest quartile: OR 1.64, 95% confidence interval [CI] 1.22-2.22). Obesity-derived variants showed stronger associations, particularly CHG-BMI (OR 3.13, 95% CI 2.21-4.43), which also had the highest discrimination (AUC 0.643, 95% CI 0.616-0.669) and continuous NRI (34.08%). Participants with both high CHG and high BMI had the greatest CLMM risk (OR 2.59, 95% CI 1.94-3.51). Results were robust in sensitivity analyses.

Conclusions: The CHG index and its obesity-derived variants, particularly CHG-BMI, are accessible and inexpensive candidate metabolic markers for predicting new-onset CLMM. CHG-BMI showed the highest apparent discrimination among the evaluated indices, although its AUC was modest. External population validation is needed.

Keywords: CHG index; cardiovascular–liver–metabolic multimorbidity; obesity-derived indices.

© 2026 The Author(s). Journal of Diabetes Investigation published by Asian Association for the Study of Diabetes (AASD) and John Wiley & Sons Australia, Ltd.

- [44 references](#)

Supplementary info

"asthma"[MeSH Terms] OR asthma[Text Word]

1

J Asthma

-
-
-

. 2026 Oct 5:1-14.

doi: 10.1080/02770903.2026.2734972. Online ahead of print.

[Effect of IL-4RαR576 polymorphism on response to dupilumab in asthma, a genotype-stratified, randomized, placebo- controlled trial \(IDEA trial\): design, rationale, methods, strategies, and lessons learned](#)

[Wanda Phipatanakul^{1,2}, Elliot Israel³, David T Mauger⁴, Susan J Kunselman⁴, Patrice M Becker⁵, Lisa Gagalis⁵, Rachel L Dabek¹, Juliet Greenwood¹, Haejin Kim⁶, Edward Zoratti⁶, David C Kaelber⁷, Mirna Ayache⁷, Sunit Jariwala⁸, Audreesh Banerjee⁹, John Oppenheimer¹⁰, Jonathan M Gaffin^{2,11}, Peggy S Lai^{2,12}, Tina M Banzon^{1,2}, Peter S Thorne¹³, Hans C Oettgen^{1,2}, Pui Lee^{1,2}, Michael Lam^{1,2}, Talal A Chatila^{1,2}; IDEA Study TeamIDEA Study Team RosterEllen Conroy MDn, Elena Crestani MDn, Seyni Gueye-Ndiaye MDn, Marissa Hauptman MDn, Michelle Kraemer MDn, Brenna LaBere MDn, Katelyn Leake MDn, Julia Lee MDn, Thanh Nguyen MDn, Ye Sun MDn, Christina Yee MDn, Tina Branzon MDn, Lisa Bartnikas MDn, Sachin Baxi MDn, Brittany Esty MDn, Jonathan Gaffin MDn, Anna Gray MDn, Cara Guenther MDn, Sigfus Gunnlaugsson MDn, David Kantor MDn, Margee Louisias MDn, Michelle Maciaq MDn, Lana Mukharesh MDn, Perdita Permaul MDn, Bob Sun MDn, Elsa Treffeisen MDn, Linya Guon, Amita Santoshn, Alexis Vitiellon, Farida Weheban, Ivy Dangn, Conor Brockwayn, Alesandra Campedellin, Kathleen Castillo-Ruanon, Claire Chapmann, Gabriel Federo Hungarian, Jesse Fernandezn, Elizabeth Fitzpatrickn, Kameryn Furinessn, Gisell Garcian, Linya Guon, Claudina Lunan, Katherine Mossn, Myriah Robinsonn, Sullivan Waskoskyn, Sarah Liber \(Dufour\) RNn, Stacey Edwards RNn, Elyse Archila PA-Co, Kathleen Haley MDo, Kimberly McCarty PA-Co, Carrie Pistenmaa MDo, Justin Salciccioli MBBSO, Jonathan Bailey, Jacob Braunsteino, Isabelle Bricko, Maria \(Angeles\) Cinellio, Matthew Desimoneo, Eren Gulbaso, Olivia Hoyto, Carolyn Kelleyo, Jean Kruseo, Meghan Leo, Pranavi Lingao, Zineb Ouardaouio, Vinh The Phano, Amira Reyado, Alexis Robinsono, Ines Rossio, Hanyi Yango, Gina Savickas PhDp, Nicorya Scott CNPp, Gabrielle Burdzinski RNp, Nicole Chambers RNp, Sheraz Hereford RNp, Jeremiah Rooker RNp, Radin Khanp, Matthew Kurinp, Erik Mannp, Yvette McLaurinp, Ann Oleeskyp, Robert Restifo DOq, Juliana Colecchia RNq, Andrew Lewis MDr, Dominique Trocchio PharmDr, Hailey Chesnick RNr, Allison Rizea RNr, Bridget Mackin RNr, Dawn Smith RNr, Cindy Stepien RNr, Mohammad Abuzahriehr, Laura Bakerr, Alexis Brownr, Lisa Cooperr, Maricela Haghiacr, Christine Huynhr, Abby Maxson-Stabiler, Judi Miniumr, Kimberly Schachr, Andrea Apter MDs,](#)

[Olajumoke Fadugba MDs](#), [Patrick Gleeson MDs](#), [Priya Patel MDs](#), [Chigozie Amonus](#), [Elizabeth Beothys](#), [Phylicia Footes](#), [Yvette Frimpongs](#), [Busra Karatass](#), [Christina Katehiss](#), [Matthew Loregs](#), [Matthew Scherreicks](#), [Elaine Tanel](#), [Lauren Vincents](#), [Olivia Pisanit](#), [Hemraj Komalt](#), [Thomas Scharfenbergert](#), [Xiaojia Wangt](#), [Sarah Cichyu](#), [Shannon Courvilleu](#), [Jennifer Cruzu](#), [Ann DiMaria \(Needles\)u](#), [Kris Hendersonu](#), [Brooks Herrinu](#), [Brianna Louis-Jeuneu](#), [Melanie Paytonu](#), [Jim Schmidtu](#), [Kirsten Shuleru](#), [Gabrielle Svrceku](#), [Daniel Tekelyu](#), [Angela Updegraveu](#), [Ronald Zimmerman Jr. MPAu](#), [Mehdi Benamar PhDv](#), [Kaya Berna PhDv](#), [Qian Chen PhDv](#), [Elena Crestani MDv](#), [Hani Harb PhDv](#), [Feven Getachew BScv](#), [Ziwei Wang BScv](#), [Hana B. Ruran BAv](#), [Dastan Haghazariw](#), [Minsik Kimw](#), [Thi Tranw](#), [Nervana Metwali PhDx & Xuefang Jing PhDxn](#) [Boston Children's Hospital](#), [Harvard Medical School](#), [Boston, MA, USA](#) [Brigham and Women's Hospital](#), [Boston, MA, USA](#) [Henry Ford Health](#), [Detroit, MI, USA](#) [Atlantic Health](#), [Summit, NJ, USA](#) [The Metro Health System](#), [Cleveland, OH, USA](#) [University of Pennsylvania](#), [Penn Medicine University City](#), [Philadelphia, PA, USA](#) [Montefiore](#), [Bronx, NY, USA](#) [College of Medicine](#), [Department of Public Health Sciences](#), [Pennsylvania State University](#), [Hershey, PA, USA](#) [Boston, MA, USA](#) [Massachusetts General Hospital](#), [Boston, MA, USA](#) [College of Public Health](#), [Department of Occupational and Environmental Health](#), [University of Iowa](#), [Iowa City, IA, USA](#)

Affiliations Expand

- PMID: 42742633
- PMCID: [PMC13648672](#)
- DOI: [10.1080/02770903.2026.2734972](#)

Abstract

Background/objective: Asthma is a heterogeneous chronic disease, disproportionately affecting racial and ethnic minorities, with persistence and severity influenced by both environmental and genetic factors. The IL-4R α R576 variant occurs more commonly in racially minoritized, and the genotype, independent of race, is associated with severe, exacerbation-prone asthma. IDEA (Investigating Dupilumab's Effect in Asthma by genotype) [NCT02570984](#) is a multicenter, randomized, placebo-controlled trial designed to determine whether dupilumab, a monoclonal antibody that directly inhibits the IL-4 receptor, has differential efficacy according to IL-4R α genotype, and to better understand genotype-specific asthma outcomes in adolescents and adults. At the time of this design and methods report, while enrollment is closed, the trial is ongoing and clinical outcome results are not yet available.

Methods: IDEA enrolled participants aged 12 years and above with uncontrolled asthma. Eligible participants are genotyped for the IL-4R α R576 allele and stratified into wild-type, heterozygous, and homozygous groups. A total of 120 participants (goal of 48 wild-type, 48 heterozygous, 24 homozygous) are being randomized 1:1 to receive dupilumab or placebo in addition to guidelines-based therapy for 48 wk. The primary endpoint is reduction in asthma exacerbations. Digitalized strategies to address adherence in home administration of biologics are employed. Strategies to boost recruitment include new electronic health medical record tools, community advertising on public transportation and subway systems, and team members and sites in culturally attuned neighborhoods.

Conclusions: IDEA evaluates response to a biologic by genotype. Results will inform future targeted therapies in genetically susceptible populations, with potential implications for reducing asthma disparities. [Clinical Trials.gov NCT03694158](https://clinicaltrials.gov/ct2/show/study/NCT03694158).

Keywords: Asthma; IL-4R α genotype; adolescents; adults; dupilumab; minority health; precision medicine.

Plain language summary

The IDEA trial tests genotype-stratified efficacy of dupilumab, a human monoclonal antibody that acts as an IL-4 receptor alpha antagonist, in asthma. This trial builds on work supporting a role for the genotype variant on the IL-4 pathway (IL-4R α 576R polymorphism) impacts asthma morbidity. Strategies were employed to increase adherence through digitalized technology in biologics and boost recruitment in previously underrepresented populations in clinical trials. Results will guide future precision personalized medicine in asthma, particularly in populations at heightened risk.

Conflict of interest statement

Dr. Phipatanakul serves on advisory and obtains clinical trial support from Genentech, Novartis, Sanofi, Regeneron, Astra Zeneca for asthma therapies and receives NIH funding. Dr. Israel reports consulting fees from Amgen, Apogee, Arrowhead, Astra Zeneca, Bain Capital, Chiesi, Clearview Health Partners, Ecor 1, Generate Biomedicine, GSK, Jasper Therapeutics, Leerink Partners, Merck, Orbi Med, Pfizer, Reach Market Research, Regeneron, Sanofi, Schlesinger Associates, TEVA, Third Rock Ventures, Windrose Consulting Group, Wolters Kluwer, Yuhan. Dr. Haejin Kim reports NIH funding support for salary. Dr. John Oppenheimer served on adjudication committees or data and safety monitoring boards for AstraZeneca, GSK, Novartis, Abbvie, and Sanofi-Regeneron and consultant to GSK, Amgen, Sanofi, Novartis, ARS and Aquestive. Dr. Gaffin receives consultant fees for Syneos Health (DSMB), not related to this work. The rest of the authors have no disclosures.

Regeneron/Sanofi also supplied study drug and placebo and support through product donation but had no role in study design or analysis.

Clinical trial support was also provided by Thermo Fisher, Inc (reagents), Merck/Organon (asthma medications Dulera HFA[®]), Monaghan (AeroChamber[®]), Circassia, Inc (NIOX VERO[®]).

[Clinicaltrials.gov NCT03694158](https://clinicaltrials.gov/ct2/show/study/NCT03694158)

Study conducted exempt to FDA PIND 144541

- [Cited by 1 article](#)
- [32 references](#)
- [2 figures](#)

Supplementary info

Associated data, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

2

Prehosp Emerg Care

-
-
-

. 2026 Oct 6:1-8.

doi: 10.1080/10903127.2026.2717525. Online ahead of print.

[Interobserver Agreement in Pediatric Asthma Examination Findings Between Emergency Medical Services and Emergency Department Clinicians](#)

[Michael F Taylor](#)¹, [Caleb E Ward](#)^{1,2}, [Jennifer F Anders](#)³, [Adjoa A Andoh](#)⁴, [James M Chamberlain](#)², [Nidhya Navanandan](#)⁵, [Sylvia Owusu-Ansah](#)⁶, [Kyle Schmucker](#)⁷, [Bobbe Thomas](#)², [Kathleen M Brown](#)²

Affiliations Expand

- PMID: 42808699
- DOI: [10.1080/10903127.2026.2717525](#)

Abstract

Objectives: Asthma exacerbations constitute 10-15% of all pediatric emergency medical services (EMS) calls. There are several validated scoring tools to assess acute asthma severity, which have good inter-rater reliability and correlate with clinical outcomes in the emergency department (ED), but have not been validated with EMS clinicians. This study sought to assess the level of agreement between EMS and ED clinicians on components of asthma scoring tools to inform a prehospital asthma severity scoring tool.

Methods: We conducted a prospective observational study of children 2-18 years old transported by EMS with an impression of asthma exacerbation to five pediatric EDs. EMS and ED clinicians independently completed surveys assessing the patient's exam on arrival to the ED. Survey items were drawn from existing asthma scoring tools and refined by focus groups and a Delphi process with EMS clinicians and expert stakeholders. To determine agreement between EMS and ED clinicians regarding survey items, inter-rater reliability was calculated using Kappa and intraclass correlation coefficient for binary and ordinal variables, respectively.

Results: We enrolled a convenience sample of 295 children with a median age of 7 years (inter-quartile range 3-12 years). There was slight agreement among EMS and

ED clinicians ($\kappa = 0.01-0.20$) for suprasternal retractions and fair agreement ($\kappa = 0.21-0.40$) for tachypnea, accessory muscle use, and elevated respiratory rate. There was poor agreement (ICC = 0-0.50) for breathlessness, work of breathing, degree of hypoxia, type of wheeze, and wheezing intensity.

Conclusions: We observed limited agreement between EMS and ED clinicians when assessing children for components of asthma severity scores. Developing a prehospital asthma exacerbation severity scoring tool to guide EMS interventions may be challenging. Further research is needed to determine whether education improves EMS performance with asthma scoring tools or whether standardized EMS asthma protocols, regardless of exacerbation severity, improve patient outcomes.

Full text links



[Proceed to details](#)

Cite

3

Review

Int Arch Allergy Immunol

-
-
-

. 2026 Oct 5:1.

doi: 10.1159/iaa/adfag009. Online ahead of print.

[Comparative Efficacy of Biologics for Patients with Severe Eosinophilic Asthma: A Network Meta-analysis](#)

[Xubin Ren](#), [Zhi Wen](#), [Fei Long](#), [Nie Xu](#)

- PMID: 42832447
- DOI: [10.1159/iaa/adfag009](#)

Abstract

Background: Severe eosinophilic asthma (SEA) remains morbid despite standard care. Lacking head-to-head trials, the comparative efficacy of biologics (mepolizumab, benralizumab, dupilumab, tezepelumab) is unclear. This network meta-analysis quantifies their relative efficacy and safety in SEA.

Method: Following PRISMA-NMA, we searched databases (inception to July 23, 2025) for RCTs of adolescents/adults with SEA comparing these biologics against placebo or each other. Primary outcomes were annualized asthma exacerbation rate (AAER) and change in pre-bronchodilator FEV₁; secondary outcomes included

change in post-bronchodilator FEV₁, ACQ/AQLQ scores, and safety. Bayesian random-effects network meta-analysis was performed, and treatment rankings were summarized using SUCRA. Certainty of evidence was assessed using GRADE.

Results: Seventeen RCTs involving 7,173 participants were included. For AAER, tezepelumab ranked highest (SUCRA: 73.35%), followed by mepolizumab (72.65%), benralizumab (56.23%), and dupilumab (36.20%); the corresponding network estimates versus placebo were MD -1.23 (95% CrI: -2.99 to 0.58), -1.16 (95% CrI: -2.76 to 0.49), -0.75 (95% CrI: -1.54 to -0.17), and -0.37 (95% CrI: -2.13 to 1.42), respectively. For Δ Pre-BD FEV₁, tezepelumab ranked highest (SUCRA: 79.64%), followed by dupilumab (54.42%), benralizumab (52.19%), and mepolizumab (45.71%). Benralizumab ranked highest for Δ Post-BD FEV₁ and Δ ACQ-5, tezepelumab for Δ ACQ-6, dupilumab for Δ AQLQ, and mepolizumab for lower SAE risk. For SAEs, network estimates versus placebo were OR 0.45 for mepolizumab (95% CrI: 0.23 to 0.72) and OR 0.58 for benralizumab (95% CrI: 0.35 to 0.84). Leave-one-out analyses showed stable rankings after exclusion of non-tezepelumab studies, whereas exclusion of Wechsler ME 2022 removed the tezepelumab node. GRADE certainty ranged from very low to high, and potential publication bias was detected for SAEs.

Conclusion: This NMA suggests that biologics provide clinically relevant benefits for SEA, particularly in reducing exacerbations. Tezepelumab and mepolizumab had the highest ranking probabilities for AAER. Mepolizumab and benralizumab ranked favorably for lower SAE risk, but these safety estimates should be interpreted cautiously because of potential publication bias. Treatment rankings remain limited by low or very low certainty for many indirect active-treatment comparisons, underscoring the need for head-to-head trials.

© The Author(s) 2026. Published by S. Karger AG.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

4

Chest

-
-
-

. 2026 Oct 5:S0012-3692(26)06789-9.

doi: 10.1016/j.chest.2026.09.098. Online ahead of print.

[Exacerbation trajectories in biologic-eligible severe asthma patients](#)

[Freda Yang](#)¹, [Dominic C Marshall](#)², [Imran Howell](#)³, [Timothy S C Hinks](#)³, [Kian Fan Chung](#)⁴, [Ian D Pavord](#)³, [David J Jackson](#)⁵, [Chloe I Bloom](#)⁶

Affiliations Expand

- PMID: 42833547
- DOI: [10.1016/j.chest.2026.09.098](#)

Abstract

Background: Asthma biologics are highly effective in reducing exacerbations. Improvement in exacerbations after biologic initiation is often attributed to treatment effect.

Research question: What proportion of biologic-eligible severe asthma patients improve without biologic therapy, and what characterises those who remain frequent exacerbators?

Study design and methods: Biologic-naïve adults with severe asthma were identified in nationwide UK electronic medical records. Year 0 was defined as the first year patients met severe asthma criteria with ≥ 3 systemic corticosteroid-treated exacerbations (biologic-eligible). Post-eligibility exacerbation trajectories were identified using longitudinal k-means. Sensitivity analyses included alternative k and a lower exacerbation threshold (≥ 2 /year). Covariates included the highest blood eosinophil count, inhaled corticosteroid (ICS) dose and comorbidities.

Results: Among 10,078 biologic-eligible adults (median age 51 years; 71% female), we identified three exacerbation trajectories: (1) Remitting-stable (70%, n=7,091), with sustained improvement to < 3 exacerbations/year even though ICS reduced after peak exacerbation year; (2) Chronic-frequent (20%, n=1,969), with persistently frequent exacerbations (median 5/year); (3) Refractory-frequent (10%, n=1,018), with high ongoing oral corticosteroid exposure (median > 10 courses/year). Results were consistent across sensitivity analyses. Remitting-stable patients were least likely to have bronchiectasis but were otherwise similar in demographics and allergic comorbidities. Blood eosinophil count was higher in the chronic-frequent group (Year 0 median $0.30 \times 10^9/L$) compared with remitting-stable ($0.23 \times 10^9/L$) and refractory-frequent groups ($0.21 \times 10^9/L$, $p < 0.001$); this was evident several years before meeting biologic exacerbation criteria.

Interpretation: Over two-thirds of biologic-eligible patients improved with standard care alone. Chronic-frequent exacerbators had higher blood eosinophil counts, even years before meeting biologic criteria, suggesting a distinct disease phenotype.

Keywords: Severe asthma; biologic; eosinophils; exacerbations; phenotype.

Copyright © 2026. Published by Elsevier Inc.

Full text links



[Proceed to details](#)

Cite

5

Review

Chest

-
-
-

. 2026 Oct 5:S0012-3692(26)06791-7.

doi: 10.1016/j.chest.2026.09.100. Online ahead of print.

[From Menarche to Menopause: A Narrative Review of Female Reproductive Milestones and Risk of Chronic Airway Disease](#)

[Shilpa Sridhar](#)¹, [Keegan Riggs](#)², [Amanda Kaley](#)¹, [Dawn C Newcomb](#)³, [Dharini M Bhammar](#)⁴, [Rachel Meislin](#)⁵, [Dawn L DeMeo](#)⁶, [Sonali Bose](#)⁷, [Jing Gennie Wang](#)⁸

Affiliations Expand

- PMID: 42833548
- DOI: [10.1016/j.chest.2026.09.100](#)

Abstract

Topic importance: Female reproductive factors are underrecognized determinants of lifelong respiratory health. This narrative review examines relationships between reproductive milestones and chronic airway disease risk.

Review findings: Early menarche is associated with reduced adult lung function and a higher incidence of asthma. Polyendocrine metabolic ovarian syndrome is also associated with increased asthma risk, particularly in obese individuals, through sex hormone dysregulation, metabolic dysfunction, and chronic low-grade inflammation. Adverse pregnancy outcomes are associated with lower lung function and heightened future asthma and chronic obstructive pulmonary disease (COPD) susceptibility, potentially from persistent systemic inflammation, endothelial injury, and oxidative stress beyond the perinatal period. Effects of exogenous sex hormones on the airways are complex and context-dependent. Hormonal contraception may reduce asthma risk in lean females by stabilizing estrogen and progesterone fluctuations, but increase risk in obesity, as exogenous estrogen can amplify airway inflammation. Similarly, effects of menopause hormone therapy (MHT) vary by formulation, timing of initiation, and use duration. Estrogen-only MHT - particularly when started at younger ages, before menopause, or used for longer duration - may increase asthma risk. Early menopause is linked to accelerated lung function decline, higher asthma incidence among those with obesity, and increased COPD risk.

Summary: Female reproductive factors may influence susceptibility to chronic airway disease, although these relationships involve multiple pathways, with obesity as a major confounder. A dedicated life-course cohort with deep phenotyping and hormone profiling is needed to elucidate how reproductive exposures, sex hormones, metabolic determinants and other susceptibility factors interact to shape respiratory outcomes in females.

Keywords: COPD; Females; asthma; chronic airway disease; hormonal contraception; lung function; menarche; menopause; menopause hormone therapy; polycystic ovarian syndrome; polyendocrine metabolic ovarian syndrome; pregnancy; sex hormones.

Copyright © 2026. Published by Elsevier Inc.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

6

Case Rep Dermatol Med

-
-
-

. 2026 Oct 4:2026:8570980.

doi: 10.1155/crdm/8570980. eCollection 2026.

[Hypereosinophilia With Organ Damage Secondary to Dupilumab Therapy: A Case Report and Literature Review](#)

[Manar Alotaibi](#)¹, [Sadeem AlHelal](#)², [Noura Alotaibi](#)¹, [Fahad Alsudairy](#)¹

Affiliations Expand

- PMID: 42835382
- PMCID: [PMC13635676](#)
- DOI: [10.1155/crdm/8570980](#)

Abstract

Atopic dermatitis (AD) is a chronic inflammatory skin condition characterized by pruritic, scaly, erythematous lesions, xerosis, and lichenification. Dupilumab, a

monoclonal antibody targeting I- (IL)-4 and IL-13 signaling, is widely used to treat moderate to severe AD. We report a 22 year-old male with a history of asthma and chronic childhood AD who was started on dupilumab 300 mg every 2 weeks after multiple relapses despite topical therapy. Baseline Eczema Area and Severity Index (EASI), Dermatology Life Quality Index (DLQI), and Physician Global Assessment (PGA) scores were not recorded; however, the patient showed marked clinical improvement of his skin disease, with a posttreatment EASI score of 1. Five months after dupilumab initiation, he presented with palpitations and pleuritic chest pain. His absolute eosinophil count was 2070 cells/ μ L, increased from a pretreatment baseline of 860 cells/ μ L, with an elevated Troponin I of 1.56 ng/mL. Electrocardiography showed normal sinus rhythm. Cardiac magnetic resonance demonstrated myocardial edema, early gadolinium enhancement, and late gadolinium enhancement involving the interventricular septum and adjacent walls, confirming myocarditis. A comprehensive workup, including antinuclear antibody, antineutrophil cytoplasmic antibody, renal function, a respiratory viral PCR panel, stool ova and parasites, and whole exome sequencing, excluded autoimmune, infectious, and familial causes. Computed tomography of the sinuses demonstrated moderate rhinosinusitis without invasive features. A diagnosis of eosinophilic myocarditis secondary to dupilumab-associated hypereosinophilia was made. Dupilumab was discontinued, and the patient was treated with corticosteroids and colchicine, with resolution of eosinophilia and symptoms. Although dupilumab-associated eosinophilia is usually mild and transient, this case highlights the importance of maintaining a high index of suspicion for rare but serious organ involvement, particularly in patients with new cardiopulmonary symptoms or baseline eosinophilia, while recognizing that routine eosinophil monitoring is not currently recommended for all patients receiving dupilumab.

Keywords: atopic dermatitis; case report; dupilumab; hypereosinophilia; myocarditis.

Copyright © 2026 Manar Alotaibi et al. Case Reports in Dermatological Medicine published by John Wiley & Sons Ltd.

Conflict of interest statement

The authors declare no conflicts of interest.

- [29 references](#)
- [4 figures](#)

Full text links



[Proceed to details](#)

Cite

7

Acta Paediatr

•

-
-

. 2026 Oct 6.

doi: 10.1111/apa.70785. Online ahead of print.

Children Captured in the Swedish National Airway Register Have Increased Familial Atopy, More Severe Disease and Higher Socioeconomic Status

Hanna Karim^{1,2}, Cecilia Lundholm¹, Bronwyn Brew^{1,3,4}, Emma Caffrey Osvald^{1,5}, Caroline Stridsman⁶, Resthie R Putri¹, Jon Roald Konradsen^{1,5,7}, Catarina Almqvist^{1,5}

Affiliations Expand

- PMID: 42837199
- DOI: [10.1111/apa.70785](https://doi.org/10.1111/apa.70785)

Abstract

Aim: We estimated the coverage of children recorded in the Swedish National Airway Register (SNAR) and identified predictors of registration among those with asthma and moderate to severe asthma.

Methods: This study comprised 85 656 children aged 5-17 years with asthma, born 2000-2019 and living in Stockholm. The children were identified through diagnoses and dispensed medication in national and regional health registers. Registration in the SNAR was assessed. Logistic regression compared characteristics of registered and unregistered children, with associations presented as odds ratios (OR) and 95% confidence intervals (CI).

Results: Overall, 33 815 (39.5%) of children with asthma were registered in the SNAR. Registration was more common among children with allergic rhinitis (OR 1.83, 95% CI 1.77-1.88), parental asthma and allergic rhinitis (maternal OR 1.47, 95% CI 1.43-1.51), higher parental income and education (OR 1.09, 95% CI 1.05-1.12), and moderate to severe asthma (OR 1.37, 95% CI 1.32-1.42). Findings were similar in the moderate to severe asthma sub-cohort.

Conclusion: Nearly 40% of children with asthma in Stockholm were registered in the SNAR, and they were more likely to have familial atopy, higher socioeconomic status, and more severe disease. The SNAR is being developed to increase coverage, support standardized registration, and improve care.

Keywords: asthma severity; demographic characteristics; national health registers; paediatric asthma; register coverage.

© 2026 The Author(s). Acta Paediatrica published by John Wiley & Sons Ltd on behalf of Foundation Acta Paediatrica.

- [30 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

8

Respir Med

-
-
-

. 2026 Oct 6:263:109192.

doi: 10.1016/j.rmed.2026.109192. Online ahead of print.

[Scottish Airways Research Network \(SARN\) Delphi Consensus on pre-biologic assessment, clinical remission and post-remission management in severe asthma](#)

[Sunny Jabbal](#)¹, [Rekha Chaudhuri](#)², [Andrew Smith](#)³, [Philipp Suter](#)⁴, [Varun Sharma](#)³, [Corinne Clark](#)⁵, [Wai-Ting Nicola Lee](#)², [David Miller](#)⁶, [Chris RuiWen Kuo](#)⁶, [Douglas Cowan](#)⁷, [Clare Ricketts](#)⁸, [Grace Murphy](#)⁹, [Patrick Liu](#)¹, [Matthew Embley](#)¹⁰, [Paul Cadden](#)¹⁰, [Robert Greig](#)⁴, [Jennifer Logan](#)², [Tracey Bradshaw](#)¹¹, [Peter Kewin](#)¹², [Manish Patel](#)³, [Sandra Watson](#)³, [Siobhan Dobie](#)³, [Euan Cameron](#)¹³, [Arlene Shaw](#)⁴, [Alison Copland](#)⁶, [Stuart Little](#)¹⁴, [Nicholas Pitman](#)¹⁵, [Tom Fardon](#)⁴, [Brian Lipworth](#)⁴, [Rory Chan](#)¹⁶

Affiliations Expand

- PMID: 42838241
- DOI: [10.1016/j.rmed.2026.109192](#)

Abstract

Introduction: Scotland's severe asthma multidisciplinary teams and prescribing recommendations may contribute to variation in biologic decisions. We sought expert consensus on pre-biologic assessment, clinical remission and post-remission management through the Scottish Airways Research Network (SARN).

Methods: A scientific committee developed 28 statements across these three domains. Thirty specialists from 15 centres rated statements using a five-point Likert scale. Consensus was predefined as >75% agreeing or strongly agreeing. Statements requiring revision were considered in Round 2.

Results: Twenty-four panellists completed Round 1 (80% response), achieving consensus on 15/28 statements (53.6%); 23 completed Round 2 (76.7% response), achieving consensus on 10/13 revised statements (76.9%). Pre-biologic assessment

should include treatment optimisation, comprehensive phenotyping, type 2 biomarkers, exacerbation history, comorbidities and patient characteristics. Clinical remission should generally be assessed after at least 12 months and comprise freedom from maintenance oral corticosteroids, absent or minimal symptoms, no severe exacerbations, stable lung function, normalised asthma-related quality of life, and patient-healthcare professional agreement. Improved lung function, reduced airway inflammation and treatment burden, and normalised airway hyperresponsiveness were desirable but not mandatory. No consensus was reached on a specific Asthma Control Questionnaire threshold for remission or restricting biologic access among current smokers not participating in smoking cessation. Dosing-interval extension or discontinuation should not be routine but may be considered for selected patients with sustained remission under specialist supervision, shared decision-making, close monitoring and a rapid restart plan.

Conclusion: This Scottish Delphi study provides a pragmatic framework to support equitable, consistent decisions on pre-biologic assessment, remission and treatment de-escalation.

Keywords: Asthma; Biologics; Clinical remission; Delphi consensus; Scotland.

Copyright © 2026 The Author(s). Published by Elsevier Ltd.. All rights reserved.

Conflict of interest statement

Declaration of competing interest SJ reports personal fees from AstraZeneca and Chiesi. Rekha Chaudhuri has received lecture fees from GSK, AstraZeneca, Chiesi and Sanofi; honoraria for Advisory Board Meetings from GSK, AstraZeneca and Celltrion; Consultant to Connect Biopharma; sponsorship to attend international scientific meetings from Sanofi and a research grant from AstraZeneca. SW reports honoraria and advisory board fees from AstraZeneca. SD reports personal fees from AstraZeneca (educational sessions) and travel support from GSK. RG reports personal fees from AstraZeneca and institutional grants from Chiesi. PS reports personal fees from AstraZeneca, GSK, Lung League Fribourg (Switzerland), Swiss Lung Foundation (Switzerland). CK reports personal fees (talks and advisory board) and other support (attending ERS) from AstraZeneca and Chiesi. MP reports personal fees from AstraZeneca, GSK and Chiesi; and other support from AstraZeneca Chiesi, GSK and Sanofi/Regneron (support for conferences). PL reports personal fees from AstraZeneca, GSK and Chiesi; travel and conference fees from Chiesi. Arlene Shaw reports personal fees and serving on advisory boards from AstraZeneca. VS reports personal fees from AstraZeneca and Boehringer Ingelheim; and travel support from GSK. TF reports honoraria, assistance with travel, conference fees and other funding from Novartis, Chiesi, GSK, AstraZeneca, Boehringer Ingelheim, Pfizer, Teva and Insmed; advisory boards in the previous three years for AstraZeneca and GSK; and is Chair of the Scotland Precision Asthma Group and sat on the UK Precision Asthma Group (AstraZeneca). BJL reports grants, personal fees (consulting, talks and advisory board), other support (attending ATS and ERS) from AstraZeneca; grants, personal fees (talks and consulting) and other support (Attending ATS, ERS and BTS) from Sanofi/Regeneron, personal fees (consulting, talks and advisory board) from Niox in relation to the submitted work; personal fees (talks and consulting), grants and other support (attending ERS and BTS) from Chiesi, personal fees (consulting and talks) from Lupin, personal fees (consulting) from Glenmark, consulting fees from Propeller Bio, Belenos, Pfizer, Bambusa; Equipment from Vitalograph, Lothar

Medtec, Thorasys; and the son of BJL is presently an employee of AstraZeneca. Rory Chan has been awarded institutional grants from Asthma + Lung UK, Chiesi, AstraZeneca, GSK and Sanofi-Regeneron; served on advisory boards for Vitalograph, Chiesi and AstraZeneca; received personal fees from AstraZeneca, Chiesi, Vitalograph, Thorasys, GSK, Jaeger and Sanofi-Regeneron; and support attending conferences from AstraZeneca, Chiesi, NIOX, Sanofi-Regeneron and Vitalograph. ME reports conference and travel support from Chiesi, Boehringer Ingelheim and GSK, and personal fees (meeting chair) from AstraZeneca. CR reports no conflicts of interest. NP reports no conflicts of interest. Andrew Smith reports honoraria, assistance with travel, conference fees and other funding from Chiesi, GSK, AstraZeneca and Sanofi and advisory board fees from AstraZeneca and GSK. Douglas Cowan reports no conflicts of interest. GM reports personal fees from AstraZeneca. Alison Copland reports personal fees from AstraZeneca. WTNL reports no conflicts of interest. SL reports no conflicts of interest. CC reports receiving speaker fees from AstraZeneca and GSK and is a member of the PROJECT 50 working group. DM reports receiving personal fees for talks and training from AstraZeneca and GSK, and travel and accommodation support from AstraZeneca and GSK. PC reports no conflicts of interest. JL reports no conflicts of interest. TB reports no conflicts of interest. PK reports no conflicts of interest. EC reports no conflicts of interest.

Full text links



[Proceed to details](#)

Cite

9

Clin Pharmacol Ther

-
-
-

. 2026 Oct 6:10.1002/cpt.70514.

doi: 10.1002/cpt.70514. Online ahead of print.

[SGLT2 Inhibitors and Asthma Exacerbation Risk Among Patients With Type 2 Diabetes and Asthma: A Target Trial Emulation](#)

[Kevin Yi-Chen Liao](#)^{1,2}, [Daniel Hsiang-Te Tsai](#)^{1,2}, [Michael Chun-Yuan Cheng](#)^{1,2}, [Han-Wei Mu](#)^{1,3}, [Kuan-Wen Su](#)^{4,5}, [Shih-Chieh Shao](#)^{1,2}, [Edward Chia-Cheng Lai](#)^{1,2}

Affiliations Expand

- PMID: 42839355
- PMCID: [PMC13643014](#)

- DOI: [10.1002/cpt.70514](https://doi.org/10.1002/cpt.70514)

Abstract

Emerging evidence suggests potential respiratory benefits from sodium-glucose cotransporter 2 (SGLT2) inhibitors, a glucose-lowering agent. However, the effects of these agents on asthma exacerbations remain unclear. A retrospective cohort study used Taiwan's National Health Insurance Research Database, covering 2016-2020, and included adults with type 2 diabetes and asthma. Exposure was defined as the initiation of SGLT2 or dipeptidyl peptidase 4 (DPP4) inhibitors, and the primary outcome was asthma exacerbation, defined as an asthma diagnosis accompanied by systemic corticosteroid use. Demographic characteristics, comorbidities, the Adapted Diabetes Complications Severity Index and concomitant medications were used to estimate propensity scores, and inverse probability of treatment weighting was applied. Altogether, 3,057 initiators of SGLT2 inhibitors and 15,050 initiators of DPP4 inhibitors were identified and followed from the index date until the occurrence of asthma exacerbation, death, or the end of the observation period (May 31, 2020). Over a mean follow-up of 2.06 years, initiation of SGLT2 inhibitors was associated with a lower risk of asthma exacerbation (HR: 0.87, 95% CI: 0.81-0.93), corresponding to incidence rates of 3.73 vs. 4.03 events per 100 person-years. The results were consistent across care settings, including outpatient- (HR: 0.88, 95% CI: 0.80-0.96), inpatient- (HR: 0.88, 95% CI: 0.78-1.00), and emergency department visits (HR: 0.72, 95% CI: 0.63-0.83), as also across subgroup and sensitivity analyses. Among adults with type 2 diabetes and asthma, initiation of SGLT2 inhibitors was associated with a reduced risk of asthma exacerbation, highlighting a potential respiratory benefit that warrants confirmation through future clinical trials.

© 2026 The Author(s). Clinical Pharmacology & Therapeutics © 2026 American Society for Clinical Pharmacology and Therapeutics.

Conflict of interest statement

The authors declared no competing interests for this work.

- [60 references](#)
- [3 figures](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

10

Review

Respirology

-
-
-

. 2026 Oct 7.

doi: 10.1002/resp.70322. Online ahead of print.

[Asthma: From Phenotypes to Endotypes-Beyond Type 2 Inflammation](#)

[Mario Fernando](#)^{1,2}, [Gregory G King](#)^{1,2,3}

Affiliations Expand

- PMID: 42839791
- DOI: [10.1002/resp.70322](#)

Abstract

Asthma is a heterogeneous syndrome featuring variable pathophysiology, clinical presentation and treatment response. This review examines a comprehensive endotype-phenotype framework for asthma assessment with an emphasis on characteristics beyond T2 inflammatory status alone. Endo-phenotype assessment can be performed across three domains: clinical (symptoms, exacerbations, co-morbidities), structural and physiological, and inflammatory endotype. The clinical domain includes mucus hypersecretion, perception of airway narrowing, and obesity-related asthma. Airway remodelling is the central, structural endo-phenotype that defines asthma, given its relationship with fixed airflow limitation, airway hyperresponsiveness, small airway dysfunction, lung function decline, and asthma severity. However, it is the most difficult parameter to measure, and it is increasingly recognised that there is a critical need to be able to measure it longitudinally, beyond bronchial biopsy. Finally, T2-high asthma is relatively well characterised with several effective anti-inflammatory therapies available, including a range of biologics. In contrast, T2-low asthma remains a heterogeneous and potentially difficult to characterise endo-phenotype, although some treatment studies have demonstrated benefit when subjects have been appropriately characterised and selected. Emerging multi-omic approaches may enhance the detailed characterisation of patients in future. Adopting an endo-phenotype framework allows clinicians and researchers to confront the complexity of asthma, better manage patients with a precision medicine approach and enhance mechanistic understanding, which is critical for new therapeutics to be developed for asthma.

Keywords: T2-high asthma; T2-low asthma; airway remodelling; asthma; endotype; multi-omics; personalised medicine; phenotype.

© 2026 The Author(s). Respirology published by John Wiley & Sons Australia, Ltd on behalf of Asian Pacific Society of Respirology.

- [115 references](#)

Supplementary info

Publication types, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

11

J Investig Allergol Clin Immunol

-
-
-

. 2026 Oct 6:0.

doi: 10.18176/jiaci.1198. Online ahead of print.

[Tezepelumab in Severe Asthma in Routine Care: Real-World Effectiveness, Clinical Remission, and Biomarkers Predicting Response in a Multicenter Study](#)

[Diana Betancor](#)^{1,2}, [Victoria Villalobos-Violan](#)³, [Darío Antolín-Amerigo](#)⁴, [Leticia De Las Vecillas](#)^{1,2}, [Remedios Cárdenas-Contreras](#)⁵, [Ana Elices](#)⁶, [Mar Gandolfo-Cano](#)^{1,2}, [Paula Lopez-Gonzalez](#)⁷, [Mar Moro-Moro](#)⁸, [Beatriz Núñez-Acevedo](#)⁹, [Mar Reaño](#)¹⁰, [Teresa Robledo-Echarren](#)¹¹, [Ana Rosado-Ingelmo](#)¹², [Natalia Gutierrez-Albaladejo](#)¹², [Maria Rubio-Perez](#)⁹, [Marcela Valverde-Monge](#)¹³, [Maria Vazquez de la Torre](#)⁷, [Cristina Martín-Arriscado](#)¹⁴, [Rafael Pineda-Pineda](#)¹⁵, [Angelica Feliu-Vila](#)¹⁶, [Ismael García-Moguel](#)^{16,17}, [Javier Domínguez-Ortega](#)^{1,2}, [AIRE Group](#)

Affiliations Expand

- PMID: 42841300
- DOI: [10.18176/jiaci.1198](#)

Free article

No abstract available

Keywords: Remission; Severe asthma; Tezepelumab.

Full text links



[Proceed to details](#)

Cite

Case Reports

Neurol Sci

-
-
-

. 2026 Oct 7;47(11):849.

doi: 10.1007/s10072-026-09467-6.

[Clinical features of cough syncope: a systematic review](#)

[Yanqin Fan](#)^{#1,2}, [Meng Hou](#)³, [Haili Wang](#)⁴, [Jingke Le](#)⁵, [Liming Cao](#)^{#6,7}

Affiliations Expand

- PMID: 42842052
- PMCID: [PMC13645981](#)
- DOI: [10.1007/s10072-026-09467-6](#)

Abstract

Background: Cough syncope (CS) is a rare subtype of syncope that remains underrepresented in evidence-based medicine. We aimed to characterize the clinical features of CS, with the aim of improving recognition and optimizing management strategies.

Methods: We present five cases of CS alongside a systematic review of its clinical characteristics based on published literature to improve recognition and optimize management. Reports of eligible patients were screened, and demographic, clinical, diagnostic, treatment, and outcome data were analyzed.

Results: This study included 60 patients with a mean age of 56 ± 15 years, 91% of whom were male. The most common underlying triggers were respiratory diseases, including pulmonary infections (35%) and bronchitis (22%). Common comorbidities included hypertension (26%), bronchial asthma (18%), and diabetes mellitus (15%). CS episodes were directly triggered by severe coughing in 93% (26/28) of patients. Episodes occurred at least twice daily in 20% of patients, and limb convulsions accompanied syncope in 22%. Symptoms improved after treatment in 98% of cases. After a median follow-up of 3.75 months (Interquartile Range: 2-12 months), the recurrence rate of syncope was 11%. CS, predominantly triggered by severe coughing, primarily affected middle-aged and older men.

Conclusions: CS predominantly affects middle-aged and older men and is frequently associated with pulmonary infections. Acute pulmonary infections serve as a common underlying trigger for CS, and patients are at risk of recurrent syncope and falls. Disease management should be focused on treating chronic airway disease, particularly chronic obstructive pulmonary disease.

Keywords: Anti-infective therapy; Cough syncope; Pulmonary infection; Reflex syncope; Severe cough.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethical approval: The protocol was approved by the Ethics Committee of Shenzhen Second People's Hospital (No.2025-652-01PJ) in accordance with the Declaration of Helsinki. All participants provided informed consent before participating in the study. **Conflict of interest:** The authors have no relevant financial or non-financial interests to disclose.

- [71 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

13

Arch Dis Child

-
-
-

. 2026 Oct 7:archdischild-2026-331320.

doi: 10.1136/archdischild-2026-331320. Online ahead of print.

[Financial INcentives to improve Asthma \(FINA\): a pilot RCT to improve medication adherence for children and young people with asthma](#)

[Jasmine Hine](#)^{1,2,3}, [Andy Bush](#)^{4,3}, [Anna De Simoni](#)^{3,5}, [Chris Griffiths](#)^{3,6,7}, [Gabrielle Judah](#)⁸, [Louise Fleming](#)^{4,3,9}

Affiliations Expand

- PMID: 42843968
- DOI: [10.1136/archdischild-2026-331320](#)

Abstract

Objective: To assess effectiveness and feasibility of financial incentives to improve medication adherence for children and young people (CYP) with asthma.

Design: Pilot randomised controlled trial measuring adherence in CYP using an electronic monitoring device (EMD) with twice-daily reminders; design supported by patient and public involvement.

Setting: CYP were recruited between 2 and 12 weeks after attendance at an emergency department (ED) following a severe asthma exacerbation.

Patients: CYP aged 11-17 years old with asthma, who were prescribed inhaled corticosteroids for at least 6 months prior to their exacerbation, owned their own smartphone and understood verbal and written English.

Interventions: Intervention CYP received £1 per complete morning/£1 per complete evening inhaler dose(s) for 12 weeks (max £168). Controls received usual care (with EMD and reminder use) with no financial incentives.

Main outcome measures: adherence, asthma control and psychological outcomes. Feasibility assessed by recruitment, randomisation and intervention delivery indicators.

Results: 32 CYP (mean age: 13.4 years (± 1.64 , SD); 65.6% male) were enrolled; 16 randomised to intervention. After 12 weeks, those who received financial incentives had higher median adherence (73.0%, range: 23.0-89.0%), compared with control (56.0%, range: 7.0-87.0%); this did not reach significance ($p=0.077$). During follow-up, intervention and control adherence significantly decreased (to 39.0%, range: 0.0-72.0%, $p=0.012$ and 31.5%, range: 3.0-62.0%, $p=0.002$, respectively). Study implementation was challenging due to slow recruitment and technological issues.

Conclusions: In this small pilot study, financial incentives were not effective in sustaining adherence. Improved technology is necessary for a definitive study. Future work could explore individual characteristics that contribute to successful financial incentive use in CYP.

Trial registration number: [NCT05322044](#).

Keywords: Adolescent Health; Paediatrics; Psychology.

© Author(s) (or their employer(s)) 2026. No commercial re-use. See rights and permissions. Published by BMJ Group.

Conflict of interest statement

Competing interests: None declared.

Supplementary info

Associated data Expand

Full text links



[Proceed to details](#)

Cite

14

Monaldi Arch Chest Dis

-
-
-

. 2026 Oct 7.

doi: 10.4081/monaldi.2026.4012. Online ahead of print.

[Appropriateness/inappropriateness of access to an in-hospital rehabilitation program for patients with respiratory disease](#)

[Sabrina Fenaroli¹, Mara Paneroni¹, Mauro Maniscalco², Antonio Spanevello³, Mauro Carone⁴, Giuseppina Cassetti⁵, Cinzia Lastoria⁶, Rodolfo Murgia⁷, Michele Vitacca¹](#)

Affiliations Expand

- PMID: 42845064
- DOI: [10.4081/monaldi.2026.4012](#)

Free article

Abstract

There are no descriptions of the "ideal candidate" or validated indices to justify admitting respiratory patients to hospital-based rehabilitation. This study aimed to quantify appropriate/inappropriate admissions to in-hospital rehabilitation programs among respiratory patients. We analyzed hospitalization records from the ICS Maugeri repository (01 January 2015 - 31 December 2024) across seven Italian ICS Maugeri centers. Patients were categorized as chronic respiratory failure (CRF; 45.70%), chronic obstructive pulmonary disease (COPD; 22.76%), asthma (0.07%), obstructive sleep apnea (OSAS; 10.89%), and miscellaneous dyspnea not related to COPD (19.84%). Anthropometric, Cumulative Illness Rating Scale, Medical Research Council (MRC) scale, Barthel dyspnea, COPD Assessment Test (CAT), 6-minute walk test (6MWT), and Short Physical Performance Battery (SPPB) were collected. Appropriateness of hospital admission was defined according to literature-based severity cut-offs for all disability items, while inappropriateness was computed on four contemporary items (excluding MRC). The cohort was predominantly male, aged 60-70 years, with CRF (46%) and multiple comorbidities; most (84%) were admitted from home, while >95% of patients returned home. High overall appropriateness in the whole group was 73-87% across items, with the highest % for 6MWT predicted across all TPs (74% OSAS-94% CRF) and lower for SPPB (60% OSAS-78% CRF) and for the MRC dyspnea score (75% OSAS-89% CRF). The CRF group demonstrated very high appropriateness (>78% in all items), COPD presented strong appropriateness for deconditioning (6MWT: 83%) dyspnea (MRC: 84%), asthma patients showed a lower CAT appropriateness (64%). The OSAS subgroup

had the lowest entry appropriateness (55-74%). The dyspnea group exhibited high appropriateness for deconditioning (6MWT: 83%) and for dyspnea (MRC: 81%, Barthel dyspnea: 81%). Among 6086 complete cases, only 2.8% were deemed to be inappropriate admissions. The highest inappropriateness was in the dyspnea subgroup (6%), while the lowest was for CRF (0.7%). Entry appropriateness was high or very high for overall items, showing 6MWT the best rate and CAT and SPPB the worst. CRF patients showed the highest appropriateness, while the rate of inappropriateness was overall low, with dyspnea and OSAS subgroups the worst and CRF the best. Future strategies must focus on developing standardized, multifaceted evaluation tools to objectively guide inpatient rehabilitation referrals.

Keywords: Appropriateness; hospital rehabilitation; treatable traits.

- [31 references](#)

Full text links



[Proceed to details](#)

Cite

15

Am J Respir Crit Care Med

-
-
-

. 2026 Oct 8:aamag542.

doi: 10.1093/ajrccm/aamag542. Online ahead of print.

[2026 Global Initiative for Asthma \(GINA\) Strategy Report: Executive Summary and Key Changes](#)

[Helen K Reddel](#)¹, [Keith Allan](#)², [Leonard B Bacharier](#)³, [Matteo Bonini](#)⁴, [Arnaud Bourdin](#)⁵, [Christopher Brightling](#)⁶, [Roland Buhl](#)⁷, [Jeremiah Chakaya](#)⁸, [Alvaro A Cruz](#)⁹, [Francine M Ducharme](#)¹⁰, [Liesbeth Duijts](#)¹¹, [Louise Fleming](#)¹², [Hiromasa Inoue](#)¹³, [Alan Kaplan](#)¹⁴, [Fanny Wai San Ko](#)¹⁵, [Jerry A Krishnan](#)¹⁶, [Mark L Levy](#)¹⁷, [Refiloe Masekela](#)¹⁸, [Paulo Marcio Pitrez](#)¹⁹, [Sundeep Salvi](#)²⁰, [Arzu Yorgancioğlu](#)²¹, [Min Zhang](#)²², [Guy Brusselle](#)²³

Affiliations Expand

- PMID: 42847657
- DOI: [10.1093/ajrccm/aamag542](#)

Abstract

The Global Initiative for Asthma (GINA) Strategy Report provides a comprehensive, annually updated evidence-based approach to asthma diagnosis, assessment, treatment, and prevention across the lifespan. Its central approach is personalized, iterative care based on the Assess-Adjust-Review cycle for both symptom control and reduction of future risk (including severe exacerbations, persistent airflow limitation, and treatment-related harm). GINA emphasizes objective confirmation of diagnosis wherever possible, and regular assessment of lung function, inhaler technique, adherence, multimorbidity, risk factors (including Type-2 biomarkers), and patient goals and preferences. GINA strongly recommends that all adults, adolescents, children and most preschoolers with asthma should receive inhaled corticosteroid (ICS)-containing treatment. GINA recommends against short-acting beta2-agonist (SABA)-only treatment. For adults/adolescents, GINA Track 1 using low-dose ICS-formoterol, an anti-inflammatory reliever (AIR), either as-needed-only (AIR-only) or as maintenance-and-reliever therapy (MART), is preferred because of its substantial reduction in severe exacerbations compared with SABA-based regimens, and its simplicity. Age-specific treatment pathways in children also emphasize ICS-containing therapy and exacerbation prevention. For difficult-to-treat and severe asthma, GINA provides structured guidance, emphasizing diagnostic verification, optimization of modifiable factors, inflammatory phenotyping, biologic therapy selection, and (as for all patients) systemic corticosteroid stewardship. Acute exacerbation care incorporates long-term preventive treatment, including post-discharge reassessment of management and action plan. Key 2026 updates include expanded AIR options for adults and children, revised guidance on severe asthma and selection of biologic treatment, and substantial updates to acute asthma management. GINA integrates evidence-based management with shared decision-making, self-management education, implementation, and global advocacy to reduce preventable asthma morbidity and mortality.

Keywords: Asthma; GINA; anti-inflammatory reliever; exacerbations; guidelines.

© The Author(s) 2026. Published by Oxford University Press on behalf of the American Thoracic Society.

Full text links



[Proceed to details](#)

Cite

16

BMJ Open Respir Res

-
-
-

. 2026 Oct 8;13(1):e004148.

doi: 10.1136/bmjresp-2026-004148.

Cost-effectiveness of anti-inflammatory reliever (AIR) or maintenance and reliever therapy (MART) for mild to moderate asthma: a systematic review

[Ngobile Ndimande](#)¹, [Kevin Mortimer](#)^{2,3}, [Marie Stolbrink](#)⁴, [Josue Mbonigaba](#)⁵, [Nicola Marozva](#)⁶, [Refiloe Masekela](#)^{2,7}

Affiliations Expand

- PMID: 42850063
- DOI: [10.1136/bmjresp-2026-004148](https://doi.org/10.1136/bmjresp-2026-004148)

Free article

No abstract available

Keywords: Asthma; Asthma Pharmacology.

Conflict of interest statement

Competing interests: None declared.

Full text links



[Proceed to details](#)

Cite

17

J Allergy Clin Immunol Pract

-
-
-

. 2026 Oct 9:S2213-2198(26)00819-6.

doi: 10.1016/j.jaip.2026.09.029. Online ahead of print.

Inhaled, nasal and topical corticosteroid burden and association with corticosteroid-associated adverse events

[Kjell Erik Julius Håkansson](#)¹, [Inge Raadal Skov](#)², [Steven Arild Wuyts Andersen](#)³, [Zargha Ali](#)⁴, [Simon Francis Thomsen](#)⁵, [Anders Løkke](#)⁶, [Rikke Ibsen](#)⁷, [Ole Hilberg](#)⁸, [Howrman Meteran](#)⁹, [Claus R Johnsen](#)¹⁰, [Peter Schwarz](#)¹¹, [Vibeke Backer](#)¹², [Charlotte Suppli Ulrik](#)¹³

Affiliations Expand

- PMID: 42854835
- DOI: [10.1016/j.jaip.2026.09.029](https://doi.org/10.1016/j.jaip.2026.09.029)

Abstract

Background: Patients with type 2 inflammation-associated diseases are often treated with multiple formulations of corticosteroids. Long-term risks of using combinations of local corticosteroids are poorly characterised.

Objective: Using Danish nationwide databases, investigate associations between local corticosteroid exposure and 11 corticosteroid exposure-associated conditions compared to non-users, and eventual dose-response relationship for exposed individuals.

Methods: Systemic corticosteroid-naïve adults who redeemed inhaled, nasal and/or topical corticosteroids 2000-2012 were matched with non-initiators and followed for up to 23 years. Overall (inhaled, nasal and topical) exposure was calculated for 6-month periods as low (<1.25 daily prednisolone-equivalent mg), moderate (1.25-2.5 mg) or high (>2.5 mg). Competing risk Cox models with time-varying effects were used, presented as HR per additional 6-month period of exposure.

Results: Overall, 292,393 local corticosteroid users were included (mean age 45, 47.7% female). Corticosteroid exposure-associated condition incidences were generally low, but all conditions had higher subdistribution-HRs in users, ranging from 1.4 to 3.8 for cataracts and obesity ($p<0.001$). For local corticosteroid users, increased risk per 6-month exposure was observed for osteoporosis (low-high dose: HRs 1.01-1.10), obesity (1.03-1.03) and pneumonia (1.03-1.15). Risk of cardiovascular disease, heart failure, cataract and gastroesophageal reflux disease increased with high-dose exposure only at HRs 1.03, 1.02, 1.04 and 1.04 per additional 6-month period of exposure, respectively. Stratified by formulation, high-dose inhaled and topical corticosteroids demonstrated the strongest associations.

Conclusion: In individuals using local corticosteroids, the overall corticosteroid burden, including shorter periods of high-dose exposure, associates with corticosteroid exposure-associated adverse events albeit with generally low incidence and hazard.

Keywords: asthma; atopic dermatitis; atopy; chronic rhinosinusitis; nasal polyps; prednisolone; type 2 inflammation.

Copyright © 2026. Published by Elsevier Inc.

Full text links



[Proceed to details](#)

Cite

18

J Allergy Clin Immunol Pract

-
-

•

. 2026 Oct 9:S2213-2198(26)00845-7.

doi: 10.1016/j.jaip.2026.09.034. Online ahead of print.

[Benefits and Harms of Dose Escalation of Inhaled Corticosteroids in Uncontrolled Asthma](#)

[Arnaud Bourdin](#)¹, [Richard Beasley](#)², [Anju T Peters](#)³, [Mario Castro](#)⁴, [Njira L Lugogo](#)⁵, [Olivier Ledanois](#)⁶, [Antonio Martin](#)⁷, [Yamo Deniz](#)⁸, [Melissa Iammatteo](#)⁹, [Mena Soliman](#)¹⁰, [William W Busse](#)¹¹

Affiliations Expand

- PMID: 42854836
- DOI: [10.1016/j.jaip.2026.09.034](#)

No abstract available

Keywords: Asthma; Benralizumab; Biologics; Dupilumab; Inhaled corticosteroids; Omalizumab; Side effects.

Full text links



[Proceed to details](#)

Cite

19

Chest

•
•
•

. 2026 Oct 9:S0012-3692(26)06799-1.

doi: 10.1016/j.chest.2026.08.058. Online ahead of print.

[Switching from mepolizumab to benralizumab in eosinophilic granulomatosis with polyangiitis \(EGPA\)](#)

[Adrien Cottu](#)¹, [Irene Mattioli](#)², [Matthieu Groh](#)³, [Xavier Puéchal](#)¹, [Allyson Egan](#)⁴, [Roberto Padoan](#)⁵, [Luisa Brussino](#)⁶, [Jan Schroeder](#)⁷, [Camille Taillé](#)⁸, [Maxime Samson](#)⁹, [Pascal Cathébras](#)¹⁰, [Francesco Cinetto](#)¹¹, [Halil Yildiz](#)¹², [Gregory Pugnet](#)¹³, [Pierre Chauvin](#)¹⁴, [Stéphane Jouneau](#)¹⁴, [Elisabeth Diot](#)¹⁵, [Sarah Nicolas](#)¹⁵, [François Lifermann](#)¹⁶, [Jean-Philippe Martellosio](#)¹⁷, [Laurent Guilleminault](#)¹⁸, [Yann Nguyen](#)¹⁹, [Claire De Moreuil](#)²⁰, [Philippe Guilpain](#)²¹, [Vincent Cottin](#)²², [Luca Moroni](#)²³, [Paolo Delvino](#)²⁴, [Franco Franceschini](#)²⁵, [Edoardo Conticini](#)²⁶, [Claudia Crimi](#)²⁷, [Gianluca Moroncini](#)²⁸, [Milena Bond](#)²⁹, [Laura](#)

[Moi](#) ³⁰, [David Jayne](#) ³¹, [Augusto Vaglio](#) ³², [Colas Tcherakian](#) ³³, [Giacomo Emmi](#) ³⁴, [Benjamin Terrier](#) ³⁵; [European EGPA study group \(EESG\)](#) and the [French Vasculitis Study Group \(FVSG\)](#)

Affiliations Expand

- PMID: 42855125
- DOI: [10.1016/j.chest.2026.08.058](#)

Abstract

Background: Eosinophilic granulomatosis with polyangiitis (EGPA) is an ANCA-associated vasculitis characterized by eosinophilic asthma and ENT involvement. Both mepolizumab and benralizumab have demonstrated efficacy in EGPA and are now considered front-line options. In patients who do not respond to mepolizumab, benralizumab may be a valuable alternative owing to its enhanced depletion of eosinophils. We assessed the efficacy for and safety of switching from mepolizumab to benralizumab in EGPA.

Research question: Is benralizumab effective and safe in EGPA patients after mepolizumab failure, given its enhanced depletion of eosinophil?

Study design and methods: We conducted a retrospective European multicenter study including 68 adult EGPA patients who received benralizumab after mepolizumab failure. Complete (CR) and partial (PR) response were defined as BVAS=0, with prednisone ≤ 4 mg/day and > 4 mg/day, respectively.

Results: Median benralizumab follow-up period was 28 [20-39] months. CR and PR were achieved in 32% and 25% of patients, and maintained at last follow-up in 19% and 16%. Median time to CR was 6 [4-12] months. Forced expiratory volume in one second improved from 73% to 79%, and 38% of patients discontinued glucocorticoids. Vasculitis flares occurred in six patients. Primary mepolizumab failure was associated with lower CR rates (OR 0.19, 95% CI 0.06-0.60). Benralizumab was discontinued in 18% due to persistent respiratory symptoms. Adverse events occurred in five patients, including two severe SARS-CoV-2 infections.

Interpretation: In EGPA patients with persistent respiratory manifestations after mepolizumab failure, switching to benralizumab could represent a valuable option, improving lung function and reducing glucocorticoid use. Further prospective studies are needed to optimize sequencing and patient selection.

Keywords: Asthma; biotherapy; eosinophils; rhinosinusitis; vasculitis.

Copyright © 2026. Published by Elsevier Inc.

Full text links



[Proceed to details](#)

Cite

Allergy

-
-
-

. 2026 Oct 10.

doi: 10.1111/all.70538. Online ahead of print.

Not Just Th2: Eosinophil-Associated Proteomic Networks Reveal Fundamental Differences Between COPD and Asthma

Xiaojie Wu¹, Jingjing Fan¹, Huiyuan Ding^{2,3}, Shiwen Li¹, Rui Ye¹, Honghao Yang^{2,3}, Zheng Ma^{2,3}, Chao Ji^{2,3}, Qing Chang^{2,3}, Yuhong Zhao^{2,3}, Chuming Zhou¹, Li Zhao¹, Yang Xia^{2,3}

Affiliations Expand

- PMID: 42856088
- DOI: [10.1111/all.70538](https://doi.org/10.1111/all.70538)

Abstract

Introduction: While eosinophils are established pathogenic drivers and therapeutic targets in asthma, their role in chronic obstructive pulmonary disease (COPD) remains conflicting. This study aimed to investigate the bidirectional associations of eosinophils with COPD and asthma, and to elucidate the potential distinct underlying mechanisms.

Methods: In 302,370 UK Biobank participants, multivariable-adjusted Cox proportional hazards models assessed associations between blood eosinophil counts and incident COPD, asthma, and asthma COPD overlap (ACO). Bidirectional two-sample Mendelian randomization (MR) tested causality. Among 32,121 participants with available baseline Olink proteomic data, proteomic profiling characterized eosinophil-associated plasma protein signatures and their associations with disease risk.

Results: During approximately 13.5 years of follow-up, elevated blood eosinophils were associated with increased risks of COPD, asthma, and ACO. Unlike asthma, pre-existing COPD did not predict subsequent eosinophil elevation. MR indicated a unidirectional effect of eosinophils on COPD but bidirectional causality for asthma. Proteomics revealed a broader protein interaction network in COPD (378 proteins) than in asthma (70 proteins). Exploratory mediation analyses, assuming an eosinophil-to-protein direction, estimated that the eosinophil-associated proteomic signature statistically accounted for 87.8% of the association with COPD ($p = 0.076$) and 59.1% of the association with asthma ($p < 0.001$). Among these proteins, COPD-associated mediators were linked to a broad and intricately woven inflammatory network, in contrast to the more streamlined network that is mainly confined to Type 2 inflammation seen in asthma.

Conclusion: Although elevated eosinophil levels are associated with increased COPD risk, their pathogenic role-embedded within a complex inflammatory network-differs fundamentally from the Th2-centric inflammatory pathway characteristic of asthma. This observational study suggests that eosinophilic COPD is not simply a surrogate for asthma-like Type 2 inflammation.

Keywords: asthma; chronic obstructive pulmonary disease; eosinophils; mendelian randomization; proteomics.

© 2026 European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd.

- [40 references](#)

Supplementary info

Grants and fundingExpand

"rhinitis"[MeSH Terms] OR rhinitis[Text Word]

1

Int Forum Allergy Rhinol

-
-
-

. 2026 Oct 5.

doi: 10.1002/alr.70279. Online ahead of print.

[American Rhinologic Society Expert Practice Statement: Indications and Recommendations for Posterior Nasal Nerve Ablation](#)

[Dara R Adams](#)¹, [Meha G Fox](#)², [Peter H Hwang](#)³, [Christopher R Roxbury](#)⁴, [Mas Takashima](#)⁵, [Arthur W Wu](#)⁶, [David M Yen](#)⁷, [Omar G Ahmed](#)⁵

Affiliations Expand

- PMID: 42834352
- DOI: [10.1002/alr.70279](#)

Abstract

The goal of this American Rhinologic Society expert practice statement (EPS) is to provide an evidence-based evaluation of the current literature on posterior nasal nerve ablation. Subtopics reviewed include the evidence for specific indications such as nonallergic rhinitis, allergic rhinitis, and postnasal drip and chronic cough;

the durability of response; the safety profile of posterior nasal nerve ablation; the ability of ipratropium bromide response to predict procedural success; and recommendations regarding surgical technique. This EPS was developed following the previously published methodology and approval process. Following a modified Delphi approach, eight statements were developed, five of which reached consensus and three of which did not reach consensus. These statements and accompanying evidence are summarized along with an assessment of future needs.

Keywords: allergic rhinitis; chronic rhinitis; nonallergic rhinitis; posterior nasal nerve ablation; vasomotor rhinitis.

© 2026 ARS-AAOA, LLC.

- [69 references](#)

Full text links



[Proceed to details](#)

Cite

2

Aliment Pharmacol Ther

-
-
-

. 2026 Oct 6.

doi: 10.1111/apt.71001. Online ahead of print.

[Clinical Trial: Dupilumab Improves Eosinophilic Oesophagitis Outcomes Versus Placebo Regardless of Comorbidities or Treatment History in a Randomised Clinical Trial](#)

[Evan S Dellon](#)¹, [Marc E Rothenberg](#)², [Jonathan M Spergel](#)³, [Albert J Bredenoord](#)⁴, [Antonella Cianferoni](#)⁵, [Changming Xia](#)⁶, [Margee Louisias](#)⁷, [Allen Radin](#)⁶

Affiliations Expand

- PMID: 42836357
- DOI: [10.1111/apt.71001](#)

Abstract

Background: Patients with eosinophilic oesophagitis (EoE) can present with differing disease characteristics, treatment resistance, and associated type 2 inflammatory comorbidities. We assessed the efficacy of dupilumab in subgroups of

patients with EoE from the LIBERTY EoE TREET study across a range of demographics, characteristics, treatments, and comorbidities.

Methods: Patients were categorised by subgroups based on weight (< 60 kg or ≥ 60 kg), body mass index (< 18.5 kg/m², ≥ 18.5 to < 30 kg/m², ≥ 30 kg/m²), disease duration before study entry (< 5 years, ≥ 5 to < 10 years, ≥ 10 years), history of type 2 inflammatory comorbidities (with/without asthma, allergic rhinitis, atopic dermatitis, or food allergy), history of elimination diet, concurrent elimination diet, concurrent proton pump inhibitor use, and prior oesophageal dilation. Outcomes were analysed post hoc and included the proportion of patients achieving ≤ 6 eosinophils per high-power field (eos/hpf) and change from baseline in Dysphagia Symptom Questionnaire (DSQ) and total Endoscopic Reference Score (EREFS).

Results: At Week 24, dupilumab treatment increased the proportion of patients achieving histological remission (peak eosinophil count ≤ 6 eos/hpf) versus placebo in all subgroups. At Week 52, improvements were maintained with continued dupilumab treatment. Improvements were also observed through Week 52 in patients who switched from placebo to dupilumab at Week 24. Similar results were observed for change from baseline in DSQ and EREFS.

Conclusions: Dupilumab treatment improved histological, symptomatic, and endoscopic outcomes versus placebo in patients with EoE, regardless of demographics, disease characteristics, treatment history, or type 2 inflammatory disease comorbidities.

Trial registration: ClinicalTrials.gov identifier: [NCT03633617](https://clinicaltrials.gov/ct2/show/study/NCT03633617).

Keywords: dupilumab; eosinophilic oesophagitis; subgroups.

© 2026 The Author(s). Alimentary Pharmacology & Therapeutics published by John Wiley & Sons Ltd.

- [51 references](#)

Supplementary info

Associated data, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

3

Otolaryngol Head Neck Surg

-
-
-

. 2026 Oct 7.

doi: 10.1002/ohn.70470. Online ahead of print.

Cryotherapy as Treatment for Chronic Rhinitis: Long-Term Results of a Prospective, Multicenter Registry

Amber U Luong¹, Neelesh H Mehendale², Emily Szabo³, Farhad Sigari⁴, Anthony G Del Signore⁵, David M Yen⁶

Affiliations Expand

- PMID: 42841538
- DOI: [10.1002/ohn.70470](https://doi.org/10.1002/ohn.70470)

Abstract

Objective: The purpose of this registry was to capture observational data on a large and diverse cohort treated with the ClariFix Cryotherapy device for chronic rhinitis.

Study design: Prospective, multicenter, nonrandomized, observational registry.

Setting: Twenty-two tertiary care and private otolaryngology practices.

Methods: ClariFix treatment was administered to adult patients with allergic or nonallergic chronic rhinitis. Outcome measures included the reflective Total Nasal Symptom Score, mini Rhinoconjunctivitis Quality of Life Questionnaire, Patient Global Impression of Change, Clinician Global Impression-Improvement, and adverse events related to the device or procedure through 24-month follow-up.

Results: A total of 354 participants received 932 treatments. The mean change in total reflective Total Nasal Symptom Score from baseline to all follow-ups was significant ($P < .001$); greater than 73% of participants were responders, achieving ≥ 1 point reduction at all follow-ups. Participants with baseline reflective Total Nasal Symptom scores ≥ 7 had greater improvement than those with baseline scores < 7 ($P < .001$). Greater than 74% of participants were quality of life responders (≥ 0.4 points) at all follow-ups with the mini Rhinoconjunctivitis Quality of Life Questionnaire. More than 73% of participants reported PGIC improvement at all follow-ups. Clinicians noted improvement in 87.1% of participants at 3-month follow-up. No device- or treatment-related serious adverse events were reported. Device- and treatment-related adverse events were transient, nonserious, and typically resolved by over-the-counter medication and warm beverages.

Conclusion: This registry provides additional long-term evidence of the safety and efficacy of cryotherapy for the treatment of chronic rhinitis in a diverse population through 24 months.

Keywords: ClariFix; Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ); Total Nasal Symptom Score (TNSS); allergic rhinitis; chronic rhinitis; cryotherapy; nonallergic rhinitis.

© 2026 Stryker. Otolaryngology–Head and Neck Surgery published by Wiley Periodicals LLC on behalf of American Academy of Otolaryngology–Head and Neck Surgery Foundation.

- [21 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

4

Review

World J Otorhinolaryngol Head Neck Surg

-
-
-

. 2026 Oct 8:10.1002/wjo2.70182.

doi: 10.1002/wjo2.70182. Online ahead of print.

[Turbinoplasty Versus Medical Treatment for Allergic Rhinitis: A Systematic Review and Meta-Analysis](#)

[Noof Albannai](#)¹, [Hajar Alismail](#)², [Abdullah N Aladwani](#)³, [Abdur Rehman](#)⁴, [Abdullah AlShuaib](#)⁵, [Retaj Alawadhi](#)⁶, [Jassim AlMusaileem](#)⁷, [Meshal T Alshammari](#)³, [Omar Bader Alharbi](#)⁸, [Bader A Alasoosi](#)⁹, [Sarah S Alenezi](#)⁹, [Abdullah M Alharran](#)⁹, [Ebraheem Albazee](#)^{6 10}

Affiliations Expand

- PMID: 42851799
- PMCID: [PMC13647242](#)
- DOI: [10.1002/wjo2.70182](#)

Abstract

Objective: Allergic rhinitis is a common chronic condition affecting up to 30% of adults worldwide, with nasal obstruction being the most bothersome symptom. Inferior turbinate hypertrophy is a major contributor to nasal obstruction in allergic rhinitis, and surgical reduction techniques have been developed for cases refractory to medical therapy. This systematic review and meta-analysis evaluated the efficacy of inferior turbinate reduction procedures compared with medical therapy alone in patients with allergic rhinitis.

Data source: PubMed, Embase, Web of Science, Scopus, and Cochrane Library.

Methods: We systematically searched PubMed, Embase, Web of Science, Scopus, and Cochrane Library from inception to March 2026 for comparative studies comparing inferior turbinate reduction versus medical therapy in patients with allergic rhinitis and inferior turbinate hypertrophy. R software was used for meta-analysis using a random-effects model.

Results: Six studies comprising 574 participants were included. For rhinorrhea, the pooled effect of studies comparing turbinoplasty versus medical treatment was nonsignificant with high heterogeneity. Sneezing showed no significant difference. Itching also demonstrated a nonsignificant effect. Turbinoplasty alone improved nasal obstruction compared to medical treatment.

Conclusions: Turbinoplasty may improve nasal obstruction in patients with allergic rhinitis refractory to medical therapy. The evidence for other nasal symptoms (rhinorrhea, sneezing, itching) is less consistent due to substantial heterogeneity. These findings should be considered preliminary and future trials are needed to validate them.

Keywords: RQLQ; allergic rhinitis; inferior turbinate reduction; meta-analysis; nasal obstruction; turbinoplasty.

© 2026 The Author(s). World Journal of Otorhinolaryngology - Head and Neck Surgery published by John Wiley & Sons Ltd on behalf of Chinese Medical Association.

Conflict of interest statement

The authors declare no conflicts of interest.

- [35 references](#)
- [4 figures](#)

Supplementary info

Publication typesExpand

chronic cough

1

Randomized Controlled Trial

Int J Pharm

-
-
-

. 2026 Oct 5:703:127316.

doi: 10.1016/j.ijpharm.2026.127316. Epub 2026 Aug 16.

[A lidocaine dry powder inhaler to modulate cough: particle engineering and human proof-of-concept](#)

[Giada Varacca](#)¹, [Diletta Mandrioli](#)¹, [Fabio Sonvico](#)², [Federico Lavorini](#)³, [Giovanni Fontana](#)³, [Alessandra Sorano](#)³, [Giulia Fabietti](#)³, [Ruggero Bettini](#)², [Francesca Buttini](#)⁴

Affiliations Expand

- PMID: 42604718
- DOI: [10.1016/j.ijpharm.2026.127316](#)

Abstract

Chronic cough remains a major unmet clinical need, particularly in patients with refractory or unexplained disease. This study aimed to develop a spray-dried dry powder inhaler formulation of lidocaine hydrochloride capable of targeting deposition to the upper and central airways, where cough receptors are mainly located, while minimizing deep lung delivery and systemic exposure. Lidocaine was incorporated into sodium hyaluronate, selected as a mucoadhesive and release-modifying excipient. The effects of polymer molecular weight, drug-to-polymer ratio, and spray-drying parameters on the key quality attributes of the formulation were investigated. Low-molecular-weight sodium hyaluronate at a 20:80 lidocaine-to-polymer ratio produced amorphous microparticles with appropriate solid-state characteristics and controlled dissolution behaviour. Optimization identified a lead formulation with a median particle size of 8.9 μm and a non-respirable fraction of about 85%, supporting preferential deposition in the tracheobronchial region. Aerodynamic performance, assessed using a Next Generation Impactor and an anatomically realistic mouth-throat model, confirmed efficient delivery with limited fine particle deposition. Compared with raw lidocaine, the optimized formulation showed slower in vitro release, consistent with drug incorporation within the polymer matrix. In a randomized, single-blind, crossover proof-of-concept study in healthy volunteers, inhalation of 8 mg of lidocaine powder significantly increased the cough threshold at 15 and 30 min versus placebo, without clinically relevant safety concerns, bronchoconstriction, or impairment of the gag reflex. These findings show that particle engineering can enable regional airway targeting of lidocaine by dry powder inhalation and support the potential of this approach as a rapid, on-demand antitussive strategy.

Keywords: Chronic cough; Dry powder; Inhaler; Lidocaine; Particle engineering.

Copyright © 2026 Elsevier B.V. All rights reserved.

Conflict of interest statement

Declaration of competing interest The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Francesca Buttini, Ruggero Bettini, Federico Lavorini, Giovanni Fontana has patent #WO 2023/111930 licensed to Anemos Therapeutics. If there are other authors, they declare that they have no known competing financial interests or

personal relationships that could have appeared to influence the work reported in this paper.

Supplementary info

Publication types, MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

2

Review

J Asthma

-
-
-

. 2026 Oct 7:1-12.

doi: 10.1080/02770903.2026.2738099. Online ahead of print.

[Chronic cough in adults: a contemporary review of cough hypersensitivity syndrome and clinical management](#)

[Dianelys Perla Sierra](#)¹, [Bibi Waleema Bacchus-Ali](#)^{1 2}, [Saleem N Hamilah](#)^{3 4 5}, [Haroon Al-Shaor](#)^{3 5}

Affiliations Expand

- PMID: 42788795
- DOI: [10.1080/02770903.2026.2738099](https://doi.org/10.1080/02770903.2026.2738099)

Abstract

Objective: To synthesize evidence on the causes, assessment, and management of adult chronic cough, emphasizing cough hypersensitivity, treatable traits, and a mechanism-based clinical approach.

Data sources: PubMed/MEDLINE and the Cochrane Library were searched for English-language literature published from January 2015 through September 2026, supplemented by reference-list review and selected earlier seminal studies.

Study selections: Priority was given to international guidelines, consensus statements, systematic reviews, meta-analyses, randomized trials, and major clinical reviews addressing chronic cough, refractory or unexplained cough, cough

hypersensitivity, laryngeal and reflux-associated disorders, treatable traits, and emerging antitussive therapies.

Results: Chronic cough commonly reflects overlapping respiratory, upper-airway or laryngeal, reflux-associated, medication-related, and neural mechanisms. Cough hypersensitivity is increasingly recognized as an important feature, particularly in refractory or unexplained chronic cough, but should not be assumed to explain every presentation. Inducible laryngeal obstruction is appropriately considered within upper-airway and laryngeal disorders. Gastroesophageal reflux disease and laryngopharyngeal reflux may overlap in patients with cough, although causal attribution is often difficult and the two conditions should not be regarded as interchangeable diagnoses. Initial evaluation should include structured history taking, physical examination, identification of red flags, chest radiography, spirometry, and targeted assessment of treatable traits. Persistent symptoms despite appropriate management may indicate refractory or unexplained chronic cough associated with ongoing neural sensitization.

Conclusion: Current evidence supports an individualized, mechanism-based approach that prioritizes identification and treatment of relevant diseases and treatable traits while recognizing cough hypersensitivity as a potential therapeutic target. Emerging peripheral neural therapies may broaden future treatment options for refractory chronic cough.

Keywords: Chronic cough; cough hypersensitivity syndrome; refractory chronic cough; unexplained chronic cough.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

3

Case Reports

Neurol Sci

-
-
-

. 2026 Oct 7;47(11):849.

doi: 10.1007/s10072-026-09467-6.

[Clinical features of cough syncope: a systematic review](#)

[Yangqin Fan](#) ^{#1 2}, [Meng Hou](#) ³, [Haili Wang](#) ⁴, [Jingke Le](#) ⁵, [Liming Cao](#) ^{# 6 7}

Affiliations Expand

- PMID: 42842052
- PMCID: [PMC13645981](#)
- DOI: [10.1007/s10072-026-09467-6](#)

Abstract

Background: Cough syncope (CS) is a rare subtype of syncope that remains underrepresented in evidence-based medicine. We aimed to characterize the clinical features of CS, with the aim of improving recognition and optimizing management strategies.

Methods: We present five cases of CS alongside a systematic review of its clinical characteristics based on published literature to improve recognition and optimize management. Reports of eligible patients were screened, and demographic, clinical, diagnostic, treatment, and outcome data were analyzed.

Results: This study included 60 patients with a mean age of 56 ± 15 years, 91% of whom were male. The most common underlying triggers were respiratory diseases, including pulmonary infections (35%) and bronchitis (22%). Common comorbidities included hypertension (26%), bronchial asthma (18%), and diabetes mellitus (15%). CS episodes were directly triggered by severe coughing in 93% (26/28) of patients. Episodes occurred at least twice daily in 20% of patients, and limb convulsions accompanied syncope in 22%. Symptoms improved after treatment in 98% of cases. After a median follow-up of 3.75 months (Interquartile Range: 2-12 months), the recurrence rate of syncope was 11%. CS, predominantly triggered by severe coughing, primarily affected middle-aged and older men.

Conclusions: CS predominantly affects middle-aged and older men and is frequently associated with pulmonary infections. Acute pulmonary infections serve as a common underlying trigger for CS, and patients are at risk of recurrent syncope and falls. Disease management should be focused on treating chronic airway disease, particularly chronic obstructive pulmonary disease.

Keywords: Anti-infective therapy; Cough syncope; Pulmonary infection; Reflex syncope; Severe cough.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethical approval: The protocol was approved by the Ethics Committee of Shenzhen Second People's Hospital (No.2025-652-01PJ) in accordance with the Declaration of Helsinki. All participants provided informed consent before participating in the study. Conflict of interest: The authors have no relevant financial or non-financial interests to disclose.

- [71 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

4

Review

Expert Rev Clin Pharmacol

-
-
-

. 2026 Oct 9:1-15.

doi: 10.1080/17512433.2026.2744253. Online ahead of print.

[Emerging pharmacological therapies for bronchiectasis](#)

[Meghan Marmor](#)¹, [Mark Metersky](#)²

Affiliations Expand

- PMID: 42855791
- DOI: [10.1080/17512433.2026.2744253](https://doi.org/10.1080/17512433.2026.2744253)

Abstract

Introduction: Bronchiectasis is a clinical syndrome characterized by dilated and thickened airways paired with clinical symptoms, most commonly a chronic suppurative cough that characteristically exacerbates. The disease can have burdensome symptoms that reduce quality of life. Pharmacologic treatments to date have been few and limited largely to antibiotic therapies. In recent years, bronchiectasis has been reconceived as a primary inflammatory disease, and drug development has since shifted to identify anti-inflammatory and immunomodulatory drugs.

Methods: We conducted a targeted literature and clinical trial search to identify established and investigational pharmacotherapies for bronchiectasis. Searches of PubMed, Google Scholar, UpToDate, OpenEvidence, and ClinicalTrials.gov were performed to identify published evidence, ongoing and completed clinical trials, and emerging therapeutic approaches.

Areas covered: Herein, we review existing available therapies for patients with bronchiectasis. We then go on to review novel anti-inflammatory and

immunomodulatory drugs as well as non-antibiotic anti-bacterial therapies in the development pipeline. We review drug safety, tolerability, efficacy, adverse reactions and cost considerations of therapy.

Expert opinion: There are many potential treatments under investigation for bronchiectasis newly targeting airway inflammation. The effect size of the newer anti-inflammatory agents will likely be tied to a patient's unique inflammatory endotype. Future research should aim to identify clinically meaningful biomarkers that may allow clinicians to select the therapeutic agent best tailored to their disease.

Keywords: Anti-inflammatory; bronchiectasis; inflammation; medications; novel; therapy; treatment.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

"bronchiectasis"[MeSH Terms] OR bronchiectasis[Text Word]

1

Eur Respir J

-
-
-

. 2026 Oct 9;68(4):2502796.

doi: 10.1183/13993003.02796-2025. Print 2026 Oct.

[Nasal nitric oxide combined with clinical features for preliminary screening of primary ciliary dyskinesia in bronchiectasis](#)

[Shunlian Hu](#)¹²³⁴, [Xiyue Shen](#)¹²⁴, [Jiayi Wang](#)²³⁴, [Haiwen Lu](#)³, [Yang Liu](#)¹, [Shuyi Gu](#)³, [Ai Ge](#)³, [Jiawei Yang](#)³, [Bei Mao](#)³, [Felix C Ringshausen](#)⁵⁶, [Amelia Shoemark](#)⁷⁸, [Jin-Fu Xu](#)⁹²

Affiliations Expand

- PMID: 42134984

- PMID: [PMC13650444](#)
- DOI: [10.1183/13993003.02796-2025](#)

Abstract

Rationale: Primary ciliary dyskinesia (PCD), an underdiagnosed genetic disorder characterised by dysfunctional cilia, is a known cause of bronchiectasis.

Objectives: To prospectively identify PCD among patients with bronchiectasis using nasal nitric oxide (nNO) and clinical features, and to characterise genetic features.

Methods: This cross-sectional study enrolled adolescent and adult patients with bronchiectasis from the BE-China registry at Shanghai Pulmonary Hospital. Individuals with either strong clinical suspicion or $nNO \leq 77 \text{ nL} \cdot \text{min}^{-1}$ received a structured diagnostic work-up, including transmission electron microscopy and whole-exome sequencing. Diagnoses followed the 2025 European Respiratory Society/American Thoracic Society PCD diagnostic guidelines.

Results: Among 373 patients with bronchiectasis, 27 (7.4%) were in the PCD group (14 "confirmed PCD" and 13 "PCD highly likely"). nNO showed high screening accuracy (sensitivity 84.8%, specificity 97.1%). Patients with PCD were younger and had earlier bronchiectasis onset. Age-adjusted regression analysis showed independent associations between PCD and lower body mass index (regression coefficient (RC) -1.5, 95% CI -2.9 to -0.1), forced expiratory volume in 1 s (FEV₁) % predicted (RC -18.4, 95% CI -28.3 to -8.6), forced vital capacity (FVC) % predicted (RC -11.3, 95% CI -19.5 to -3.0), and FEV₁/FVC (RC -10.3, 95% CI -16.9 to -3.8). Strong associations were observed with rhinosinusitis (OR 25.3, 95% CI 8.8 to 92.1) and *Pseudomonas aeruginosa* infection (OR 8.5, 95% CI 3.2 to 25.7). Situs inversus occurred in 25.9% of patients with PCD. *DNAH11* was the most common pathogenic gene.

Conclusions: Patients with PCD had more severe disease, reinforcing the need for structured screening in patients with bronchiectasis. nNO combined with clinical features is an effective and reliable screening strategy for PCD in bronchiectasis.

Copyright ©The authors 2026.

Conflict of interest statement

Conflicts of interest: F.C. Ringshausen reports grants from the German Center for Lung Research (DZL), consultancy fees from Parion Sciences, Boehringer Ingelheim, Insmmed, Chiesi and AstraZeneca, payment or honoraria for lectures, presentations, manuscript writing or educational events from Insmmed and Sanofi, participation on a data safety monitoring board or advisory board with Parion Sciences, Boehringer Ingelheim, Insmmed, Chiesi and AstraZeneca, leadership roles with the German Bronchiectasis Registry PROGNOSIS, the European Bronchiectasis Registry EMBARC and the German Center for Lung Research, and fees for clinical trial participation (paid to institution) from AstraZeneca, Boehringer Ingelheim, Insmmed, Parion, Ruhr University-Bochum, University of Dundee and Vertex. A. Shoemark reports grants from AstraZeneca, Verona, Lifearc, Recode Therapeutics and Insmmed, consultancy fees from Spirovant, Translate Bio and ReCode Therapeutics, payment or honoraria for lectures, presentations, manuscript writing or educational events from Translate Bio, Ethris and Insmmed, leadership

roles with the European Respiratory Society Clinical Research Collaborations BEAT_PCD, EMBARC and AMR Lung, and is an associate editor for the European Respiratory Journal. J-F. Xu reports support for the present study from the Noncommunicable Chronic Diseases-National Science and Technology Major Project, National Natural Science Foundation of China, the Innovation Program of Shanghai Municipal Education Commission and the Guangzhou National Laboratory, and a leadership role with BE-China and Tongji Hospital. The remaining authors have no potential conflicts of interest to disclose.

Comment in

- [Nasal nitric oxide as a gateway, not a gatekeeper, to primary ciliary dyskinesia diagnosis in bronchiectasis.](#)

Asakura T, Choi H. Eur Respir J. 2026 Oct 9;68(4):2601080. doi: 10.1183/13993003.01080-2026. Print 2026 Oct. PMID: 42855181 No abstract available.

- [47 references](#)
- [5 figures](#)

Supplementary info

MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

2

Ann Am Thorac Soc

-
-
-

. 2026 Oct 5:aaog310.

doi: 10.1093/annalsats/aaog310. Online ahead of print.

[Bronchiectasis prevalence, incidence, and exacerbation rates among insured adults in the U.S.: a descriptive analysis](#)

[Cesar N Cristancho-Rojas](#)¹, [Emily Henkle](#)¹, [Rongwei Fu](#)¹, [Phillip M Polgreen](#)², [Jeffrey R Curtis](#)³, [Kevin L Winthrop](#)^{1,4}

Affiliations Expand

- PMID: 42834530

- DOI: [10.1093/annalsats/aa0ag310](https://doi.org/10.1093/annalsats/aa0ag310)

Abstract

Rationale: Contemporary population-representative data on bronchiectasis epidemiology in the United States remain limited. Existing exacerbation estimates are derived primarily from referral registries that overrepresent severe disease under subspecialty care, while incidence and prevalence calculations are largely based on outdated single-payer data, limiting generalizability.

Objectives: To estimate non-cystic fibrosis bronchiectasis prevalence and incidence among insured U.S. adults during 2016-2024, characterize exacerbation rates and their composition, and identify baseline factors associated with subsequent exacerbations.

Methods: We assembled a retrospective cohort of adults with bronchiectasis using MarketScan Commercial, Medicare Supplemental, and Medicaid databases. Cases required two or more bronchiectasis diagnostic claims separated by more than 30 days, excluding individuals with cystic fibrosis, human immunodeficiency virus infection, or organ transplantation. The observation time zero was the second qualifying claim. Quasi-Poisson models were used to estimate annual prevalence, incidence, and exacerbation rates during observable enrollment periods. Annual percent changes quantified temporal trends. A negative binomial model estimated associations between baseline characteristics and post-diagnosis exacerbation rates.

Results: We identified 80,749 cases (64.6% female; mean age 65.9 years) and estimated prevalence and incidence of 105.3 and 32.1 per 100,000, respectively, in the combined Commercial-Medicare sample, and 66.1 and 19.0, respectively, in Medicaid. Prevalence increased steadily across payers, whereas incidence remained stable. The overall exacerbation rate was 0.88 events per person-year, declining by approximately 5% annually, with a reduction during the early pandemic period followed by a return to pre-pandemic trajectories by 2024. Outpatient events accounted for nearly 87% of exacerbations in the Commercial-Medicare sample and 65% in Medicaid. Calendar trends were attenuated by 12.3% after adjustment for follow-up. Frequent-exacerbator phenotype at cohort entry was the most strongly associated with higher subsequent exacerbation rates (adjusted rate ratio 1.96), followed by chronic airway infection and underlying respiratory conditions. Greater pulmonologist engagement at baseline was associated with lower exacerbation rates thereafter.

Conclusions: Observed prevalence-incidence widening gap suggests case accumulation over time and survival among continuously enrolled beneficiaries. Exacerbation burden was concentrated among individuals with prior exacerbations, chronic airway infection, and respiratory comorbidity, while exacerbation rates decreased over time across payers and subgroups, in part reflecting changes in cohort composition.

Keywords: Bronchiectasis; Epidemiology; Incidence; Prevalence; Respiratory Tract Infections.

© The Author(s) 2026. Published by Oxford University Press on behalf of the American Thoracic Society. All rights reserved. For commercial re-use, please

contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site—for further information please contact journals.permissions@oup.com.

Full text links



[Proceed to details](#)

Cite

3

ERJ Open Res

-
-
-

. 2026 Oct 5;12(5):01629-2025.

doi: 10.1183/23120541.01629-2025. eCollection 2026 Sep.

[Exploring immune dysfunction in bronchiectasis: a focus on natural killer cells using single-cell transcriptomes](#)

[Bumhee Yang](#)^{1,2}, [Dongjun Kim](#)^{3,4,5,2}, [Geonhui Min](#)⁶, [InSook Jeon](#)⁶, [Eung-Gook Kim](#)⁶, [Hyun Je Kim](#)^{3,4,5,7,8}, [Hyun Lee](#)^{9,8}

Affiliations Expand

- PMID: 42835553
- PMCID: [PMC13636095](#)
- DOI: [10.1183/23120541.01629-2025](#)

Abstract

Bronchiectasis shows distinct immune dysregulation, with depletion of FCER1G⁺ NK-cells and reduced CXCR4 in monocytes, highlighting innate immune disruption as a driver of disease progression <https://bit.ly/4mhw9C2>.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: All authors have confirmed that they have no conflicts of interest to declare.

- [15 references](#)
- [1 figure](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

4

Clinical Trial

Ann Med

-
-
-

. 2026 Dec;58(1):2741976.

doi: 10.1080/07853890.2026.2741976. Epub 2026 Oct 6.

['Life has become a lot easier'-the acceptability of the treatable traits clinic experience to people with bronchiectasis](#)

[Kirsty E Krieg](#)^{1,2}, [Annemarie L Lee](#)³, [Marita J Dale](#)¹, [Tiffany J Dwyer](#)^{1,4}, [Zoe J McKeough](#)¹

Affiliations Expand

- PMID: 42839548
- PMCID: [PMC13647353](#)
- DOI: [10.1080/07853890.2026.2741976](#)

Abstract

Introduction: The treatable traits approach involves the identification of traits that are measurable and clinically relevant to the patient, which informs an individualized management plan. While improved quality of life and health outcomes have been demonstrated, the acceptability of this approach to people with bronchiectasis has not been explored. The aim of our study was to explore the acceptability of the treatable traits approach to people with bronchiectasis in a regional setting.

Patients and methods: An exploratory qualitative study. Interviews were conducted with adults who first attended an outpatient bronchiectasis clinic in regional Australia, which had implemented the treatable traits approach. The interview guide was developed to explore the seven components of the theoretical framework of

acceptability. Engagement with the transcripts occurred using the six phases of thematic analysis to develop key themes.

Results: Ten participants were included (age 37-82 years; female sex, 70%; Bronchiectasis Severity Index, mild, 20%; moderate, 50%; and severe, 30%). This study reports three themes. 'A tool kit to support my health' explores the contribution of individualized and multifaceted interventions to a perceived improvement in respiratory health. 'Better health, better self' captures the patient-reported impact of improved respiratory health on quality of life. 'Some things don't change' describes the ongoing challenges for people living with bronchiectasis that are not impacted by the clinic interventions.

Conclusion: People with bronchiectasis from a single regional Australian clinic described a highly valued and acceptable clinic experience, with perceived improvements in respiratory health and overall well-being despite significant ongoing impacts on daily life.

Clinical trial registration: This study was registered in the Australian and New Zealand Clinical Trials Registry (<https://www.anzctr.org.au/>, ACTRN12620000377932).

Keywords: Comprehensive health care; multidisciplinary health team; patient experience; physiotherapy; quality of life.

Plain language summary

When implemented by a physiotherapist and respiratory nursing team in a regional Australian setting, the treatable-traits clinical approach was acceptable and highly valued by people with bronchiectasis. Multifaceted, individualized treatment plans and collaborative partnership with clinicians optimized motivation to self-manage, improving perceived overall well-being beyond respiratory health. This potential clinical model is acceptable to people with bronchiectasis in settings where specialist multidisciplinary clinics are not available.

Conflict of interest statement

No potential conflict of interest was reported by the author(s).

- [35 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms [Expand](#)

Full text links



[Proceed to details](#)

Cite

Editorial

Cureus

-
-
-

. 2026 Oct 6;18(10):e117538.

doi: 10.7759/cureus.117538. eCollection 2026 Oct.

[Evaluating the Efficacy of Brensocatib in Non-cystic Fibrosis Bronchiectasis](#)

[Alan Mathew](#)¹, [Hannah Anwar](#)²

Affiliations Expand

- PMID: 42841111
- PMCID: [PMC13641721](#)
- DOI: [10.7759/cureus.117538](#)

Abstract

Bronchiectasis is a widely recognised chronic respiratory illness classified in severity by frequency of exacerbations within the past year, percent predicted forced expiratory volume in 1 second (%FEV1), previous hospital admissions and radiological severity, among other factors. The physiological process is understood to be driven by neutrophilic inflammation and subsequent bronchial wall destruction and dilatation. Brensocatib has emerged as a novel adjunct in the management of chronic bronchiectasis as a dipeptidyl peptidase-1 inhibitor, directly targeting the inflammatory process. The editorial aims to review the mechanism of action of brensocatib, current literature surrounding its efficacy and side effect profile, and potential implications of a wider rollout of the medication to the adult UK population. Whilst the current literature does support a modest reduction in the frequency of exacerbations for patients who trialled brensocatib, there is a large amount of uncertainty regarding long-term safety, implementation into the current regime, and cost-effectiveness.

Keywords: brensocatib; dpp-inhibitors; non-cf bronchiectasis; polypharmacy; review of the literature.

Copyright © 2026, Mathew et al.

Conflict of interest statement

Conflicts of interest: In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors

have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

- [17 references](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

6

Am J Respir Crit Care Med

-
-
-

. 2026 Oct 7:aamag543.

doi: 10.1093/ajrccm/aamag543. Online ahead of print.

[Brensocatib is approved for adults and adolescents with bronchiectasis](#)

[James D Chalmers](#)¹

Affiliations Expand

- PMID: 42842420
- DOI: [10.1093/ajrccm/aamag543](#)

No abstract available

Full text links



[Proceed to details](#)

Cite

7

Review

Eur Respir Rev

-

-
-

. 2026 Oct 7;35(182):260213.

doi: 10.1183/16000617.0213-2026. Print 2026 Oct.

The dipeptidyl peptidase 1 inhibition landscape in bronchiectasis and its future direction

James D Chalmers¹, Raksha Jain², Anne E O'Donnell³, Marcus A Mall^{4 5 6 7}, Patrick A Flume⁸

Affiliations Expand

- PMID: 42843847
- PMCID: [PMC13643495](#)
- DOI: [10.1183/16000617.0213-2026](#)

Abstract

Bronchiectasis (BE) is a heterogeneous lung disease characterised by chronic neutrophilic inflammation. A "vicious vortex" develops through the interactions between neutrophilic inflammation, infection and impaired mucociliary clearance, leading to progressive structural lung damage and worsening lung function. As part of this neutrophilic inflammation, neutrophil serine proteases (NSPs) overwhelm their natural inhibitors, with high NSP levels being associated with pulmonary exacerbations in people with BE. NSPs, activated by dipeptidyl peptidase 1 (DPP1) during neutrophil maturation in the bone marrow, are released from neutrophils at sites of inflammation. Pharmacological inhibition of DPP1 is a compelling approach to reduce neutrophilic inflammation in BE. Three DPP1 inhibitors have had favourable results in clinical studies for BE, namely brensocatib, florensocatib and verducatib, with recent approval of brensocatib, a first-in-class DPP1 inhibitor, in the US and Europe, providing a promising treatment option for people with BE. Many questions about DPP1 inhibition remain, including long-term efficacy and safety, and efficacy in people with cystic fibrosis, primary COPD and immunodeficiencies, who were generally excluded from prior large studies. Despite the availability of cystic fibrosis transmembrane conductance regulator modulator therapy, many people with cystic fibrosis continue to have pulmonary exacerbations. The inclusion of a broad population with a range of aetiologies is key in the development of DPP1 inhibitors to support access to treatment for all those who could benefit. This review explores the current DPP1 inhibition landscape, discussing the clinical studies to date for these three novel DPP1 inhibitors and the evolution of DPP1 studies in BE.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: J.D. Chalmers reports support for the present publication from Boehringer Ingelheim; grants or contracts from AstraZeneca, Boehringer Ingelheim, Genentech, Gilead Sciences, GlaxoSmithKline, Grifols, Insmed, and Trudell Medical

Group; consulting fees from Antabio, AstraZeneca, Boehringer Ingelheim, Chiesi Farmaceutici, CSL Behring, Expedition Therapeutics, Enterprise Therapeutics, GlaxoSmithKline, Grifols, Insmed, Melodia, Pfizer, Trudell Medical Group, UCB, Vast Therapeutics, and Zambon; and is the current Chief Editor of the European Respiratory Journal. R. Jain reports support for the present publication from Boehringer Ingelheim; consulting fees from Boehringer Ingelheim; payment or honoraria from Vertex Pharmaceuticals for a grant review committee; and participation on a data safety monitoring board for Advarra and an advisory board for Insmed. A.E. O'Donnell reports support for the present publication from Boehringer Ingelheim; grants or contracts from AN2, Armata, Boehringer Ingelheim, Insmed, Paratek, Renovion, Spero, and Zambon; consultancy fees from Boehringer Ingelheim and Insmed; payment or honoraria for lectures, presentations, speaker bureaus, manuscript writing, or educational events from Academic CME, New York University School of Medicine, PeerView Institute, and Vinidico; and a leadership or fiduciary role on the US Bronchiectasis and NTM Research Registry steering committee. M.A. Mall reports support for the present publication from Boehringer Ingelheim; grants or contracts from Boehringer Ingelheim, Enterprise Therapeutics, Vertex Pharmaceuticals, German Innovation Fund, German Federal Ministry of Research, Technology and Space (BMFTR), and German Research Foundation (DFG), with payments made to the institution; consulting fees from Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, PARI, SpliSense, and Vertex Pharmaceuticals; payment or honoraria for lectures from Boehringer Ingelheim and Vertex Pharmaceuticals; travel reimbursement received for participation in advisory board meetings for Boehringer Ingelheim and Vertex Pharmaceuticals; and fees for participation on an advisory board from Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, PARI, SpliSense, and Vertex Pharmaceuticals. He also reports that he is inventor on an issued patent filed by the University of North Carolina at Chapel Hill, describing the Scnn1b-transgenic mouse. He is also an unpaid fellow of ERS. P.A. Flume reports support for the present publication from Boehringer Ingelheim; grants or contracts from Boehringer Ingelheim and Insmed; and consulting fees from Boehringer Ingelheim and Insmed.

- [99 references](#)
- [1 figure](#)

Supplementary info

Publication types, MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

8

Editorial

Thorax

-
-
-

. 2026 Oct 7:thorax-2026-225853.

doi: 10.1136/thorax-2026-225853. Online ahead of print.

[Home spirometry in bronchiectasis: when does a measurement become medicine?](#)

[Elpis Hatziagorou](#)¹, [Andrew Bush](#)^{2,3}

Affiliations Expand

- PMID: 42843999
- DOI: [10.1136/thorax-2026-225853](#)

No abstract available

Keywords: Bronchiectasis; Respiratory Function Tests.

Conflict of interest statement

Competing interests: None declared.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

9

Review

Expert Rev Clin Pharmacol

-
-
-

. 2026 Oct 9:1-15.

doi: 10.1080/17512433.2026.2744253. Online ahead of print.

[Emerging pharmacological therapies for bronchiectasis](#)

[Meghan Marmor](#)¹, [Mark Metersky](#)²

Affiliations Expand

- PMID: 42855791
- DOI: [10.1080/17512433.2026.2744253](https://doi.org/10.1080/17512433.2026.2744253)

Abstract

Introduction: Bronchiectasis is a clinical syndrome characterized by dilated and thickened airways paired with clinical symptoms, most commonly a chronic suppurative cough that characteristically exacerbates. The disease can have burdensome symptoms that reduce quality of life. Pharmacologic treatments to date have been few and limited largely to antibiotic therapies. In recent years, bronchiectasis has been reconceived as a primary inflammatory disease, and drug development has since shifted to identify anti-inflammatory and immunomodulatory drugs.

Methods: We conducted a targeted literature and clinical trial search to identify established and investigational pharmacotherapies for bronchiectasis. Searches of PubMed, Google Scholar, UpToDate, OpenEvidence, and ClinicalTrials.gov were performed to identify published evidence, ongoing and completed clinical trials, and emerging therapeutic approaches.

Areas covered: Herein, we review existing available therapies for patients with bronchiectasis. We then go on to review novel anti-inflammatory and immunomodulatory drugs as well as non-antibiotic anti-bacterial therapies in the development pipeline. We review drug safety, tolerability, efficacy, adverse reactions and cost considerations of therapy.

Expert opinion: There are many potential treatments under investigation for bronchiectasis newly targeting airway inflammation. The effect size of the newer anti-inflammatory agents will likely be tied to a patient's unique inflammatory endotype. Future research should aim to identify clinically meaningful biomarkers that may allow clinicians to select the therapeutic agent best tailored to their disease.

Keywords: Anti-inflammatory; bronchiectasis; inflammation; medications; novel; therapy; treatment.

Supplementary info

Publication typesExpand